WHERE ARE WE?
INSTITUTIONAL RESEARCH
AND EQUITY IN HIGHER EDUCATION

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ABSTRACT

This study examined the perceptions of institutional research practitioners in advancing racial and ethnic equity, including understanding if institutional researchers view themselves as change agents and whether institutional researchers feel equipped or have the capacity to advance racial and ethnic equity at their institution. Further, this study explored if there was any difference based on institutional characteristics and institutional researcher demographics. A mixed-methods approach was employed that included a national survey of institutional researchers and semi-structured interviews. The results of this study illustrate the current perspective and engagement of institutional researchers in advancing racial and ethnic equity within their respective institutions. Additionally, recommendations for future research are discussed.

DEDICATION

This dissertation is dedicated to my entire family. Thank you for your unwavering support and words of inspiration. To Emeka – This has been a long journey, but you have always been in my corner, letting me know I can accomplish anything. To my parents, Frank, and Gwen Raeford, who set me on this path a long time ago – Thank you for being light when I need it most. To my grandparents, great-grandparents, and all of those who have passed on but live through me – Thank you for your enduring strength.

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CHAPTER 1

INTRODUCTION

Higher education in the United States, once an institution reserved for a few, has evolved to become increasingly accessible. The expansion of higher education in the United States is attributable to increased institutional diversity seen through the passing of the Morrill Act (1862) and the development of community colleges, in addition to increased student diversity witnessed post-World War II through the passing of the Servicemen's Readjustment Act (1944), also known as the G.I. Bill, and the Higher Education Act (1965) (Trow, 2007). Although expansion has evolved the United States' higher education system from elite and meritocratic to accessible, there is an ongoing effort required of the system to address equity issues.

Equity, as a manner of discussion in higher education, is often misinterpreted as equality. The ambiguity in definition often presented in research has resulted in some confusion around these two ideas (Espinoza, 2007). Equality is about fairness and sameness – ensuring that each entity is given the same (Grawe, 2018). Alternatively, equity is rooted in justice and accounts for individual circumstances regarding the delivery of education (Espinoza, 2007). Equity is critical to consider in higher education, as there are persisting gaps in outcomes.

Equity gaps are found across all sectors of the United States higher education system and at the various stages of student progression. Data show that students of color have lower rates of college enrollment for recent high school graduates (Snyder et al., 2018), disproportionately attend community colleges and less selective four-year institutions (Carnevale & Strohl, 2013), and persist to degree completion at a rate less

than White students (Snyder et al., 2018). Addressing racial and ethnic equity gaps is essential, given the implications to students' economic and social mobility and realizing national and state-level priorities. Government policies developed during the civil rights era distinguished diversity and equity as necessary for democracy and societal sustainability (Rodriguez, 2015). It is imperative that higher education institutions recognize and understand the role that they have in addressing student inequities.

Statement of the problem

Colleges and universities in the United States collect data to meet national, state, and accreditation reporting requirements. Institutions are already engaging in the process necessary to advance equity as data collection is viewed as a substantial aspect of identifying and eliminating racial and ethnic inequity (Dowd et al., 2011; Dowd & Bensimon, 2015; Orfield, 2002). Generally, three units at higher education institutions are involved in providing data to inform decisions around equity. These units are student affairs, information technology, and institutional research.

A recent national study of institutional research, information technology, and student affairs professionals regarding institutional data functions and practices presented three findings that support the need to understand further the role of institutional research in addressing student equity. First, as shown in Table 1.1, higher education professionals report that their institutions evaluate the success outcomes for students of color. Second, senior leaders and mid-level staff use student success data to make decisions. Lastly, institutional research was primarily responsible for developing the institution-wide data strategy and disseminating and interpreting results (Parnell et al., 2018). With institutional research at the center of providing institutional data, assisting with decision-

making, and supporting institutional strategies, this warrants further inquiry into how institutional researchers perceive equity in higher education generally and, more specifically, how equity is embedded in their work within their given institutions.

Table 1.1: Institutional Studies on Student Success for Students of Color

The Focus of Study for Students of Color	Percent Conducting Studies
Student Pipeline	48%
Academic progress and success	58%
Efficiency in degree completion	35%
Career pathways and post-graduation outcomes	41%
Student ability to afford higher education	23%

Note: Adapted from "Institutions' Use of Data and Analytics for Student Success" A. Parnell, D. Jones, A. Wesaw, & D.C. Brooks, 2018, *EDUCAUSE Center for Analysis and Research (ECAR), 11*, p. 6.

Student success outcome evaluation often occurs at higher education institutions through the assessment process. However, assessment can be framed within a context that is not conducive to equity for students and diverts the institution's responsibility in disparate outcomes (Dowd et al., 2011; Wall et al., 2014). A recent study of student affairs professionals found that there is a disconnect between assessment practices and social justice initiatives which inhibits revealing inequities (Zerquera et al., 2018). The barriers to social justice initiatives outlined in the study include lacking a shared understanding of social justice, siloed institutional social justice efforts, and insufficient allocation of resources for social justice efforts. Although the study only involves those in student affairs, it directly discusses institutional research practitioners. Specifically, the study recommends that the Association of Institutional Research (AIR) create the capacity for institutional researchers to implement the needed alignment of social justice and assessment within higher education.

A pivotal point for social justice in higher education followed recent incidents of police misconduct, specifically in the killing of George Floyd, which sparked social justice movements throughout the United States and worldwide. Many higher education institutions and organizations publicly addressed the role of higher education in social justice. Institutions were urged to act in a statement from David Everett, Tia Brown McNair, Lynn Pasquerella, and Jane Turk through the American Association of Colleges and Universities (AAC&U). The statement concludes, "Our individual and collective efforts as higher education leaders must include specific actions for eliminating racism… We have a responsibility to act and to not stand silent" (Everett et al., 2020). Further, the Association for Institutional Research (AIR) also addressed the institutional researcher's role in being a part of the solution for inequity following the killing of George Floyd. The statement released by AIR concludes, "The AIR community plays an important role in identifying inequities and working to provide solutions …. AIR believes that all of us are called to bring an equity lens to our work, regardless of our roles and responsibilities" (Association of Institutional Research, 2020). The recommendation of aligning social justice into the work of institutional research is the basis of this study. Specifically, this study seeks to investigate the perception of institutional research practitioners in advancing racial and ethnic equity within higher education.

This dissertation was designed to (a) understand the current perception of institutional research practitioners as it relates to their role in advancing racial and ethnic equity within their institution; (b) examine the capacity of institutional research practitioners in supporting equity efforts; and (c) determine if and how perceptions vary based on institutional researcher demographics and institutional characteristics. The

Equity Scorecard™, developed by researchers at the Center for Urban Education (CUE) at the University of Southern California, is the conceptual framework for this study. The Equity Scorecard™ is based on the participatory action research methodology and uses a cycle of inquiry to influence an individual's understanding of assumptions and practices that impact racial equity (Dowd & Bensimon, 2015). Both quantitative and qualitative data were collected and analyzed for a mixed-methods approach. The quantitative data were collected through an online survey, and the qualitative data were collected through participant interviews. The population of interest in the present study are institutional research office leaders/directors, associate/assistant directors, and analytical staff within U.S. private and public colleges and universities.

Definition of terms

To provide clarification, the important terms used in this study have been defined and are adapted from multiple sources (Adams et al., 2007; Center for the Study of Social Policy, 2019; Center for Urban Education, 2020a; ICMA, 2021).

Equality: Equality is defined as the effort to treat everyone the same or to ensure that everyone has access to the same conditions and opportunities to reach their full potential and experience optimal well-being and quality of life.

Equity: Equity is defined as providing treatment, advancement, opportunity, and access for all based on individual or group needs while striving to identify and eliminate barriers that have prevented the full participation of some groups and ensuring that all have access to conditions and opportunities to reach their full potential and to experience optimal well-being and quality of life.

Ethnicity: Ethnicity is a social construct that categorizes people into smaller groups based on social characteristics that people may have in common, such as a shared sense of group membership, values, behavioral patterns, language, political and economic interests, history, and ancestral geographical base.

Race: Race is a social construct that categorizes people into distinct groups that subsume ethnic groups based on certain characteristics such as physical appearance, ancestral heritage, cultural affiliation, cultural history, and ethnic classification.

Racial and Ethnic Identity: Racial and Ethnic identity is an individual's awareness and experience of being a member of a racial and ethnic group and the categories that an individual chooses to ascribe themselves based on factors such as biological heritage, physical appearance, cultural affiliation, early socialization, and personal experience. Racial and ethnic categories used in this study are aligned with the Office of Management and Budget (OMB) Standards for the Classification of Federal Data on Race and Ethnicity and include American Indian/Alaska Native, Asian, Black/African American, Hispanic/Latinx, Native Hawaiian/Other Pacific Islander, and White.

Racial Equity: Racial equity is defined as the systemic shift toward actualized fairness and justice through the remedy of historical and present-day structural barriers producing racial disparities.

Racial Justice: Racial justice is the proactive process of establishing and reinforcing policies, practices, attitudes, and actions, and the presence of deliberate social systems and structures that sustain racial equity through proactive and preventative measures that

produce equitable power, access, opportunities, treatment, impacts, and outcomes for all individuals and groups impacted by racism.

Social Justice: Social justice is defined as the process which challenges the roots of oppression and injustice, seeks fair distribution or re-distribution of resources, opportunities, and responsibilities, empowers all people to exercise self-determination and realize their full potential, and builds social solidarity and community capacity for collaborative action.

Guiding research questions

The overarching research question for this study is: what are the perceptions of current institutional research practitioners in advancing equity?

The guiding research questions include:

- Do institutional researchers view themselves as change agents for advancing equity?
- Do institutional researchers feel equipped or have the capacity to advance equity at their institution?
- How do perceptions and capacity of institutional research practitioners in advancing equity vary by institution type?
- How do perceptions and capacity of institutional research practitioners in advancing equity vary by institutional researcher demographics?

Significance of the research

Advancing the understanding of institutional research and equity in higher education can be made through additional inquiry. While existing literature supports the

role of institutional research in organizational learning and changes toward equity (Bensimon, 2010; Turk & Taylor, 2020), prior research was not distinctively assessing the experiences or expectations of institutional research practitioners. If the evolution of the institutional research role is toward that of influencing institutional policy and practice through the presentation and discussion of institutional data, it is important to know if institutional research practitioners view their role as such. Few studies attempt to understand the perspective of institutional researcher practitioners in disseminating and discussing data to advance equity in higher education.

There is a possibility that institutional researchers are perpetuating the traditional view of inquiry, thereby failing to lead an institution toward addressing equity in student success. Specifically, do research approaches and the focus on objectivity hinder the institutional research profession from advancing equity? It is essential to comprehend the experience of institutional researchers to gauge best what is happening at colleges and universities throughout the country. Achieving equity is a complex task. As an institutional research professional, however, it requires recognizing a professional responsibility to contribute toward the larger conversation.

Discovering answers to the questions presented above can inform the higher education community and the institutional research profession. The research could identify potential needed areas of professional development within the institutional research profession and inform senior-level administration about barriers institutional researchers face. Ultimately, the goal is to present research contributing to moving higher education toward equity.

CHAPTER 2

LITERATURE REVIEW

The scope of the review of the literature will include a history of institutional research and how the profession has evolved to its current state. The concepts of equity in higher education and how they intersect with the institutional research profession are also discussed. Emerging research will be presented regarding the focus of institutional research as change agents for equity within higher education institutions and in what practical ways it is suggested that institutional researchers advance equity.

History of institutional research

Defining institutional research can be a difficult task. There have been numerous attempts since the inception of institutional research at higher education institutions (Fincher, 1978; Peterson, 1985; Saupe, 1990). The Association for Institutional Research (AIR), the international professional organization for institutional researchers, summarizes five specific duties and functions. AIR views the function of institutional research in higher education as (a) identify information needs; (b) collect, analyze, interpret, and report data and information; (c) plan and evaluate; (d) serve as stewards of data and information; and (e) educate information producers, users, and consumers (Association for Institutional Research, 2019). While AIR provides context around the function of current institutional researchers, there has been an evolution in the skills and duties associated with the profession.

Cameron Fincher (1985) defined institutional research as an administrative function with an organizational intelligence role that contributes to policy research and analysis and can facilitate change within the institution. Expanding on the work of

Fincher, Patrick Terenzini (1993, 1999, 2013) examined the competencies needed for an institutional research professional. Terenzini wrote a 1993 *Research in Higher Education* article that presents a conception of institutional research that incorporates a three-tiered approach to competencies. The three competencies are (a) technical/analytical intelligence; (b) issues intelligence; and (c) contextual intelligence. The first tier, technical/analytical intelligence, implies that an individual is familiar with commonly utilized institutional research categories, definitions, and structures, as well as the skills in research design and computing technology (e.g., databases and spreadsheets). The second tier, issues intelligence, requires institutional knowledge of organizational structure, processes, and functions. This tier encompasses the skills necessary for an institutional researcher to work collaboratively toward shared institutional goals. The third tier, contextual intelligence, involves understanding the culture of an institution and, generally, of higher education. Contextual intelligence is an individual's ability to know the historical underpinnings of an institution that has created the environment in which they operate. Additionally, it requires that the institutional researcher acknowledge and incorporate the influences of outside forces into the ethos of the institution.

Terenzini asserts that the three tiers are mutually dependent and supportive, with competency required within a lower tier to realize the efficacy of a subsequent tier (Terenzini, 1993). According to Terenzini, achieving competency at the final tier, contextual intelligence earns the institutional researcher respect and trust within an institution. In a more recent revisit of his initial 1993 article, Terenzini asserts that the tiers maintain their overall relevance but require some redefinition due to policy changes and information technology and analytics advances.

Terenzini adds to his definition of tier one, technical/analytical intelligence, the warning that institutional research must avoid choosing study topics based on the ability to highlight an analytical tool. Rather, institutional researchers should choose important topics and always understand why the underlying question behind an analysis is essential to know. For tier two, issues intelligence, Terenzini expanded his definition of institutional researchers knowing issues and decision areas facing the institution to include understanding research literature to assist administrators and faculty in decision-making. Additionally, the definition provided by Terenzini (2013) expands on the need for an ability to navigate and work within the "collegial, bureaucratic, and political worlds of a college or university" (p. 143). Lastly, the third tier, contextual intelligence, was revisited by Terenzini, and he suggests that institutional researchers need to be aware of the institution's external environments, both nationally and internationally, to prepare for meeting higher education challenges and changes.

Unlike Terenzini's three-tiered approach to institutional research, Volkwein presented four purposes and roles of institutional research. As shown below in Table 2.1, the purpose and role of institutional research depend on organizational role and culture and the purpose and audience of the research (Volkwein, 1999). According to Volkwein, institutional research as information authority is most reflective of Terenzini's first tier – technical intelligence. Institutional research as information authority requires the least amount of education or experience of institutional research professionals. Institutional research as a policy analyst is reflective of Terenzini's second tier – issues intelligence. As with Terenzini, Volkwein asserts that for institutional research professionals to act as policy analysts, they must first demonstrate analytical and issues intelligence

competency. Institutional research as a spin doctor necessitates that the institutional research professional has some experience in institutional research in addition to contextual knowledge of the institution. Lastly, institutional research as a scholar and researcher is the most advanced role of an institutional research professional and requires advanced training and experience, which reflects Terenzini's third tier – contextual knowledge. Although Terenzini and Volkwein provide two unique approaches to contextualizing the role of institutional research, they give perspective to the skills required of institutional researchers to navigate the current demands of the profession.

Table 2.1: Four Purposes and Roles of Institutional Research

		Purpose and Audience	
		Formative & Internal Improvements	*Summative & External for Accountability*
Organizational Role and Culture	*Administrative & Institutional*	IR as an information authority	IR as a spin doctor
	Academic & Professional	IR as policy analyst	IR as scholar & researcher

Note: Adapted from "Four Purposes and Roles of Institutional Research" Volkwein (1999, p. 17).

The recent evolution of the institutional research profession to meet external accountability demands has placed greater emphasis on the ability of institutional research professionals to become consultants within their institutions (Calderon & Mathies, 2013; Petrides, 2002). Institutions expect institutional researchers to link problems, evidence, and policy with this expectation found most among community colleges (Calderon & Mathies, 2013). Terenzini (2013) asserts that institutional researchers must "… not only be talented analysts (Tier 1) who understand the higher education landscape (Tier 2) but who are also thoughtful professionals who have absorbed and learned how to apply that understanding and contribute to effective

decision-making on one's own campus" (p. 148). Terenzini's expansion of the tiers of intelligence focuses on the institutional researcher being more knowledgeable and better positioned to serve as a resource in the decision-making process at an institution. Further, as shown in Table 2.2, many of the AIR five duties and functions incorporate consultancy language in which institutional research is the expert and the center of institutional conversations on policy, planning, and decision-making. No longer are institutional researchers just number crunchers.

Table 2.2: Association for Institutional Research (AIR) Duties & Functions

Duties and Functions	Consultancy Language
Identify information needs	…assisting stakeholders in developing and refining research questions.
Collect, analyze, interpret, and report data and information	…analyze data to provide information for decision-making, including appropriate interpretation of analysis results.
Plan and evaluate	… Formative and summative evaluation processes conducted at an institution use IR data and analysis for planning and decision-making purposes.
Serve as stewards of data and information	… ensuring an institution-wide data strategy
Educate information producers, users, and consumers	… convening discussions related to information needs and connecting internal and external producers and users of data with one another for purposes of informing decision-making.

Note: Adapted from "Duties and Functions of Institutional Research" Association for Institutional Research, 2019.

The institutional research profession has evolved to require competencies beyond analytical and technical skills. Institutional researchers must have contextual knowledge in addition to applying social intelligence – the ability to recognize and negotiate complex social situations (Howard et al., 2012; Leimer & Terkla, 2009). With the evolution of institutional research to the state of consultancy practice, the measure of an institutional researcher's effectiveness has also evolved. A study found that institutional

researchers who are consulted on policy changes, have their work used in executive decisions, and have their work included in policy recommendations, were perceived as more effective (Delaney, 2001). Ultimately, this change to the consultant role places a unique opportunity and responsibility for the institutional research professional as it relates to student success generally and addressing equity specifically.

Equity in higher education

Despite efforts to eradicate societal inequity in the United States, disparities remain for historically marginalized communities. A recent study conducted by the Lumina Foundation provides insight into Americans' opinions as it relates specifically to racial equity. The study found that Americans are new to engaging in conversations of equity. Further, there is an overall understanding of the term ‘equity,’ but that views on opportunity differ by racial and ethnic groups (Lumina Foundation, 2020). If one views institutions of higher education as a microcosm of society, the existence of inequities among historically marginalized communities is expected. Furthermore, the understanding and views of equity are also likely to differ by racial and ethnic groups, as found by the Lumina Foundation.

The annual report, *Indicators of Higher Education Equity in the United States*, released by the Pell Institute and the University of Pennsylvania Alliance for Higher Education and Democracy (PennAHEAD) at the Penn Graduate School of Education, evaluates the status of equity at institutions of higher education in the United States (Cahalan et al., 2022). The report provides a longitudinal comparison of equity indicators, identifies policies and practices that impact equity, and provides evidence for the continued need for focus on equity in higher education. The 2022 report evaluated

postsecondary participation rates, institution choice and selectivity, financial aid and cost of attendance, and educational attainment as equity indicators. The report found that the postsecondary enrollment rate of 18-to-24-year-old recent high school graduates in 2020 was 79 percent for students from families in the highest-income earning quartile versus 48 percent for those from families in the lowest-income earning quartile. Furthermore, students from the highest income quintile are eight times more likely to attend more or highly selective institutions than those in the lowest income quintile. The amount borrowed to attend postsecondary institutions also presented inequities with differences by race and ethnicity for students who received a Pell grant.

According to the report, Black students who qualified for the Pell grant borrowed, on average, an additional $27,000 compared to White students ($58,644 and $31,578, respectively). Margaret Cahalan, Director of the Pell Institute, concluded,

> The inescapable conclusion considering the statistics in the report is that the U.S. higher education system is deeply segregated by parental socio-economic status and by race and ethnicity…It is an overly competitive system, that ends up producing highly resourced monocultured institutions serving a small percentage of students who are highly resourced academically and financially (Frantz, 2021, para. 5).

Institutions of higher education have made concerted efforts to address prevalent equity gaps that include access, affordability, and attainment. However, inequity persists.

Even with White House initiatives such as the White House Initiative on Asian Americans and Pacific Islanders, the White House Initiative on Historically Black Colleges and Universities, and the White House Initiative on Educational Excellence for Hispanics, the U.S. Department of Education declared the challenge of education equity has been “formidable” (U.S. Department of Education [@usedgov], 2015). Nonetheless, as institutions of higher education function as a microcosm of American society, recent

racially charged incidents, including the 2015 Emanual AME church shooting, the 2017 Unite the Right rally in Charleston, Virginia, and the 2020 murders of Ahmaud Arbury and George Floyd, have brought to the forefront the immediate need to confront present-day racism and to address inequity. Some scholars suggest that a critical lens is necessary.

Critical theory and equity

Critical theory is a method of inquiry focused on addressing the social oppression of individuals or groups of people excluded from dominant research paradigms and practices (Ford & Airhihenbuwa, 2010; Guba & Lincoln, 2005). Critical theory does not solely strive to understand phenomena but empowers and seeks justice to issues including race, gender, sexuality, and religion. Critical Race Theory, or CRT, has received widespread media coverage and significant political furor in recent years. Ahead of the 2020 presidential election, CRT was central to the narrative of many conservative news networks. Between March 2021 and June 2021, CRT was mentioned over 1,700 times by the Fox News network (Power & Savillo, 2021). Additionally, as of November 2021, twenty-eight states introduced bills to restrict the teaching of CRT or place limitations on how racism and sexism are taught in classrooms (Education Week, 2021).

CRT, as a framework, recognizes the effects of racism in the United States and how it contributes to the dynamic of power (Gillborn, 2015). CRT evolved from critical theory, amplified by German theorists at the Frankfort School, as opposed to the economic determinism of Marxian theory (Ritzer, 2011). Critical theory and early twentieth-century social scientists' work are foundational to CRT's development. Spurred from the civil rights movement of the 1960s, CRT is rooted in legal advocacy for social

justice. Derrick Bell, Alan Freeman, Richard Delgado, and Kimberlé Crenshaw are legal scholars who introduced CRT as a framework of analysis (Cobb, 2021). Crenshaw suggests CRT in legal discourse is necessary to address "perspectivelessness" (Crenshaw, 1988). Perspectivelessness, defined by Crenshaw, is the objective nature of legal studies that is absent of cultural, political, or class attributes.

While CRT began as a framework for legal analysis, it has since been used for various CRT 'spin-off' movements, including education, women's studies, and LGBT issues (Delgado & Stefancic, 2013). There is observable applicability of CRT to education considering many legal interventions, including *Brown v. The Board of Education*, which have failed to eradicate persisting racial inequity. A founder and leader of CRT in education, Gloria Ladson-Billings, suggested CRT can be applied to education when considering curriculum, instruction, funding, and assessment. However, Ladson-Billings does caution that CRT in education to address inequity will mean "that we will have to expose racism in education *and* propose radical solutions for addressing it" (Ladson-Billings, 1998, p. 22). While CRT is still an evolving framework within education, there are designated underlying basic tenets.

There are five tenants attributed to CRT scholarship in education that include (a) the prevalence and permanence of race and racism in U.S. society; (b) the critique of color-blindness, objectivity, and meritocracy as a means of preserving privilege for dominant groups; (c) counter storytelling to recognize and legitimize the lived experience of people of color; (d) interdisciplinary perspective and; (e) a commitment to social justice (Yosso et al., 2009). Each of the tenets is interconnected and intended to help uncover and address racism rooted within institutions of education. What must be

considered are the criticisms of CRT as a theory generally and specifically applied to education. Some of the criticisms of CRT include that it is based on personal narrative and not testable hypotheses and measurable data (Farber & Sherry, 1997). Another criticism is that CRT does not apply to other countries, and there is a lack of focus on emerging issues because of globalization (Delgado & Stefancic, 2017). CRT also does not include gender or class as a part of the framework; however, intersectionality does include race and other social identities within the analysis (DeCuir & Dixson, 2004; Museus & Griffin, 2011). While scholars have debated elements of CRT over the last quarter-century, recent legislative attacks on CRT to its teaching within the American education system leave in question if higher education institutions will begin or continue to embed the CRT framework to address inequities, specifically for a field such as institutional research. There is, however, importance to understanding how CRT can inform institutional research. Bensimon and Bishop (2012) assert:

> Unfortunately, in examining such data, many of us are not well-schooled in asking critical questions that begin with an understanding of the racialized patterns in higher education structures, policies, and practices that reproduce these inequalities in access and success. Rather, many academics have learned to use theories and research methods that exclude race altogether, include it as a predictive demographic characteristic, or make sense of racial and ethnic minority groups by how well they measure up to Whites. Thus, our research methods, questions, and interpretive frameworks are often more likely to lead to such conclusions as Latinos have the lowest college completion rate of any group, rather than Higher education is least successful in retaining and graduating Latinos of any group. (p. 2)

Institutional researchers adopting CRT as a framework within their practice would require reconciliation of objectivity because of the positivist-leaning research paradigm embedded within institutional research and recognition of the institutional research professional's racial identity and how that impacts their work. The Equity Scorecard™,

grounded in Critical Race Theory (Center for Urban Education, 2020b), offers an understanding of how institutional researchers can embed the tenets of CRT while advancing equity within the institution.

Equity in practice for institutional research

Central to the work of the institutional researcher is the research itself. Research as a means of inquiry, largely evolving from the natural sciences, has taken an objective empirical approach using the scientific method. This is reflected in the practice of institutional research offices throughout the country. A simple search for the mission of institutional research offices will find objectivity explicitly stated. Examples of institutional research office mission statements in which objectivity is mentioned include, "…conducts research to support planning, decision-making, and assessment across the College in an objective manner…." (Swarthmore College, n.d.), "…accurately and objectively compiles, analyzes, and delivers information…." (University of Arkansas, n.d.), and "…performs systematic, objective research and analysis…." (University of Denver, n.d.). Alternatively, objectivity is not once explicitly mentioned within the professional overview of duties and functions for the Association for Institutional Research (AIR). One duty and function outlined by AIR is to collect, analyze, interpret, and report data and information, and institutional researchers are to incorporate "…applied research methods to analyze data to provide information for decision making, including appropriate interpretation of analysis results" (Association for Institutional Research, 2019). As it currently is written, the research method or paradigm in which this takes place is left to the discretion of the institutional researcher.

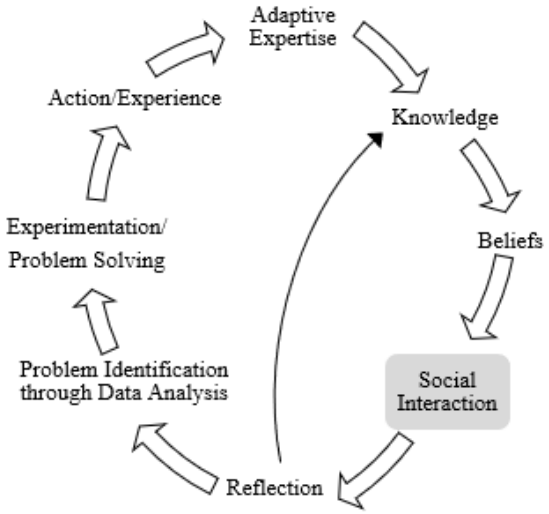
While objectivity in research is based on the positivist research paradigm grounded in the natural sciences, research within the social sciences can stretch across a positivist paradigm of objectivity and subjectivity (Cohen et al., 2000). Objectivity in positivist research is the absence of bias due to the researcher, research collection, or analysis. In *The Function of Institutional Research*, Saupe suggests that institutional research should "be objective, systematic and thorough" and that research outcomes should "be as free as possible from the influence of personal philosophy, political considerations, or desired results" (1990, p. 2). Positivism has dominated as the form of research in both the natural and social sciences (Park et al., 2020). However, there is growing criticism of positivism as it relates to interpreting causal inference as objective fact, in addition to the role researchers can have in perpetuating stereotypes and furthering inequities.

The Equity Scorecard™, developed by researchers at the Center for Urban Education (CUE) at the University of Southern California, is both a process and a data tool that combines the theoretical framework, the theory of change, with practical strategies to address racial equity (Dowd & Bensimon, 2015). The Equity Scorecard™ process is a cycle of inquiry involving data analysis and evaluation, which challenges an institutional practitioner's understanding and engagement with racial equity issues. Through participatory action research (PAR), practitioner inquiry is crucial to creating organizational change. PAR is intentional and collaborative research to create personal and organizational change (Brydon-Miller & Maguire, 2009). The Equity Scorecard™ is based on the methodology of PAR and uses a cycle of inquiry, outlined in Figure 2.1, to influence the higher education practitioner's understanding of their assumptions and

practices that impact racial equity. The point of intervention throughout the practitioner cycle of inquiry is the social (group) interactions. The intention of social interactions and subsequent reflections is for practitioners to embrace a cognitive frame of equity-mindedness when considering racial equity at their institution (Bensimon, 2005; Ching, 2018; Felix et al., 2015). Equity-mindedness requires a higher education practitioner to be race-conscious, aware of the historical and social context of American higher education practices, assess their practices, and take institutional and personal responsibility for student success (Center for Urban Education, 2018). According to Dowd and Bensimon (2015), reorientation toward equity-mindedness will ultimately lead to changes in institutional policies, practices, and culture, improving student outcomes.

A key component of the Equity Scorecard™ cycle of inquiry social (group) interactions is the disaggregation of student data. Disaggregated data are presented and discussed as a part of the inquiry process, outlined in Figure 2.1, for which institutional research is essential. In a review of the Equity Scorecard™ implementation at Loyola Marymount University (LMU), the Director of Institutional Research, Dr. Brian Hu, was described as a "critical asset" as he could produce needed data and present it in ways that were comprehensible for participants (Bauman et al., 2005, p. 35). Another finding from the implementation at LMU was that Dr. Hu expressed that he did not feel comfortable engaging in racial equity discussions before implementing the scorecard. However, the scorecard now provided the approval to do so.

Figure 2.1: Practitioner Cycle of Inquiry for Adaptive Expertise



Note: Cycle of inquiry. Adapted from *Engaging the "Race Question": Accountability and Equity in US Higher Education* (p. 23), by A.C. Dowd & E.M. Bensimon, 2015, New York, NY: Teachers College Press. Copyright 2015 by Teachers College, Columbia University.

Dr. Hu stated, "I, myself, am a minority. I could not generate this profile on my own. People might have asked why or would have been suspicious of my data…" (Bauman et al., 2005, p. 31). Another implementation of the scorecard at a community college in research was presented by Bensimon, Malcom, and Longanecker (2012). They found that institutional research professionals in this implementation were also initially reluctant to discuss student outcomes by race. The assumption about the role of the institutional research professional, identified as Brian, was that he would be the facilitator of learning for participants concerning student data. However, Brian was reluctant to take on the instructional role and initially viewed his responsibility solely as the data provider.

In an alternative community college implementation of the scorecard presented by Bensimon, Malcom, and Longanecker (2012), the institutional research professional, identified as Kim, was more willing to advocate for equity when presenting and discussing racially disaggregated student data. However, her taking on the role of an equity advocate was described as "unchartered territory professionally," which

highlighted "…the challenges an institutional researcher would face in taking on the role of teacher and equity advocate" (Bensimon et al., 2012, p. 203). The expectations and experiences of institutional researchers in the implementation processes align with existing literature regarding institutional research professionals serving as agents of change in colleges and universities.

Past research identifies the influence of institutional research on organization learning and the importance of equity-mindedness as a cognitive frame when inquiries are made into racially disaggregated student success outcomes (Bensimon et al., 2012; Dowd et al., 2012; Dowd & Bensimon, 2015). Furthermore, it is suggested that institutional researchers become change agents in their institutions by creating awareness and resolving to change identified institutional problems (Swing, 2009), with prior research showing that the ability of institutional researchers to be change agents within their institution is directly related to an institution's measure of their effectiveness (Knight, 2010; Knight et al., 1997). Although institutional research has a unique ability, through data, to create change within an institution, and the successful ability to be a change agent reflects on the overall perceived effectiveness of an institutional researcher, there is minimal prior research that assesses the perception, experiences, or expectations of institutional researchers in addressing and understanding equity in higher education.

The current state of institutional research

The Association for Institutional Research (AIR) has directly addressed institutional research's role in being a part of the solution to inequity. Following the killing of George Floyd in Minneapolis, Minnesota, AIR released a statement on racial justice that concludes, "The AIR community plays an important role in identifying

inequities and working to provide solutions …. AIR believes that all of us are called to bring an equity lens to our work, regardless of our roles and responsibilities" (Association of Institutional Research, 2020, para. 4). Although the AIR strives to embed equity within the professional role of institutional researchers, it is unknown to what extent institutional researchers perceive equity work as fundamental to their role. Furthermore, how does the institutional researcher's race, ethnicity, and gender identity inform these perceptions?

According to Knight (2014), institutional research was historically male-dominated but has increasingly become more female-dominated. (Augustine, 2001). Further, institutional researchers do not reflect the ethnic and racial composition of the country at-large. Another available source of information regarding the racial, ethnic, and gender identity of institutional researchers is provided by Zippia, a career resource website, that unfortunately does not offer transparent communication of how the data are compiled but states that the data are aggregated using proprietary data on salaries, companies, and job-based metrics (Zippia, 2021a). When evaluating the demographic data provided by Zippia for the Director of Institutional Research position, the company states 47% are identified as female, 72.8% are identified as White, and 49% are identified as age 40 years or older (Zippia, 2021b). These data parallel demographic data collected in recent studies. In one study of institutional researchers with 479 respondents, 50% of respondents were female, and 90% identified as White, Non-Hispanic (Augustine, 2001). Similarly, a study comparing survey respondents to the Association for Institutional Research membership shows that 56% of AIR members are female, and 84% are Caucasian (Knight, 2014). Generally, most institutional researchers are White men or women.

Given the impact that race, ethnicity, and gender can have on organization interactions and workplace authority (DiTomaso et al., 2007; Elliott & Smith, 2004; R. Smith, 2002), it is important to explore if and how demographic characteristics of the institutional researcher influence perceptions of advancing equity. In addition, given the historical expectation that institutional researchers should be objective and free from the influence of personal or political motives, there might also be differences depending on how long someone has worked within the institutional research profession.

While institutional researchers have been predominately male and white and operating within a space of positivist objectivism, there is an emerging belief that institutional research is inherently operating within a political framework and institutional research professionals are complicit in advancing the inequities in higher education when objectively engaging in the practice of institutional research (Abrica & Rivas, 2017). In the "testimonios" of Chicana institutional research professionals advocating for Latinx students in community colleges, Abrica and Rivas (2017) conclude:

> In terms of competencies, the literature on IR is clear: political savvy and ability to remain neutral in the eyes of multiple constituencies is prized. However, our experiences suggest that there is no such thing as neutrality, and that practitioner work done under the guise of neutrality only serves to reinforce structural inequities. Our experiences have taught us to rely on our ethnic studies backgrounds, to draw on our knowledge of intersectionality, racism, and social inequity to enrich our quantitative work… Institutional research, as a field, ought to assess critically researchers' background, knowledge, training, and expertise to support student outcomes in higher education. (p. 59)

Although the disaggregation and discussion of data by the institutional research practitioner are central to existing approaches that address inequity in higher education, there appears to be a need for more alignment in existing perceptions of objectivity of institutional research and evolving expectations of institutional researchers as change

agents. The Association of Institutional Research published a special feature that addresses the institutional researcher's role in advancing equity and supporting social justice. The feature explains that the work of institutional researchers needs to extend beyond the disaggregation of data. The institutional researcher should “highlight who our students are…and learn how we can best support them,” and institutional researchers should “demonstrate courage and provide campus decision makers and policy shapers with data and reporting that is authentically representative of the rapidly changing needs and opportunities of the constituents you serve” (Rose & Richmond, 2020). The evolution of the institutional researcher's role and responsibilities in advancing equity and addressing factors of racism highlights the importance of understanding if there is agreement among institutional researchers. Knowing the current experiences and expectations of institutional research professionals in addressing equity will inform how the professional can further advance these efforts and where there might be an opportunity for improvement within the profession.

Conclusion

Considering the literature on the need to address racial equity in higher education and the role of institutional research, it is essential to know how institutional research professionals support their institutions toward equity. While there are expressed statements by the Association for Institutional Research to embed equity, there is no existing literature exploring current opinions or practices. Understanding how institutional research professionals view their role and what is most important to their ability to support institutions can inform where there might be opportunities for further development.

CHAPTER 3

METHODOLOGY

Introduction

Institutional researchers or similar data professionals exist at most institutions within the United States. While the size, function, and reporting relationships of institutional research offices may differ, this study sought to understand the perceptions of institutional researchers in advancing equity from various institutions across the United States. Specifically, this study sought to understand if institutional researchers view themselves as change agents for advancing equity at their institutions if they feel equipped or have the capacity to advance equity and determine if their perceptions of equity are impacted by institution type or institutional researcher characteristics.

Applied research intends to solve an immediate societal or organizational problem (Kothari, 2004). This study used quantitative and qualitative applied research methods to understand the perceptions of individuals in institutional research roles and can be classified as a mixed method (Bazeley, 2017). This study's use of quantitative and qualitative research methods allows for both a descriptive analysis and between-group variation while also allowing for a thematic analysis of narratives from interviews. Although the process of conducting mixed methods research can require additional time and resources dedicated to the sampling, collection, analysis, and integration of data, mixed methods allow for the integration of quantitative and qualitative data collection, which will be necessary to understand the different perspectives of participants in this study (Wisdom & Creswell, 2013).

Participants

The participants in the research study include institutional research office leaders/directors, associate/assistant directors, and analytical staff within U.S. private and public degree-granting colleges and universities. This research used non-probability sampling, and participants were recruited using institutional research professional associations listservs. The professional organizations for institutional researchers that were used as a method for recruiting participants included the Association for Institutional Research in the Upper Midwest (AIRUM), New England Educational Assessment Network (NEEAN), North East Association for Institutional Research (NEAIR), California Association for Institutional Research (CAIR), Pacific Northwest Association for Institutional Research and Planning (PNAIRP), and Southern Association for Institutional Research (SAIR). All affiliated regional institutional research associations provided written approval for participant recruitment.

Procedure

Participants received an email that included an invitation for voluntary participation in the study. Participants were invited to complete an online survey collected using Qualtrics. The survey included informed consent outlining the purpose of the study and their role as research participants. The survey required approximately 15 minutes to complete. At the conclusion of the survey, respondents were asked to participate in a 30-minute one-on-one online interview voluntarily. Participants that agreed to a one-on-one interview were directed to a separate form where they provided personal contact information. Participants were then contacted to schedule a thirty-minute interview conducted via the Zoom teleconferencing platform. To ensure the strict

confidentiality of all individuals participating in this study, aliases have been used for all participants, and any personally identifying information has been excluded.

Quantitative data collection

Primary quantitative research was used in this study and includes data collected through the online survey by the research participants. The survey instrument was developed to differentiate between-group differences in several elements. The survey begins with collecting demographic respondent information that includes age range, gender identity, race/ethnicity, highest degree earned, current position in institutional research, and total years in higher education, institutional research, and at their current institution. The respondents were also asked to provide information about their current institution, which includes sector, type, size, and special characteristics. The remaining survey questions were designed to answer the underlying research questions. The questions relate to current equity-based practices and perceptions and identify impediments to engaging in equity-based practices. Outlined in Table 3.1 is an overview of each variable collected in addition to the rationale.

Table 3.1: Survey Variables and Rationale

Variable	Rationale
Respondent Demographic Information	
Age Range	Age ranges were collected to determine any between-group differences.
Gender Identity	Historically, institutional research was male-dominated but has increasingly become more female-dominated (Knight, 2014). With the impact of gender on organization interactions and workplace authority (R. Smith, 2002), gender identity was collected to determine any between-group differences.

Table 3.1: Survey Variables and Rationale (continued)

Variable	Rationale
Race / Ethnicity	Institutional research remains a predominantly white-dominated profession, with non-white institutional researchers underrepresented as a proportion of the general population (R. Smith, 2002). Given the impact of race/ethnicity on workplace authority and the lack of representation of certain groups within the institutional research profession, this variable was collected to determine any between-group differences.
Highest Degree	This question is a direct adaptation of the 2021 AIR National Survey of Institutional Research Offices. The results collected were compared with the results of the National AIR survey and were used to determine any between-group differences.
Position in IR	This question is a direct adaptation of the 2021 AIR National Survey of Institutional Research Offices. The AIR survey poses this question to determine overall office size. However, the results collected in this study were used to determine if institutional research position (Director vs. Analyst) results in any between-group differences.
Total Years	The total number of years the respondent has worked in higher education, institutional research, and at their current institution allows for comparison across these dimensions.
Institutional Characteristics	
Sector	The institutional sector is a direct adaptation of the 2021 AIR National Survey of Institutional Research Offices. The results collected were compared with the results of the National AIR survey and used to determine any between-group differences.
Type	Institutional type is a direct adaptation of the 2021 AIR National Survey of Institutional Research Offices. The results collected were compared with the results of the National AIR survey and used to determine any between-group differences.
Size	Institutional size is a direct adaptation of the 2021 AIR National Survey of Institutional Research Offices. The results collected were compared with the results of the National AIR survey and used to determine any between-group differences.
Distinction	Institution distinctions were collected to determine if differences in perceptions exist for institutional researchers working in institutions that are Asian American and Pacific Islander Serving Institutions (AAPISIs); Hispanic-Serving Institutions (HSIs); Historically Black College/Universities (HBCUs); Predominately Black Institutions (PBIs); Tribal Colleges/Universities (TCUs); (e) religiously affiliated; and single-gender.

Table 3.1: Survey Variables and Rationale (continued)

Variable	Rationale
Awareness and Attitudes About Equity	
Reflecting on your experience in institutional research, what comes to mind when you think about the word 'equity'?	Respondents were asked to provide an open-ended response about what they think of the term 'equity.' This question is adapted from the National survey about opportunity and racial equity in America conducted by Hattaway Communications and Lumina Foundation (Lumina Foundation, 2020). This question was used to determine if there is a shared understanding of equity.
How familiar are you with the concept of equity as it applies to the experiences and treatment of people of different races and ethnicities?	Respondents were asked to indicate their level of familiarity with racial equity. This question is adapted from the National survey about opportunity and racial equity in America, conducted by Hattaway Communications and Lumina Foundation (Lumina Foundation, 2020), and was used to determine how familiar institutional researchers are with equity.
How important is racial equity to your work in institutional research?	Respondents were asked to indicate racial equity's importance to their work as institutional researchers. This question is adapted from the National survey about opportunity and racial equity in America conducted by Hattaway Communications and Lumina Foundation (Lumina Foundation, 2020). This question was used to determine how institutional researchers view the importance of racial equity in their work.
Level of Importance & Frequency Matrices	
How would you describe the frequency/level of importance in providing the following to your institution… reports/visualizations, oral presentations, convening discussions, and informing decision-making?	Respondents were asked to determine the importance of equity inquiry, including presenting data to support understanding, providing opportunities for dialog, and using data for action (Chaplot et al., 2013). Respondents were also asked to determine the frequency of these activities. The level of importance was used to determine if the equity-based inquiry practices are viewed as important, while the frequency was used to compare the rate at which the practice occurs.

Table 3.1: Survey Variables and Rationale (continued)

Variable	Rationale
Level of Agreement Matrix	
Institutional Researchers ...should lead campus conversations on equity based on the data available to them. ...should present data on equity even if it is not the priority of institutional leadership (e.g., Provost, President, Chancellor). ...have the time and resources needed to focus on providing equity data and informing the institutional decision-making process.	Respondents were asked to determine their level of agreement with three equity-related questions. The first question is directly related to engaging in conversations on disaggregated student data as outlined in the Equity Scorecard™ cycle of inquiry. Respondents were also asked about presenting data that are not the priority of institutional leadership to understand better how institutional researchers determine their role in advocating for equity, even if this conflicts with the organization. Lastly, respondents were asked to determine if institutional researchers have the capacity to focus on equity-based practices. Resources within institutional research offices are often limited, with 46% of IR office leaders indicating they moderately or strongly disagree that office staffing is adequate to meet institutional expectations (Association for Institutional Research, n.d.). This question was asked to understand if office capacity hinders equity-based practice.
Impediments to Equity-Based Practice	
How much of a barrier is the following to analyzing data to evaluate equity at my institution, leading or contributing to equity conversations at my institution, and informing equity-related planning and decision-making at my institution.	Respondents were asked to select (if applicable) any impediments to three equity-based practices. The impediment options available for respondents were grouped by personal impediments (skills, comfort, and IR role) or organizational impediments (institutional support, priorities, and office capacity). The responses to this question help in determining what is preventing institutional researchers from engaging in equity-based work, and the results were used to inform the qualitative data collection.

In addition to the matrices of Likert scale questions, the respondent demographic and institutional questions allow for cross-tabulation to determine patterns and trends of the data collected. Inferential statistical analysis was used to extend the understanding of

the data and to determine between-group differences. Additional quantitative statistical analysis used in this study included the t-test and analysis of variance (ANOVA). `

Qualitative data collection

Interpretative phenomenological analysis (IPA) studies are generally conducted on small sample sizes, and there are no universal rules regarding the number of participants that must be included in a research study (Pietkiewicz & Smith, 2014; J. A. Smith & Osborn, 2004). The total number of participants included in an interpretative phenomenological analysis study is generally determined by (a) the depth of analysis for each case; (b) the richness of data provided for each case; (c) how the researcher determines to analyze each case relative to another; and (d) the pragmatic restrictions associated with research implementation (Pietkiewicz & Smith, 2014). Interview participants were recruited from responses to the online survey. A total of forty-one participants indicated they would be willing to participate in an interview. As a result of the large number of interested participants, random sampling was employed. Random sampling is used when the total number of willing study participants exceeds the desired sample size (Patton, 1990). With consideration of the typical participant size of a phenomenological research study of two to twenty-five participants, a random sample of twenty participants was invited to complete an interview, with a total of eleven participants interviewed for this study.

As this research is exploratory, a semi-structured interview was determined to be the appropriate means for qualitative data collection. Semi-structured interviews allow the researcher and the participant to engage in a dialogue in real-time and are focused while still allowing for researcher autonomy and flexibility to explore new ideas which

the researcher may investigate in more detail with further questions (Adeoye-Olatunde & Olenik, 2021; J. A. Smith & Osborn, 2004). A semi-structured interview guide was created and included three questions related to the participants' background and six questions with six probes addressing the overall research objective. A pilot semi-structured interview with an institutional research professional was conducted prior to the implementation of this study to assess the appropriateness of questions and provide feedback for modifications to the interview protocol. The semi-structured interviews conducted in this study ranged from 30 to 60 minutes.

Applying IPA as the research method for the qualitative data collection resulted in a cross-case analysis for each of the participants. The cross-case analysis considers the study participant's idiosyncrasies and the convergences between participants. Once all interviews were complete, the audio from the recordings was transcribed for analysis. Following the transcription of all interviews, each transcript was read multiple times, and annotations were made to support the identification of emergent themes. Identifying themes was an iterative process conducted for each participant, with subsequent reviews of interview transcripts following the final determination of superordinate themes.

Limitations

One limitation of this study is the focus on institutional research and the possibility of excluding higher education professionals that may conduct similar work but do not identify as institutional researchers. A delimitation of this study was seeking responses from individuals affiliated with professional, institutional research associations. Additionally, although pursuits of racial justice through racial equity processes occur across the globe, this study presents racial equity within the context and histories of the

United States. Therefore, a delimitation of this study is that it only includes institutional researchers from institutions in the United States. A final limitation of this study is the use of self-reported data. There are no means to independently verify the accuracy of responses to the survey or interview. Additionally, there is the possibility of social desirability bias among survey respondents. Respondents may have provided socially desirable answers due to the sensitivity of the study's subject matter.

Ethical considerations

Due to the relatively small community of institutional researcher professionals, careful consideration was taken to ensure the confidentiality and anonymity of participants. It is possible that participants would be reluctant to participate and respond freely to questions if they are easily identified. Therefore, caution was taken in the analysis and in providing results to ensure no details identified a specific participant or institution.

Researcher positionality

My positionality as a Black American woman with professional experience in institutional research and assessment is notable to the research presented. My institutional research experience includes holding the position of Research Analyst and Director. Further, I am a member of the Association of Institutional Research and have presented at regional institutional research and assessment conferences. Insider knowledge and understanding of the institutional research profession have led to an overall interest in the research topic. Additionally, having experience working at institutions with a focus on social justice has led to a personal and professional endeavor to address inequity in higher education. To continuously question and address assumptions influenced by my identity

and positionality, reflexivity was applied, and strategies were developed throughout this study, including determining the research questions, the overall design, the participants, and the analysis.

The strategies employed during this study include discussing the research question and methodology with other researchers and clearly stating my experience in institutional research with interview participants. Further, preliminary analyses were discussed with another researcher. Data collection and analysis were systematic to avoid bias or assumptions, and there was a methodological triangulation of the quantitative and qualitative data. While the target population of individuals recruited for this study would be considered colleagues, I was no longer working directly for a higher education institution or in institutional research at the time of data collection and analysis.

Conclusion

This chapter provides a descriptive overview of the methods involved in the research study. It discusses the specific quantitative and qualitative approaches to answer the guiding research questions of if institutional researchers view themselves as change agents for advancing equity at their institutions if they feel equipped or have the capacity to advance equity, and to determine if their perceptions of equity are impacted by institution type or institutional researcher characteristics.

CHAPTER 4

QUANTITATIVE RESULTS

A survey instrument was developed with a combination of qualitative and quantitative questions to understand the research question; what are the perceptions of current institutional research practitioners in advancing equity? This chapter will present the results of the quantitative data collected. The quantitative data presented in this chapter include descriptive statistics and parametric analysis methods to determine between-group differences on several elements.

Considerations of the data set

Quantitative data collection occurred over a four-week period spanning August 15th, 2022, through September 12th, 2022. A total of 235 responses were captured. Outlined in Table 4.1 are the progression to survey completion for each respondent. Some participants only progressed through part of the survey. Only those who completed over 50% of the survey, representing 83.5% of all respondents, are reflected in the analyses for this study. While those excluded from the analyses represent 16.5% of the total responses, their absence should be considered when reviewing the quantitative data analysis. Further, the percent total may not sum to 100 due to rounding.

Summary of respondents

A total of 195 respondents completed a minimum of 50% of the survey and were included in the analysis. Gender and racial and ethnic identity demographic data were collected during the survey administration and are presented in Table 4.2 and Table 4.3. When comparing gender responses to the most recent administration of the Association of Institutional Research (AIR) National Survey of IR Offices (Jones et al., 2022),

females are slightly overrepresented at 64.1% compared to 57.3% identifying as a woman as reported in the AIR survey. Further, White was overrepresented in survey responses, with 75.9% of respondents identifying as White compared to 68.3% on the AIR survey.

Table 4.1: Distribution of Survey Progression

Percent Survey Progression	*n*	*%*
0	5	2.1%
4	5	2.1%
19	11	4.7%
27	2	0.9%
42	14	6.0%
46	3	1.3%
54	5	2.1%
58	2	0.9%
62	4	1.7%
96	1	0.4%
100	183	77.9%
Total	235	100.0%

Table 4.2: Gender Identity of Survey Respondents

Gender	*n*	*%*
Female	125	64.1%
Male	63	32.3%
Non-binary/third gender	2	1.0%
Other	3	1.5%
Prefer not to disclose	2	1.0%
Total	195	100.0%

Table 4.3: Race/Ethnic Identity of Survey Respondents

Race/Ethnicity	*n*	*%*
Asian	15	7.7%
Black/African American	10	5.1%
Hispanic/Latinx	10	5.1%
Multi-Racial	6	3.1%
Other (please specify)	2	1.0%
White	148	75.9%
Prefer not to disclose	4	2.1%
Total	195	100.0%

Most survey respondents indicated they are between 30 and 59 years old, with the largest response, 32.3%, for the age range of 40 to 49 years old. Age categories published for the AIR survey are only available for institutional research office leaders; therefore, there is no ability to compare the age distribution. Similarly, published briefs from the AIR survey on the highest degree earned are only provided for the office leader, so there is no direct comparison.

A total of 53.8% of respondents indicated they are directors or office leaders, as outlined in Table 4.6. Another 16.9% indicated they are Assistant or Associate Directors, and 24.1% are analytical or technical staff. Most respondents, 91.3%, indicated that their highest degree earned is a graduate degree. As outlined in Table 4.6, a Master's degree as the highest earned degree accounted for 42.1%, with another 49.2% having earned a Doctorate.

Table 4.4: Age of Survey Respondents

Age range	*n*	*%*
Less than 30 years old	5	2.6%
30 to 39 years old	46	23.6%
40 to 49 years old	63	32.3%
50 to 59 years old	52	26.7%
60 to 69 years old	24	12.3%
70 years old or older	1	0.5%
Prefer not to disclose	3	1.5%
Total	194	100.0%

Table 4.5: Institutional Research Position

Position	*n*	*%*
Director/Office Leader	105	53.8%
Assistant/Associate Director	33	16.9%
Analytical Staff	44	22.6%
Technical Staff	3	1.5%
Other (please specify)	10	5.1%
Total	195	100.0%

Table 4.6: Highest Degree of Survey Respondents

Degree	*n*	*%*
Associates	1	0.5%
Bachelors	14	7.2%
Masters	82	42.1%
Doctorate	96	49.2%
Other (please specify)	1	0.5%
Prefer not to disclose	1	0.5%
Total	195	100.0%

Survey participants were asked to provide their total years working in higher education, institutional research, and at their current institution. The survey participants had an average of 10.4 years working in institutional research, with a range of years provided between 0 and 53. The total number of years at their current institution was 7.5 years, with responses ranging from 0 to 28 years. Data were also collected on the institutional characteristics of the respondent's current institution. As shown in Table 4.7, most respondents indicated they are currently employed at a public 2-year or 4-year and above institution. Private, not-for-profit 4-year or above institutions are also well represented among survey respondents.

Table 4.7: Institutional Sector

Institutional Sector	2-year	4-year or above	Other	Total
Private, For-profit	0	4	0	4
Private, Non-profit	0	60	1	61
Public	43	78	8	129
Other	0	0	1	1
Total	43	142	10	195

Table 4.8 provides the institution's student size as provided by survey respondents. Very few, 4.1%, indicated their institution enrolled less than 1,000 students. The largest represented category at 32.3% was 1,000 – 4,999 students. A total of seven institutional distinctions, outlined in Table 4.9, were collected. A total of 91 institutional

distinctions were selected, with 81 respondents indicating their institution has one or more distinctions. A total of 73 respondents selected one institutional distinction, and eight respondents selected two or more.

Table 4.8: Institution Student Population

Student population	*n*	*%*
Less than 1,000	8	4.1%
1,000 – 4,999	63	32.3%
5,000 – 9,999	42	21.5%
10,000 – 19,999	37	19.0%
20,000 or more	45	23.1%
Total	195	100.0%

Table 4.9: Institution Distinction

Institution Distinction	*n*
Asian American and Pacific Islander Serving Institution (AAPISI)	10
Religiously Affiliated	19
Historically Black College/University (HBCU)	7
Predominately Black Institution (PBI)	2
Hispanic-Serving Institution (HSI)	33
Tribal College/University (TCU)	1
Single-gender Institution	1
Other (please specify)	18
Total	91

Quantitative analysis relevant to the research question

The overarching research question that this dissertation was designed to answer is as follows: What are the perceptions of current institutional research practitioners in advancing equity? To answer this question, data were collected on institutional researchers' familiarity with equity and how they view the importance of equity to the institutional research profession. When asked about their familiarity with equity, 75.8% of respondents indicated they are moderately or extremely familiar with equity, with a mean response to the question of 4.01, as presented in Table 4.10. When asked about the

importance of equity to institutional research, 71.4% indicated it is very or extremely important, with a mean response of 3.90, as presented in Table 4.11.

Table 4.10: Familiarity with Equity

Variable	Not at all (1)	Slightly (2)	Somewhat (3)	Moderately (4)	Extremely (5)	Mean Score
Familiarity with Equity	3	7	37	86	61	4.01

Table 4.11: Importance of Equity to Institutional Research

Variable	Not at all (1)	Slightly (2)	Somewhat (3)	Moderately (4)	Extremely (5)	Mean Score
Importance of Equity to Institutional Research	6	15	34	74	63	3.90

To further understand the perception of institutional researchers, questions were asked about the importance and frequency of disaggregating, presenting, convening conversations, and informing decisions on race and ethnicity data. Table 4.12 presents the distribution and mean score of responses (n=189) on the importance of disaggregating, presenting, convening conversations, and informing decisions on race and ethnicity data.

Table 4.12: Importance Providing to Institution

Variables	Not at all (1)	Slightly (2)	Moderately (3)	Very (4)	Extremely (5)	Mean Score
Reports/visualizations of data disaggregated by race/ethnicity	1	5	23	63	97	4.32
Oral presentations of data disaggregated by race/ethnicity	14	28	33	66	48	3.56
Convening discussions of data disaggregated by race/ethnicity	9	25	47	52	56	3.64
Informing decision-making relevant to data disaggregated by race/ethnicity	2	9	25	60	93	4.23

Table 4.13 presents the distribution and mean score of responses (n=185) on the frequency of disaggregating, presenting, convening conversations, and informing decisions on race and ethnicity data. Oral presentations of data disaggregated by race/ethnicity had the lowest overall mean score when evaluating the importance of providing to the institution. Reports/visualizations of data disaggregated by race/ethnicity had the highest overall mean importance score. When responding to the frequency by which each was provided to the institution, oral presentations and convening discussions had a mean score of 3.03 and 3.00, respectively.

Table 4.13: Frequency Providing to Institution

Variables	Never (1)	Rarely (2)	Occasionally (3)	Frequently (4)	Very Frequently (5)	Mean Score
Reports/visualizations of data disaggregated by race/ethnicity	2	11	26	64	83	4.16
Oral presentations of data disaggregated by race/ethnicity	13	45	69	39	19	3.03
Convening discussions of data disaggregated by race/ethnicity	13	50	65	38	19	3.00
Informing decision-making relevant to data disaggregated by race/ethnicity	2	18	56	65	44	3.71

To further understand the perceptions of institutional researchers in advancing equity and to address the guiding questions, do institutional researchers feel equipped or have the capacity to advance equity at their institution, three questions, outlined in Table 4.14, were presented. The three questions seek to understand the level of agreement each respondent has with institutional research leading conversations (n=180) and presenting data on racial and ethnic equity (n=181). In addition, a question was posed about having

the capacity in time and resources to provide racial and ethnic equity data (n=181). The mean scores presented are based on a 5-point Likert scale and show lower levels of agreement with the question about leading conversations and having the time and resources to focus on providing racial and ethnic equity data. There was a higher level of agreement that institutional research should present data even if it is not the priority of institutional leadership.

Table 4.14: Agreement on Institutional Research

Variables	Strongly disagree (1)	Somewhat disagree (2)	Neither (3)	Somewhat agree (4)	Strongly agree (5)	Mean Score
Institutional research/effectiveness (IR/E) should lead campus conversations on racial and ethnic equity based on the data available to them.	14	24	30	67	45	3.58
Institutional research/effectiveness (IR/E) should present data in support of racial and ethnic equity, even if it is not the priority of institutional leadership.	9	7	11	61	93	4.23
Institutional research/effectiveness (IR/E) has the time and resources needed to focus on providing racial and ethnic equity data and informing the institutional decision-making process.	19	44	37	58	23	3.12

To further understand if institutional researchers feel equipped or have the capacity to advance equity at their institution, survey participants were asked to indicate what barriers they face to analyzing data to evaluate racial and ethnic equity, leading, or contributing to racial and ethnic equity conversations, and informing racial and ethnic

equity-related planning and decision-making. The distribution of responses and mean scores for the 5-point Likert-scale responses are presented in Table 4.15, Table 4.16, and Table 4.17. For all three questions posed, office capacity had the highest mean score for being a barrier. When excluding "Other" responses, institutional priorities and my role/responsibilities had the next two highest mean scores across all questions.

Table 4.15: Barriers to analyzing data to evaluate racial and ethnic equity

Variables	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)	Mean Score
My abilities/skillset	113	46	17	2	3	1.54
My level of comfort	116	45	14	4	2	1.51
My role/responsibilities	82	41	33	18	6	2.03
Institution culture/support	81	46	35	11	8	2.00
Institutional priorities	74	36	40	22	9	2.20
IR/IE office capacity	25	36	46	34	40	3.15
Other (please specify)	8	1	1	8	6	3.12

Table 4.16: Barriers to leading or contributing to conversations

Variables	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)	Mean Score
My abilities/skillset	83	60	28	6	0	1.76
My level of comfort	74	57	28	14	2	1.93
My role/responsibilities	51	43	42	25	15	2.49
Institution culture/support	73	44	31	17	11	2.14
Institutional priorities	70	42	41	15	9	2.16
IR/IE office capacity	26	32	49	34	36	3.12
Other (please specify)	8	1	2	4	3	2.61

Table 4.17: Barriers to informing planning and decision-making

Variables	None at all (1)	A little (2)	A moderate amount (3)	A lot (4)	A great deal (5)	Mean Score
My abilities/skillset	99	58	18	5	0	1.61
My level of comfort	98	53	21	6	2	1.67
My role/responsibilities	65	52	41	12	10	2.17
Institution culture/support	78	46	34	14	8	2.04
Institutional priorities	76	38	39	19	7	2.12
IR/IE office capacity	36	35	44	33	31	2.93
Other (please specify)	9	0	1	2	4	2.50

To answer the research question, how do perceptions and capacity of institutional research practitioners in advancing equity vary by institution type, the data were analyzed using independent samples t-tests and analysis of variance (ANOVA) to compare the mean ratings on the Likert responses. Using parametric methods, as opposed to non-parametric methods such as the Kruskal-Wallis one-way ANOVA, to analyze Likert-scale responses has been debated over time. However, recent studies have found that parametric methods for Likert-scale ordinal data are appropriate and can lead to more in-depth analysis (Harpe, 2015; Norman, 2010; Sullivan & Artino Jr, 2013). T-test and ANOVA results include a determination of effect size, Cohen's d, and partial eta squared (η^2), respectively. Cohen's d and partial eta squared were compared to the values in Table 4.18, which outlines the effect size for Cohen's d and partial eta squared values.

Table 4.18: Effect Size of Cohen's d and r^2

Effect Size	Cohen's *d*	*r*	η^2
Large effect size	2.0	.707	.500
	1.9	.689	.474
	1.8	.669	.448
	1.7	.648	.419

Table 4.18: Effect Size of Cohen's d and r^2 (continued)

Effect Size	Cohen's *d*	*r*	η^2
Large effect size	1.6	.625	.390
	1.5	.600	.360
	1.4	.573	.329
	1.3	.545	.297
	1.2	.514	.265
	1.1	.482	.232
	1.0	.447	.200
	.9	.410	.168
	.8	.371	.138
Medium effect size	.7	.330	.109
	.6	.287	.083
	.5	.243	.059
	.4	.196	.038
	.3	.148	.022
Small effect size	.2	.100	.010
	.1	.050	.002
	0.0	.000	.000

Note: Common Effect Size Indices. Adapted from *Using Effect Size—or Why the P Value Is Not Enough* (p. 280), by G.M. Sullivan & R. Feinn, (2012), Journal of graduate medical education, *4*(3), 279-282.

Presented in Table 4.19 are the results of a parametric independent samples t-test showing the means and standard deviations in the equity survey questions and institutional distinctions. Due to the low number of responses, the institutional distinction was coded '0' for having no distinctions or '1' for having one or more distinctions that include (a) Asian American and Pacific Islander Serving Institution (AAPISI); (b) Hispanic-Serving Institution (HSI); (c) Historically Black College/University (HBCU); (d) Predominately Black Institutions (PBI); (d) Tribal Colleges/University (TCU); (e) religiously affiliated; (f) single-gender, and (g) other, as determined by the respondent. There was a significant difference in mean responses to the level of importance in providing institutions reports/visualizations of data disaggregated by race/ethnicity ($t_{173.000} = 1.925$, $p < .05$), in addition to barriers to analyzing data to evaluate racial and

ethnic equity of my abilities/skillset ($t_{145.338} = 1.992$, $p < .05$) and my role/responsibilities ($t_{149.075} = 2.453$, $p < .05$). There was also a significant difference for my role/responsibilities as a barrier to leading or contributing to racial and ethnic equity conversations ($t_{161} = 1.847$, $p < .05$) and informing racial and ethnic equity-related planning and decision-making ($t_{165} = 1.688$, $p < .05$). For all the significant mean differences, those without an institutional distinction had lower overall mean responses. For each significant difference, the effect size was small to medium.

Table 4.19: Institution Distinction and Significant Mean Differences

Measure	One or more		None		*t*	*p*	Cohen's *d*
	M	*SD*	*M*	*SD*			
Importance reports/ visualizations	4.46	.711	4.22	.913	1.925	.028	0.292
Barrier to analyzing data – abilities/skillset	1.66	.918	1.40	.703	1.992	.048	0.313
Barrier to analyzing data – role/responsibilities	2.23	1.237	1.80	1.013	2.453	.015	0.385
Barrier to leading conversations – role/responsibilities	2.66	1.324	2.29	1.245	1.847	.033	0.290
Barrier to informing planning/decisions – role/responsibilities	2.29	1.123	2.00	1.104	1.688	.047	0.262

To answer the research question, how do perceptions and capacity of institutional research practitioners in advancing equity vary by institutional researcher demographics, questions pertaining to equity familiarity, equity importance, level of agreement on institutional researchers leading equity conversations and providing equity data, and barriers to equity practices were analyzed using analysis of variance (ANOVA) and independent samples t-test. The analysis compared the mean ratings on the Likert responses by institutional researcher demographic and career variables. The demographic

variables include gender, age, race, and ethnicity. The career variables include total years in institutional research, total years at the current institution, and current institutional research role.

Outlined in Table 4.20 are the statistically significant differences in responses by the reported institutional research position. The institutional position was recoded into three categories, (1) Director/Office Leader, (2) Assistant/Associate Director, and (3) Other Staff (Analytical/Technical). Those responding with "Other" were classified into the three group options according to the titles provided. An ANOVA was completed to compare the mean response scores for the three institutional research position categories. There was a significant mean difference by position for abilities/skillset ($F(2,178 = 4.255, p < .05$) as a barrier to analyzing data. There were also significant mean differences by institutional research position for role/responsibilities, abilities/skillset, and level of comfort as barriers to informing planning and decision-making and leading equity conversations.

The mean score for each barrier and practice is less than three on the five-point Likert scale. However, of note are the mean scores associated with role/responsibilities as a barrier to informing planning and decision-making and leading equity conversations. The mean scores associated with these barriers are closer to three, or "a moderate amount." Those in analytical, technical, or other staff positions view their role/responsibilities as a more significant barrier than Directors/Office Leaders or Assistant/Associate Directors. Assistant/Associate Directors have a higher mean score than analytical, technical, or other staff positions and Directors/Office Leaders for abilities/skillset and level of comfort as a barrier to informing planning and decision-

making and leading conversations. All the significant differences in mean scores presented in Table 4.20 have a medium effect size.

Table 4.20: Position and Significant Mean Differences

Measure	Director/ Office Leader		Assistant/ Associate Director		Other		*p*	η^2
	M	*SD*	*M*	*SD*	*M*	*SD*		
Barrier to analyzing data – abilities/skillset	1.37	.639	1.65	.798	1.87	1.128	.002	.067
Barrier to informing planning/decisions – role/responsibilities	1.95	.999	2.42	1.285	2.49	1.308	.013	.048
Barrier to informing planning/decisions – abilities/skillset	1.45	.652	1.90	.831	1.76	.933	.006	.057
Barrier informing planning/decisions – level of comfort	1.52	.763	2.13	.957	1.71	1.014	.003	.063
Barrier to leading conversations – role/responsibilities	2.22	1.246	2.84	1.214	2.86	1.268	.004	.061
Barrier to leading conversations – abilities/skillset	1.59	.736	2.13	.846	1.89	.970	.003	.064
Barrier to leading conversations – level of comfort	1.66	.863	2.52	.962	2.14	1.125	.000	.113

An ANOVA for the number of years in institutional research and the number of years at the respondent's current institution was also generated to determine significant mean differences for the variables collected in this study. There are no reported significant differences in the total number of years in institutional research or the total number of years at the current institution. Presented in Table 4.21 are the t-test results with significant mean differences by gender. Due to a low number of responses (N=7) to

third gender/non-binary, other, and prefer not to disclose, only responses for females (N=125) and males (N=63) are included in the analysis. There was a significant mean difference by gender for institutional priorities ($t_{173.000} = 2.031$, $p < .05$) as a barrier to analyzing equity data. Further, significant mean differences by gender were found for capacity as a barrier to analyzing equity data ($t_{173.000} = 2.187$, $p < .05$) and leading equity conversations ($t_{169.000} = 2.884$, $p < .05$). For each of the significant differences by gender outlined in Table 4.20, females had a higher overall mean score, and each has a medium overall effect size.

Table 4.21: Gender and Significant Mean Differences

Measure	Female		Male		*t*	*p*	Cohen's *d*
	M	*SD*	*M*	*SD*			
Barrier to analyzing data – institutional priorities	2.35	1.266	1.95	1.166	2.031	.022	.329
Barrier to analyzing data – capacity	3.33	1.270	2.86	1.445	2.187	.015	.354
Barrier to leading conversations – capacity	3.34	1.245	2.73	1.433	2.884	.002	.472

There were no significant mean differences by age for any of the questions analyzed that relate to the respondent's familiarity with equity, perceived importance of equity, agreement on institutional research leading equity conversations and providing equity data, or perceived barriers to equity practices. Presented in Table 4.22 are the independent samples t-test findings with significant mean differences by race and ethnicity. Due to a low number of responses, Asian, Black/African American, Hispanic/Latinx, Multi-Racial, and Other were combined for comparison to those indicating White. Those who indicated prefer not to disclose are not included in the analysis. Those who do not identify as White had a higher overall mean score for

abilities/skillset ($t_{47.000}$= -2.833, p < .001), level of comfort ($t_{49.650}$ = -2.780, p < .001), and role/responsibilities ($t_{175.000}$ = -1.804, p < .05) as a barrier to analyzing data. Those who do not identify as White also had a higher overall mean score for level of comfort as a barrier to informing planning and decisions ($t_{175.000}$ = -2.139, p < .05). Those who do not identify as White had lower overall mean scores for capacity as a barrier to informing planning/decisions ($t_{72.700}$ = 1.849, p < .05) and for my abilities/skillset ($t_{127.000}$ = -1.917, p < .05) and my level of comfort ($t_{170.000}$ = -1.659, p < .05) as barriers to leading conversations. All the significant mean differences have a medium effect size, with my abilities/skillset as a barrier to analyzing data having the largest overall effect size.

Table 4.22: Race and Ethnicity and Significant Mean Differences

Measure	White		Non-White		*t*	*p*	Cohen's *d*
	M	*SD*	*M*	*SD*			
Barrier to analyzing data – abilities/skillset	1.43	.682	1.98	1.165	-2.833	.003	-.672
Barrier to analyzing data – level of comfort	1.41	.711	1.90	1.057	-2.780	.004	-.617
Barrier to analyzing data – role/responsibilities	1.95	1.120	2.33	1.289	-1.804	.036	-.324
Barrier to informing planning/decisions – abilities/skillset	1.53	.697	1.90	.982	-2.208	.016	-.477
Barrier to informing planning/decisions – level of comfort	1.59	.827	1.93	.997	-2.139	.017	-.384
Barrier to informing planning/decisions – capacity	3.04	1.408	2.63	1.213	1.849	.034	.307
Barrier to leading conversations – skills/abilities	1.71	.799	2.00	.959	-1.917	.028	-.352
Barrier to leading conversations – level of comfort	1.88	.970	2.19	1.101	-1.659	.049	-.308

Conclusion

This chapter provided a summary of the quantitative data collected in this study. This chapter includes considerations of the data set, the demographic and professional characteristics of the study participants, and overall study results, including a comparison of mean scores using t-test and ANOVA. Notably, study participants indicated that they are moderately familiar with the concept of equity (mean score of 4.01) and view it as very important to institutional research (mean score of 3.90). Furthermore, study participants somewhat agree (mean score of 4.23) that institutional research/effectiveness (IR/E) should present data in support of racial and ethnic equity even if it is not the priority of institutional leadership (e.g., Provost, President, Chancellor).

The study found that office capacity is the highest-rated barrier to analyzing data, leading, or contributing to conversations, and informing decision-making for racial and ethnic equity. The quantitative data analysis also found that reports/visualizations of data disaggregated by race/ethnicity had the highest overall mean score in terms of importance to the institution (mean score of 4.32), whereas convening discussions of data disaggregated by race/ethnicity had the lowest overall mean score (mean score of 3.56). When responding to the frequency of these activities, providing reports/visualizations of data disaggregated by race/ethnicity occurred most frequently (mean score of 4.16), whereas convening discussions of data disaggregated by race/ethnicity was reported as occurring the least frequently (mean score of 3.00).

When analyzing statistically significant differences in responses, there was a statistically significant difference by institutional distinction, institutional research

position, gender, and race/ethnicity. There was no significant difference by age, the total years in institutional research, or the total years at the current institution.

CHAPTER 5

QUALITATIVE RESULTS

To further understand the research question, what are the perceptions of current institutional research practitioners in advancing equity, open-ended data were collected during survey administration and interviews with research participants. This chapter presents the qualitative results in two sections. The first section contains the qualitative data analysis collected during the survey administration. The second section of this chapter focuses on the qualitative textual analysis of data collected during interviews with study participants.

Qualitative analyses relevant to research questions: survey results

Qualitative data were collected from three separate questions during the survey administration. Emerging themes for each question are presented in this section. Emerging themes were determined using an iterative process of thematic analysis.

What comes to mind with 'Equity'? Participants were provided with the open-ended question, reflecting on your experience in institutional research/effectiveness (IR/E), what comes to mind when you think about the word "equity," to which 174 participants responded. The analysis process for the open-ended question involved reviewing each response and applying inductive coding. Inductive coding as a method for qualitative analysis seeks to summarize textual data, establish a link between research objectives and findings from the textual data, and present findings of the most important themes (Thomas, 2006). A total of twelve emergent themes were developed through the inductive coding qualitative analysis. The emergent themes with total and percent of responses are outlined in Table 5.1.

Table 5.1: Emergent Themes on Response to "Equity"

Themes	*n*	*%*
Equal, same, or fair access and/or opportunities	59	33.9%
Disaggregation, use, and structure of data to show inequity	39	22.4%
Equitable access, opportunities, and outcomes	24	13.8%
Providing additional or appropriate support	22	12.6%
Institutional & systemic changes / Removing barriers	8	4.6%
Informing decision-making	5	2.9%
Institutional strategic objective/priority	5	2.9%
Equity is hard work or hard to achieve	4	2.3%
Equity is not relevant, or I don't think of equity	4	2.3%
Diversity and inclusion	2	1.1%
Important to institutional research	1	0.6%
Value	1	0.6%

Slightly over one-third of the responses included language about equal, same, or fair access and opportunities. The responses align with the definition of equality, which is the effort to treat everyone the same or to ensure everyone has access to the same opportunities to reach their full potential. Responses provided include, "People will be treated equally or provided the same opportunities," "Everyone is treated the same," "Treatment without regard to personal characteristics," and, "I think of equity as providing similar opportunities across genders and races. Once a student is admitted to an institution, I believe they start from "zero" and should be given the same chance to succeed."

The second emerging theme, constituting approximately one-fifth of responses, is the disaggregation, use, and structure of data to show inequity. Participant responses coded as the disaggregation, use, or structure of data to show inequity discussed how institutional research could use data to inform equity. Some of the responses include, "Providing data on the diversity of students, faculty, and staff of data to highlight

inequities," "IR/E supports equity by designing and conducting analysis that surface inequities," and "Our jobs as professionals in this field [are] to constantly review the data and highlight an[y] inequities we find." Some of the responses within this theme include discussions of the importance data has in informing decision-making. Examples of these responses include, "Equity in my IR/E role is reflected by a commitment to disaggregation and analysis of student experience and outcomes by various subpopulations in an effort to close gaps, remove and minimize barriers, and maximize the success achieved by all students," "My goal is to provide data that shows where the greatest needs are so that upper-level administration can make well-informed decisions," and "Attention to systemic differences among students and faculty that may impact their success at our institution. We examine those differences in an attempt to help decision-makers determine how best to serve those individuals."

The theme of equitable access, opportunities, and outcomes is the third largest category (13.8%) of responses to the prompt. Reponses within this theme discuss equity from the standpoint of access to higher education, the availability of opportunity, and equity of outcomes. Examples of responses include "Ensuring all students have the resources they need to achieve equal educational outcomes," "Additional support and services for student groups that have lower outcomes," and "Developing systems and processes to ensure that students are able to participate in and complete their educational goals, regardless of what they bring with them when they enter."

The fourth-largest category, providing additional or appropriate support, constitutes 12.6% of responses. The responses included in this theme discuss the importance of support for equity. Examples of responses include "Meeting students

where they are at and differentiating programs/interventions/support based on the needs of different subsets of students," "Meeting students where they are at and differentiating programs/interventions/support based on the needs of different subsets of students," and "meeting students where they are at and differentiating programs/interventions/support based on the needs of different subsets of students." It is important to note that some responses expressed opinions that equity is not thought about or considered to be the work of institutional research. An example of responses aligning with this sentiment includes, "It's not something I think about," "Pointless," and "This is ridiculous. IR/IE isn't about equity. And it shouldn't be."

How others view the role of institutional research. Participants were prompted to provide an open-ended response to the question, "How do you feel people perceive institutional research's role in advancing racial and ethnic equity on your campus"? A total of 154 responses were collected. Open coding inductive analysis was completed to develop the themes outlined in Table 5.2 below. The key themes include (a) number cruncher; (b) support, partner, and consult; (d) variable; (e) internal and external constraints; and (f) no role or thought given.

Table 5.2: Emergent Themes on Response to Role in Advancing Equity

Themes	*n*	*%*
Number cruncher	66	43.1%
Support, partner, and consult	35	22.9%
Variable	22	14.4%
Internal and external constraints	17	11.1%
No role/no thought given	9	5.9%
Leads efforts/advocates/prefer more involvement	4	2.6%
Total	153	100.0%

Many of the responses received on how others view institutional research's role in advancing racial and ethnic equity centered on providing data to others. Although supplying data is central to both "number crunchers" and those who "support, partner, and consult," the ways in which institutional research is engaged once the data are provided are different. Those that are viewed as "number crunchers" discuss only providing data and not being a part of institutional discussions. One participant stated, "I don't think the perception is that IR has a role other than providing data," and another stated, "Primarily a data source." Overwhelmingly, respondents expressed that others perceive institutional research as important to securing equity-related data but not leading or collaborating in institutional conversations or initiatives on equity. One person stated, "Many administrators may diminish the IR/IE function to that of only reporting and not advocating." Another person stated, "…we are often ask[ed] to compile data for use in equity studies but never ask[ed] to actually lead."

While many respondents provided that their institutions appreciate the use of data for decision-making and that institutional research is essential in the ability to do so, some responses also discussed the absence of institutional research in institutional discussions and decision-making processes on equity. One respondent stated that institutional research is perceived as "…simply providing the data and analysis, but not contributing to the discussions and larger context," and another indicated, "…We supply the data but are not ultimately responsible for those conversations." Some respondents indicated they would prefer institutional research to have a more active role in decisions and to be involved in conversations happening at the institution that address equity. A participant indicated that they supply data but do not actively participate in planning or

decision-making. They further express the lack of change occurring as it relates to equity. They stated, “the data requests don’t really change, so I don’t think the conversations are changing either.” Another respondent also expressed the lack of involvement of institutional research in equity initiatives. The respondent stated, “… we don't always have decision-making authority (or sometimes aren't even consulted) on changes in priorities and goals.” Although some institutional researchers perceive they are viewed as the data supplier and express not having an active role in institutional discussions, some participants expressed a desire for that to change.

One participant indicated they are viewed as a “numbers vending machine.” The respondent stated that when they attempted to discuss the data in a way to support equity, it was not valued. They stated, “When I have tried to engage them in a more substantive conversation about how data are presented and how we can support mission goals, I was met with confusion and irritation.” Another respondent indicated they are “seen as the providers of data for conversation” but are not a part of decisions, even if the data they provide shows evidence of a need to address a disparity. The person discusses that they currently “present the data in a neutral way” but would hope to move away from neutrality to “begin offering concrete suggestions or solutions where applicable.” Lastly, where institutional research is a part of committees that have discussions on equity, they are not considered leaders. One person stated, “We are present on the committees and prepare the data summaries and lead the discussions at the committee level. However, we are not co-leaders.” While many participants indicated that others view institutional research as simply the suppliers of data, several others discussed that they support, partner with, or are consulted on institutional equity decisions.

One respondent stated that institutional researchers are viewed as "the primary catalyst resource and ally in this work." Many respondents discussed collaboration with diversity, equity, and inclusion (DEI) offices at the institution, in addition to working with faculty and as a part of committees. The responses allude to institutional researchers being the experts on data that are needed for advancing equity; therefore, they are brought into institutional equity discussions. One person stated, "I do think that folks consider us experts in knowing the numbers and the issues on campus, so we're consulted (but not thought of as the leaders of this work)." Another participant mentioned being central to decisions at the institution and stated, "I believe that the administration and stakeholders view our office as integral to their decision making…" while another stated institutional research is "Next to practitioners/experts on actual interventions (e.g., curriculum redesign, equity programming, policy redesign), institutional researchers are the primary catalyst, resource, and ally in this work." In many cases, participants responded that institutional research is viewed purely as a data supplier or a data supplier and collaborator. However, some indicated variability in how others view the role of institutional research. Many discussed the dependence on institutional leadership and stakeholders.

Some respondents discussed that the answer might be different depending on who is posed with the question. As stated in one response, "There are two camps. One camp views IR's role as merely about measurement alone, with no inclusion in efforts to address inequity. Others see IR as an informed contributor or even leader to interpreting and taking action to address inequity." One person alluded to the difference being the result of not understanding the value institutional research can bring. The person stated,

“Depends on the "people" - some understand the value of data in understanding these issues, and others are less comfortable or oblivious to how IR analysis and interpretation could shape a conversation.” Another person discussed differences based on who is asked, with institutional research being viewed as just a provider of data or a leader. The person stated, “…Some see us as leaders, or that we should be leaders, while others just ask for data.” Another person discussed a difference based on the campus. The participant indicated that there are two campuses, with one viewing institutional research, “merely about measurement alone, with no inclusion in efforts to address inequity” while the other campus views institutional research, “as an informed contributor or even a leader to interpreting and taking action to address inequity.” Variability was also discussed within the context of a university with multiple schools and colleges, even as institutional research is more involved in addressing equity. The person stated,

> More and more IR professionals are taking on a very active and/or vocal role in a wider push to advance racial and ethnic (as well as gender, ability, and a few other high-priority categories) equity on campus. However, certain schools/colleges within the university are more invested in the work than others, and things can be hit-or-miss with central administration.

While some discussed variability in how institutional stakeholders view the role of institutional research in advancing equity, others responded to uncertainty in how others view the role of institutional research or that institutional research has no role.

One of the respondents stated, “I don’t think most people give it much thought,” while another stated, “In my institution, I'm not sure that anyone has thought of IR from that standpoint.” Another participant discussed that there is another office engaged in this work; therefore, others do not see institutional research as having a role. The respondent stated, “we have a whole department and specific employees that are to focus on this

area, and they should be asking the questions and doing the research to find where help is needed." Another participant provided a response of "not the responsibility of IR," while another indicated, "People believe institutional research does not and should not play a role in advancing racial and ethnic equity on campus." Although some respondents indicated institutional research is viewed as having no role, or it is unclear the role they play, several responses mentioned internal and external constraints to taking a more active role. One participant stated they were unsure how others view the role of institutional research, and they currently don't have the capacity to contribute. One participant stated they were unsure how others view the role of institutional research, and they currently don't have the capacity to contribute.

Most internal constraints discussed in responses were due to staffing and capacity. One respondent stated that they currently do not have an institutional research department leader, and it is a limitation. Another respondent discussed workload as a limitation. The participant stated, "At this time, I would say the greatest barrier to this is [the] staff. We have an extraordinary workload with many competing priorities and too few staff to perform these additional analyses." Another response discussed how the lack of staff impedes their ability to lead equity discussions. The participant stated, "…IR is invited to lead discussions about eliminating equity gaps, but our IR staff is limited in terms of the number of staff in our office and the compensation we receive, so we cannot always be in the spaces where these discussions take place." Another internal limitation discussed in response is tied to external factors. A participant discussed the culture of mistrust around the concept of equity and the use of data. The respondent stated that,

> I work at a community college in a red state, so not only are these discussions met with some resistance by those who refuse to believe equity issues even exist, but data and data analysts are subject to the same widespread distrust in science on campus that we're seeing across the country today.

Similarly, another participant discussed the political environment as an external limitation. The response stated, "We live in Florida, and the institution has good intentions, but new laws make some of these conversations difficult."

Final thoughts and reflections. Participants were able to provide an open-ended response to the prompt, "Please provide any last thoughts you have on institutional research's role in advancing equity, including any reflections on experiences you have that are relevant to this topic." A total of 99 responses were collected. Open coding inductive analysis was completed to develop the themes. Outlined in Table 5.3 are the nine key themes. The two themes, the use of data to support equity/institutional research is important, and institution support of equity/institutional leadership constitutes over 50% of the responses to the prompt. The first theme, the use of data to support equity/institutional research is important, contains responses that address the use of data for the work of equity and how institutional research provides the needed data for equity.

Table 5.3: Emergent Themes to Final Thoughts and Reflections

Themes	*n*	*%*
Use of data to support equity/Institutional research is important	35	35.4%
Institution support of equity/Institutional leadership	19	19.2%
Institutional research office capacity	11	11.1%
Importance of equity	8	8.1%
Skills/Professional Development	8	8.1%
External support	5	5.1%
Relationships across institution	5	5.1%
Slow progress toward equity	4	4.0%
No comment	4	4.0%
Total	99	100.0%

Respondents discussed the need for data-informed and evidence-based decisions. One respondent stated, “The work that IR does to provide data and analytical tools is key to identifying gaps and opportunities to improve at all levels,” and another supported this sentiment in their statement that “Data needs to be present in all decisions and discussions, especially when discussing equity issues.” While the use of data was discussed in one-quarter of the responses, the importance of institutional support, including setting priorities and strategies around equity, was also mentioned in the responses.

One person discussed the importance of equity as an institution-wide effort. They stated, “I believe strongly that the role of advancing equity is a college-wide effort. Often, institutional research and a handful of interested faculty and mid-level managers are left alone in the work.” Another response discussed the commitment that their institution, a Historically Black College/University (HBCU), has to equity by stating that “…equity issues are at the forefront of everything we do - we are committed to advancing equity among our students, faculty, and staff.” Another respondent discussed the impact of not having support on their ability to engage in equity work despite feeling they have a responsibility. The participant stated, “I believe I have a responsibility to advocate and advance DEI efforts. Lack of support on all levels makes this almost impossible.” Another difficulty discussed in response to institutional research offices advancing equity is the lack of capacity. One response concluded that the institutional research office “is so overwhelmed, understaffed, underpaid,” and another expressed similar a sentiment that the office is “understaffed.” The lack of capacity and competing priorities prevent offices from engaging further. As summarized by one participant in the survey, “When IR

offices have the capacity and compensation to work with administrators and faculty as subject matter experts … IR offices can effectively advance racial and ethnic equity at their institutions." Survey responses also discussed the importance of external support for equity. Specifically, responses discussed the influence of accreditors. One response stated, "Our institution, our system, our accreditor, our state educational structure - all are dedicated to ensuring access to higher education…" and another mentioned, "Accreditors have sought to open the equity discussion." The analysis and responses provided during the survey informed the qualitative data collection through virtual interviews. A complete analysis and results are provided in the subsequent section.

Qualitative analyses relevant to research questions: interviews

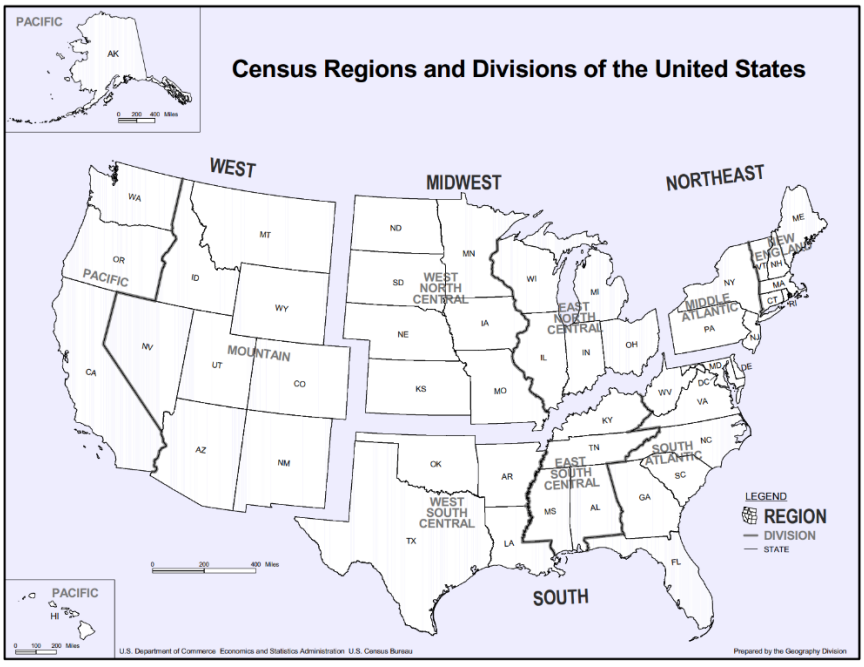
All participants who completed the survey were allowed to indicate interest in participating in a follow-up virtual interview. Forty-one total survey completers indicated they would be willing to participate. A total of twenty interview participants were selected at random and invited via email to participate in the interview. Out of the twenty invited to participate, eleven interviews were completed. A semi-structured interview guide included three questions related to the participants' institutional research background and six questions addressing the overall research objective on perceptions of institutional research in advancing equity. All interviews were conducted virtually with agreement from each participant to record for transcription purposes. Interviews occurred between October 21, 2022, and November 1, 2022. Outlined in Table 5.4 is a profile of the eleven participants. Each study participant was ascribed a number and will be referred to throughout this document by "Participant" and the corresponding number (e.g., Participant Five) to ensure the participant's anonymity. Included in Table 5.4 is the

participant number, their current role, and the Census region of the participant's current institution, as outlined in Figure 5.1.

Table 5.4: Interview Participant Profiles

Number	Role	Census Region
One	Assistant Director, Office of Institutional Research	South
Two	Director, Office of Institutional Research and Assessment	Northeast
Three	Vice President, Strategic Research	West
Four	Dean, Outcomes and Assessment	West
Five	Coordinator, Research and Evaluation	West
Six	Director, Institutional Research and Assessment	South
Seven	Dean, Institutional Research	Northeast
Eight	Director, Office of Institutional Research	Northeast
Nine	Director, Office of Institutional Research and Assessment	West
Ten	Associate Director, Office of Institutional Research	Northeast
Eleven	Director, System Research	Midwest

Figure 5.1: U.S. Census Divisions



Note: Census Regions and Divisions of the United States. (U.S. Census Bureau, n.d.), Retrieved from *https://www2.census.gov/geo/pdfs/maps-data/maps/reference/us_regdiv.pdf*

To answer the overarching research question, what are the perceptions of current institutional research practitioners in advancing equity, and the corresponding guiding research questions, interpretative phenomenological analysis (IPA) was employed for the qualitative data collection. IPA allows for an in-depth accounting of the experience of the research participants and the use of inductive coding to develop themes from the textual data. Interviews were conducted using a semi-structured format. Each interview took place virtually, and all were recorded with the research participant's permission for transcription. Once all interview transcriptions were complete, multiple transcript readings occurred, and exploratory comments were created. The annotations were used to develop the final themes presented in this section; intrinsic prosocial motivation, leadership support and building relationships, skillsets and professional development, external and internal dynamics, and the position of institutional research and the ability to enact change.

Intrinsic prosocial motivation. When discussing the role of institutional research in advancing racial and ethnic equity in higher education, many of the participants mentioned what can be classified as prosocial intrinsic motivations. According to (Deci, 2004), intrinsic motivation is defined as,

> Doing an optimally challenging activity that is interesting, has an internal perceived locus of causality, and is energized by the basic psychological needs for competence, autonomy, and relatedness; such an activity does not require a contingent outcome that is separate from the activity itself (p. 437).

Participants' inclination for interest and exploration of equity often extended beyond the external requirements of their roles or responsibilities. Participants alluded to prosocial

motivation, with the intent to benefit and promote the well-being of others. Participant Eight discussed intrinsic prosocial motivation, as evident when the participant mentioned,

> Because of my background, I have a master's degree… and that's where I really learned that higher education is really just a reflection of the overall society that we live in, … so students of color, first-generation and low-income students struggle, and so it's important to study these populations to make sure that the institution is doing everything it can to even the playing field for these populations, and for me, that is my central passion when it comes to higher education.

Participant Nine echoed similar sentiments about their role in institutional research. Participant Nine mentioned a desire to move beyond "number crunching" to earn a living and seeks to make a difference in the lives of students historically underrepresented in higher education. Participant Nine stated, "I want to see how I can be an advocate and help build a network with other people who are committed to that."

Interwoven into the intrinsic prosocial motivation for some participants was the element of racial and ethnic identity. Specifically, Participant One discussed the impact of being mixed-race to an immigrant parent on Participant One's perspective and overall motivation to advance equity for others. Participant One stated,

> I'm mixed race… I was already sort of socialized to be agreeable, but I also dealt with a lot of racism growing up because I was in a very white society and was not very accepted…I know that things are different for other people, and I want to fix this. Some of that's being second generation as well, to first-generation immigrants…I had the privilege to get my head above water, and to actually go to college.

Similarly, Participant Two discussed racial and ethnic identity and the impact that had on Participant Two's connection to equity. Participant Two indicated that as an "Asian-American male," there are days when he will wonder "if the white people even see me and acknowledge the work that I've done in this state for equity, and it's very lonely from that perspective." Similarly, Participant One discussed the influence racial and ethnic,

and gender identity might have had on Participant One's role in equity work at the institution. Participant One explained,

> I'm the only woman in our leadership team here in IR, …and actually, I'm the only person of color as well. The rest of our leadership team are white males. I do think that is why; suddenly, I was personally invited to our Diversity, Equity, and Inclusion Committee. I don't know, for sure, why they did not invite anyone from IR before. But, when I came on board, I was invited to join the conversation. So, I don't know how much of that is also identity playing in there, both as a scholar and as a human being, skin tone and all that.

Participant Eleven's intrinsic motivation was also connected to personal identity but through the experience of age. Participant Eleven mentioned, "I am of the generation where it was very cheap for us to go to college, and I know that the main thing that has changed, sort of, my economic outlook…has entirely to do with my education." Participant Eleven continues to state that college affordability should be provided to those currently enrolled. Participant Eleven concludes,

> …I feel like if that was available to me, that it should be available equally to everyone, and that is the job of people who were of my generation to change…Because it's fine for you, right?... You really have to kind of interrogate whether or not it's fine for everybody and, are you doing everything that you can to ensure that? So, for me personally, I know that that's something that sits in the back of my head a lot. The thing is, as far as equity work in higher education, you can move the deck chairs around and make it look like things are changing pretty easily, especially if you know numbers very well. So, I think you always also have a responsibility to really ask the difficult questions.

Leadership support and building relationships. When prompted about their ability to advance equity, many participants discussed the importance of institutional culture, politics, and the development of relationships. Specifically, how institutional research works with institutional leadership and the overall community can impact the effectiveness of institutional research to move equity. For Participant Five, the small size

of the institution was seen as beneficial to the ability of institutional research to work with leadership to move forward an equity agenda. Participant Five stated,

> …we're a really small college, so we're pretty nimble. Like, the President's office is down the hallway from you. I can go, walk in, and say, 'here is what I need to do,' and we just have a conversation, and we make it happen, right? So, we're lucky in that regard.

Similarly, Participant Seven discussed a new President's impact on the institution's equity focus. Participant Seven discussed how, before the current President, the institution evaluated equity "a little bit for various purposes." Further, Participant Seven discussed the institution's tendency to "brush results under the table that weren't flattering to the institution." The new institutional leadership has since made a concerted effort to identify inequities and to "address it and do something about it."

Participant Ten similarly discussed the attention of institutional leadership to equity at the institution. Participant Ten explained that the President and Provost are new to the institution. As a result, Participant Ten views equity as "something that is a particular interest of focus for the college and the leadership." Beyond the importance of having institutional leadership support and prioritizing equity efforts, participants discussed an overall need for institutional research to build relationships. Participant Five discussed the importance of building faculty relationships to make advancements. Participant Five stated that establishing relationships is "99%, I think, of what I do." For example, Participant Five provided that having solid relationships with faculty was crucial to agree on changes to syllabi. Participant Five concluded, "They know me as a person…they are doing it for me, personally, because they care about me because we have a good working relationship." Likewise, Participant Three discussed the importance of relationships and communication to institutional research by stating, "I went into this

interview for a research assistant analyst type position, thinking that it was going to be my statistical skills that got me in the job…and that's 100% not true. It's all about relationships and people and communication."

Participant Six also discussed the importance of relationship building in onboarding new institutional research staff. Participant Six has "made a concerted effort of getting [the new hire] out into the campus and getting to know people …he is not afraid to engage in [equity] conversations." While Participant Six is providing an opportunity for new staff to develop relationships across the institution, Participant Six expressed frustration with finding other equity-minded individuals. The process was described as "very slow." Participant Six explained,

> It took a long time for me to find those other people across campus who had the same kind of feelings and felt that those topics were really important and then building those relationships... So, there's been times when I want… I wanted to quit my job and run. I think that's how bad I think it was in the beginning, but I'm glad I'm sticking around because I'm finding out there are other people on campus who feel that it's important and probably did not feel empowered to do anything about it.

In establishing relationships and having conversations about racial and ethnic equity, some participants did express the need to approach these conversations prudently. Participant One asserted,

> … I came from a very social justice academic background, and sometimes that means you don't play the game, and sometimes that means you just outright say, hey, this is racist, rather than say, you notice the difference between. I think trying to find my way there individually, as someone who cares versus, like, this is my job, and I want to keep it because I think I'm doing good work. But it might mean that I have to approach it a certain way, and that, I think, is a little more nuanced. But no one has ever said, no, we don't want to hear about this. It's just the way they want it presented; it might need to be a little sanitized.

The sentiment of relationship building and communication on equity concerns was expressed by Participant One as well. After onboarding two new employees, Participant One discussed how the employees who are "Gen Z" are vocal about equity concerns which contrasts with Participant One, who identifies as a millennial and wants to "work in [the] system." Participant One stated,

> So, we have these conversations within our little unit of, like, how do you present this idea, and I will tell them, let me know if you think I'm being too agreeable or too passive. I know that's hard. There's a power differential. I'm their boss, but I also recognize that it can go too far one way. So, I try to encourage them to tell me, how do you think we should frame this, and get their perspective on how to do this the right way."

Skillsets and professional development. From the conversations about the importance of relationship building came an emphasis on the need for specific skills and opportunities for professional development. While many participants agreed on the need to build relationships and communicate with others at the institution, others suggested that additional training might be helpful to their effectiveness in this area. Participant One discussed their experience communicating with a faculty member about inequities in outcomes and how they are not necessarily trained to have those conversations.

> How do I talk to a faculty member about, hey, there are differences in the types of people who are being successful in your class, and why do you think that might be, and how can we move forward from that? I'm not trained to have those types of conversations, and I do think that that would be enriching, but I also think that that's possibly a team effort, and that's a conversation I would never have by myself. I would have that with someone from the provost's office or with their department, which is also probably not the best. How many chairs are really trained to have these conversations too?

Participant Six also expressed not having the skill set necessary to discuss racial and ethnic equity from their role in institutional research. Participant Six expressed, "I don't feel skilled, I feel very underqualified, and that is probably not true, but I think as

one of the only persons who [are] willing to have this conversation, it's just scary." Participant Six continued to discuss that engaging in racial equity conversations can result in getting "flustered," but concedes, "I do have a skill set; I just really don't feel like it's adequate." Professional development for some of the participants has helped in their ability to support equity at their respective institutions. Participant Five discussed professional development offered through the institution's accreditation body. Participant Five stated that,

> …before I was in this role, I didn't think institutional research had any connection at all, or intentional purpose, with looking at equity and inclusion…I got into my new role, and I was able to take part in some professional development which was through our accrediting agency, and I was so inspired by what I learned there.

Although Participant Five spoke about the experience of participating in professional development with an equity focus, some participants discussed the infringement of technical professional development opportunities. Participant One stated,

> …most of the professional development that I have encountered has been very much about how to complete the transaction or what query you're creating; the BIs or visualizations or how to effectively present aggregated data, for instance. But less about interacting with others in the organization in a positive way.

Participant Eight also discussed that institutional research must move beyond "dotting the Is and crossing the Ts" and that professional development opportunities should reflect that need. Participant Eight stated,

> … I belong to the Northeast Association of Institutional Research, and a lot of the workshops are focused on the latest data analytics or using Tableau. We're using BI analytics, but those are just tools that are based on philosophy and ideas. So, if my philosophy is that I want to use this tool to study student success, then that's how I will use that tool. But there's got to be more conversation, in my opinion, about higher education and the inequity that exists in higher education and what is the responsibility of institutional researchers to help… I think it's something

> that could be discussed more at different workshops, and it is to some degree. But I would like to see it much more central in both the Association of Institutional Research and the Northeast Association of Institutional Research. I'm not familiar with the other regional IR organizations, but I am familiar with those two.

Participant Nine also discussed the professional development opportunities offered through the Association for Institutional Research (AIR). Participant Nine joined AIR in the early 1990s and decided, before participating in the study, to review the AIR website for 2022 conference workshops to "ask that very question, what is the state of IR?" Participant Nine mentioned finding two workshop sessions that were in any way tied to diversity. Participant Nine, who mentioned leading a workshop session, stated, "one of my personal goals is really getting much more back to helping people and helping students directly and getting away from all the technocratic stuff that data has become." Participant Seven expressed a similar sentiment regarding the focus on technical ability within institutional research.

Participant Seven asserted that director positions once required a Ph.D. in social science or education. However, director position postings are now "asking for a master's degree and seem to be looking for more technical experience." Participant Seven also discussed the change in accepted presentations and poster sessions at institutional research conferences and articles published in institutional research journals such as AIR. Participant Seven stated,

> I think it's become less academic and more technical, which, I guess, makes sense with all the software that's available now. Your offices often build the Tableau reports, and then other people in the institution utilize that information …it tends to be, they [IR] provide you the information then you figure out how to interpret it and what to do with it.

Participant Seven also discussed the experience of having staff with technical abilities who are uninterested in having an active role in leading conversations on equity. Participant Seven acknowledged,

> I wish I had someone else. I'm really the only one in the office with any interest in leading these [equity] conversations, and I really could use someone else who was comfortable having these conversations. They [institutional research office staff] enjoy building the reports and working with people to identify what types of reports are needed. But the interpretation and the write-ups, they really don't have any interest in doing. So, I'd say that we do lack capacity there for sure; in addition to the data management capacity, we also lack the capacity and to have these conversations around the data.

The practice of institutional research engaging the institution in racial and ethnic equity conversations has, according to participants in this study, varied depending on the understanding and willingness of people. Participant Six discussed the difference between their current role in supporting equity at the institution to their predecessor. According to Participant Six, their predecessor, who is now directly supervising institutional research, "was not really exposed to these ideas [equity] in the past." Participant Six further explains, "…I do believe that my conversations with her surrounding diversity and equity carry over into her ability to speak to those issues with certain groups." Participant Two discussed the specific desire of their institutional research staff regarding their knowledge of equity. When considering institutional research staff, Participant Two expressed,

> I want my staff to not just be technically sound on the numbers, but also in the context of higher education. You can't understand that if you just treat it [the work of IR] as just numbers, ones, and zeros. You have to understand that people are different. You also have to understand that we are social science, not science.

While many of the participants during the interview conversation discussed the need for additional professional development that could support efforts of institutional research to engage the campus community in equity conversations, Participant Eleven offered, “I think that you can’t get better at having those conversations with having to, and so, you have to deliberately put yourself in areas where you are going to have those conversations because there is no replacement for experience.”

External and internal dynamics. While many of the participants in this study discussed the intrinsic motivating factors to their engagement in racial and ethnic equity, they also discussed the influence of internal institutional factors in addition to external factors. Some participants, including Participant One, work at higher education institutions in states that they acknowledge can complicate their work around equity. Participant One stated,

> …we can move into real conversations of what does it mean to provide equity, and so, I think we're at the very early stage at my institution of getting there. But we have to lay this groundwork first…and just being transparent about it, I think particularly, in the state I live, that can be a little dangerous and, just saying that, is in and of itself a challenge…

Although Participant One discussed ways in which the state might hinder equity work, Participant One did express feeling support from the institution. Participant One explained, “I have a lot of academics who work at other institutions who are like, there's a lot of crap going on in [your state], and I can't imagine that you feel supported. But given the context, I do.” Similarly, Participant Three discussed the ways in which state legislation is impeding some equity-related initiatives, specifically around gender. Participant Three explained, “There have been threats by legislative bodies that say...if we collected more nuanced or different non-binary type of gender identity, that could

actually be harmful to the institution in terms of state appropriations." Participant Six also alluded to differences in their ability to engage in equity work based on the institution's location. Specifically, Participant Six discussed the receptiveness of the campus community. Participant Six stated,

> It's interesting because I'm originally from California, and in California, these types of conversations are very common, and they're really ingrained… So, I never had any issues with these types of conversations…But coming here to the south, it's totally different. It is just like a whole different world, and so I was not recruited with that sort of intentional attitude toward diversity and equity. Even though it's really important to me coming on this campus, even in my own office, there was a lot of push back to disaggregate data, presenting data based on race or gender, or any other thing…

While Participant Six expressed experience with varied reception of equity discussions based on the institution's location, Participant Six offered the importance of providing the data regardless and the role accreditors can have in moving equity forward. Participant Six suggested,

> Those of us in institutional research have the power to show where inequities exist, and I feel like sometimes, when people don't even ask for it, we need to supply it. So, I do think it is critical, especially now, because our accrediting body is now asking for disaggregated data. So that's really good. It helps us. It gives us some leverage when anybody asks us to provide data or conduct a study. It gives us the leverage to then take it that step further and at least let them see where the inequities exist and if they're coming up with some type of intervention that they can see whom those interventions are actually working for.

Similarly, Participant Five discussed the impact of accreditors on their institutional research work in support of equity. Participant Five engaged in a professional development opportunity through the institution's accrediting body. According to Participant Five, the professional development opportunity was impacted by the recent injustices in the United States and heavily emphasized equity.

> I do think the emphasis at the time on equity was around the time when, in the United States, we were just hearing a lot about injustice and the need for equity and inclusion, and so, I think they were very purposeful in addressing that with us.

Following the professional development opportunity, Participant Five engaged in continued conversations with those who also completed the professional development opportunity, and the group "started to implement evaluations or surveys, whatever work they were doing, with that equity lens." While Participant Six discussed mandatory reporting and Participant Five professional development, both highlighted the role accreditors could have in influencing equity work within institutions.

Another factor that became apparent in the conversation with the participants is the attitude and culture toward data, including data provided by institutional research within the institution. Participant Six asserts that people at the institution do not always trust the data provided to them, and getting that to change is a slow process of relationship building. Participant Six stated,

> I feel like people just didn't trust data. They don't trust data, period. Why are they going to trust our data? So just building relationships and letting people know what we have and where we get our data and how we treat it, and helping them understand why sometimes numbers don't tell the whole story… It's a slow process because I can't do it with everyone at one time. But I think as long as we remain accurate and consistent in our reporting, then that's just built over time, but it does take a lot of time.

Participant Six also discussed the importance of institutional research "contextualizing" data to assist those who may not know how to interpret the data provided to them. Participant Six asserts, "most people don't know how to," and that is a responsibility of institutional research. Similarly, Participant Eight discussed the need to understand, "not everyone is comfortable with data, and if you approach it in the correct way, you have a better chance of those results being implemented…and the data being

considered thoughtfully and seriously." When Participant Five began discussing the use of qualitative data from a student survey administration, it was stated that "sometimes people get defensive." Specifically, Participant Five cautioned against administrative leadership probing questions that can include, "Who was that? Who wrote that?" The use of data, according to Participant Five, should be used for improvement and views the use of data as an "opportunity to learn from it," even if one does not necessarily agree. Participant Five explained

> I think one of the big things is getting past the denial or defensiveness and being able to go in and say, really an honor, [that] this is our students. What can we learn from this, and how can we use this information to be better and get past that emotional stuff?

One limitation discussed by many participants was the need for more time and resources to engage the campus community to address data hesitancy and trust. Participant Seven expressed a desire for "more opportunity to do presentations and have those conversations around the data." Participant Seven asserted, "It would be nice to have more time for that, to really dig into the issues, not just respond to what's being asked of us. … to do more anticipation and providing more information proactively would be great." While Participant Eight affirmed the appropriate staffing level for institutional research, Participant Eight expressed an understanding that "some offices are not adequately staffed." What Participant Eight views as a positive to having an assessment office and institutional research area with adequate staffing levels is the opportunity to, "do more research" and proclaims, "that's truly important."

Position and the ability to enact change. While participants discussed the importance of building relationships and engaging in conversations about the data available to the institution, many of the participants expressed a need to address the

position of institutional research within the institution's leadership structure and the impact that it has on their ability to enact change. Participant One contends that institutional research is "not necessarily invited to the table." Participant One attributes the perception of institutional research as a "reporting arm" as the reason institutional research is not engaged in leadership and decision-making conversations. Participant Two attests to similar sentiment. Participant Two stated that "I've been at the Provost that we need to upgrade my title for more standing." Participant Eight also discussed functioning as a "peripheral department" and the impact that has on the role institutional research does not have within senior leadership. Participant Eight stated,

> We've not been looked at as the data professionals that we really are... Many of us have advanced degrees…We have data people who know how to analyze data, so I think that the field of higher education, in general, is seeing the value of IR professionals and what they can bring to analytics. I'd like to see more aspirational practices on campus where there is senior leadership for people, just kind of a data person at the senior cabinet-level…

Participant Eight also discussed the frustration of not being more involved in how data inform continuous improvement and overall institutional effectiveness. Participant Eight discussed providing the diversity office with a report of significant findings but being frustrated with no longer having institutional research as a part of the process. Participant Eight mentioned,

> What's frustrating for me is that, at that point, it's kind of out of my hands. Then it's up to the people that run the office to take these data and meaning from them, and then act upon those results… That is probably the bane of existence for most directors of institutional research is that the reach can only go so far.

Participant Eight also discussed how not being a part of senior leadership limits the understanding they have of how data are used. Participant Eight stated,

> I'm not a part of the senior leadership here, so I'm not sure how results have been implemented… What's missing is a cabinet position, that position that can take data, whose job is to take data, and also someone who is a higher education professional, and [can] marry those two concepts and be able to share findings at the cabinet level… there needs to be a person sitting at the table to impart that strategy and that perspective.

Participant Eleven conveyed a similar position about the need for institutional research to be a part of senior-level administration. Participant Eleven stated, "I'm a big believer in a Chief Institutional Research Officer, [and] that person should be a cabinet-level position. They should sit in on the highest-level conversations and all the highest-level decisions." Participant Ten expressed a change in the way institutional research is engaging with other stakeholders at the institution. Participant Ten views that institutional research offices are "responsible for much more than what is traditional IR work." Participant Ten sees institutional research at the institution collaborating with colleagues across the institution and a part of the planning process. Participant Ten is, "hopeful that it is the future of IR, that it becomes something that is less siloed and more a part of the daily life of the college." Having institutional research be more prominent and embedded into the decision structure of the college was also expressed as a need by Participant Ten. Participant Ten said,

> I think that it's incredibly important to have someone who has that level of visibility who can... [at the Vice President level] … present to leadership, who can share what's going on, but also who can respond to things in the room in real-time as they're happening.

Having institutional research as a part of senior-level administrative decisions could address the sentiment participants expressed about not knowing what happens to the data provided for decision-making. As explained by Participant Nine,

> A hard thing now is that IR people generate reports, and you don't even have the luxury of knowing if they ever actually get looked at, right? You

> can spend hundreds of hours trying to get something that's a stellar report, and it has a lot of depth within it, and equity is in it, but it's just forgotten about five minutes after you send it.

Although there was frustration expressed about not being a part of decision-making, overwhelmingly, participants agreed that data could drive and support equity efforts. Participant Eight expressed,

> I think it's the research that really makes a difference in the lives of students because we take that data, and we can improve programming; we can pinpoint what we need to do from an advising viewpoint, from a pedagogy viewpoint, and from a curricular viewpoint.

Similarly, Participant Ten views institutional research as having a "unique vantage point" and a "unique responsibility to find ways to share that back with the administration and the faculty in a way that is useful to them and can help them respond to student needs." In addition to the perspective of institutional research, Participant Six discussed the importance of senior-level administrators who view equity as important. Participant Six expressed that senior-level administrators actively engage in equity work, not due to the institutional mission or strategic priorities but "because they care about these things." According to Participant Eight, there is a need for more senior-level institutional research positions to provide insight during institutional decision-making. Therefore, the profession could benefit from advocacy from those within institutional research. As explained by Participant Eight,

> I'm hearing from some of my colleagues that I think there's this idea in higher ed., that if you've made it to Director of IR, that's the apex of your career, right there. IR has not done a good job of advocating for itself. It has not. I think there are individual efforts, but we as an industry need to need to provide the training and the wisdom for people to move ahead in their careers, and I know there are some efforts, pockets of effort here and there, but I think we could be doing a better job at that.

Many participants expressed the unique position of institutional research in understanding the current institutional state through data and the ability of that data to support student success. There is a clear desire for institutional research to be more a part of senior-level conversations and decisions and the importance this has to advancing equity.

Conclusion

This chapter provided the results of qualitative data collected in the study. The qualitative data were analyzed using open coding inductive analysis, where emerging themes from open-ended survey responses were determined, and results were presented. When asked what comes to mind when you think about the word 'equity,' twelve emerging themes developed with slightly over one-third of the responses, including the language of equal, same, or fair access and/or opportunities. When prompted on institutional research's role in advancing equity, many responses aligned with "number cruncher" – providing data and not being a part of institutional discussions.

Also presented in this chapter are the qualitative results of the participant interviews. The interviews resulted in five overarching themes; intrinsic prosocial motivation, leadership support and building relationships, skillset and professional development, external and internal dynamics, and the position of institutional research and the ability to enact change. The five themes outlined in this chapter were developed from iterative review and annotation of interview transcripts. Each theme gives insight into the overarching research question by presenting the perceptions of current institutional research practitioners in advancing equity, how researchers feel and if they have the capacity to advance equity, and the impact that the institutional researcher's social identities have on their perceptions.

CHAPTER 6

SUMMARY OF FINDINGS

The Equity Scorecard™, a framework grounded in Critical Race Theory, centralizes the use and discussion of institutional data for organizational change (Center for Urban Education, 2020b). As institutional research is primarily responsible for interpreting and disseminating institutional data analysis and results (Parnell et al., 2018), the profession can be critical to an institution's ability to engage in racial equity discussions. Past research suggests that institutional researchers become change agents in their institutions by creating awareness and resolving to change identified institutional problems (Swing, 2009). Given the importance of institutional research in providing the necessary data and its impact on racial equity discussions, as outlined in The Equity Scorecard™, this study applied a mixed-method approach to understanding the current perception of institutional research practitioners regarding advancing equity within higher education.

Quantitative and qualitative analyses were conducted on data collected through a survey instrument. Additional qualitative analysis was conducted using the data collected through virtual one-on-one interviews. This exploratory study sought to answer the overarching question of how institutional research practitioners perceive their role in advancing equity and the additional guiding question, do institutional researchers view themselves as change agents for advancing equity? The study also sought to further understand if institutional researchers feel equipped or have the capacity to advance equity at their institution, how perceptions and capacity vary by institution type, and how perceptions and capacity vary by institutional researcher demographics.

Over three-quarters of all respondents expressed moderate or extreme familiarity with equity. However, many of the respondents to the prompt, “reflecting on your experience in institutional research/effectiveness (IR/E), what comes to mind when you think about the word ‘equity,’ provided language that aligns with the definition of equality and not equity. Most responses that discussed equity did so within the context of the disaggregation, use, and structure of data to show inequity.

Overall, 71% of respondents indicated equity is very or extremely important to institutional research. Many participants discussed the importance of data in informing decisions and the accessibility of institutional research to data. Specifically, respondents view providing reports and visualizations of data disaggregated by race and ethnicity (mean score of 4.32) and information decision-making relevant to data disaggregated by race and ethnicity (mean score of 4.23) as being important to the institution. However, informing decision-making had a lower mean score when asked to report the frequency in which institutional researchers engage in the activity at their institution (mean score of 3.71).

The textual analysis of the survey prompt, “how do you feel people perceive institutional research’s role in advancing racial and ethnic equity on your campus,” provided responses that focused primarily on institutional research as a “number cruncher” as a “support, partner, and consult” and “variable” – meaning the perceptions depend on context. The perceptions expressed in the survey prompt align with the experiences expressed by participants in the interviews. While many of the participants discussed the intrinsic motivation for their efforts in advancing equity, the perception of institutional research as a “number cruncher” sometimes limited the involvement in

decision-making even though institutional research is uniquely positioned to have a holistic view of the effectiveness of the institution to supporting student success.

While institutional researchers view their role as capable of moving institutions forward in addressing inequity, participants in this study also discussed barriers to their efforts. Regarding whether institutional researchers feel equipped or have the capacity to advance equity at their institution, many discussed the limitations they face due to being understaffed and having competing priorities. Additionally, others discussed not having the appropriate role or set of responsibilities, with specific discussions throughout many of the interviews about not having a senior-level institutional research position.

While there is a limited significant difference in this study for an effect of institution characteristics, there were some significant differences in responses for institutional distinction. Those with one or more distinctions had significantly higher mean scores for the importance of providing reports and visualizations of data disaggregated by race and ethnicity. Additionally, institutions with one or more distinctions had higher mean scores for the institutional researcher's role and responsibilities in addition to personal abilities and skillset as a barrier to analyzing data and informing planning or decision-making for racial equity.

While there were few significant differences in responses by institution characteristics, including institution distinction, there were notable significant differences when evaluating responses by institutional researcher demographic variables. Specifically, those identifying as White had significantly higher overall mean scores for barriers to leading racial and ethnic equity conversations that include 'my abilities/skillset' and 'my level of comfort.' Further, there were significant differences in

responses by institutional researcher role regarding barriers. Personal ability and skillset significantly differed in the mean score response for analyzing data, informing planning and decision-making, and leading racial and ethnic equity conversations. Institutional researcher position also had significant mean differences by position for “my role/responsibilities” and “my level of comfort” as barriers to informing planning and decision making and leading racial and ethnic equity conversations.

Discussion of findings

The evolution of the institutional researcher's role and responsibilities concerning advancing equity and addressing factors of racism highlights the importance of understanding if there is agreement among institutional researchers. Knowing the current perceptions and expectations of institutional research professionals in addressing equity will inform how the profession can further advance these efforts and where there might be an opportunity for improvement within the profession. The Equity Scorecard™ is a model process and data tool involving data analysis and evaluation which challenges an institutional practitioner's understanding and engagement with racial equity issues. The disaggregation and presentation of student data by race and ethnicity are central to the Equity Scorecard™ model. However, institutional researchers participating in the Equity Scorecard™ were reluctant to discuss data by race and were hesitant to take on the role of facilitating conversations around race and ethnicity. This study was conducted to understand better institutional researchers' perceptions of advancing equity in higher education. The exploratory nature of this study can directly link to practice within institutions and with direct implications for the profession generally.

Overwhelmingly, institutional research professionals participating in this study indicated they are familiar with the concept of equity, with 75.7% indicating they are moderately or extremely familiar. Furthermore, 71.3% of respondents view equity as very or extremely important to the work of institutional research. While there is an appreciation for the importance of equity, with three-quarters of respondents expressing familiarity with the concept of equity, textual analysis of participants' initial thoughts when considering the term 'equity' suggests a misconception in terminology. Over one-third of responses include language that fits the definition of equality and not equity, which aligns with existing research that found differing concepts of equity among California institutional researchers (Lindstrom, 2019). Having differing concepts of equity among institutional researchers can inhibit collective action as a profession to address inequity in higher education. As noted in research discussing the role of institutional research in diversity, equity, and inclusion efforts, "lacking clear, shared, and articulated definitions creates a challenge for engaging in effective strategic planning" (McKinley & Dunnagan, 2021, p. 72). The results of this study indicate a misalignment in the general understanding of equity as opposed to equality. The misalignment may manifest in action by institutional research professionals that does not assess practice to address barriers and differences in outcomes. Instead, the actions or recommendations can seek to ensure fairness and neutrality.

Although there were differentiated responses about equity as a concept, most participants in the study agreed, with a mean score of 4.23, that institutional research should present data in support of racial and ethnic equity, even if it is not the priority of institutional leadership. Qualitative data collected during the interviews suggest this may

result from intrinsic prosocial motivations. Both qualitative and quantitative data collected suggest that the efforts of institutional research professionals may be hindered due to the perception of institutional research within higher education and the positionality within the organization. Overwhelmingly, when asked to discuss how others view institutional research and their role in advancing racial and ethnic equity, respondents to the survey expressed institutional researchers being viewed as "number crunchers," which parallels the traditional view of institutional research presented by Terenzini (2013) as Tier 1, the talented analyst. However, Terenzini expanded his discussion of the tiers of intelligence to include institutional researchers in the position to serve as a resource in the decision-making process.

While institutional research is viewed as critical to the ability of institutions to make data-informed decisions to advance equity (Peters, 2020), what became apparent in analyzing the results was the existence of internal and external barriers to institutional researchers functioning as a resource in the decision-making process for racial and ethnic equity. An internal barrier discussed by interview participants in this study included a lack of cabinet-level positions held by institutional researchers, which can hinder efforts, as institutional research is "not necessarily invited to the table." Additionally, institutional research capacity had the highest overall mean score as a barrier to analyzing data to evaluate racial and ethnic equity, leading or contributing to racial and ethnic equity conversations, and informing racial and ethnic equity-related planning and decision-making. When analyzing barriers by the respondent race and ethnicity, those who do not identify as White had a significantly higher overall mean score for a personal level of comfort as a barrier to informing planning and decisions. Those who do not

identify as White had significantly lower overall mean scores for capacity as a barrier to informing planning/decisions and for “my abilities/skillset” and “my level of comfort” as barriers to leading conversations.

Interview participants in this study discussed barriers that align with the data captured in the survey. One finding from textual analysis of study interviews is a need for more staff and time to engage in equity work that extends beyond the duties of providing data for mandated reporting. Furthermore, there was an expressed need for additional skills and professional development related to supporting racial equity at higher education institutions from the institutional research profession. Previous research suggests an inability for academics to ask critical questions in understanding higher education racialized inequities (Bensimon & Bishop, 2012). Furthermore, the need for additional development parallels the sentiment expressed by an institutional research professional implementing the Equity Scorecard™ at a Community College in which the person stated the discussion of racially disaggregated data was “uncharted territory professionally” (Bensimon et al., 2012, p. 203). As stated by a participant in this study, when engaging in racial equity conversations, they can “get flustered.” While they may have the specific skillset needed, they “just really don’t feel like it’s adequate.”

External factors also influenced institutional researchers' ability to support efforts for racial and ethnic equity. Discussed explicitly in the survey and among interview participants were the influence of accreditors and the current local political landscape. Multiple interview participants discussed the importance of their institution's accreditor as the support for the institution's awareness of equity. Furthermore, accreditors were also credited with providing professional development opportunities for institutional

researchers to learn more about how the institution can address inequities. Also noted in the survey were responses that included, “Accreditors have sought to open the equity discussion….” The influence of the local political landscape was also discussed. As stated in the survey by a respondent, “We live in Florida, and the institution has good intentions, but new laws make some of these conversations difficult.” A similar sentiment was expressed by interview participants, including Participant Three, who discussed the potential negative impact equity work in data collection could have on state appropriations.

As more data are collected by colleges and universities across the United States, there are opportunities to better understand, through critical analysis of data, ways in which higher education institutions can address inequity. Institutional research is the primary unit responsible for disseminating data and interpreting results (Parnell et al., 2018). Understanding institutional researchers' perception of supporting and engaging in advancing equity at their institution will provide a better understanding of how to elevate equity effort and practice.

With an increased desire for data-informed decision-making, institutional research is becoming a more critical aspect of the transformative institutional process. As evident in the Equity Scorecard™, data can help engage institutional stakeholders in conversations about racial and ethnic equity. Furthermore, prior research suggests the ability of institutional researchers to be change agents within their institution is directly related to an institution’s measure of their effectiveness (Knight, 2010; Knight et al., 1997). However, minimal prior research assesses institutional researchers' perceptions, experiences, or expectations in addressing and understanding equity in higher education.

Therefore, this exploratory study sought to understand better how institutional researchers perceive their role in advancing equity, their current practices, and in what ways, if any, are influenced by institutional and institutional researcher characteristics.

The findings of this study offer both quantitative and qualitative results that provide a picture of the overall perception of institutional researchers. Participants in this study outline the importance of equity to their work in higher education and identify barriers to their efforts. Further, they provide personal accounts of their motivations and the internal and external influences on equity efforts within the institution. The findings of this study provide several recommendations. A detailed overview of these recommendations is provided in the subsequent section.

Recommendations for future practice

The results of this study can assist institutional researchers in understanding the current perceptions of others within the profession as they relate to equity. The institutional research profession can also identify areas for additional professional development and advocacy opportunities. The quantitative and qualitative data have important implications for the profession and the ability of institutions to better support student success and address inequities through data-informed decisions. Examining the data included in this study could help the future of institutional research and the profession's effectiveness in addressing racial and ethnic inequities often found in higher education.

Based on the results of this study, there are several recommendations for institutional research as a profession in support of racial and ethnic equity in higher education. First, the Association for Institutional Research (AIR) and regional affiliate

associations should provide additional professional development opportunities for institutional research professionals on equity. Second, institutional researchers must advocate for advancement in leadership positions within higher education institutions. Third, institutional research offices need appropriate staffing to support equity efforts. Fourth, institutional researchers should collectively work with internal and external stakeholders for equity.

First recommendation. There is a need to address the overall understanding of equity within the profession. Institutional researchers responding to a prompt about the concept of equity provided responses aligned with the definition of equality, not equity. Many of the comments discussed fair treatment or providing the same opportunities. Equity, however, provides opportunities and access for all based on individual or group needs while eliminating barriers that prevent the achievement of one's full potential. While equality in education ensures similar opportunities to ensure initial positive educational outcomes, equity enables institutions to confront unfair policy, practice, and discriminatory treatment to address inequitable outcomes.

Further, many interview participants expressed a need for additional professional development or the importance of professional development specifically focused on equity in their ability to understand and support racial and ethnic equity within their institution. The Association for Institutional Research (AIR) and regional affiliate associations should seek to provide additional training to members with less of a focus on the technical application of data analysis and more on equity as a concept and the ability to be a change agent using data.

Second recommendation. It became apparent through the survey data analysis and conversations with participants that institutional research could benefit from being positioned within the institution's leadership structure. Many expressed frustrations about not being included in important institutional conversations at the cabinet level. There is a need for the institutional research profession to advocate for such positions at higher education institutions. As demonstrated in survey responses, there is often a misunderstanding of the importance and value of institutional research beyond "number crunching." Having positions beyond director that include, for example, Vice President or Vice Provost, would ensure those with the necessary access to and skillset in the use of data are included in institutional conversations, especially those related to equity.

Third recommendation. Institutional research offices must be staffed appropriately to ensure time and resources are available beyond mandated reporting requirements to include equity efforts. The limitations due to office size and capacity are apparent in the quantitative and qualitative data analyzed in this study. Many participants expressed frustration with not having adequate staffing to truly engage in developing relationships and partnerships across the institution to support equity. Institutions must create a structure where the institutional research office is appropriately staffed to provide the time needed to engage in equity work.

Fourth recommendation. Institutional research and affiliate professional organizations such as AIR should coordinate with internal and external stakeholders to advance equity. Building relationships was expressed as an important aspect of advancing equity. Institutional researchers should work to build these relationships as a means of supporting their efforts. Furthermore, external entities such as accreditors and state

systems can also support higher education institutions in their efforts to ensure equity. There is an opportunity for further partnership between AIR and regional affiliate associations to work with accreditors, other higher education professional associations, and organizations supporting and leading equity efforts in higher education. These partnerships provide external motivations that can further develop and support the equity efforts of institutional researchers in higher education.

Limitations

There are limitations to both the qualitative and quantitative data collected. The focus of this study was limited to the discussion of racial and ethnic equity and did not discuss other areas of equity, such as gender identity, disability status, economic standing, or sexual orientation. The decision to focus this study on racial and ethnic equity was to limit the scope and subsequent time and resource requirement of study participants. Furthermore, existing research on racial equity and institutional research, specifically using the Equity Scorecard^{TM}, provided an opportunity to expand on the existing literature.

A second limitation of this study is the focus on those individuals who identify as institutional researchers. Some personnel provides an institutional research function to institutions that may not identify as an institutional researcher and therefore are not a part of regional institutional research professional organizations. Therefore, those individuals would have needed to receive an invitation to participate in this study. Additionally, although racial justice through racial equity is occurring worldwide, this study was limited to institutional research professionals within the United States to explore racial equity practice and understanding within the context and histories of the country.

Lastly, a limitation of this study is the use of self-reported data and the potential for social desirability bias in both the survey responses and interviews. Due to the sensitivity of the subject matter of this study, there is a possibility that responses to the survey and interviews may not reflect the true beliefs or experiences of participants. Every effort was made to ensure clear communication of the anonymity of survey responses and the confidentiality of interview participants to limit the potential impact of social desirability in responses.

Suggestions for future research

Higher education and the institutional research profession would benefit from further research that expands the findings from this study. There is an opportunity to further our knowledge of institutional researchers and their role in advancing equity. Replicating this study to include post-secondary institutions outside of the United States would give a global perspective to the equity activities of institutional research professionals within the context of their respective countries. Researchers should also consider further exploring the relationship between institutional research and senior-level institutional leadership. Specifically, there is an opportunity to explore how senior-level leadership, with or without institutional research at that position, is viewed as critical to the institutional efforts toward equity.

Another suggestion for future research is to explore the impact of the intrinsic motivation of institutional research professionals on their understanding and support of equity. While the impact of intrinsic motivations is beyond the scope of this study, there was evidence that this was an impetus for some. Future studies could explore the relationship between motivation and action among institutional researchers.

Lastly, a future study should understand the influence institutional research has on successful equity initiatives within an institution of higher education. Specifically, additional literature is needed to provide a framework by which institutions can model engaging and partnering with institutional research offices to support equity. With this research, institutions could adopt or adapt the framework, demonstrating an avenue for success.

Conclusion

Higher education institutions in the United States are central to discussing and solving many of the inequities in American society. As such, exploring how institutions and those within the organization support equity efforts is crucial. Central to many decisions occurring at institutions is the use of data, with institutions relying on institutional research offices and their personnel to provide these data.

In this study, data were analyzed to understand the perceptions of current institutional research practitioners in advancing equity, including if institutional researchers view themselves as change agents for advancing equity and if institutional researchers feel equipped or have the capacity to advance equity at their institution. Generally, institutional researchers did feel supporting equity efforts was important to their work, largely by providing disaggregated data to relevant stakeholders. However, there was a desire among many institutional researchers to take a more active role in creating change in support of racial and ethnic equity.

While institutional researchers must continue to provide data critical to the institutional understanding of inequities, there is an opportunity for the profession to seek a more active position. A critical aspect of institutional research's ability to do so is

adequate office staffing and engaging in institutional leadership conversations. Higher education institutions have put forth many efforts to address inequity. However, inequity persists. Institutional research has a responsibility to guide institutions as they support progression in the nation's social justice journey.

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APPENDIX A

TEMPLE UNIVERSITY IRB RESPONSE

Temple University
Office of the Vice President for Research

Research Integrity & Compliance Institutional Review Board

Student Faculty Center Phone: (215) 707-3390

3340 N. Broad Street, Suite 304 Fax: (215) 204-4609
Philadelphia PA 19140 e-mail: irb@temple.edu

Approval for a Project Involving Human Subjects Research that is Approved as Exempt

Date: 02-Jun-2022

Protocol Number:	29623
PI:	JOSEPH DUCETTE
Review Type:	EXEMPT
Approved On:	02-Jun-2022
Risk:	Minimal risk
Committee:	A1
Sponsor:	NO EXTERNAL SPONSOR
Project Title:	Where is Institutional Research as it Relates to Equity Issues?

The IRB approved the protocol 29623.

The study was approved under Exempt review. The IRB determined that the research **does not require a continuing review**, consequently there is not an IRB approval period.

As this research was approved as Exempt, the IRB will not stamp the consent or assent form(s).

Note that all applicable Institutional approvals must also be secured before study implementation. These approvals include, but are not limited to, Medical Radiation Committee ("MRC"); Radiation Safety Committee ("RSC"); Institutional Biosafety Committee ("IBC"); and Temple University Survey Coordinating Committee ("TUSCC"). Please visit these Committees' websites for further information.

Finally, in conducting this research, you are obligated to submit the following:

- **Amendments - Any changes to the research that may change the Exempt status of this study must be reviewed and approved by the IRB prior to implementation.** Examples of such changes are: including new, sensitive questions to a survey or interview, changing data collection such that de-identified data will now be identifiable, including an intervention in the methods, changing variables to be collected from medical charts, decreasing confidentiality measures, including minors or adults lacking capacity to consent as subjects when previously only adults with capacity to consent were to be enrolled, no longer collecting signed HIPAA Authorization, etc. Please reach out to the IRB Staff with any questions about if a change to the study warrants an Amendment.
- **Reportable New Information -** Using the Reportable New Information e-form, report new information items such as those described in HRP-071 Policy – Prompt Reporting Requirements to the IRB **within 5 days**.
- **Closure report -** Using a closure e-form, submit when the study is permanently closed to enrollment; all subjects have completed all protocol related interventions

and interactions; collection of private identifiable information is complete; and analysis of private identifiable information is complete.

For the complete list of investigator responsibilities, please see the HRP–070 Policy – Investigator Obligations, the Investigator Manual (HRP-910), and other Policies and Procedures found on the Temple University IRB website: https://research.temple.edu/irb-forms-standard-operating-procedures.

Please contact the IRB at (215) 707-3390 if you have any questions.

APPENDIX B

SURVEY RECRUITMENT EMAIL

Email Subject: IR and Equity Research Study

Dear <Association Title> Member,

My name is Courtney Raeford. I am a doctoral student at Temple University, and I kindly request your participation in a doctoral study titled: *Where is Institutional Research as it Relates to Equity?*

The study consists of a **15-minute survey**. At the end of the survey, you have the opportunity to volunteer for a follow-up interview to understand better how institutional research professionals advance equity in higher education.

There is no compensation for participating in this study. However, your participation is valuable to the research, and the findings could lead to a greater understanding of the institutional research field.

Please use the link below to start the survey (or copy and paste the link into your Internet browser). By completing the survey, you agree to be part of the study.

Qualtrics Survey link: <Link>

For more information about this study, please contact Courtney Raeford at courtney.raeford@temple.edu.

Thank you,

Courtney Raeford, Doctoral Candidate, Doctor of Education, Temple University

APPENDIX C

SURVEY INSTRUMENT

Institutional Research Survey on Equity

You are being invited to participate in a research study titled ***"Perceptions of Institutional Research Practitioners in Advancing Equity in American Higher Education."*** This study is being done by ***Courtney Raeford***, a Doctoral candidate at Temple University. You were selected to participate in this study because you were identified as a current institutional research professional at a U.S. degree-granting postsecondary institution.

Purpose of this study:

The purpose of this research study is to better understand the perceptions of institutional research professionals in advancing equity in higher education.

Who can participate:

Participants in this research study must be 18 years or older and currently be employed as an institutional research (institutional effectiveness) office leader/director, associate/assistant director, and analytical staff within U.S. private and public degree-granting colleges and universities.

Procedure:

If you agree to take part in this study, you will be asked to complete an online

survey/questionnaire. This survey/questionnaire will ask about your views as an institutional research professional in advancing equity at your current institution. It will take you approximately 15 minutes to complete.

Potential benefits:

You may not directly benefit from this research. However, we hope your participation in this study will provide a better understanding of how institutional research can better support equity efforts at institutions throughout the United States.

Risks of being in this study:

We believe there are minimal risks associated with this research study; however, a risk of breach of confidentiality always exists, and we have taken steps to minimize this risk, as outlined in the section below.

Confidentiality:

To the best of our ability, your answers in this study will remain confidential. We will minimize any risks by not collecting any personally identifiable information unless you voluntarily offer personal or contact information in any of the comment fields. Additionally, your responses will be combined with those of many others and will only be reported in the aggregate to further protect your anonymity.

Compensation for participation:

There will be no money or other compensation provided for participating in this research study.

Voluntary nature of this study:

Your participation is voluntary, and you may refuse to participate or withdraw at any time. There are no penalties or consequences of any kind if you decide that you do not want to participate. However, data collected up until you decide to no longer participate may be used in this study.

Contacts and Questions:

If you have questions about this project or if you have a research-related problem, you may contact the researcher, Courtney Raeford, at courtney.raeford@temple.edu**.** If you have any questions concerning your rights as a research subject, you may contact Temple University's Human Research Protection Program (HRPP) at **irb@temple.edu**.

By clicking "I agree" below, you are indicating that you are at least 18 years old, have read this consent form, and have agreed to participate in this research study. You are free to skip any question that you choose. If you'd like to leave the survey at any time, just click the "Exit this Survey" button. The "Exit this Survey" button is in the upper right corner. Click the "Next" button (below) to get started with the survey.

Please print a copy of this page for your records.

- ○ I Agree
- ○ I Do Not Agree

Please select your age range

- ○ Less than 30 years old
- ○ 30-39 years old
- ○ 40-49 years old
- ○ 50-59 years old
- ○ 60-69 years old
- ○ 70 years old or older
- ○ Prefer not to disclose

Please select your gender identity

- ○ Male
- ○ Female
- ○ Non-binary/third gender
- ○ Prefer not to disclose

Please select your race/ethnicity (select all that apply)

- ○ Asian
- ○ Black/African American
- ○ Hispanic/Latinx
- ○ Native Hawaiian/Other Pacific Islander
- ○ White
- ○ American Indian/Alaska Native
- ○ ⊗ Prefer not to disclose

Please select your highest degree earned

- ○ Doctorate
- ○ Masters
- ○ Bachelors
- ○ Associates
- ○ High School
- ○ Other
- ○ Prefer not to disclose

Please select what most closely describes your current position in Institutional Research (IR)/Institutional Effectiveness (IE)

- ○ **Director/Office Leader** (ex. “Director of Institutional Research” or “Associate Vice Provost of Institutional Effectiveness”; leads the institutional research office).
- ○ **Assistant/Associate Director** (ex. “Associate Director of Institutional Research”; assists in managing institutional research offices)
- ○ **Analytical staff** (ex. “Research Analyst”; primary responsibilities are analysis and reporting)
- ○ **Technical staff** (ex. “SQL programmer”; primary responsibilities are technical tasks like software programming and database management)
- ○ **Other** _____

Please indicate approximately how many total years you have worked in the following

	Total Years
Post-secondary education	
Institutional Research/Effectiveness	
Current institution	

Please select your current institution's sector

- ○ Public
- ○ Private, non-profit
- ○ Private, for-profit

Please select your current institution's type

- ○ Less than 2-year
- ○ 2-year
- ○ 4-year or above

Please select what most closely describes your current institution's size

- ○ Less than 1,000 students
- ○ 1,000 - 4,999
- ○ 5,000 - 9,999
- ○ 10,000 - 19,999
- ○ 20,000 or more students

Please select any applicable distinctions of your current institution (select all that apply)

- ○ Asian American and Pacific Islander Serving Institution (AAPISI)
- ○ Hispanic-Serving Institution (HSI)
- ○ Historically Black College/University (HBCU)
- ○ Predominately Black Institution (PBI)
- ○ Tribal College/University (TCU)
- ○ Religiously Affiliated
- ○ Single-gender Institution
- ○ Other (please specify)
- ○ ⊗None of the above

Reflecting on your experience in institutional research, what comes to mind when you think about the word ‘equity’?
(OPEN END)

_____
_____
_____

How familiar are you with the concept of equity as it applies to the experiences and treatment of people of different races and ethnicities in America?

- ○ Not at all familiar
- ○ Slightly familiar
- ○ Somewhat familiar
- ○ Moderately familiar
- ○ Extremely familiar

How important is racial equity to your work in institutional research?

- ○ Not at all important
- ○ Slightly important
- ○ Moderately important
- ○ Very important
- ○ Extremely important

In your current role, how would you describe **the level of importance** in providing the following to your institution?

	Never	Rarely	Occasionally	Frequently	Very Frequently
Reports/visualizations of data disaggregated by race/ethnicity					
Oral presentations of data disaggregated by race/ethnicity					
Convening discussions of data disaggregated by race/ethnicity					
Informing decision-making relevant to data disaggregated by race/ethnicity					

In your current role, how would you describe **the frequency** with which you provide the following to your institution?

	Never	Rarely	Occasionally	Frequently	Very Frequently
Reports/visualizations of data disaggregated by race/ethnicity					
Oral presentations of data disaggregated by race/ethnicity					
Convening discussions of data disaggregated by race/ethnicity					
Informing decision-making relevant to data disaggregated by race/ethnicity					

When answering the questions below, please consider the following definition of equity:

Equity refers to an environment in which people are treated differently with the intention of reaching the same goal for all people. Equity recognizes that people start with a different set of factors in their lives and, therefore, may need different things to succeed. Equity differs from equality in that equality implies everyone is treated the same way.

Please indicate your **level of agreement** with the following statements

Institutional research/effectiveness (IR/E) should lead campus conversations on racial and ethnic equity based on the data available to them.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

Institutional research/effectiveness (IR/E) should present data in support of racial and ethnic equity even if it is not the priority of institutional leadership (e.g., Provost, President, Chancellor).

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

Institutional research/effectiveness (IR/E) has the time and resources needed to focus on providing racial and ethnic equity data and informing the institutional decision-making process.

- ○ Strongly disagree
- ○ Somewhat disagree
- ○ Neither agree nor disagree
- ○ Somewhat agree
- ○ Strongly agree

How much of a barrier is the following to you **analyzing data to evaluate racial and ethnic equity** at your current institution?

	None at all	A little	A moderate amount	A lot	A great deal
My abilities/skillset					
My level of comfort					
My role/responsibilities					
Institution culture/Lack of support					
Institutional priorities					
IR/IE office capacity (e.g., staffing/time)					
Other (please specify)					

How much of a barrier is the following to you **leading or contributing to racial and ethnic equity conversations** at your current institution?

	None at all	A little	A moderate amount	A lot	A great deal
My abilities/skillset					
My level of comfort					
My role/responsibilities					
Institution culture/Lack of support					
Institutional priorities					
IR/IE office capacity (e.g., staffing/time)					
Other (please specify)					

How much of a barrier is the following to you **informing racial and ethnic equity-related planning and decision-making** at your current institution?

	None at all	A little	A moderate amount	A lot	A great deal
My abilities/skillset					
My level of comfort					
My role/responsibilities					
Institution culture/Lack of support					
Institutional priorities					
IR/IE office capacity (e.g., staffing/time)					
Other (please specify)					

How do you feel people perceive institutional research's role in advancing racial and ethnic equity on your campus?

_____
_____

Please provide any last thoughts you have on institutional research's role in advancing equity, including any reflections on experiences you have that are relevant to this topic.

_____
_____

You have reached the end of the survey. Would you be interested in participating in a 30-to-60-minute follow-up online interview to discuss your experience with equity in institutional research?

If you are interested, you will be redirected to a new form to provide your contact information. **No connection will be made between your responses to this survey and your contact information**.

- ○ Yes, I am interested.
- ○ No, I am not interested.

APPENDIX D

INTERVIEW GUIDE

The interview guide for voluntary participation in a one-on-one interview is outlined below:

Introduction: Good morning (afternoon). My name is Courtney Raeford. Thank you for coming. This interview is to learn more about your experiences in institutional research. There are no right or wrong or desirable or undesirable answers. I would like you to feel comfortable with saying what you think and how you feel.

This interview is scheduled to take approximately 30 to 60 minutes. All information discussed will be held confidential, your participation is voluntary, and you may stop at any time if you feel uncomfortable. Thank you for agreeing to participate. During this time, I have several questions that I would like to cover. If time begins to run short, it may be necessary to interrupt you to push ahead and complete this line of questioning. Do you have any immediate questions or concerns I can address before we begin?

Interviewee Background:

- What is your current title?
- How long have you been in your current position?
- How long have you been at your current institution?

Equity Perspective:

- I am now going to ask you a few questions about equity and your role in institutional research. The word equity means different things to different people, how do you understand equity?
    - *Probe*: How would you define equity?

- What does equity look like as it relates to the functions of your job?
    - *Probe*: In what way is equity accomplished through institutional research?
- In providing disaggregated student data by race and ethnicity, do you facilitate conversations at your institution?
    - *Probe:* Why (or why not)?
    - *Probe:* How do you navigate these conversations?
- What professional development opportunities have you participated in as it relates to advancing racial equity?
    - *Probe:* Why do you/do you not participate in these opportunities?
- What change do you ideally want to see as it relates to your role and advancing equity?
    - *Probe:* Why do you want this specific change?
    - *Probe:* Why do you not see a need for change?