The Relationship Between the Diversity of Illinois Community College Staff and Graduates: An Exploratory Quantitative Study

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ABSTRACT

THE RELATIONSHIP BETWEEN THE DIVERSITY OF ILLINOIS COMMUNITY COLLEGE STAFF AND GRADUATES: AN EXPLORATORY QUANTITATIVE STUDY

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The present study sought to answer the research question, To what extent is the staff racial demographic profile, as a numeric representation of staff diversity, related to the diversity of graduating cohorts from public community colleges in Illinois? The exploratory quantitative study used five years of Integrated Postsecondary Education Data System (IPEDS) survey data for both the staff and graduate populations. The years connected to staff represented the years the graduating cohorts entered college, and the years connected to graduates represent 150\% of the normal time to their degree following the year of entry (cohort year). The sample was comprised of five years of data from each of the 48 community colleges in Illinois, which generated 240 observations in the data set.

The study used Pearson’s product moment ($r$) to test for relationships between the ratios of each demographic group (as defined by IPEDS) in the staff and graduate populations. Several statistically significant findings were discovered, which can be grouped into general themes: a) The ratio of staff in a particular racial category was positively correlated with the ratio of graduates in the same racial category. b) The ratio of staff in any racially marginalized category
was positively correlated with the ratio of graduates in any racially marginalized category. c).
The ratio of racially minoritized staff was negatively correlated with the ratio of White graduates. d). The ratio of White staff was negatively correlated with the ratio of graduates in all racially minoritized categories. Additional study is needed to determine the cause of these relationships as well as to determine the best ways to support racially minoritized staff and students to improve equity in the higher education workforce and student outcomes.
THE RELATIONSHIP BETWEEN THE DIVERSITY OF ILLINOIS COMMUNITY COLLEGE STAFF AND GRADUATES: AN EXPLORATORY QUANTITATIVE STUDY

BY

RACHEL BOLDMAN
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A DISSERTATION SUBMITTED TO THE GRADUATE SCHOOL
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First, I must acknowledge that I should not have been able to afford, spend the time on, excel in, or finish this program. But GOD. The word “grateful” falls short.

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DEDICATION

To the staff who have impacted so many students’ lives, including mine
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PREFACE

The aim of this dissertation of practice was to investigate the relationship (or lack thereof) between the diversity of community college (non-faculty) staff and the diversity of graduating cohorts of students in Illinois. The exploratory quantitative study used data from the Integrated Postsecondary Education Data System (IPEDS) to determine the racial diversity of staff at each community college over the course of five years (independent variable) and the racial diversity of students who entered college in those years and graduated within three years of entry (dependent variable). Racial diversity was operationalized by using the ratio of each racial demographic group (as defined by IPEDS) to the whole population. The data set was comprised of all 48 community colleges in Illinois. The chapters that follow represent the research process from the proposal stage to a publishable article that includes the findings of my study and lastly a scholarly reflection on my journey.

Chapter One is my dissertation proposal that was defended in March of 2022. This chapter contains the original plans for my research study. This was a correlational study using Pearson’s product moment correlation to determine if a relationship existed between the IVs and DVs. Hurtado et al.’s (2012) multicontextual model for diverse learning environments (DLE) provided the theoretical framework for the study. For the most part, the final study proceeded as planned. Chapter Two is a publishable paper that will soon be submitted to a scholarly journal. The chapter introduces some additional context to the study by adding information on higher education in Illinois. The findings revealed several statistically significant relationships, in varying strengths, that can be grouped into general themes: a) The ratio of staff in a particular
racial category was positively correlated with the ratio of graduates in the same racial category.
b) The ratio of staff in any racially marginalized category was positively correlated with the ratio of graduates in any racially marginalized category. c). The ratio of racially minoritized staff was negatively correlated with the ratio of White graduates. d). The ratio of White staff was negatively correlated with all the ratio of graduates in all racially minoritized categories.

Chapter Three offers personal scholarly reflections on my dissertation process. There were many twists, turns, and detours in the journey that aided my learning process, including a previous attempt at a different dissertation topic and attempting to explore graduation rate instead of demographic representation of the graduating cohort. Chapter Three explores what I learned through the Ed.D. program, the dissertation process, and through the study itself. Some of the most salient applications to my future research endeavors and professional practice include the importance of remaining flexible in research and in general matters of work and life, as well as the need to continue asking critical questions about staff and student equity at my institution.
Chapter 1

THE RELATIONSHIP BETWEEN THE DIVERSITY OF ILLINOIS COMMUNITY COLLEGE STAFF AND GRADUATES: AN EXPLORATORY QUANTITATIVE STUDY

Introduction

It is increasingly important for individuals in the United States to earn a postsecondary credential, and over the past few decades, more adults have achieved this milestone than ever before (Espinosa et al., 2019). However, overall degree completion rates remain lower among racially minoritized individuals than Whites (Espinosa et al., 2019). These inequities persist despite an increase in attendance in the Hispanic or Latinx college student population and a decrease in the population of Whites in the United States overall (Espinosa et al., 2019). Additionally, Black students have the lowest completion rate of all racial categories (Taylor et al., 2020). At community colleges, where many racially minoritized students choose to pursue their education, graduation rates fall below those of four-year colleges (Community College Research Center [CCRC], n.d.) and are dropping steeply for racially minoritized students (Causey et al., 2020). In the current political climate that favors accountability for student outcomes, college administrators should be concerned about these statistics and attend to equitable student outcomes. To increase and improve student retention and persistence, it is important for students to feel a sense of belonging and connection to their institution. When students feel like they belong, they tend to stay through to graduation (Bowman et al., 2019;
Briggs et al., 2012; O’Keeffe, 2013; Pittman & Richmond, 2008; Ribera et al., 2017; Sevinç & Gizir, 2014; Spanierman et al., 2013; Strayhorn, 2019; Van Orden et al., 2008). A key part of developing that sense of belonging is seeing one’s identity represented on campus (Strayhorn, 2019). When students feel ostracized and outcast because of their identity, they do not stay at their institution (Hurtado et al., 2012; Lascher & Offenstein, 2012). Many studies on the sense of belonging of racially minoritized students emphasize student-focused interventions, interactions, and engagement (Baleria, 2021; O’Keeffe, 2013; Russell & Jarvis, 2019; Strayhorn, 2008; Wilson et al., 2015). Some discuss the importance of the interactions between students and faculty (Guiffrida, 2005; Loveland, 2018; Museus et al., 2017). However, with few faculty of color in the classroom or administrators in the cabinet (Taylor et al., 2020), there is a lack of representation of these students’ identities in many of the more visible and powerful positions within an institution. Little research has focused on how the racial composition of non-faculty employees, or staff members, which is typically the most diverse employee group on campus (Taylor et al., 2020) relates to racially minoritized students. The diversity of the faculty falls far behind the representational diversity of the student body at most colleges (Taylor et al., 2020). Because interacting with faculty most often means interacting with a White male, racially diverse staff may play an important role in the success of the students whose identities they represent.

Staff are the most diverse employee group at colleges and universities (Taylor et al., 2020), but they are often marginalized and left out of campus decision making (Hurtado et al., 2012; Kezar & Posselt, 2020). It is possible that the stress racially minoritized students experience is also experienced by employees (Brewer & Clippard, 2002; Hagedorn, 2006; Hurtado et al., 2012), but the research that supports this is scarce and mostly focused on faculty, rather than the more diverse, yet marginalized, staff. It is reasonable to conclude from existing
research about students that, if the stress felt by racially minoritized students that leads to their attrition (Lascher & Offenstein, 2012) is also felt by employees, it may also lead to employee attrition. The lack of research in this area is disheartening and is further evidence of the marginalization of racially minoritized students and staff. Emerging research suggests that a campus climate that supports diversity and engages racially minoritized identities benefits faculty, staff, and students (Carter, 2006; Hurtado et al., 2012; Museus, 2014; Museus et al., 2017). This type of supportive environment is especially salient in the context of community colleges, which are often the institution of choice for students of racially minoritized identities and other underrepresented groups (e.g., first-generation college students).

**Purpose Statement**

The purpose of this study is to explore the correlational relationship between staff racial demographic profile, a numeric representation of institutional diversity, and the racial demographic profile of graduating cohorts from public community colleges in Illinois from 2016-2020. The Illinois Board of Higher Education has centered equity as a goal in their most recent strategic plan and is looking for ways to restructure performance funding based on student outcomes (Illinois Board of Higher Education [IBHE], 2021). By exploring the relationship between staff diversity and the diversity of graduating community college students in Illinois, my research contributes to this goal by assessing the current state of equity in two marginalized populations (racially minoritized students and staff) and highlighting the importance of both populations to current research on equity in higher education.

The research question the study seeks to answer is: *To what extent is the staff racial demographic profile, as a numeric representation of staff diversity, related to the diversity of graduating cohorts from public community colleges in Illinois?* Specifically, staff racial
demographic profile is defined by their race/ethnicity category as reported by the institution to the Integrated Postsecondary Education Data System (IPEDS), which includes American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, Black or African American, Hispanic or Latino, White, two or more races, unknown race/ethnicity, and nonresident alien, proportionate to the total number of staff employees. The graduating cohort’s racial demographic profile is the number of students in each racial category graduating within 150% of the normal time to completion proportionate to the total number of graduating students from the cohort. This study employs as a framework Hurtado et al.’s (2012) diverse learning environment theory. Hurtado et al. (2012) assert that the campus climate for diversity impacts, and is impacted by, the community (in this case students and staff). A relationship between the variables would support the model, with campus climate for diversity as one potential factor influencing the relationship.

**Literature Review**

It is well documented in the United States that racially minoritized, low-income, and first-generation college students complete college at lower rates than their White, higher income, continuing-generation peers (Demetriou et al., 2017; Kezar & Kitchen, 2019; Powell & Scott, 2013; Renbarger & Long, 2019). Yet, a postsecondary credential is increasingly necessary for social and financial stability, upward mobility, and success (Hubbard, 2017; Institute for Higher Education Policy, 2012). Since 1990, the college participation rate of students from the lowest income quartile has increased, but it is still lower than the rate of students in the highest quartile (Cahalan et al., 2020). This divide between socioeconomic status trickles down into completion rates as well. While just over three in five continuing-generation students from a higher socioeconomic background attain a bachelor’s degree within six years of first college enrollment,
only about one in five low-income first-generation students do (Cahalan et al., 2020). Many students who would identify as first generation and low income, would also identify as students of color from racially minoritized backgrounds. When considering students of color as an identity group, it is apparent that they also face stark inequities when it comes to college enrollment and completion (Cahalan et al., 2020; Murillo et al., 2017; Pitre & Pitre, 2013; Quinn et al., 2019; Renbarger & Long, 2019).

According to a National Center for Education Statistics (NCES) report (de Brey et al., 2019), in the fall of 2018, of all college students, over half identified as White, less than 12% identified as Black, 20% identified as Hispanic, 6.5% identified as Asian, and less than one percent identified as American Indian/Alaskan Native. Almost four percent identified with two or more races or as nonresident aliens. When aggregated, the ratio of White students to non-White students is almost 1:1, but when parsing out the individual races within the non-White category, the disparities are apparent. It is no surprise, then, that the rates of degree attainment are also inequitable not just among all students of color, but also between and across racial categories.

Black and Hispanic students, especially, face inequity in degree attainment. Although Black Americans represented 13% of the U.S. population in 2018, only 10% of Black Americans obtained a bachelor’s degree and 13% an associates degree (Cahalan et al., 2020). And although Hispanic Americans made up 18% of the population in 2018, and are a rising population in higher education attendance, only 14% obtained a bachelor’s degree, and 23% an associates degree from a community college (Cahalan et al., 2020). With community college students representing over 40% of all U.S. undergraduates (American Association of Community Colleges, 2021), and a large proportion of racially minoritized students attending community
colleges (Cahalan et al., 2020), low associate degree completion rates among racially minoritized students are especially alarming.

Given the current state of inequity in degree completion for racially minoritized students, administrators are rightfully investigating the source of disparities at their own institutions in an effort to make education more equitable. Racial disparities, however, are not only apparent in an institution’s student population, they are also present in the employee population (Taylor et al., 2020). Typically, more attention is paid to student outcomes than employee outcomes at the institutional, state, and federal levels (Hagedorn, 2000). There are no metrics for employee approximations of retention or completion in the higher education workforce, which complicates the ability to track and measure this population. Due to increased attrition of faculty and staff in general in higher education (Garza Mitchell & Eddy, 2008; Gibson-Harman et al., 2002; Marshall et al., 2016; Tull, 2006), it is important to understand the reasons employees leave. Given the smaller populations of racially minoritized employees on college campuses (Taylor et al., 2020), their departure may be more impactful to racially minoritized students (Hurtado et al., 2012). This literature review explores the various factors influencing the retention, persistence, and graduation of community college students and the factors that influence college employee attrition and retention, including the campus climate for diversity, which impacts the attrition of both populations.

**Community College Student Sense of Belonging, Persistence, and Completion**

Research overwhelmingly supports the development of a sense of belonging and community as a predictor of positive outcomes for college students, as well as the lack of a sense of belonging as a detriment to their mental health, well-being, and retention at the institution (Bowman et al., 2019; Briggs et al., 2012; O’Keeffe, 2013; Pittman & Richmond, 2008; Ribera
et al., 2017; Sevinç & Gizir, 2014; Spanierman et al., 2013; Strayhorn, 2019; Van Orden et al., 2008). Institutions are invested in increasing student sense of belonging. However, racially minoritized students may feel a lack of belonging, particularly in predominantly White institutions (PWI), despite the institution’s efforts. When students are greeted by a lack of representation of their culture on campus, they may feel alienated and unwelcome (Carter, 2006; Hunter et al., 2019; Strayhorn, 2019). Some are met with outright hostility and racism (Carter, 2006; Strayhorn, 2019). Others find that the college environment is not set up in a way that supports and affirms their cultural values, and they strive to seek out others who share the same values (Strayhorn, 2019; Tachine et al., 2017).

Two of the strongest predictors for students developing a sense of belonging are the presence of social relationships with peers (Bowman et al., 2019; Lenz et al., 2016; Ribera et al., 2017; Richardson et al., 2012) and supportive relationships with professionals at the institution, especially faculty (Bowman et al., 2019; Briggs et al., 2012; Freeman et al., 2007; Ribera et al., 2017; Richardson et al., 2012; Spanierman et al., 2013; Strayhorn, 2019; Zumbrunn et al., 2014). Studies show that not all relationships are impactful; the quality of the relationship matters, too (Bowman et al., 2019; Briggs et al., 2012; Lenz et al., 2016; Pittman & Richmond, 2008; Ribera et al., 2017; Richardson et al., 2012; Zumbrunn et al., 2014). Experiences that encourage interaction with diverse peers and faculty members are especially impactful and increase their sense of belonging at the institution and thus improve retention (Ribera et al., 2017; Spanierman et al., 2013; Zumbrunn et al., 2014). However, faculty may be the least diverse employee group on campus (Taylor et al., 2020). There are many employees on campus who interact with students and are not faculty; in many cases they are termed “staff,” although institutional
definitions of this term may vary. Some research suggests that these employees can be extremely influential in racially minoritized students’ success (Rendón, 2002; Rendón & Muñoz, 2011).

From landscapers to academic advisors to welcome desk attendants to the cafeteria, staff are involved in many processes that almost every student participates in. Some notable examples are financial aid, admissions/recruitment, and various student affairs offices. There is some research suggesting that these “frontline” staff members are extremely important to student success and retention (Graham, 2012, 2013; Roberts, 2018; Schmitt & Dugan, 2011; Schmitt et al., 2015). Sometimes called “professional staff” (Graham, 2012, 2013; Roberts, 2018) or “classified staff” (Schmitt & Dugan, 2011; Schmitt et al., 2015), they are often on the front line of student interactions in secretarial or customer service roles (Bauer, 2000; Schmitt et al., 2015). They must have broad knowledge of processes and procedures and an understanding of the barriers students face because they are often the ones addressing and mediating those barriers (Schmitt & Dugan, 2011). In doing so, they face intense, stressful situations. Studies show that despite this stress, working with students is rewarding to them (Schmitt & Dugan, 2011; Schmitt et al., 2015). While these studies are valuable to our understanding of interactions between staff and students, they are largely from the perspective of staff and how they perceive their interactions benefitting student retention. There are very few, if any, studies on the student perspective (Glogowska et al., 2007; Gonko, 2014). In Glogowska et al.’s (2007) study of students in a UK university’s nursing program, students cited supportive staff members as a reason that they did not withdraw from their program, although the program was extremely challenging. Non-faculty employees (staff) are often the individuals on campus who advise students and help them navigate the institution. They validate, advise, and comfort students, and encourage them to do their best (Glogowska et al., 2007; Gonko, 2014; Rendón, 2002; Rendón &
Muñoz, 2011). The programs they facilitate often form the foundation of cornerstone initiatives that improve retention.

**High-Impact Practices**

Researchers and college administrators alike are interested in learning what helps students retain within, and graduate from, community colleges. The Center for Community College Student Engagement [CCCSE] (2013) researched various practices and categorized 13 as having a high impact on community college students’ engagement and retention. These are termed high-impact practices (HIPs). The HIPs include academic goal setting and planning, orientation, accelerated or fast-track developmental education, first-year experience, student success courses, learning communities, experiential learning beyond the classroom, tutoring, supplemental instruction, assessment and placement, registration before classes begin, class attendance, and alerts and intervention. Students who participate in HIPs succeed, persist, and complete college at higher rates than those who do not (Association of American Colleges & Universities [AACU], 2013; Bonet & Walters, 2016; CCCSE, 2014; Hutson et al., 2019; Nuñez, 2017; Sweat et al., 2013; Valentine & Price, 2021). For community college students, the most effective HIPs are orientation and goal setting; learning communities and experiential learning; and student support services, for example, tutoring and proactive outreach by the college when they strayed from their academic goals (CCCSE, 2013). Notably, orientation and goal setting and many other student support services occur outside the classroom with staff advisors, success coaches, and other non-faculty (staff) employees.

Many colleges are investing in alert and intervention programs to help students succeed (Hall et al., 2021). One method of alert and intervention is success coaching. Success coaching, an intervention where (non-faculty) staff members, called success coaches, actively reach out to
students who are identified as “at risk” (usually based on institutional factors), is increasingly popular at community colleges (Hall et al., 2021). The success coach becomes a single point of contact for the student and connects them to various on- and off-campus resources. For racially minoritized students, having a single point of contact can be a powerful contributor to their success (Hurtado et al., 2012; Museus, 2014). In general, research finds holistic interventions that attend to the whole student, addressing multiple needs, improve student outcomes (Bickerstaff et al., 2021; Hall et al., 2021; Hubbard, 2017; Mayhew et al., 2016; Shadduck, 2017).

HIPs like success coaching are one way in which college staff interact with students and impact their retention, but to receive the benefit of a HIP, students must participate in it. Unfortunately, very few community college students participate in their institutions’ available HIPs, and participation is especially low for racial and ethnic minority students and students over age 25 (AACU, 2013; Nuñez, 2017; Sweat et al., 2013; Valentine & Price, 2021). Reasons for lack of participation in HIPs at community colleges likely vary among individuals. However, looking at the very nature of community colleges as open-access, commuter schools where many students attend part time and have other responsibilities outside of school, one could surmise that lack of participation could be due to lack of available time and finances (Lee, 2018). Therefore, many students may come to campus primarily to attend classes and take care of college-related business, rather than participate in programming. Much of the college-related business students need to conduct is led by non-faculty (staff) employees (e.g., financial aid, registration, advising, and the bookstore).

Staff members in all roles at the college, even those that are not typically “student facing,” have the potential to influence each of the mechanisms Karp (2011) suggests support community college students’ success:
1. Creating social relationships,
2. Clarifying aspirations and enhancing commitment,
3. Developing college know-how,
4. Addressing conflicting demands of work, family, and college.

Simply communicating that the college cares for them and respects them can make students feel more secure and communicate that they belong on campus (Bickerstaff et al., 2021). While interactions with staff who manage the HIPs is important, it is also important to pay attention to how interactions with other staff impact the student experience and, ultimately, retention and graduation outcomes. Studies also suggest that investing in staff and student interactions can improve equity in these outcomes for racially minoritized students (Bickerstaff, 2021; Booker, 2016; Guiffrida, 2005).

**Employee Diversity in Higher Education**

Any discussion of higher education employees would be incomplete without an overview of the diversity, or lack thereof, within colleges and universities. According to Taylor et al.’s (2020) report on postsecondary faculty and staff, the student population is growing more diverse, but the diversity of the higher education workforce is stagnant (Taylor et al., 2020). According to Taylor et al. (2020), the majority of full-time faculty at all colleges and universities are White. Academic leaders (deans, department chairs, etc.) are mostly White, including in area, ethnic, cultural, and group studies, which is the only category in which people of color exceed 50% of the faculty. African American or Black faculty are more likely to be employed in part-time teaching roles or at for-profit colleges. These notable disparities are prevalent across all sectors of higher education, including public two-year institutions (Taylor et al., 2020), which serve many racially minoritized students (Goldrick-Rab, 2010, Taylor et al., 2020).
Non-faculty employees make up just over half of the higher education workforce (NCES, 2019). Interestingly, although the majority of non-faculty employees are White (administrators overwhelmingly so), there is relatively more diversity within staff in higher education than faculty (Taylor et al., 2020). Staff of color represent over 42% of employees in service and maintenance, about one in four clerical employees are people of color, and just over 25% of technical or paraprofessional employees are people of color (2020). With the professoriate and administration so overwhelmingly White, the few non-White individuals a racially minoritized student may see on campus are likely to be in positions categorized as staff. Therefore, along with working to increase the diversity of all sectors of the higher education workforce, it is imperative to retain the people of color who currently fill these important non-faculty roles in order to at least maintain the current diversity in the higher education workforce.

Factors That Contribute to Employee Retention in Higher Education

Employee retention, defined as “encouraging employees to remain in the organization for a long period of time” (Das & Baruah, 2013, p. 8), is cited as a significant factor in any organization’s success (Das & Baruah, 2013; Hersch & Xiao, 2016; Maertz et al., 2007; McKay et al., 2007; Poisat et al., 2018; Selesho & Naile, 2014). Retention is a sound financial investment; it may cost an organization up to two times a departing employee’s salary to hire someone new (Hersch & Xiao, 2016). Also, whenever an employee leaves, they take with them vital institutional knowledge and expertise (Das & Baruah, 2013), and their departure causes a shift in relational dynamics (Shaw et al., 2005). The intangible losses can be devastating to the organization’s culture and climate, with impacts that outlast any financial setback.

Literature in the fields of management, business, and human resources universally regard employee job satisfaction as a factor that significantly contributes to employee retention or
turnover (Das & Baruah, 2013; Hersch & Xiao, 2016; Maertz & Campion, 2004; Maertz et al., 2007; McKay et al., 2007; Poisat et al., 2018; Selesho & Naile, 2014). Research in higher education follows suit (Marshall et al., 2016; Mullen et al., 2018; Rosser & Javinar, 2003; Selesho & Naile, 2014; Tull, 2006; Volkwein & Zhou, 2003). Much of the higher education literature related to satisfaction and turnover is situated within student affairs and student services fields (Marshall et al., 2016; Mullen et al., 2018; Tull, 2006), and there seems to be a gap in research related to turnover or satisfaction of other, non-faculty employee categories such as financial aid, admissions, and clerical roles. Regardless of these gaps, it seems that the available research generally agrees that job satisfaction is important for the job classifications under investigation. Following from that, this literature review assumes that job satisfaction in any position, at any level, can impact turnover. Therefore to reduce employee turnover, it is important to understand the factors that influence job satisfaction.

Employee job satisfaction is an important indicator of and contributor to a campus climate (Farrell, 2009). Research in both the business sector and higher education generally agree that job satisfaction contributes to employee turnover or intent to leave (Das & Baruah, 2013; Farrell, 2009; Marshall et al., 2016; Mullen et al., 2018; Selesho & Naile, 2014; Tull, 2006; Rosser & Javinar, 2003; Volkwein & Zhou, 2003). Employee turnover in any organization impacts relational dynamics and causes a loss of institutional knowledge (Das & Baruah, 2013; Shaw et al., 2005), and faculty turnover can affect academic quality and student satisfaction, as the departing faculty’s lines are replaced with adjunct or less experienced faculty (Garza Mitchell & Eddy, 2008; Selesho & Naile, 2014). Two models of employee satisfaction and retention in higher education (Hagedorn, 2000; Volkwein & Zhou, 2003) acknowledge that interactions between personal and institutional variables lead to job satisfaction. As a variable
within these models, bias and racism cross both institutional and personal categories. A specific event or incident related to an employee’s identity may seem personal to that employee and, according to Hagedorn (2000), can cause a significant decrease in employee satisfaction. However, the overall campus climate as an institutional variable (Hagedorn, 2000; Volkwein & Zhou, 2003), if it is unfriendly toward diversity and inclusion, may enable that event’s occurrence.

According to the Bureau of Labor Statistics (2019), non-White workers, especially those identifying as Black, experience job turnover and unemployment rates higher than those of their White colleagues and counterparts. Job satisfaction of racially minoritized individuals may play a part in these workforce disparities. Research by Hersch and Xiao (2016) found that among college-educated employees (bachelor’s level), Blacks and Asians reported significantly lower job satisfaction than Whites, irrespective of immigrant status, which the authors pointed out as a factor that could further influence job satisfaction. White employees seem to be less concerned about racial climate in the workplace than racially minoritized, non-White employees who have negative racial experiences in the workplace (Buttner et al., 2009; McKay et al., 2007). The increased importance of racial climate makes these experiences even stronger predictors of job satisfaction and turnover in this vulnerable population (McKay et al., 2007). Employee loyalty to a company or organization decreases their likelihood of turnover (Maertz et al., 2007; McKay et al., 2007) but does not compensate for the lack of a supportive work environment (Maertz et al., 2007), which is too often the experience of racially minoritized employees (Hersch & Xiao, 2016, McKay et al., 2007).

Organizational climate, or the workplace environment, influences employee job satisfaction and thus impacts turnover (Maertz et al., 2007; McKay et al., 2007; Poisat et al.,
Poisat et al. (2018) describe the relationship between an employee and their employer as a psychological contract wherein both make commitments and have obligations to each other. When an employee perceives that their employer is upholding their part of the contract, the employee will be more satisfied in their job. As part of that contract, organizations may make commitments to creating a positive climate for diversity. Employees’ perception of their company’s commitment to diversity is correlated with their intent to leave that company (McKay et al., 2007). McKay et al. found this to be especially true of Black managers in a large retail corporation in the United States. If the managers had a negative perception of the company’s commitment to diversity, they were more likely to leave. While this research is mostly within the business, management, and human resources fields, it relates to colleges and universities as large organizations with their own unique organizational cultures and climates.

**Campus Climate for Diversity**

Rankin and Reason (2008) define campus climate as “the current attitudes, behaviors, and standards and practices of employees and students of an institution” (p. 264). Campus climate, especially as related to identity, permeates the whole campus community, impacting faculty, staff, and students, racially minoritized or White (Hurtado et al., 2012; Museus, 2014). However, much of the research in this area centers on students’ experiences. Because of the diffuse nature of campus climate, while this section of the literature review reflects the centering of the student experience, many parallels can be drawn about the experience of racially minoritized employees.

Research shows that a positive campus climate for diversity helps students from underrepresented racial groups achieve positive outcomes, including degree completion (Hurtado et al., 2012; Mayhew et al., 2006; Museus, 2014; Museus et al., 2008, 2017; Porchea et al., 2010). In Museus et al.’s (2008) study, campus climate related to race, or “racial climate,”
indirectly impacted degree completion for different groups through various mediating factors. One surprising example was that for Latina/o students, higher satisfaction with racial climate was correlated with more likelihood of degree completion, but through the mediating factor of lower social involvement. Interestingly, this finding regarding Latina/o students does not support Astin’s (1984) theory of student involvement, which emphasizes students’ social involvement on campus as the key to success and completion. Porchea et al. (2010) also defy Astin’s (1984) theory. They found that students’ social connections did not predict positive outcomes, although this specific result was not disaggregated by race.

Identity impacts the way individuals perceive the campus climate for diversity (Bauer, 2000; Castillo et al., 2006; Hurtado et al., 2012; Mayhew et al., 2006; Museus et al., 2008). Museus et al.’s (2008) analysis of retrospective secondary survey data revealed that Black, Latina/o, and Asian students were less satisfied with the racial climate on their campuses than White students. Castillo et al. (2006) found that Latinx students with a strong sense of ethnic identity had a more negative view of the campus climate and were more likely to consider leaving their institution than their White counterparts. Affirmation of cultural identity then, is important to student retention and can be facilitated through the campus climate.

Similarly to Museus et al.’s (2008) student study, Mayhew et al. (2006) found that staff’s perceptions of the campus climate, specifically whether or not a positive campus climate for diversity had been achieved, varied based on racial group, gender, and educational status. Women, individuals with higher degree attainment, and staff of color were less likely to report that the campus had created a positive climate for diversity. In the case of women and staff of color, this could indicate that individuals with marginalized identities have more experiences with oppression than those with majority identities and are thus more sensitive to their presence.
on campus. Mayhew et al. (2006) also suggested that those with higher degrees may have more knowledge and awareness of diversity issues and that increased awareness allows them to examine the culture and climate through a more critical lens.

However, this does not mean that employees with less education are oblivious to the campus climate for diversity. Employee classification, which often corresponds to one’s educational level, is another aspect of identity that impacts perception of campus climate. “Classified” employees, or those in clerical and secretarial positions, often obtain less education than those in “professional staff” positions, administration, or faculty (Bauer, 2000; Schmitt & Duggan, 2011; Schmitt et al., 2015); therefore, they would not be in the same category as the employees Mayhew et al. (2006) suggest have more knowledge and awareness of diversity issues by virtue of their educational background. However, Bauer (2000) suggests that classified employees may perceive more bias and discrimination on campus. This does support Mayhew et al.’s (2006) supposition about marginalized individuals’ increased sensitivity. Non-faculty and non-administrators, and thus those possessing less education, are often a more racially diverse employee group than faculty or administration (Hurtado et al., 2012; Taylor et al., 2020).

The literature on employee satisfaction in higher education agrees on the aspects of individual roles and organizational climate that impact job satisfaction. Collaboration across divisions and departments, caring leadership, clear and open communication, upward mobility and opportunities for promotion, professional development, and work-life balance are all noted as contributors to satisfaction (Bateh & Heyliger, 2014; Bauer, 2000; Bozeman & Gaughan, 2011; Farrell, 2009; Garza Mitchell & Eddy, 2008; Hagedorn, 2000; Rosser & Javinar, 2003; Schulz, 2013; Selesho & Naile, 2014; Tull, 2006).
Interestingly, there are similarities between the factors that improve job satisfaction, those that improve campus climate for diversity, and those that improve student retention. Most notably, collaboration is a theme for Museus (2014) and Kuh et al. (2011). Kuh et al. (2011) surveyed colleges that were effectively retaining students and found that each of these colleges fostered a culture of collaboration across academic and student affairs. Care for others is emphasized by Rendón’s (2002) studies on validation as well as research on holistic intervention programs, noted as a high-impact practice (Bickerstaff et al., 2021; Hall et al., 2021; Hubbard, 2017; Mayhew et al., 2016; Shadduck, 2017). Additionally, scholars outside of higher education note that in the workplace, sense of belonging, hope, and trust improve organizational culture as well as individual employee physical and mental health and well-being and lead to employee engagement and retention (Lister et al., 2021). Attending to the campus climate for diversity, that is, improving equity and fostering a welcoming atmosphere, may lead to the retention of racially minoritized employees and students. Therefore, it is critical to acknowledge that the climate impacts both student and employee outcomes.

**Theoretical Framework**

When considering theories that relate to student retention, persistence, and achievement, the most notable foundational theories are those of Tinto (1975) and Astin (1984). Tinto’s (1975) longitudinal model of dropout emphasizes students’ “integration” into the college environment as critical to their retention and eventual graduation. Astin’s (1984) model of student engagement follows suit, asserting that a student’s participation in academic and social activities is the key to retention. As noted by Hurtado et al. (2012), while valuable to our understanding of students’ experiences, motivations, and behaviors, these theories do not fully acknowledge the influence of the institutional context and its interaction with students’ identities on outcomes. Hurtado et al.’s
The DLE model acknowledges the multiple contexts, both external and internal, that shape colleges and universities (Hurtado et al., 2012). These contexts occur at the macro (organizational) level as well as the meso (interactions within the organization) and micro (individual) levels. Hurtado et al.’s (2012) model expands these contexts even further to the exosystem, or the external environment, including the local, state, and federal contexts of the institution. Hurtado et al. (2012) assert that the multiple contexts around and within the institution deserve as much attention as students’ behaviors and perceptions, which are often the focus of studies on campus climate. Within this model, the multiple contexts influence, and are influenced by, each other through their multiple interactions. According to the authors, diversifying these contexts creates and maintains a diverse learning environment in which all students have access to educational opportunities and can achieve important outcomes, including degree completion.

The DLE model is appropriate for this study because it is inclusive of the curriculum and the co-curriculum in student learning, stating that “the cocurricular aspect of the collegiate environment is equally important in advancing the education of students, affecting student development, and creating a positive climate on campus” (Hurtado et al., 2012, p. 81). The model specifically addresses staff identity within the co-curricular context, asserting that the diversity of staff is likely to have a significant impact on the comfort level and campus engagement of diverse students.

Student identity interacts with staff identity through processes and programming. Sometimes, staff have more contact with students than faculty, and when they serve as
institutional agents, defined as “individuals who have the capacity and commitment to directly or indirectly transmit institutional knowledge and resources to students” (Hurtado et al., 2012, p. 81), they can significantly impact students’ success and retention. Under this broad definition, any staff member has the potential to be an institutional agent and thus impact student outcomes. Although the interactions between diverse students and diverse staff are clearly important, Hurtado et al. (2012) note the lack of research on staff.

The hypotheses for this study were derived from the DLE model and the noted lack of research in this area and are specific to my professional context as an administrator at a community college in Illinois. H₀: There is no statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois. H₁: There is a statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois.

**Methods**

This quantitative study is an exploration of the relationship between staff demographic profile, which is a numeric representation of institutional diversity, and the demographic profile of graduating cohorts at two-year public community colleges in Illinois. When investigating the nature of a relationship between two or more variables, a quantitative, correlational design is appropriate (Creswell & Creswell, 2018). The hypotheses, which consider the potential relationship between the variables, are as follows:

H₀: There is no statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois.

H₁: There is a statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois.
Data Sources and Sample

To answer the research question and address the hypotheses, data must be collected from sources relevant to the variables. I will use the Integrated Postsecondary Education Data System (IPEDS) to obtain data related to both staff racial diversity and degree completion of racially minoritized students. IPEDS is the data repository for the U.S. Department of Education’s National Center for Education Statistics (NCES). All higher education institutions that receive federal aid are required by federal law to report “enrollments, program completions, graduation rates, faculty and staff, finances, institutional prices, and student financial aid” (NCES, n.d.1.).

IPEDS is made up of 12 individual surveys that are distributed and reported on during three periods of the year: fall, winter, and spring. The 12 surveys are split up among those three periods. Completion data is collected on the Winter survey. For community colleges, graduation rate data represents the completion of students who entered at various points in the past. The 150% completion is commonly used for graduation rates. At two-year community colleges, 150% completion refers to first-time, full-time students who complete a degree or certificate within three years of the year they started (their cohort year). Human resources information is collected in spring for the number of staff employed at the institution as of November 1 of that fiscal year (the previous fall). The data collected are based on information tracked by each college. Each institution has a designated employee, the “Keyholder,” who is responsible for completing the survey and ensuring the accuracy of the data provided. IPEDS provides training and resources for Keyholders to help them understand their role and the reporting process, but human error is always possible and may lead to inconsistencies within the data. Once survey data is received, it goes through three review and revision cycles for quality control to eliminate errors and account for missing data before IPEDS releases their final reports.
IPEDS captures graduation data for first-time, full-time degree- and certificate-seeking students on the Graduation Rate survey. However, I will not be using the actual graduation rate; rather, I will be using the proportion of each racial demographic to the total number of graduating students from the cohort. I will be focusing on the students completing a program within 150% of the time it should take to complete the degree or certificate. For example, the entering 2016 cohort’s graduation was measured in terms of the number of first-time, full-time students who entered in 2016 and graduated in 2019; their 150% graduation time will be on the 2019 survey. Graduation data is disaggregated by race/ethnicity, gender, and Pell grant status. I will be using the disaggregated race/ethnicity data. Employee data will be collected from the IPEDS Human Resources survey, which is collected in the spring but is reflective of the workforce as of the previous November 1. Available from this survey are the numbers of full-time and part-time employees, separated by occupation classification according to the Standard Occupational Classification (SOC) System. Race and ethnicity will be disaggregated from this data set as well.

Data are publicly available through the IPEDS website. The institutional sample will be collected purposively from IPEDS, as I am only interested in studying the 48 public community colleges in the state of Illinois entering in cohorts between 2013 and 2017; I will identify Illinois community colleges by their unique IPEDS ID number. All 48 public community colleges in the state of Illinois will be included in the sample. Each college will be identified by their IPEDS ID number to obtain the correct sample, but individual institutions’ data will not be identifiable. There are community college systems in Illinois that encompass multiple colleges within them, for example, City Colleges of Chicago. Each college in a system will be considered as a single college, as they each have separate IPEDS ID numbers. Multicampus colleges will be considered
as one college because they are identified in IPEDS with a single ID number, rather than having one ID number for each campus. Graduation rate survey data for each college will be selected based on the student cohort’s graduating year, and staff demographics from the human resources survey will be selected from the cohort year. For example, for 2019 graduates, the Human Resources survey from 2016 will be used. I am attempting to sample groups of individuals who were likely to have attended (students) or worked at (employees) the institution at the same time. I also want to represent the staff demographic profile that welcomed these students into their respective institutions.

I will focus on entering cohorts between 2013 and 2017 because the 150% graduation years for these entering cohorts (graduating in 2016, 2017, 2018, 2019, and 2020, respectively) lead up to and include the early part of the Coronavirus pandemic. A major ongoing global event, the pandemic is impacting persistence and completion, but disproportionately impacting students of color (Braven, 2021). The pandemic represents a potential external influence on persistence and completion, which aligns with the DLE model as an element of the exosystem (Hurtado et al., 2012). These are also the most recent five years for which both the Graduate Rate data and Human Resources data are publicly available for community colleges in Illinois.

Variables

The dependent variables are the ratio of students in each race/ethnicity category, which includes American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, Black or African American, Hispanic or Latinx, White, wo or more races, unknown race/ethnicity, and non-resident alien, who graduated within 150% of the “normal time” for their degree or certificate program at each community college in Illinois for the selected years. This study uses the IPEDS definition of a graduate: a first-time, full-time degree- or certificate-
seeking student who completed their degree or certificate within 150% “normal time” of the expected length of their degree according to their entering cohort. To calculate the demographic profile of each graduating cohort, I will divide the number of completers, or graduates, in each racial group by the total number of students who graduated from the cohort. These calculations will produce ratios of students in each racial group to the whole cohort.

The independent variables (IV) are the relative proportion of non-faculty employees (staff) in each IPEDS race/ethnicity category for each community college in Illinois in the selected years that align with the year those graduates entered the college. Full-time and part-time employees in these categories will be added together to form an aggregate of all staff. The ratios will be calculated as continuous variables by dividing the number of staff in each racial category by the total number of staff. Depending on context, the term “staff” may refer to various employee roles and job descriptions, so IPEDS uses the Standard Occupational Classification System to define the jobs within colleges. For this study I will only be working with non-instructional job titles, to best reflect the concept of “staff.” In the SOC System, this translates to the following occupational categories: management occupations; business and financial operations occupations; computer, engineering, and science occupations; community service; social service; legal; arts; design, entertainment, sports, and media occupations; healthcare practitioners and technical occupations; service occupations; sales and related occupations; office and administrative support occupations; natural resources, construction, and maintenance occupations; and production, transportation, and material moving occupations. I considered including the broad category titled “student and academic affairs and other education services occupations,” but upon further examination, the occupations listed within that category are primarily teaching related and thus will be excluded. Additionally, librarians, curators, and
Archivists will be excluded because, according to the Association of College and Research Libraries, identity as faculty at their respective institutions is an important part of the professional orientation of these professions (American Library Association, 2018). Please see Table 1 for a list of all variables used in this study.

Analytical Strategy

This study is an exploration of the relationship between the diversity of staff and the proportion of diverse, racially minoritized students who graduate from community colleges in Illinois. It is important to disaggregate racial categories to the extent possible so the differences between these groups of underrepresented individuals are not further marginalized or ignored (Rios-Aguilar, 2014). For this study, I will compare multiple pairs of IVs and DVs to determine if there is a relationship between a specific ratio of staff race and a specific ratio of graduating student race. Because this analysis will investigate the association between multiple pairs of interval/ratio data, Pearson’s correlation coefficient, r, is appropriate (Cohen et al., 2018; Frankfort-Nachimas et al., 2021). The study will not necessarily be generalizable to all community colleges in the United States, but it will be relevant to Illinois community colleges because the study focuses exclusively on their IPEDS data.

The study will analyze the relationship between pairs of IVs and DVs using Pearson’s correlation coefficient in the statistical program SPSS. When setting up the data set in the program, each row will contain an observation from each of the 48 Illinois community colleges (as recognized by the Illinois Community College Board) each year. So, each college should have five observations, one corresponding to each year, with a total of 240 observations in the data set. Before running the procedure, I will produce scatterplots to preview the potential relationship between pairs of variables.
Table 1

Variable Table

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
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<tbody>
<tr>
<td>Dependent Variable</td>
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<tr>
<td>Relative proportion of graduates who are American Indian or Alaska Native</td>
<td>Continuous</td>
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<tr>
<td>Relative proportion of graduates who are Asian</td>
<td>Continuous</td>
</tr>
<tr>
<td>Relative proportion of graduates who are Native Hawaiian or other Pacific Islander</td>
<td>Continuous</td>
</tr>
<tr>
<td>Relative proportion of graduates who are Black or African American</td>
<td>Continuous</td>
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<tr>
<td>Relative proportion of graduates who are Hispanic or Latino</td>
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<tr>
<td>Relative proportion of graduates who are White</td>
<td>Continuous</td>
</tr>
<tr>
<td>Relative proportion of graduates who are two or more races</td>
<td>Continuous</td>
</tr>
<tr>
<td>Relative proportion of graduates who are race/ethnicity unknown</td>
<td>Continuous</td>
</tr>
<tr>
<td>Relative proportion of graduates who are non-resident alien</td>
<td>Continuous</td>
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<tr>
<td>Independent Variable</td>
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<tr>
<td>Relative proportion of staff who are American Indian or Alaska Native</td>
<td>Continuous</td>
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<tr>
<td>Relative proportion of staff who are Asian</td>
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<tr>
<td>Relative proportion of staff who are Native Hawaiian or other Pacific Islander</td>
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<tr>
<td>Relative proportion of staff who are non-resident alien</td>
<td>Continuous</td>
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</tbody>
</table>
The Pearson’s correlation coefficient procedure pairs each variable with each other. For example, the staff\_ASIAN (proportion of staff who are Asian) variable will be paired with each of the graduation variables; the staff\_WHITE (proportion of staff who are White) variable will be paired with each of the graduation variables, and so on. Once I run the procedure, the matrix produced by SPSS will show the correlation coefficient between each of the variable pairs. Pearson’s correlation coefficients range from -1 to 1. If the null hypothesis is supported, the correlation coefficient will be zero. The closer the coefficient gets to -1, the stronger the negative correlation (as one variable increases, the other decreases). The closer the coefficient gets to 1, the stronger the positive correlation (both variables increase). The true test of this study’s hypotheses is the correlations’ level of statistical significance, determined by the \( p \) value, which is calculated by SPSS. I will set \( p < .05 \) as the threshold for statistical significance.

**Limitations**

This study has several limitations, the first of which is the fact that correlation does not equate to causation. This study will only show that there is a relationship, not what is causing the relationship. Keeping that in mind, there are several other limitations that could impact the study and its validity.

Missing data could be a significant limitation. From my professional experience with IPEDS data, I am aware that if a particular race category contains very few individuals, it may be recorded as 0 by the institution. IPEDS uses imputation to address missing data after it is received from the institutions and before it is reported to the public. However, imputation is not a perfect process (Cohen et al., 2018) and errors will remain. Additionally, there are issues that imputation would not mitigate. For example, on the Human Resources survey, not every college will have employees in every job role considered in the study, which will impact the overall
numbers of staff between institutions. Using percentages in analysis rather than numbers of staff and students will help mitigate this limitation.

To minimize the negative impact of missing data, I plan to use pairwise deletion to exclude the cases of incomplete data for individual observations. For example, if the number of graduates is missing (not recorded as zero, but actually missing) for White students in the 2016 cohort for College A, that specific observation will be excluded in both graduation and human resources data, rather than excluding the entire college from the data set; other available years will remain. Cases recorded as zero in a category will not be removed because zero recorded as a number of graduates or staff members is valid as a continuous numerical representation of the variable. Pairwise deletion can help me maximize my utilization of the available data as opposed to listwise deletion, which would exclude all observations from a college based on one missing race observation. However, any deletion can introduce bias. According to Cohen et al. (2018), pairwise deletion produces uneven sample sizes, which can be problematic. In this study, pairwise deletion would cause some colleges to have more observations than others, potentially impacting the ability to compare correlations. Efforts will be made in the sampling process to adjust for missing data by carefully considering years other than the ones I am planning for at this time and adjusting the inclusion criteria if necessary. It is impossible to achieve a perfectly complete sample data set, so I hope to maximize what I have access to and do the best I can to adjust for anything that is missing.

Using secondary data is another limitation. The IPEDS survey data was not collected nor reported by me; rather, it was collected and reported by each institution’s Keyholder. There are several concerns about human error. The designee could have changed, once or several times, over the years in the study. Even if the Keyholder is consistent over the years, they are human
and are bound to make errors. Additionally, the Keyholder may be reporting data given to them by others on their campus, which is a very efficient and team-oriented way to complete the survey but introduces more humans and more potential for error into the process. By the time the data is presented in its final form to the public by IPEDS it has gone through several reviews and revisions, some performed by humans, others by computers. In either case, errors may occur and data may be missing, which could introduce bias into the study.

The inability to impact the measurement and methods of the survey is another challenge of using secondary data. I am bound to the definitions IPEDS has standardized. Especially relevant to this study are the issues of racial demographic categories and measuring graduation rates. First, the racial demographic categories IPEDS uses are static and may not reflect the way individuals identify their intersecting identities. Individuals can only be represented by one category, which limits the identification of nuanced identities, for example, the Afro-Latin population. Next, IPEDS measures graduation rate in terms of first-time, full-time degree- or certificate-seeking students who begin each year and finish their program within 150% of the “normal period of time.” For community colleges, depending on the program, 150% could be a range between several months and three years. The students counted as “completed” all completed within different time frames, which makes comparing the graduation data challenging. Also, first-time, full-time students may not intend to obtain a credential, or may transfer prior to earning one. Those students’ departures would register as attrition on the survey, when they were no less successful, by their personal definition, than a student who earned the credential they were working toward. Because I am not using the graduation rate itself, rather, I am using the data from the survey to calculate the proportion of each racial demographic in the graduating cohort, the impact from these scenarios will not be fully known. However, it is still
worth mentioning that the number of graduates does not reflect those who accomplished a goal that was not graduation or completion of a program.

The sample size and sampling method are limitations that impact the study’s generalizability. The sample is limited to community colleges in Illinois in specific years. The sample is therefore not random and cannot be generalized to the entire population of community colleges in the United States. The graduating student sample will only include first-time, full-time degree- or certificate-seeking students, which does not represent the majority of the community college population (AACC, 2021). Therefore, generalizability to all community college students cannot be assumed. Similarly, because the employee sample only includes staff, it also cannot be generalized to all community college employees. However, the purpose of this exploratory study is not necessarily to generalize to all institutions across the United States; rather its boundedness to Illinois presents a unique opportunity to study the community colleges in one state. Therefore, it is generalizable within this context.

Finally, there are some threats to this study’s validity. There are many unique characteristics within each college that could explain a relationship between the variables. Omitted variable bias could account for the association (or lack of) between the variables. The relatively small sample size (all colleges, but only over the course of four years) may threaten validity as well by not providing enough observations to support a connection between the variables. The use of graduation rates within 150% of expected completion time may also be a validity threat because of the unique needs and goals of community college students and the high proportion of part-time students enrolled (AACC, 2021). Another threat is the use of proportions of staff diversity and the diversity of graduates as a proxy for the organizational climate for diversity. These constructs are not direct measures of campus climate, so it may not be possible
to draw direct correlations between the two. Lastly, graduation is but one factor in determining a student’s or a college’s success. Success is a relative construct involving internal, external, and individual factors. That relativity makes it difficult to state with certainty that there is a “good” or “bad” ratio of racially minoritized students or ratio of diverse staff for an institution. However, the aim of this study is not to place judgment or worth on any of its elements but to explore the relationships within and between them.

**Significance**

My study contributes to the higher education field in three key ways. First, equity is a major focus of the Illinois Board of Higher Education’s (IBHE) 2021 Strategic Plan (Illinois Board of Higher Education [IBHE], 2021). The plan states, “We need a higher education ecosystem in Illinois focused on meeting the needs and supporting the success of historically underserved and underrepresented students” (2021, p. 7). A few of the strategies for improving equity outlined in the plan align with this study, namely supporting the development and implementation of HIPs, examining the campus climate, and taking steps to increase the diversity in faculty, staff, and administrators of public institutions. Interestingly, while there is mention of non-faculty employees (staff, administrators), the details of this part of the plan focus entirely on faculty recruitment. This omission supports the assertion that non-faculty employees, particularly staff, are often ignored when it comes to policymaking (Kezar & Posselt, 2020). By bringing staff diversity to the forefront and highlighting its potential connection to the diversity of students who persist to graduation within 150% of the normal time for their degree, this study could elevate staff diversity (and improving staff retention) to an institutional, and potentially state, priority.
Next, by employing a quantitative design, this study attempts to speak the “language” of policymakers whose focus is on numbers and quantifiable transformation. Much of the research cited within this study’s Literature Review is qualitative, which is important in examining the detailed narratives and experiences of the groups under study (Creswell & Creswell, 2018). However, the powerful narratives provided in qualitative research are inherently subjective (Creswell & Creswell, 2018), and decisions about policy and funding are often made objectively (or are perceived as objective) based on facts and figures (Hillman et al., 2015). Both qualitative and quantitative research are valid and important, but they each serve unique purposes in the field of higher education. In my personal and professional experience, qualitative research informs, but quantitative research helps those at the top of the organizational hierarchy take decisive action. This study attempts to influence that action.

Lastly, while there are certainly gaps in existing research around racially minoritized students and staff in higher education, given the limitations of this study, it is not necessarily seeking to fill those gaps. The greater significance of this study is causing scholars and practitioners to ask more questions about the diversity on college campuses. Perhaps this study will prompt administrators to examine their campus climate surveys more closely or engage in this practice for the first time. In doing so they may discover gaps in their own equity-minded missions as they relate to what might be their most diverse population on campus—staff. This may elevate diverse staff retention to a priority in conversations about community college leadership.

This study is also significant because it centers staff, a marginalized employee group, within a quantitative study in higher education. Regardless of race, staff often feel left out and unimportant on campus (Graham, 2013; Szekeres, 2004, 2011), and this is reflected in the lack of
research about this important employee group. Student equity should always be of utmost importance, but if more attention is paid to staff diversity, administrators might find clues as to the overall campus climate and experience of the students they are trying to retain and graduate. Rather than continuing to funnel resources toward extra programming, perhaps investing in the climate that supports both the students and the people who support them can be justified by this study and others that follow. In this way, the root of the problem can be addressed proactively, rather than reactively. As the late Bishop Desmond Tutu so eloquently said, “There comes a point where we need to stop just pulling people out of the river. We need to go upstream and find out why they’re falling in.” I hope this study helps provide a roadmap upstream.
Chapter 2

AN EXPLORATORY QUANTITATIVE STUDY OF THE RELATIONSHIP BETWEEN
THE DIVERSITY OF COMMUNITY COLLEGE STAFF AND GRADUATES IN
ILLINOIS

Introduction

In the past few decades, it has become increasingly important for individuals in the United States to earn a postsecondary credential and more adults are achieving this milestone than at any other point in history (Espinosa et al., 2019). Despite this relative success, graduation rates remain lower in racially minoritized populations than they are in the White population, with students identifying as Black or African American completing college at the lowest rates of all racial categories (Espinosa et al., 2019). These inequities persist despite a decrease in the population of Whites overall in the United States, a trend that is expected to continue (Espinosa et al., 2019; Perna & Finney, 2014). On an international scale, the United States was once a leader in higher education enrollment and degree completion but is now falling far behind other countries (Perna, 2014; Perna & Finney, 2014). As Perna and Finney (2014) assert, at this point “it is mathematically impossible for the nation and for most states…to achieve an internationally competitive workforce unless historically underserved low-income and ethnic groups enroll and graduate from college in significantly greater numbers” (p. ix). Excluding racially minoritized students from attainment and achievement in higher education is hurting our chances to “catch up” to other nations.
Community colleges tend to serve a substantial proportion of racially minoritized students (Fike & Fike, 2008; Goldrick-Rab, 2010; Taylor et al., 2020), so one might think that higher enrollment and completion rates in these populations would be found at community colleges. Yet, despite the higher concentration in the overall population, racially minoritized community college students are still graduating at lower rates than their White counterparts (Causey et al., 2020; Community College Research Center [CCRC], n.d.). Many college administrators are aware of these statistics and are attending to these concerns in ways that make sense for their institutional, local, and state contexts. One of the more widely accepted factors contributing to student retention, persistence, and ultimately graduation is the importance of students’ sense of belonging and connection to their institution. Research shows that when students feel like they belong, they tend to stay (Bowman et al., 2019; Briggs et al., 2012; O’Keeffe, 2013; Pittman & Richmond, 2008; Ribera et al., 2017; Sevinç & Gizir, 2014; Spanierman et al., 2013; Strayhorn, 2019; VanOrden et al., 2008). When students feel left out, especially if their perceived exclusion relates to their identity, they tend to leave (Hurtado et al., 2012; Lascher & Offenstein, 2012). Important to developing that sense of belonging and inclusion, especially for racially minoritized students, is recognizing representations of one’s identity on campus (Strayhorn, 2019).

Many studies that focus on the sense of belonging of racially minoritized students emphasize student-focused interventions, interactions, and engagement (Baleria, 2021; O’Keeffe, 2013; Russell & Jarvis, 2019; Strayhorn, 2008; Wilson et al., 2015). Several studies focus on the importance of the interactions between students and faculty (Astin, 1984; Guiffrida, 2005; Loveland, 2018; Museus et al., 2017; Tinto, 1993), and rightfully so. Students spend a large portion of their time on campus in the classroom. However, with few faculty of color in the
classroom or administrators in the cabinet (Taylor et al., 2020), there is a serious lack of representation of these students’ identities in many of the more visible and powerful positions within institutions. Faculty diversity falls far behind the representational diversity of the student body at most colleges (Taylor et al., 2020).

In contrast, it is non-faculty employees, referred to as “staff” in this study, who make up the most racially diverse employee group on campus (Taylor et al., 2020). Incidentally, this is the employee group that is often charged with leading retention programming, advising, and intervening to help racially minoritized students persist to graduation (Hoyt, 2021; Luedke, 2017). Research suggests that students of color may feel more comfortable going to non-faculty employees first for help with their academic struggles because of the power dynamic involved in the student/teacher relationship—faculty give students grades, staff do not (Luedke, 2017).

Research on community college staff and their impact on student outcomes is sparse, and the studies that do exist are situated from the employees’ point of view, and their perceptions of how their interactions with students impact student retention (Graham, 2012, 2013; Roberts, 2018; Schmitt & Dugan, 2011; Schmitt et al., 2015). Very few study the topic from the student perspective (Glogowska et al., 2007; Gonko, 2014). Nearly all of the literature about the staff/student relationship cited in this study approaches staff impact on student outcomes from a qualitative perspective, which is very important when examining the detailed narratives and experiences of the groups under study (Creswell & Creswell, 2018). However, the relative silence of quantitative research in this relationship highlights the need for a different perspective.

This study examined the relationship between the relative diversity of non-faculty employees (staff) and the relative diversity of graduates at community colleges in Illinois. This study’s exploratory quantitative design using existing data from the Integrated Postsecondary
Education Data System (IPEDS) can help policymakers prioritize decisions around strategic initiatives that impact the retention of racially minoritized students. The guiding research question for the current study is: *To what extent is the staff racial demographic profile, as a numeric representation of staff diversity, related to the racial diversity of graduating cohorts from public community colleges in Illinois?*

**State Context**

The state of Illinois is an ideal place in which to situate this study. The state has 48 public two-year community colleges across 39 districts (Illinois Community College Board [ICCB], 2020). White or Caucasian individuals make up 71.53% of the state population (World Population Review, n.d.), and 52% of community college enrollees (ICCB, 2020). In many ways, the state of Illinois mirrors the struggles of the nation in college access and completion. The state also reflects the nation’s increased demands on the workforce; it is estimated that 70% of jobs in the state now require some form of postsecondary credential (Midwestern Higher Education Compact, 2020).

As recently as the late 1990s, Illinois was a national leader in higher education policy, funding, and performance and was continuing to improve upon already promising completion rates (Perna & Finney, 2014). However, in the 2010s, Illinois’s repeated budget shortfalls accelerated falling state revenue and have led to significant cuts in higher education funding (Perna & Finney, 2014). Budget troubles persist in the state, and appropriations for higher education in 2018 were less than half of what they were in 2002 (Illinois Board of Higher Education [IBHE], 2018). When state appropriations decrease, the cost of college must be passed on to the student and their family in the form of tuition and fees (Perna & Finney, 2014). As a result, the percentage of a family’s income required to pay for community college dramatically
increased between 1999 and 2007 from 19% to 24% (Perna & Finney, 2014). Higher tuition prices in turn become a barrier to college access and completion.

Community college completion rates for African American\(^1\) students are the lowest in the state (see Table 2). Table 2 represents the “Advancement Rate” of these populations in Illinois. The Illinois Community College Board defines Advancement Rate as “community college students who either graduated, transferred to other higher education institutions, or were still enrolled at the end of the observation period” (ICCB, 2021). This is different from the graduation rate used by IPEDS. Even with this expanded interpretation of a completion rate, racially minoritized students are advancing through community colleges in Illinois at lower rates than White students.

The most recent strategic plan for the Illinois Board of Higher Education (2021) has centered equity as a goal and reports that the state is looking for ways to restructure performance-based funding around student outcomes. The plan states, “We need a higher education ecosystem in Illinois focused on meeting the needs and supporting the success of historically underserved and underrepresented students” (p. 7). A few of the strategies for improving equity outlined in the plan are implementation of high-impact practices, examining the campus climate, and taking steps to increase the diversity in faculty, staff, and administrators of public institutions. Interestingly, while there is mention of non-faculty employees (staff, administrators), the details of this part of the plan focus entirely on faculty recruitment. This omission supports the assertion that non-faculty employees, particularly staff, are often ignored when it comes to policymaking (Kezar & Posselt, 2020). By bringing staff diversity to the forefront and highlighting its potential connection to student completion, this study provides an

\(^{1}\) Category name used by the Illinois Community College Board
Table 2

First-Time, Full-Time Students Enrolling in Fall and Graduating, Transferring, or Still Enrolled Within Three Years of Entry at Illinois Community Colleges, Fiscal Years 2014-2018

<table>
<thead>
<tr>
<th>Race/Ethnicity</th>
<th>Fall 2013 Summer 2016</th>
<th>Fall 2014 Summer 2017</th>
<th>Fall 2015 Summer 2018</th>
<th>Fall 2016 Summer 2019</th>
<th>Fall 2017 Summer 2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>African American</td>
<td>44.5%</td>
<td>44.2%</td>
<td>46.7%</td>
<td>46.8%</td>
<td>44.9%</td>
</tr>
<tr>
<td>Hispanic/Latino</td>
<td>57.5%</td>
<td>56.8%</td>
<td>57.5%</td>
<td>57.6%</td>
<td>55.9%</td>
</tr>
<tr>
<td>Asian</td>
<td>75.8%</td>
<td>77.3%</td>
<td>75.2%</td>
<td>75.4%</td>
<td>76.7%</td>
</tr>
<tr>
<td>Nonresident Alien</td>
<td>48.9%</td>
<td>47.8%</td>
<td>50.0%</td>
<td>48.0%</td>
<td>51.3%</td>
</tr>
<tr>
<td>Native American</td>
<td>52.6%</td>
<td>50.0%</td>
<td>55.0%</td>
<td>56.7%</td>
<td>48.3%</td>
</tr>
<tr>
<td>Pacific Islander</td>
<td>48.0%</td>
<td>59.1%</td>
<td>62.5%</td>
<td>70.6%</td>
<td>77.3%</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>59.0%</td>
<td>55.6%</td>
<td>59.3%</td>
<td>58.8%</td>
<td>54.9%</td>
</tr>
<tr>
<td>Minority Subtotal</td>
<td><strong>54.0%</strong></td>
<td><strong>53.9%</strong></td>
<td><strong>55.9%</strong></td>
<td><strong>56.1%</strong></td>
<td><strong>54.4%</strong></td>
</tr>
<tr>
<td>White</td>
<td>67.3%</td>
<td>68.3%</td>
<td>68.4%</td>
<td>69.1%</td>
<td>68.9%</td>
</tr>
</tbody>
</table>

Note. Adapted from Fiscal year 2020 Illinois Community College System selected programs and services for underrepresented groups by the Illinois Community College Board (2021, p. 12).
important perspective on the shifting priorities around diversity in Illinois Community Colleges.

**Literature Review**

Disparities between racially minoritized and White college students, those from both high socioeconomic backgrounds and low, are especially evident in college completion rates. Research shows that the graduation rates of racially minoritized, low-income, and first-generation college students are far lower than their White, higher-income, continuing-generation peers (Demetriou et al., 2017; Kezar & Kitchen, 2019; Powell & Scott, 2013; Renbarger & Long, 2019). While just over three in five continuing-generation students from a higher socioeconomic background attain a bachelor’s degree within six years of first college enrollment, only about one in five low-income, first-generation students do (Cahalan et al., 2020). Many students of color from racially minoritized backgrounds hold intersecting identities as first-generation and low-income students. The inequity between White and non-White students’ college enrollment and completion rates is glaring (Cahalan et al., 2020; Murillo et al., 2017; Pitre & Pitre, 2013; Quinn et al., 2019; Renbarger & Long, 2019).

Administrators are rightfully concerned about inequity in educational attainment, and many are making equitable outcomes an institutional priority. Racial disparities, however, are not only apparent in an institution’s student population, they are also present in the employee population, with the population of racially minoritized employees being even lower than that of students (Taylor et al., 2020). Faculty and staff attrition is also a pressing issue in higher education (Garza Mitchell & Eddy, 2008; Gibson-Harman et al., 2002; Marshall et al., 2016; Tull, 2006), and with a lower population of racially minoritized employees, this attrition could have significant consequences on employee diversity. The departure of racially minoritized staff may be more impactful to racially minoritized students (Hurtado et al., 2012). This literature
review explores the various factors influencing the retention, persistence, and graduation of community college students along with the factors that influence college employee attrition and retention, including the campus climate for diversity, which impacts both populations.

**Community College Student Sense of Belonging, Persistence, and Completion**

Sense of belonging and the development of community consistently predict positive outcomes for college students, and when these developmental pieces are missing, students’ mental health, well-being, and retention at the institution may suffer (Bowman et al., 2019; Briggs et al., 2012; O’Keeffe, 2013; Pittman & Richmond, 2008; Ribera et al., 2017; Sevinç & Gizir, 2014; Spanierman et al., 2013; Strayhorn, 2019; Van Orden et al., 2008). Institutions invest resources into fostering students’ sense of belonging. However, despite any institution’s best efforts, racially minoritized students may still feel a lack of belonging, particularly in predominantly White institutions (PWI). When students are greeted by a lack of representation of their culture on campus, feelings of alienation may occur (Carter, 2006; Hunter et al., 2019; Strayhorn, 2019). Many students are met with outright hostility and racism (Carter, 2006; Strayhorn, 2019). Others find that the college environment is not systemically structured to affirm their cultural values. They seek out others who share their values and beliefs (Strayhorn, 2019; Tachine et al., 2017). On some college campuses they may be lucky to find a few peers, but many times they find none at all who share their values and reflect their culture.

Social relationships with peers (Bowman et al., 2019; Lenz et al., 2016; Ribera et al., 2017; Richardson et al., 2012) and supportive interactions and relationships with faculty and other professionals at the institution are strong predictors of students developing a sense of belonging in college (Bowman et al., 2019; Briggs et al., 2012; Freeman et al., 2007; Ribera et al., 2017; Richardson et al., 2012; Spanierman et al., 2013; Strayhorn, 2019; Zumbrunn et al.,
Studies show that quality of relationships is more important than the quantity of relationships (Bowman et al., 2019; Briggs et al., 2012; Lenz et al., 2016; Pittman & Richmond, 2008; Ribera et al., 2017; Richardson et al., 2012; Zumbrunn et al., 2014). Experiences that encourage interaction with diverse peers and faculty members are especially impactful and increase students’ sense of belonging, thereby improving retention (Ribera et al., 2017; Spanierman et al., 2013; Zumbrunn et al., 2014).

Interestingly, faculty may be the least diverse employee group on campus (Taylor et al., 2020), and faculty are not the only employees on campus who interact regularly with students. In many cases these non-faculty employees are termed “staff,” although institutional definitions of this term may vary. Some research suggests that it is these non-faculty who are most influential to racially minoritized students’ success (Rendón, 2002; Rendón & Muñoz, 2011).

Making up just over half of the higher education workforce, staff are involved in many processes that almost every student participates in. Some notable examples are financial aid, admissions/recruitment, registration, advising, and various student affairs offices. There is some research suggesting that staff in these offices, “frontline” staff, are vital to student success and retention (Graham, 2012; Graham, 2013; Roberts, 2018; Schmitt & Dugan, 2011; Schmitt et al., 2015). Sometimes called “professional staff” (Graham, 2012, 2013; Roberts, 2018), or “classified staff” (Schmitt & Dugan, 2011; Schmitt et al., 2015), they are termed “frontline” because they are often the first point of student interactions in secretarial or customer service roles (Bauer, 2000; Schmitt et al., 2015). These employees must maintain a broad knowledge base of processes and procedures and understand the barriers students face because they are often the ones addressing and mediating those barriers (Schmitt & Dugan, 2011). Staff often face intense, stressful situations related to customer service as well as student crises (Schmitt &
Dugan, 2011; Schmitt et al., 2015). Studies show that despite this stress, working with students is rewarding to them (Schmitt & Dugan, 2011; Schmitt et al., 2015).

These existing studies are mostly framed from the perspective of staff and their perceptions of how their interactions benefit student outcomes. While they are extremely valuable to our understanding of the important interactions between these two populations, there are very few, if any, studies from students’ perspective (Glogowska et al., 2007; Gonko, 2014). Supporting the critical role of staff in student retention is Glogowska et al.’s (2007) study of students in a UK university’s nursing program. In the study, students cited the support they received from non-faculty employees (staff) as a reason that they did not withdraw from an extremely challenging academic program. Non-faculty employees are often the individuals on campus who validate, advise, comfort, and encourage students to do their best amid challenging circumstances that cause them to re-evaluate their academic goals (Glogowska et al., 2007; Gonko, 2014; Rendón, 2002; Rendón & Muñoz, 2011). In many cases, these employees facilitate programs that form the foundation of cornerstone institution-wide retention initiatives.

**High-Impact Practices**

While faculty have significant interactions with students in the classroom, non-faculty employees are often instrumental in the co-curricular practices that help students engage in the full college experience. The Center for Community College Student Engagement (CCCSE) (2013) researched a number of these efforts and categorized 13 as having a high impact on community college students’ engagement and retention, commonly known as high-impact practices (HIPs). The HIPs include academic goal setting and planning, orientation, accelerated or fast-track developmental education, first-year experience, student success courses, learning communities, experiential learning beyond the classroom, tutoring, supplemental instruction,
assessment and placement, registration before classes begin, class attendance, and alerts and intervention. Students who participate in HIPs succeed, persist, and complete college at higher rates than those who do not (Association of American Colleges & Universities [AACU], 2013; Bonet & Walters, 2016; CCCSE, 2014; Hutson et al., 2019; Nuñez, 2017; Sweat et al., 2013; Valentine & Price, 2021). The HIPs that are most effective for community college student retention and persistence are orientation, goal setting, learning communities, experiential learning, and student support services (for example, tutoring and proactive outreach by college employees when a student shows signs of personal or academic need; CCSSE, 2013). Notably, only one practice on this list is bound to a classroom or faculty interaction: learning communities. The others are more likely to be managed and supported by staff advisors, success coaches, and other staff, not faculty.

Student interactions with staff through HIPs is important. Equally important are the interactions with other staff outside of HIP-related programming and their impact on the student experience, and ultimately retention and graduation outcomes. Karp (2011) suggests four mechanisms that support community college students’ success:

1. Creating social relationships,
2. Clarifying aspirations and enhancing commitment,
3. Developing college know-how,
4. Addressing conflicting demands of work, family, and college.

All employees have the potential to act as institutional agents, and can influence each of these mechanisms, and theoretically help students succeed. Simply communicating that the college cares for them and respects them can make students feel more secure and communicate that they belong on campus (Bickerstaff et al., 2021). Any employee can communicate care for students.
Studies also suggest that investing in staff and student interactions can be especially impactful on increasing equitable outcomes for racially minoritized students (Bickerstaff, 2021; Booker, 2016; Guiffrida, 2005); staff interactions are especially significant with these populations.

**Employee Diversity in Higher Education**

According to Taylor et al.’s (2020) report on postsecondary faculty and staff, the college student population is growing more diverse (although inequitable outcomes persist), but the diversity of the higher education workforce is stagnant (Taylor et al., 2020). The majority of full-time faculty and academic leaders (deans, department chairs, etc.) are White. In area, ethnic, cultural, and social group studies, faculty of color exceed 50%, but the administrators over those areas are majority White (Taylor et al., 2020). African American or Black faculty are more likely to be employed in part-time teaching roles or at for-profit colleges than their White counterparts, who have higher representation in full-time roles at not-for-profit institutions. These notable disparities also apply to public two-year institutions (Taylor et al., 2020), which serve many racially minoritized students (Goldrick-Rab, 2010; Taylor et al., 2020).

Interestingly, although most non-faculty employees are also White (administrators overwhelmingly so), there is relatively more diversity within staff in higher education than faculty (Taylor et al., 2020). Over 42% of employees in service and maintenance, about one in four clerical employees, and just over 25% of technical or paraprofessional employees represent racially minoritized identities (Taylor et al., 2020). With the professoriate and administration so overwhelmingly White, the few individuals a racially minoritized student may see on campus who reflect their identities are likely to be staff (Taylor et al., 2020). And, as noted above, when students do not see their identities reflected on campus, they may miss out on the sense of belonging that is so critical to retention. Therefore, along with working to increase the diversity
of all sectors of the higher education workforce, colleges must retain the people of color that currently fill these important non-faculty roles. This way they can at least maintain the current part of the workforce that reflects the identities of the students who are less likely to automatically feel a sense of belonging.

Employee retention is cited as a significant factor in organizational success (Das & Baruah, 2013; Hersch & Xiao, 2016; Maertz et al., 2007; McKay et al., 2007; Poisat et al., 2018; Selesho & Naile, 2014). Bias and racism in interactions at work (e.g., a specific event or incident related to an employee’s identity) can reduce college employees’ job satisfaction and lead to turnover (Hagedorn, 2000; Volkwein & Zhou, 2003). But even if there are no specific incidents, the overall climate of the institution may feel unwelcoming to racially minoritized employees. Additionally, the overall campus climate may enable the occurrence of racist events and bias (Hagedorn, 2000; Volkwein & Zhou, 2003).

Racism and racially hostile work environments disproportionately impact racially minoritized employees. According to the Bureau of Labor Statistics (2019), non-White workers, especially those identifying as Black, experience job turnover and unemployment rates higher than those of their White colleagues and counterparts. Job satisfaction of racially minoritized individuals may play a part in these workforce disparities. White employees seem to be less concerned about racial climate in the workplace than racially minoritized, non-White employees who have negative racial experiences in the workplace (Buttner et al., 2009; McKay et al., 2007). The increased importance of racial climate to racially minoritized individuals makes these experiences even stronger predictors of job satisfaction and turnover in this population (McKay et al., 2007). Employee loyalty to a company or organization decreases the likelihood of turnover (Maertz et al., 2007; McKay et al., 2007), but it does not compensate for the lack of a supportive
work environment (Maertz et al., 2007); lack of support at work is too often the experience of racially minoritized employees (Hersch & Xiao, 2016; McKay et al., 2007).

**Campus Climate for Diversity**

Campus climate is defined as “the current attitudes, behaviors, and standards and practices of employees and students of an institution” (Rankin & Reason, 2008, p. 264). Campus climate, especially as it relates to identity, permeates the whole campus community, impacting faculty, staff, and students of all identities (Hurtado et al., 2012; Museus, 2014). Research shows that a positive campus climate for diversity helps students from underrepresented racial groups achieve positive outcomes, including degree completion (Hurtado et al., 2012; Mayhew et al., 2006; Museus, 2014; Museus et al., 2008, 2017; Porchea et al., 2010). In Museus et al.’s (2008) study, campus racial climate indirectly impacted degree completion for different groups through various mediating factors. One surprising example was that for Latinx students, higher satisfaction with racial climate was correlated with more likelihood of degree completion through the mediating factor of lower social involvement.

Individuals perceive campus climate for diversity in their own unique way through the lens of their identity (Bauer, 2000; Castillo et al., 2006; Hurtado et al., 2012; Mayhew et al., 2006; Museus et al., 2008). Museus et al.’s (2008) analysis revealed that Black, Latina/o and Asian students were less satisfied with the racial climate on their campuses than White students. Similarly, Castillo et al. (2006) found that Latinx students with a strong sense of ethnic identity had a more negative view of the campus climate and were more likely to consider leaving their institution than their White counterparts. This finding aligns with research on organizational climate as it relates to employees. Buttner et al. (2009) and McKay et al. (2007) found differences in the attitude of employees toward their company’s commitment to diversity based
on the employee’s racial demographic. Although not specific to higher education, this literature ties together the concept that climate impacts all constituents in an organization.

Similarly, Mayhew et al. (2006) reported that staff’s perceptions of the campus climate, specifically whether or not a positive campus climate for diversity had been achieved, varied based on racial group, gender, and educational status. Women, individuals with higher degree attainment, and staff of color were less likely to report that the campus had created a positive climate for diversity. In the case of women and staff of color, this could indicate that individuals with marginalized identities are more sensitive to the presence of oppression on campus due having experienced oppression more than White employees. The authors (Mayhew et al., 2006) also suggested that those with higher degrees may have more knowledge and awareness of diversity issues. That increased awareness, they surmised, allowed them to examine the culture and climate through a more critical lens.

However, employees with less education are not necessarily unaware of the campus climate for diversity. Employee classification, which often corresponds to one’s educational level, is another aspect of identity that impacts the perception of campus climate. “Classified” employees, or those in clerical and secretarial positions, often obtain less education than those in “professional staff” positions, administration, or faculty (Bauer, 2000; Schmitt & Duggan, 2011; Schmitt et al., 2015); therefore, they would not be in the same category as the employees Mayhew et al. (2006) suggest have more knowledge and awareness of diversity issues by virtue of their educational background. And yet Bauer (2000) suggested that classified employees may perceive more bias and discrimination on campus. Non-faculty and non-administrators, and thus those possessing less education, are often a more racially diverse employee group than faculty or
administration (Hurtado et al., 2012; Taylor et al., 2020). This supports Mayhew et al.’s (2006) supposition about marginalized individuals’ heightened perceptions of discrimination.

Interestingly, there are similarities between the factors that improve employee retention, campus climate for diversity, and student retention. Most notably, cross-functional collaboration is a theme for Museus (2014) and Kuh et al. (2011). Kuh et al. (2011) surveyed colleges that were effectively retaining students and found that each of these colleges fostered a culture of collaboration across academic and student affairs. Care for others is emphasized by Rendón’s (2002) studies on validation as well as research on holistic intervention programs, noted as a high-impact practice (Bickerstaff et al., 2021; Hall et al., 2021; Hubbard, 2017; Mayhew et al., 2016; Shadduck, 2017). Additionally, scholars outside of higher education note that in the workplace, sense of belonging, hope, and trust improve organizational culture and individual employee physical and mental health and well-being and lead to employee engagement and retention (Lister et al., 2021); these are similar to values that we know impact student retention. Attending to the campus climate for diversity, that is, improving equity and fostering a welcoming atmosphere, may lead to the retention of racially minoritized employees and students. Therefore, it is critical to acknowledge that the climate impacts both student and employee outcomes.

**Theoretical Framework**

The most notable foundational theories of student retention, persistence, and achievement are those authored by Tinto (1975, 1993), and Astin (1984). Tinto’s (1975) longitudinal model of dropout emphasizes students’ “integration” into the college environment as critical to their retention and eventual graduation. Astin’s (1984) model of student engagement follows suit, asserting that a student’s participation in academic and social activities is the key to retention. As
noted by Hurtado et al. (2012), while valuable to our understanding of students’ experiences, motivations, and behaviors, these theories do not fully acknowledge the influence of the institutional context and its interaction with students’ identities on outcomes. Hurtado et al.’s (2012) multicontextual model for diverse learning environments (the DLE model) addresses these gaps and provides the theoretical framework for this study.

The DLE model, depicted in Figure 1, acknowledges the multiple contexts, both external and internal, that shape colleges and universities (Hurtado et al., 2012). These contexts occur at the macro (organizational) level as well as the meso (interactions within the organization) and micro (individual) levels. Hurtado et al.’s (2012) model expands these contexts even further to the exosystem, or the external environment, including the local, state, and federal contexts of the institution. Hurtado et al. (2012) assert that the multiple contexts around and within the institution deserve as much attention as students’ behaviors and perceptions, which are often the focus of studies on campus climate. Within this model, the multiple contexts influence, and are influenced by, each other through their multiple interactions. According to the authors, diversifying these contexts creates and maintains a diverse learning environment in which all students have access to educational opportunities and can achieve important outcomes, including degree completion.

The DLE model is appropriate for this study because it is inclusive of the curriculum and the co-curriculum in student learning, stating that “the cocurricular aspect of the collegiate environment is equally important in advancing the education of students, affecting student development, and creating a positive climate on campus” (Hurtado et al., 2012, p. 81). The model specifically addresses staff identity within the co-curricular context, asserting that the
diversity of staff is likely to have a significant impact on the comfort level and campus engagement of diverse students.

Student identity interacts with staff identity through processes and programming. Sometimes, staff have more contact with students than faculty, and when they serve as institutional agents, defined as “individuals who have the capacity and commitment to directly or indirectly transmit institutional knowledge and resources to students” (Hurtado et al., 2012, p. 81), they can significantly impact students’ success and retention. Under this broad definition, any staff member has the potential to be an institutional agent and thus impact student outcomes.
Although the interactions between diverse students and diverse staff are clearly important, Hurtado et al. (2012) note the lack of research on staff.

The hypotheses for this study were derived out of the DLE model and the noted lack of research in this area and are specific to my professional context as an administrator at a community college in Illinois. 

\[ H_0: \text{There is no statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois.} \]

\[ H_1: \text{There is a statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois.} \]

**Positionality Statement**

Although this study does not take a strict critical quantitative (QuantCrit) approach, QuantCrit has certainly influenced my study. Similarly to QuantCrit, my quantitative research seeks “not to prove the relevance of grand theories” but to contribute to the body of knowledge about underrepresented students (Stage & Wells, 2014, p. 2) and employees. It is this influence that drives me to share details specific to my background and positionality that are relevant to the study.

I identify as a White, cisgender, straight woman. I identify under a very broad definition of a first-generation college student; my father went to college in his 30’s and 40’s, after he and my mother were married. My mother completed a few credits at a community college, and while she did not graduate, she has remained a lifelong learner and has excelled in her career. My mother was my primary support through the procedural aspects of college such as admissions and financial aid, without having her own contextual or experiential knowledge guide us. Therefore, I navigated the small, private, liberal arts college, which I was able to afford because...
of several scholarships, work-study, and various on-campus jobs, on my own, with my mother’s support.

Supportive and caring non-faculty employees played a significant role in my success and helped me develop a sense of belonging and community at the university. Most notably, the custodial staff in my residence hall, who always had a smile to share and stopped everything they were doing to have a conversation or help address an issue, were especially comforting. As I reflect now on the supportive environment they created for me, I wonder how they experienced their employment at the college. Several of these individuals held racially minoritized identities in addition to holding the marginalized identity of a staff member. I benefitted from their unpaid emotional labor. I cannot ignore the fact that my Whiteness assisted me, by making institutional agents more likely to lend me their support, while the same institutional agents may have inflicted harm, intentionally or unintentionally, on these marginalized employees.

In my immediate family, I am the first woman to graduate from college, the only person in my generation to get my master’s degree, and will be the only person with a doctorate (so far). So, although I had my share of difficulties navigating early processes on my own, I have had access to the resources and support to achieve these goals. Ten years of my career have been devoted to student support in various student affairs roles, and I am currently an administrator at a community college in Illinois. Therefore, I am one of the many White administrators who dominate the field.

My study arises out of my own curiosity about the role of staff in student success at my institution. The demographics of employees at my institution seem to support national trends with staff being a more diverse group than faculty. Since I started working at this institution in 2017, I have noticed high turnover among racially minoritized employees. Additionally, our
institutional data shows that racially minoritized, particularly Black, students are not achieving target outcomes in the same proportions as White students.

Because of my proximity to the subject matter, others may perceive my research as biased toward a specific outcome I view as favorable, a predetermined agenda, or maintaining the status quo and thus my power. However, throughout my research process, I intentionally sought out ways to mitigate this potential bias. For example, because of the focus on faculty in much of the available research, and the relative power they hold through various systems such as tenure, I chose to center the lesser studied staff. The “managerial” job category is included in my aggregation of all non-faculty employees, but there are many other categories represented as well. Through this study, I sought to highlight not my own demographic or employee group, but the marginalized and under-represented on campus, both staff and students.

Methods

This quantitative study was an exploration of the relationship between staff demographic profile, as a numeric representation of employee diversity, and the demographic profile of graduating cohorts, a numeric representation of student diversity, at two-year public community colleges in Illinois. I chose a correlational study design because it is an appropriate approach when investigating the nature of a relationship between variables (Cohen et al., 2018). The hypotheses, which consider the potential relationship between the variables, are as follows:

H₀: There is no statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois.

H₁: There is a statistically significant relationship between the racial diversity of staff and the racial diversity of graduating cohorts at public community colleges in Illinois.
Data Sources and Sample

I used the Integrated Postsecondary Education Data System (IPEDS) to obtain data related to both staff racial diversity and degree completion of racially minoritized students. The institutional sample was collected purposively from IPEDS because I was only interested in studying the 48 public community colleges in the state of Illinois entering in cohorts between 2013 and 2017. Specifically, I used data from the Graduation Rate and Human Resources surveys. Completion data, including graduation rate data, is collected on the Winter survey for the previous year’s completions, and Human Resources data is collected in the spring, measuring the number of staff employed at the institution as of the previous November 1. For two-year colleges, 150% completion is commonly used for graduation rate; 150% completion refers to first-time full-time students who complete a degree or certificate within 150% of the normal time it takes to get the degree, so within three years of the year they started (their cohort year).

The Graduation Rate survey captures graduation data for first-time, full-time degree- and certificate-seeking students. However, I did not use the actual graduation rate; rather, I used the proportion of each racial demographic to the total number of graduating students from the graduating cohort. Graduation data is disaggregated by race/ethnicity, gender, and Pell grant status, and I used the disaggregated race and ethnicity data. Employee data were downloaded from the IPEDS Human Resources survey, which is collected in the spring but is reflective of the workforce as of the previous November 1. Available from this survey are the numbers of full-

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2 The graduating cohort number differs from the entering cohort because of attrition due to many factors, including transfer. IPEDS survey data was downloaded with uncalculated rates, which allowed me to calculate my own demographic proportions. I focused on the 150% graduation rate, i.e., students completing a degree or certificate within 150% of the time it should take to complete the degree or certificate. The graduations from a given cohort are reported on the survey year corresponding to 150% of their normal time to degree, but the graduation could have taken place any time within those three years. For example, the entering 2016 cohort’s graduation was measured in terms of the number of first-time, full-time students who entered in 2016 and graduated between 2016 and 2019; they would be counted as graduates on the 2019 survey.
time and part-time employees, separated by occupation classification according to the Standard Occupational Classification (SOC) System. Race and ethnicity were also disaggregated from this data set. Student and staff data share the same racial demographic categories, which were created by IPEDS: American Indian or Alaska Native, Asian, Native Hawaiian or other Pacific Islander, Black or African American, Hispanic or Latino, White, two or more races, race/ethnicity unknown, and non-resident alien.³

Graduation Rate survey data for each college was downloaded based on the student cohort’s graduating year, and staff demographics from the human resources survey were selected from the cohort’s entering year (the cohort year). For example, the 2016 Human Resources survey data corresponds with the 2019 Graduation survey data. By pairing the samples this way, I attempted to sample groups of individuals who were likely to have attended (students) or worked at (employees) the institution at the same time. I also wanted to represent the staff demographic profile that was present when these students entered their respective institutions.

The data were downloaded for all 48 public two-year community colleges in Illinois from their respective surveys into Excel spreadsheets. For the employee data it was necessary to sum the numbers of employees in each category to arrive at an aggregate sum of all staff. Calculations were then performed to determine the ratios in each racial category for every survey. Survey data were compiled to a large spreadsheet to be analyzed. Both sets of data from paired Human Resources and Graduation Rate surveys were combined into a single row corresponding to their paired years (for example, 2016 and 2019) for each college. There were

³ I use these terms throughout the following sections of this paper when discussing data analysis and results because they are the available IPEDS categories. However, I acknowledge that they are not gender-inclusive and are not necessarily terms that are currently used in the field to describe racial demographics, nor are they terms that I personally or professional use to refer to racial demographics.
no instances of missing data. Each of the 48 colleges had five observations, so there were a total of 240 observations in the data set.

**Variables**

The dependent variables were the continuous ratios of the number of students in each race/ethnicity category to the total number students who graduated within 150% of the normal time for their degree or certificate program at each community college in Illinois for the selected years. The 150% time frame is calculated based on the entering cohort year. To calculate the demographic profile of each graduating cohort, I divided the number of graduates in each racial group by the total number of students who graduated from the cohort using Excel spreadsheets of the data downloaded from IPEDS. These calculations produced the continuous variable ratios of students in each racial group to the whole cohort.

The independent variables were the continuous ratios of non-faculty employees (staff) in each IPEDS race/ethnicity category for each community college in Illinois in the selected years that align with the year the graduates entered the college (the cohort year). Full-time and part-time employees in these categories were added together to form an aggregate of all staff. The ratios will be calculated as continuous variables by dividing the number of staff in each racial category by the total number of staff. Please see Table 3 for a list of variables.

---

4 Depending on context, the term “staff” may refer to various employee roles and job descriptions, so IPEDS uses the Standard Occupational Classification System to define the jobs within colleges. For this study, I only used non-instructional job titles to best reflect the concept of “staff.” In the SOC system, this translates to the following occupational categories: management occupations; business and financial operations occupations; computer, engineering, and science occupations; community service; social service; legal; arts, design, entertainment, sports, and media occupations; healthcare practitioners and technical occupations; service occupations; sales and related occupations; office and administrative support occupations; natural resources, construction, and maintenance occupations; production, transportation, and material moving occupations. I considered including the broad category titled “student and academic affairs and other education services occupations,” but upon further examination, the occupations listed within that category are primarily teaching related and thus were excluded. Additionally, librarians, curators, and archivists were excluded because, according to the Association of College and Research Libraries, identity as faculty at their respective institutions is an important part of the professional orientation of these professions (American Library Association, 2018).
<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
<th>Variable Label</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative proportion of graduates who are American Indian or Alaska Native</td>
<td>Continuous</td>
<td>grad_AINDAT</td>
</tr>
<tr>
<td>Relative proportion of graduates who are Asian</td>
<td>Continuous</td>
<td>grad_ASIAN</td>
</tr>
<tr>
<td>Relative proportion of graduates who are Native Hawaiian or Other Pacific Islander</td>
<td>Continuous</td>
<td>grad_NHOPI</td>
</tr>
<tr>
<td>Relative proportion of graduates who are Black or African American</td>
<td>Continuous</td>
<td>grad_BAA</td>
</tr>
<tr>
<td>Relative proportion of graduates who are Hispanic or Latino</td>
<td>Continuous</td>
<td>grad_HISLAT</td>
</tr>
<tr>
<td>Relative proportion of graduates who are White</td>
<td>Continuous</td>
<td>grad_WHITE</td>
</tr>
<tr>
<td>Relative proportion of graduates who are two or more races</td>
<td>Continuous</td>
<td>grad_TWO</td>
</tr>
<tr>
<td>Relative proportion of graduates who are race/ethnicity unknown</td>
<td>Continuous</td>
<td>grad_UNKN</td>
</tr>
<tr>
<td>Relative proportion of graduates who are non-resident alien</td>
<td>Continuous</td>
<td>grad_NONRES</td>
</tr>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Relative proportion of staff who are American Indian or Alaska Native</td>
<td>Continuous</td>
<td>staff_AINDAT</td>
</tr>
<tr>
<td>Relative proportion of staff who are Asian</td>
<td>Continuous</td>
<td>staff_ASIAN</td>
</tr>
<tr>
<td>Relative proportion of staff who are Native Hawaiian or Other Pacific Islander</td>
<td>Continuous</td>
<td>staff_NHOPI</td>
</tr>
<tr>
<td>Relative proportion of staff who are Black or African American</td>
<td>Continuous</td>
<td>staff_BAA</td>
</tr>
<tr>
<td>Relative proportion of staff who are Hispanic or Latino</td>
<td>Continuous</td>
<td>staff_HISLAT</td>
</tr>
<tr>
<td>Relative proportion of staff who are White</td>
<td>Continuous</td>
<td>staff_WHITE</td>
</tr>
<tr>
<td>Relative proportion of staff who are two or more races</td>
<td>Continuous</td>
<td>staff_TWO</td>
</tr>
<tr>
<td>Relative proportion of staff who are race/ethnicity unknown</td>
<td>Continuous</td>
<td>staff_UNKN</td>
</tr>
<tr>
<td>Relative proportion of staff who are non-resident alien</td>
<td>Continuous</td>
<td>staff_NONRES</td>
</tr>
</tbody>
</table>
Data Analysis

This study is an exploration of the relationship between the ratios of individuals in racial categories across two populations: community college graduates and community college staff employees as of November 1 of the year the graduates entered the college. I specifically wanted to explore the relationship between each racial category of the graduates to their corresponding employee racial category as well as all other employee categories. Pearson’s product moment coefficient, $r$, is a common way to investigate the association between multiple pairs of interval/ratio data (Boudah, 2020; Cohen et al., 2018; Frankfort-Nachimas et al., 2021) and was chosen for this study. Pearson’s $r$ will produce a correlation coefficient between -1 (a perfect negative correlation) and 1 (a perfect positive correlation; Cohen et al., 2018).

The closer the coefficient gets to either -1 or 1, the stronger the relationship, and a coefficient of 0 indicates no relationship (Cohen et al., 2018). The strength of the correlation is based on absolute value (Cohen et al., 2018), and was determined based on established thresholds. A coefficient between 0.001 and 0.199 was considered a very weak relationship. The remaining thresholds between weak and very strong were modeled after Frankfort-Nachimas et al. (2021): between 0.20 and 0.399, a weak relationship; between 0.40 and 0.599, a moderate relationship; between 0.60 and 0.799, a strong relationship; between 0.80 and 0.99, a very strong relationship; and 1, a perfect relationship. IBM Statistical Package for the Social Sciences (SPSS) 27 was used to analyze the completed data set, using the bivariate correlation procedure. The threshold of statistical significance, or alpha, was set at $p < .05$. 
Limitations

This study had several limitations, the first of which was the fact that it was a correlational study. Correlations do not equate to causation, so a study such as this one can only show the relationship or association between variables, not what caused the relationship. Additionally, this study did not search deeply into the relationships beyond Pearson’s $r$ through further statistical modeling, which may have revealed factors that influenced the relationships. The scope of the study was limited to an initial exploration of the relationship between the variables and thus stayed at the correlational level without attempting to explore causation.

Similarly, the lack of ability to control for factors within and between institutions that could impact the racial demographics of both groups of variables limits the analysis. Institution size, governance models, and local population could all impact the presence or absence of a relationship, leading to a Type I or Type II error. Even the choice of using only Illinois community colleges could have an impact. Hurtado et al. (2012) would assert that these factors, and more, impact the campus climate for race and are ultimately relevant to the study and analysis. Also, the data are not direct measurements of campus climate for diversity. Rather, they are approximations of diversity within the institution. Although the racial demographic profiles of staff and students may be impacted by and may also impact the climate of the institution in accordance with Hurtado et al.’s (2012) DLE theory, this study cannot truly address the climate for diversity of the sampled institutions.

Using secondary data is another limitation of this study. Because I did not create the survey, I was unable to define the data points I examined in the study. The student-level data available through IPEDS is somewhat limited in scope and cannot account for the nuances in the
student experience (Garcia, 2012; Myers & Myers, 2017). One example is the fact that the 150% graduation rate is only counted for first-time, full-time students, which leaves out part-time students and students on a less traditional path through college (Garcia, 2012). Also, the data cannot account for pre-college characteristics that influence retention and persistence to graduation (Garcia, 2012). However, because of multiple data checking procedures, this secondary data set is of reasonable quality and a trustworthy source of the data points it provided.

There were some threats to this study’s validity. Within each college, there are unknowable unique characteristics that could explain a relationship between the variables. Omitted variable bias could account for the association (or lack of) between the variables. The relatively small sample size (all Illinois community colleges, but over the course of only five years) may have impacted the study’s validity by not providing enough observations to support a connection between the variables. Sampling first-time, full-time students who graduated within 150% of expected completion time may also be a validity threat because of the unique needs and goals of community college students and the high proportion of part-time students enrolled (AACC, 2021). If part-time students were considered, the demographic proportions could be entirely different. Another threat is the use of proportions of staff diversity and the diversity of graduates as a proxy for organizational diversity and campus climate. These constructs are not direct measures of campus climate. Lastly, graduation is but one factor in determining a student’s or a college’s success. Success is a relative construct involving internal, external, and individual factors. Therefore, there is no “good” or “bad” ratio of graduates or staff.
Finally, I chose to focus on entering cohorts between 2013 and 2017 because the 150% graduation years for these entering cohorts (graduating in 2016, 2017, 2018, 2019, and 2020, respectively) lead up to and include the early part of the Coronavirus pandemic. A major ongoing global event, the pandemic is impacting persistence and completion and disproportionately impacting students of color (Braven, 2021). The pandemic represents a potential external influence on persistence and completion, which aligns with the DLE model as an element of the exosystem (Hurtado et al., 2012). These are also the most recent five years for which both the Graduate Rate data and Human Resources data are publicly available for community colleges in Illinois. It should be noted that the 2020 Graduation Rate survey data are considered provisional, meaning they have not been released as final. However, “provisional release data have undergone all NCES data quality control procedures” and are commonly used in reports such as IPEDS First Look (NCES, n.d.3, p.1). According to IPEDS, only between 1-7% of all institutions revise their data between the provisional and final stages (NCES, 2018).

Findings

Descriptive Statistics

I used the bivariate correlation function in SPSS 27 to produce descriptive statistics of the sample and a Pearson’s Product Moment Coefficient, $r$, for each pair of variables. Table 4 presents descriptive statistics of each of the variables.

The mean percentages of each variable demonstrated that the proportion of graduates in each racial group for the years represented in their sample (2016, 2017, 2018, 2019, 2020) were similar to the proportions of staff in the same racial groups for the years represented in their sample (2013, 2014, 2015, 2016, 2017). For example, $\text{grad\_NONRES (} M = 0.59\%, SD = 0.0168)$
Table 4

Descripive Statistics

<table>
<thead>
<tr>
<th>Variable</th>
<th>M</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Staff</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.17%</td>
<td>0.0033</td>
</tr>
<tr>
<td>Asian</td>
<td>1.51%</td>
<td>0.0210</td>
</tr>
<tr>
<td>Black or African American</td>
<td>14.41%</td>
<td>0.1919</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>8.43%</td>
<td>0.1044</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.09%</td>
<td>0.0022</td>
</tr>
<tr>
<td>White</td>
<td>71.82%</td>
<td>0.2688</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>0.92%</td>
<td>0.0091</td>
</tr>
<tr>
<td>Race/Ethnicity Unknown</td>
<td>2.57%</td>
<td>0.0573</td>
</tr>
<tr>
<td>Nonresident Alien</td>
<td>0.09%</td>
<td>0.0049</td>
</tr>
<tr>
<td><strong>Graduates</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>American Indian or Alaska Native</td>
<td>0.21%</td>
<td>0.0044</td>
</tr>
<tr>
<td>Asian</td>
<td>2.66%</td>
<td>0.0436</td>
</tr>
<tr>
<td>Black or African American</td>
<td>9.52%</td>
<td>0.1462</td>
</tr>
<tr>
<td>Hispanic or Latino</td>
<td>17.58%</td>
<td>0.2023</td>
</tr>
<tr>
<td>Native Hawaiian or Other Pacific Islander</td>
<td>0.11%</td>
<td>0.0036</td>
</tr>
<tr>
<td>White</td>
<td>65.18%</td>
<td>0.2961</td>
</tr>
<tr>
<td>Two or More Races</td>
<td>1.84%</td>
<td>0.0175</td>
</tr>
<tr>
<td>Race/Ethnicity Unknown</td>
<td>2.30%</td>
<td>0.0269</td>
</tr>
<tr>
<td>Nonresident Alien</td>
<td>0.59%</td>
<td>0.0168</td>
</tr>
</tbody>
</table>

*Note.* N = 240.
and staff_NONRES ($M = 0.09\%, SD 0.0049$) each represented small proportions of their total populations. In some cases, racially minoritized graduates represented a larger proportion in their population than for staff, for example, Hispanic or Latino graduates ($M = 17.58\%, SD 0.2023$) and Hispanic or Latino staff ($M = 8.43\%, SD 0.1044$). One racially minoritized demographic group which did not follow this pattern was Black or African American graduates ($M = 9.52\%, SD 0.1462$) and staff ($M = 14.41\%, SD 0.1919$) in their respective samples, with staff a larger proportion of the population than graduates on average.

**Correlational Tests**

Before running the correlation procedure, several scatterplots for individual racial demographic groups of staff and graduates were produced to depict potential relationships. The scatterplots showed some indication of relationships between the two groups of variables. The Pearson’s product moment correlation procedure was then conducted. Table 5 shows the correlation matrix produced by SPSS for all 18 variables (nine for graduates and nine for staff). There were several statistically significant correlations which support the rejection of the null hypothesis for those variable pairs.

**Relationships Between Staff and Graduates of the Same Racial Category**

In most cases, a statistically significant positive correlation existed between the ratio of staff of a particular racial category and the ratio of graduates of the same racial category. In other words, a higher percentage of staff of a particular racial category is statistically associated with a higher percentage of graduates of the same racial category. The relationships existed in varying strengths from very weak to very strong. The ratios between American Indian or Alaska Native staff and graduates ($r = .129, p = .046$), staff and graduates of two or more races ($r = .239,$
Table 5

Correlation Matrix

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>AINDAT</th>
<th>ASIAN</th>
<th>BAA</th>
<th>HISLAT</th>
<th>NHOPİ</th>
<th>WHITE</th>
<th>TWO</th>
<th>UNKN</th>
<th>NONRES</th>
</tr>
</thead>
<tbody>
<tr>
<td>AINDAT</td>
<td>.129*</td>
<td>.103</td>
<td>.043</td>
<td>-.049</td>
<td>-.046</td>
<td>-.03</td>
<td>.042</td>
<td>.141*</td>
<td>.175**</td>
</tr>
<tr>
<td>ASIAN</td>
<td>-.129*</td>
<td>.864**</td>
<td>.016</td>
<td>.375**</td>
<td>.117</td>
<td>-.413**</td>
<td>.185**</td>
<td>.03</td>
<td>.164*</td>
</tr>
<tr>
<td>BAA</td>
<td>-.043</td>
<td>.083</td>
<td>.860**</td>
<td>.475**</td>
<td>-.032</td>
<td>-.786**</td>
<td>.006</td>
<td>-.032</td>
<td>.500**</td>
</tr>
<tr>
<td>HISLAT</td>
<td>-.162*</td>
<td>.297**</td>
<td>.131*</td>
<td>.890**</td>
<td>-.031</td>
<td>-.729**</td>
<td>-.017</td>
<td>.104</td>
<td>.126</td>
</tr>
<tr>
<td>NHOPİ</td>
<td>.082</td>
<td>.160*</td>
<td>.062</td>
<td>-.027</td>
<td>.011</td>
<td>-.062</td>
<td>.157*</td>
<td>.139*</td>
<td>.052</td>
</tr>
<tr>
<td>WHITE</td>
<td>.120</td>
<td>-.305**</td>
<td>-.700**</td>
<td>-.759**</td>
<td>.023</td>
<td>.943**</td>
<td>-.064</td>
<td>-.067</td>
<td>-.460**</td>
</tr>
<tr>
<td>TWO</td>
<td>-.100</td>
<td>.178**</td>
<td>.055</td>
<td>.156*</td>
<td>.096</td>
<td>-.185**</td>
<td>.239**</td>
<td>.012</td>
<td>.007</td>
</tr>
<tr>
<td>UNKN</td>
<td>-.068</td>
<td>.249**</td>
<td>.143*</td>
<td>.189**</td>
<td>-.001</td>
<td>-.274**</td>
<td>.185**</td>
<td>.191**</td>
<td>.182**</td>
</tr>
<tr>
<td>NONRES</td>
<td>-.045</td>
<td>.057</td>
<td>.009</td>
<td>.006</td>
<td>.031</td>
<td>-.02</td>
<td>.131*</td>
<td>-.024</td>
<td>-.029</td>
</tr>
</tbody>
</table>

Note. AINDAT = American Indian or Alaska Native; ASIAN = Asian; BAA = Black or African American; HISLAT = Hispanic or Latino; NHOPİ = Native Hawaiian or Other Pacific Islander; WHITE = White; TWO = Two or More Races; UKN = Race/Ethnicity Unknown; NONRES = Non-resident Alien.

** p < .01 (2-tailed); * p < .05; N = 240
$p < .01$), and those of unknown race ($r = .191, p = .003$) were very weak. Very strong positive correlations existed between Asian staff and graduates ($r = .864, p < .01$), Black or African American staff and graduates ($r = .860, p < .01$), Hispanic or Latino staff and graduates ($r = .890, p < .01$), and White staff and graduates ($r = .943, p < .01$). Figure 2 presents the scatterplot that revealed the correlational relationship between Hispanic or Latino staff with Hispanic or Latino graduates. Native Hawaiian and other Pacific Islander and non-resident alien are the only groups to not have a statistically significant positive relationship between corresponding staff and graduates ($r = .011, p = .870$, and $r = -.029, p = .660$, respectively). Figure 2 is an example of a scatterplot for staff (IV) and graduates (DV) from the same racial demographic group. These relationships support the rejection of the null hypothesis for all pairs of staff and graduates in the same racial demographic category except Native Hawaiian and other Pacific Islander and non-resident alien, for which the null hypothesis cannot be rejected.

**Figure 2**
*Scatterplot of relationship between Hispanic or Latino staff and Hispanic or Latino graduates.*
Relationships Between Racially Minoritized Staff and Graduates

Ratios of racially minoritized staff also tend to be statistically significantly associated with the ratios of racially minoritized graduates in racial categories other than their own. Most of these relationships were positive, but with varying strengths, mostly weak to moderate. For example, the ratio of staff of unknown race had the highest number of statistically significant correlations, with five racially minoritized categories of graduates: Asian \( (r = .249, p < .01) \), Black or African American \( (r = .143, p = .026) \), Hispanic or Latino \( (r = .189, p = .003) \), two or more races \( (r = .185, p = .004) \), and non-resident alien \( (r = .182, p = .005) \) graduates, although all of these correlations were very weak except the correlation with Asian graduates, which was just over the threshold of weak. The ratio of non-resident alien staff had only one statistically significant relationship, with graduates of two or more races \( (r = .131, p = .042) \), although again the relationship was very weak. The null hypothesis can be rejected for these pairs of variables because there is a relationship between them.

The rest of the categorical pairs have between two and four statistically significant relationships. American Indian or Alaska native staff had a very weak positive relationship with both graduates of unknown race, \( (r = .141, p = .028) \) and non-resident alien graduates \( (r = .175, p = .006) \). Asian staff had a positive, weak relationship with Hispanic or Latino graduates \( (r = .375, p < .01) \), a very weak relationship with graduates of two or more races \( (r = .185, p = .004) \) and with non-resident alien graduates \( (r = .164, p = .011) \). Black or African American staff had moderate correlations with Hispanic or Latino graduates \( (r = .475, p < .01) \) and with non-resident alien graduates \( (r = .500, p < .01) \). Hispanic or Latino staff had a weak relationship with Asian \( (r = .297, p < .01) \) graduates and a very weak relationship with Black or African American graduates \( (r = .131, p = .042) \). Native Hawaiian or other Pacific Islander staff were positively
correlated with graduates in the Asian ($r = .160, p = .013$), two or more races ($r = .157, p = .015$), and race/ethnicity unknown ($r = .139, p = .031$) categories. All three of those relationships were very weak. The ratio of staff of two or more races was significantly correlated with Asian ($r = .178, p = .006$) and Hispanic or Latino ($r = .156, p = .016$) graduates, although the relationship was also very weak. Figure 3 is an example of a scatterplot for staff from a racially minoritized demographic group (IV) and graduates from a different racially minoritized demographic group (DV).

![Figure 3](image)

**Figure 3**
*Scatterplot of relationship between staff of race/ethnicity unknown and Asian graduates.*

There were two statistically significant negative correlations between racially minoritized staff and racially minoritized graduate ratios, and both relationships were very weak. These correlations were between Asian staff and American Indian or Alaska Native graduates ($r = -.129, p = .045$) and Hispanic or Latino staff and American Indian or Alaska Native graduates ($r = -.162, p = .012$). Figure 4 is an example of a scatterplot depicting this negative relationship. The null hypothesis can be rejected for the aforementioned pairs of variables.
Relationships Between Racially Minoritized Staff and White Graduates

Most ratios of racially minoritized staff showed a negative correlation with the ratios of White graduates. Black or African American staff shared a strong negative relationship ($r = -0.786, p < .01$), as did Hispanic or Latino staff ($r = -0.729, p < .01$). Asian staff had a moderate relationship ($r = -0.413, p < .01$). White graduates shared a very weak relationship with the ratios of staff of two or more races ($r = -0.185, p < .01$), and a weak relationship with staff from the race/ethnicity unknown category ($r = -0.274, p < .01$). Figure 5 is an example of a scatterplot for Black or African American staff (IV) and White graduates (DV). The null hypothesis can be rejected for the relationships between staff in the Black or African American, Hispanic or Latino, Asian, two or more races, and race/ethnicity unknown categories, and White graduates. The null hypothesis cannot be rejected for relationships between ratios of staff in the American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and two or more races categories and White graduates.
Figure 5
Scatterplot of relationship between Black or African American staff and White graduates.

Relationships Between White Staff and Racially Minoritized Graduates

The correlations of White staff to racially minoritized graduates present a different trend. The only positive relationship for White staff is a very strong relationship with White graduates \((r = .943, p < .01)\); all other statistically significant relationships with other racial categories were negative. The ratio of White staff is significantly negatively correlated with four of the racially minoritized categories of graduates: Asian, with a weak correlation \((r = .305, p < .01)\), and Black or African American \((r = .700, p < .01)\) and Hispanic or Latino \((r = .759, p < .01)\), with strong correlations. The relationship between White staff and non-resident alien graduates was negative and moderate \((r = .460, p < .01)\). For example, Figure 6 depicts the correlational relationship between White staff with Hispanic or Latino graduates. All correlations were significant at the \(p < .01\) level. This data supported the rejection of the null hypothesis for relationships between White staff and Asian, Black or African American, Hispanic or Latino, and non-resident alien graduates. The null hypothesis cannot be rejected for the relationships
between White staff and American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, two or more races, and non-resident alien graduates.

Figure 6
Scatterplot of relationship between White staff and Hispanic or Latino graduates.

Discussion and Implications

This study’s findings suggest that the diversity of the graduating cohorts under investigation were linked to the diversity of the staff that were employed at the institution the year the cohort started college. This seemed to be especially true for staff and graduates in the same racial categories, for which all relationships were statistically significant and positive except for Native Hawaiian and other Pacific Islander and non-resident alien. As an example, in the Black or African American category, on average, the proportion of this category in staff is higher than in the student population, and yet there is a positive relationship with the proportion of Black or African American graduates. This suggests that the representational diversity of this population in the staff is especially salient to students who share this identity. According to Taylor et al. (2020), staff jobs, especially maintenance, clerical, and service-oriented roles, are
often filled by racially minoritized individuals. The results of this study suggest that individuals in these roles may be especially important to the success of racially minoritized students.

Hurtado et al. (2012) asserted that students’ perception of staff diversity impacts how they engage in co-curricular activities, which contributes to positive outcomes. The DLE theory (Hurtado et al., 2012) endorses interaction between staff and student identities through co-curricular activities and various institutional policies. Staff, as institutional agents, represent the college. Perhaps early connections with representatives who share their identities contribute to students’ retention and completion. Overall, the results suggest that in most cases, a higher representation of racial diversity among the staff during a cohort’s entering year was related to a higher representation of racial diversity in the graduates from that cohort within 150% of normal time.

The inverse relationship between the ratio of White staff and four racially minoritized demographic groups of graduates is notable. The negative relationship was especially strong with Black or African American and Hispanic or Latino graduates and was moderate with non-resident alien graduates. While this study does not delve into the reasons for the relationships uncovered, Hurtado et al.’s (2012) DLE theory suggests that there are various external and internal factors that contribute to the campus climate for diversity that would lead racial groups to feel more or less comfortable in campus spaces. Being comfortable on campus contributes to sense of belonging, and sense of belonging is especially important for racially minoritized students’ success (Hurtado et al., 2012; Luedke, 2017; Museus et al., 2008).

The years sampled for this study (2013-2017 for staff, 2016-2020 for graduates) represent years of growing racial tension and inequity nationwide as well as in Chicago, which is the most densely populated city in Illinois and represents seven colleges in the survey, excluding suburban
and surrounding areas. Between 2000 and 2015, Whites were the only racial demographic in Chicago to experience growth in their income, while Black and Hispanic residents experienced a decline (Grabinski & Reeves, 2015). Racial tension was heightened in 2014 with the murders of Laquan McDonald in Chicago and Michael Brown in Ferguson, Missouri, among many others, by police. The election of Donald J. Trump as the 45th President of the United States led to more turmoil related to race and also introduced a heightened awareness of citizenship status due to policies enacted around immigration. These national issues, and their influence on local contexts, represent Hurtado et al.’s (2012) exosystem level of influence on institutional climate for diversity. Community colleges can be especially sensitive to external influence because of their open-access mission to serve their communities. The external influences interact with institutional agents who represent the college. These institutional agents in turn interact with colleagues and students and create the climate for diversity (Hurtado et al., 2012). It is possible that these issues impacted the diversity of the higher education workforce in Illinois, which we can now see is related to the diversity of subsequent graduating cohorts.

Similarly, the relationships between racially minoritized staff and White graduates also tended to be negative, meaning that higher proportions of racially minoritized staff were linked to lower representation of White students in the 150% graduating cohort. The strong relationships were between Black and African American and Hispanic or Latino staff and White graduates, suggesting that not only racially minoritized students but also White students were impacted by the campus climate for diversity. This supports Museus et al.’s (2008) findings that racial groups experienced and perceived the campus climate for diversity differently, and those experiences and perceptions relate to eventual outcomes. They also support the DLE model’s
assertion that staff and students’ identities interact and influence each other (Hurtado et al., 2012).

The demographic population surrounding an institution may impact the demographic representation of its students and staff and thus may have impacted the results of this study. Community colleges in Illinois are situated in districts. Some districts are bounded by the county where the institution is located; others span multiple counties. Students who live in-district typically receive an in-district tuition rate that is lower than an out-of-district student would receive. This may serve as an incentive for students in the local community to attend their respective community college. Any specific demographic group could be more prevalent in the population and in the local workforce, which could provide a higher representation of that demographic group in both staff and student populations. Additionally, the population of the United States has shifted over the last few decades, and more individuals are identifying within multiracial categories than ever before (Jones et al., 2021). So the patterns revealed by this study may reflect the local demographics and/or the shift of the national population demographics. Again, this still lends support to Hurtado et al.’s (2012) DLE theory.

Some colleges are distinguished by the percentage of racially minoritized students who attend. Roughly 29% of Illinois community colleges are designated Minority-Serving Community Colleges (MSCCs), and they enroll about one third of the state’s community college students (Fox & Thrill, 2017). Seven are Hispanic-serving institutions (HSIs), four are predominantly black Institutions (PBIs), and three have multiple designations: two as Asian American, Native American, Pacific Islander-serving institutions (ANAPISIs) and HSIs and one as an HSI and PBI. MSCCs are designated based either on their racial demographic profile, or their mission to serve a specific population (Fox & Thrill, 2017). Illinois has the distinction of
having the most MSCCs in the Midwest region. The associations found in this study could have been impacted by the MSCCs representing about a quarter of the 48 institutions in the sample.

Hurtado et al.’s (2012) DLE model might still apply if the correlations are due to population demographics and/or institutional mission. Population demographics in the community relate to the DLE model’s “community context,” and the districting of community colleges relates to the “policy context” (Hurtado et al., 2012). For example, the representation of Black or African American students and Black or African American staff would be higher at a PBI than at a non-PBI. The local and policy contexts of the district lead to a community college being designated as an MSCC or a high percentage of racially minoritized individuals in the population of the district might help foster a positive campus climate for diversity. However, at that same example institution, the population of White students and staff might be lower, influencing the negative relationship seen in this correlational study.

Because of this study’s design, it is impossible to ascertain what truly influenced these relationships. The cause of the relationships between staff and graduate diversity and the factors that contributed to these relationships are beyond this study’s scope. However, demonstrating that a relationship exists is an important contribution to the field of higher education research and should open doors to new research. A mixed-methods study could utilize quantitative and qualitative data to gain insight into the factors that contribute to the relationships revealed in this one. Quantitative data could also be used to validate qualitative data, and vice versa, to confirm the themes brought out in this study and new themes that arise from future studies. Because the data are publicly available through IPEDS, this study could be replicated for any state, institutional type, student success metric, or employee classification; there are many variations that could be further explored. Additionally, individual institutions could use historical data from
not only IPEDS but also the other surveys and assessments they regularly collect from students and employees, including the CCSSE and measures of employee performance and satisfaction. The main takeaway from this study is that a relationship existed in the chosen sample, and now that the relationship is known, exploration should continue.

**Practical Implications**

The concept of practice is much more abstract than selecting variables for the next study. It might be tempting to move on, to continue confirming the findings of the present study, and continue to ask “What does this mean?” and “What should we do?” Even without knowing the deeper aspects of the relationships discovered through this study, there are aspects of this research that ultimately connect to institutional policy and practice. While student outcomes are almost universally the focus of performance-based funding and other institutional priorities, those student outcomes are, at least in part, driven by students’ interaction with the institution’s employees (Rose et al., 2016).

**Representational Diversity**

Many studies exist that establish the benefits of racial diversity in the student body to overall student educational outcomes (Chang, 1999; Chang et al., 2006; Gurin et al., 2002; Hurtado et al., 2012; Museus et al., 2008, Museus et al., 2017; Pascarella et al., 2001; Peifer et al., 2017). New research also specifically links higher representation of racially minoritized students and faculty to reduced equity gaps in graduation rates (Bowman & Denson, 2022). The compelling evidence presented by these studies (and many others) provides motivation for campuses to increase the representation of diversity in their student bodies and in their faculty. However, shifting those ratios is not a panacea for improving student outcomes. The connection between staff and graduate diversity established by the present study invites a more nuanced look
at how the campus climate impacts the representation of racial diversity in the student body and the staff. While previous studies are working to connect representational diversity (of students and faculty) to student outcomes, this study contributes to the literature by connecting the representational diversity of staff to the representational diversity of students.

**Burnout and Turnover of Racially Minoritized Staff**

Racially minoritized staff often find themselves carrying responsibility for supporting racially minoritized students moreso than their White colleagues. “Racial battle fatigue,” the psychological, emotional, and bodily response to the stress of systemic racism, is a tangible experience for racially minoritized staff in higher education that stems from this emotional labor (Brown et al., 2020; Quaye et al., 2020). This is especially true in student affairs roles, which are adjacent to other helping professions (Brewar & Clippard, 2002; Quaye et al., 2020) and already experience high levels of burnout and turnover (Marshall et al., 2016; Mullen et al., 2018; Rosser & Javinar, 2003; Tull, 2006). Additionally, more racially diverse staff populate roles that require less formal education and are oriented toward maintenance, skilled labor, and service (Espinosa et al., 2019; Taylor et al., 2020). These positions are thus typically paid at lower rates than positions like academic advising, for example. They also experience less representation in campus decision making. Regardless, these employees still have an important role to play in the student experience and may form supportive relationships with students. The compensation gap for their emotional labor is even wider than it is for more professionalized staff roles.

Hiring more racially minoritized staff only puts a bandage on the wound. Without examining the institutional dynamics and power structures, burnout will continue and may hasten the departure of key staff. This would then lower the representation of racially minoritized staff and potentially impact the representation of racially minoritized graduates. Without support,
racially minoritized staff may quickly become burned out by extra labor they perform to support racially minoritized students (Luedke, 2017; Quaye et al., 2020). Diversifying the workforce by hiring staff from racially minoritized backgrounds must not be the only measure institutions take to improve campus climate for diversity.

Assessing and Addressing Campus Climate

The most salient implication for practice that arises from this study is the need for a comprehensive look at institutional climate for diversity. Hurtado et al.’s (2012) DLE model provides a framework for conceptualizing many influences on the climate. Notably, there are some aspects of the climate that cannot be immediately controlled by the institution, for example, external funding sources or political climate. However, there are many aspects within the institution that can at least be influenced by senior leadership. Institutional policies and practices, carried out by employees as institutional actors, can be altered to support racially minoritized students and employees, but senior leadership must be made aware of the issues that need attention. A comprehensive climate assessment can help institutions discover inequities that do not directly show up in student outcomes, such as the experiences of racially minoritized staff and staff turnover.

Qualitative research shows that staff want to feel important and empowered to do their jobs effectively and support students (Farrell, 2009; Graham, 2013; Roberts, 2018; Schmitt & Dugan, 2011; Schmitt et al., 2015). However, staff often face institutional barriers, such as inconsistent policy application and lack of communication, that make their jobs more difficult and make them appear less competent to students (Schmitt & Dugan, 2011). Culture change is needed in institutions to value staff and students to reduce inequities and remove barriers for both populations. The Caring Campus Initiative implemented by the Institute for Evidence-Based
Change (IEBC) at 56 institutions across the U.S. is one program that is attempting to shift institutional culture to support both staff and students (Bickerstaff et al., 2021). Through the initiative, staff are empowered to lead their peers and be active participants and change agents as they focus on staff behavior and interactions with students. The goal of the program is to increase staff and student sense of belonging and commitment to the institution, which are factors that increase satisfaction and retention in both populations. While the actual Caring Campus Initiative program may not be a realistic option for all institutions, it serves as an example (and early proof) that staff and student interaction matter and can improve equity in student outcomes.

One of the forces acting upon the campus climate at any and all institutions is systemic racism and oppression. Museus and LePeau (2020) cite neoliberalism as a force acting upon colleges to perpetuate institutional climates and cultures that act against truly equitable outcomes. To resist the strong pull of neoliberalism and other external and internal forces that seek to maintain power for the majority, administrators must make sacrifices that lead to relinquishing some of their power to give power to others (Museus & LePeau, 2020). This can start with the supervisory relationship.

Identity-conscious supervision, rooted in social justice and inclusion, seeks to embrace and honor the identities of those with less power (i.e., supervisees), especially across difference (Brown et al., 2020). But, in order to build an effective identity-conscious supervisory relationship, supervisors must slow down and foster their own curiosity and empathy for others (Brown et al., 2020). Building trust is central to effective supervisory relationships (Brown et al., 2020), and positive supervisory relationships that validate identity can increase employee satisfaction, which leads to employee retention (Tull, 2006). This sounds very similar to factors
that increase student retention, such as sense of belonging and validation (Rendón, 2002; Strayhorn, 2019). By modeling identity consciousness in our supervisory relationships, administrators and staff can extrapolate these principles into student interactions.

Hurtado et al. (2012) assert that the success of racially minoritized college students is critical to the nation’s success and prosperity. Therefore, it is imperative that administrators continue investigating inequities in college success outcomes. But because this study revealed relationships between the demographic profile of staff and the demographic profile of graduates, administrators should also turn their focus to staff diversity and the retention of racially minoritized staff as a potential factor in student success. This represents a shift for many colleges who would consider themselves student focused. But without staff, an institution cannot be focused on students. If more attention is paid to staff diversity, administrators might find clues as to the overall campus climate and experience of the students they are trying to retain and graduate. Rather than continuing to funnel resources toward extra programming, perhaps it is time to invest in a culture and climate that supports both the students and the people who support them. In this way, we can be proactive as opposed to reactive when it comes to issues of student retention and success.

Conclusion

This study explored the relationship between the racial demographic composition of community college graduates within 150% of normal time to completion and the racial demographic composition of the non-faculty employees when they entered college. The data analysis revealed that, for some racial categories, the demographic composition of staff during the cohort’s entering year was correlated with that of the graduates within the ensuing three years. This study contributes new quantitative data to the field of higher education research,
particularly in student affairs. The results imply that the diversity of staff is important to the eventual success of racially minoritized students, and according to the DLE theory (Hurtado et al., 2012), the campus climate for diversity interacts with and influences the retention and success of both populations. This exploratory study lays the groundwork for further related studies that could examine the nature of and contributing factors to these statistically significant relationships.
Chapter 3
SCHOLARLY REFLECTION

Reflections on my Dissertation Idea

First, I want to acknowledge that the dissertation before you is not the dissertation I
planned or around which I structured many of my independent projects and research over the
past three years. My first idea was to study the relationship between staff satisfaction, as
measured by the Personal Assessment of Campus Environment (PACE) Survey, and student
outcomes. I wavered between several outcomes measured on the Community College Survey of
Student Engagement (CCSSE) and retention (measured by IPEDS data) and ultimately landed on
retention. My first aim was to study the correlation at the college where I work. This idea
stemmed from my own feelings of discomfort and dissatisfaction early in my employment and
my observation that there were more employees with less power than I who were very vocal
about being dissatisfied at the institution. At the same time, I noticed low retention rates and
minimal student engagement. I wondered if it was just my college and whether the employee
dissatisfaction impacted student success.

As I proceeded into the first weeks of HESA 721, I was faced with a few reality checks.
First, doing this study solely at my institution would not give me enough observations to be able
to reach any conclusions of statistical significance. Second, if I wanted to access a larger sample
of institutions that took the PACE Survey, I would need to contact the Belk Center for
Community College Leadership and Research, which administers and analyzes the survey.
Reaching out was a nerve-wracking process for me, as someone who occasionally has issues
being assertive and expressing my needs. The professionals at the Belk Center were pleasant to work with and answered all my questions. When they told me they would waive their fees for graduate students, I was full of hope. However, it became evident that the Belk Center could not identify the institutions in the survey because of privacy, and identifying the institutions was crucial to my study so I could match them with their respective retention rates. I would not be able to accomplish my research goal.

As you can imagine, I was very upset. Tears were shed, but I was able to move forward with Dr. Hu’s help and guidance. Looking back on this situation, I do not have any regrets, nor do I wish I had determined earlier that my original study design was not going to work. I believe I went through some fairly normal steps for a researcher. My curiosity and passion developed into a research idea, I progressed to considering a research sample (the college where I work), I expanded my potential sample when the first proved to be too small (national data from PACE), navigated around some potential obstacles (cost), and then hit a final obstacle (institution identification) and had to move on. The experience forced me to communicate my research agenda concisely and coherently to external constituents at the Belk Center. Summarizing and synthesizing are difficult for me, so distilling my ideas down into a short, reader-friendly email to strangers was a challenge, and I consider my reaching out to this organization a professional growth opportunity. This process ultimately led me to my current project, of which I am extremely proud.

The Idea 2.0

At the center of my research interest was a desire to study underrepresented populations, a category to which I believe staff (as a group) belong due to their relative lack of influence in decision making and the lack of research about them. It took a gentle nudge from Dr. Hu to
expand my focus to underrepresented students, groups of students that experience significant marginalization on campus, although as a population there is a lot of current research that pertains to them. By reflecting on my work experiences over the last few years, I noticed a pattern of high turnover for employees of color, especially women. To me, this seemed like a retention issue, a parallel to student retention. When I looked deeper into our student retention data and graduation rates for racially minoritized students, the racial disparities in retention and completion matched national trends: racially minoritized students were not succeeding at the same rates as their White peers.

My interest naturally started to shift toward the connection between the retention of these two populations. Unfortunately, there is no standardized way to measure success or retention consistently across both the student and staff population. Demographic characteristics are the only consistent measure across both staff and students. So I decided to use this as the comparison point. The present study is very different from my original idea, but still honors my desire to highlight underrepresented populations. My experience developing a new topic and plan showed me that research agendas can, and should, be flexible and that my interests can, and should, develop and grow over time.

**Reflections on the Literature Review**

Because I had structured so much of my earlier course-related writing around staff satisfaction and student retention, I had a decent body of literature to work from for my literature review. However, the frame of reference had previously centered employee satisfaction, which was no longer the primary objective of my study. I went back to the studies I had previously used on staff satisfaction and looked for new angles and lenses through which to view the information. The body of literature about staff satisfaction became the section of my literature review about
employee retention. The literature about student retention was still helpful but shifted to focus on racially minoritized students.

The research on non-faculty employees in higher education is already limited, so I was not hopeful about finding a whole new set of studies connecting student retention to anything relating to staff. So I decided to search within studies about student retention for mentions of staff. The “find” function (Command + F on my Macbook) was my best friend, as I used it to pick out the words “employee,” “staff,” “faculty,” and other related terms in the articles. When I found those terms, I read the information surrounding them, determined whether they related to my study, and if they did, read from the methods through to the end. After reading those parts, I read the introductions and literature reviews to find more references.

Throughout the Ed.D. program, I struggled with reading, processing, and summarizing articles. I struggled to believe professors when they said that we should not necessarily read every word of an article from front to back. However, this advice really became salient for me when I was faced with pulling a few sentences or a single reference out of a 20-page article. Because my topic was so specific, I needed a very specific approach to determine whether an article was relevant. If I had read (or re-read) every word of these articles I would have missed the small, important pieces that were the most relevant to my study.

While I am proud of how my literature review turned out, if I were to do it over again, I might have done a couple of things differently. First, with hindsight being 20/20, I would have employed the more targeted reading strategy within each article much sooner in the literature review process. This would have helped me catalog the information into my annotated bibliography spreadsheet and probably would have helped me mentally retain the information in the articles. Second, with the time saved by targeting my reading in this way, I could have found
more keywords to search in article databases and perhaps found more studies that directly related to mine. However, one of the frustrating parts of the literature review process for me is knowing when to stop, and at some point we all need to stop. I know I haven’t found every single piece of literature that could possibly be related to my topic, but I also know that if I keep reading, I will never finish.

**Reflections on the Theoretical Framework**

The DLE model (Hurtado et al., 2012) was suggested by Dr. Hu after I gave my “mini-proposal defense” presentation in HESA 721. At that point, my thought process was a mess of possible theories because of my uncertainty around my original research topic. I struggled to find a theory that fit the topic. Reading Hurtado’s work helped me organize my thoughts around the principles of interacting factors that impact campus climate for diversity and helped guide me to my final topic. The flexibility and fluidity of this part of my journey surprised me. When we learned about research methods, I visualized the process as mostly linear. But the process has proven to be far from it. My pursuit of a theory that “fit” was a barrier to the process, and fit wasn’t an appropriate goal in the first place. Dr. Hu’s suggestion came just in time for me to allow the DLE theory into the research process. It isn’t a perfect fit, but if it were, there would be no need for research; all the questions would be answered. The most valuable part of the DLE theory to my research is that it shaped my study and my understanding of the potential relationships between staff and graduate diversity.

**Reflections on the Methods**

No one is more surprised than I am that I chose to do a quantitative study for my dissertation. If you had asked me three years ago, I would have told you how much I hated statistics, how numbers don’t really mean anything, and how the real power of research is in
people’s stories. And true to form, in HESA 720, Review of Research in Higher Education, I identified myself as far away as possible from the positivist paradigm. Here is a quote from the paper in which I identified my research paradigm as “critical educational research” (Cohen et al., 2018): “I will not necessarily base my research on quantitative, objective data; I will need more interaction with my research subjects and data. I will need to choose research interests that can lead to action and change.” I completed that assignment before we covered the pragmatic paradigm, which we touched on briefly toward the end of the course. The pragmatic paradigm changed my outlook by introducing flexibility into my research worldview. By the end of the course, I wished I could have re-written that paper (but I was not going to volunteer to do so) to incorporate my newfound paradigmatic “home.”

Enter HESA 700, Quantitative Foundations in Higher Education Research, aka “Statistics.” I was very nervous. I am not good at math, and I do not have fond memories of my quantitative class in my master’s program. Dr. Mac made the subject very approachable and provided supplemental materials and activities that helped me understand the principles behind quantitative research. Reading through the journal she had us keep throughout the course, I see statements like, “I’m not terrible at this,” and “I understand.” Once I read one of my assigned articles that used the critical quantitative approach (Duran et al., 2020) I fell in love with quantitative methods. I experienced QuantCrit as the ultimate pragmatic blending of research methods and purpose, and I began exploring what it might be like to use quantitative research to tell a compelling story. Although I had identified myself as a more qualitative researcher in the past, and had connected to critical methodology, perhaps I was more positivist than I had thought because I was not allowing room for two things to be true: stories are powerful in research and quantitative research can tell a story. I continue to identify as a pragmatic researcher, recognizing
all research paradigms as valid and useful for various unique situations. I really enjoyed working on my quantitative study.

**Reflections on Data Analysis**

Although I love it now, quantitative research is difficult. There was no easy part of the process. Although relatively easy to access, IPEDS data proved to be challenging. Any instructions on interpreting the raw data are scattered and difficult to find. I found myself googling in circles around definitions. I reached out to the IPEDS helpdesk and found them to be extremely helpful, but the phone call was a nerve-wracking experience. It was incredibly validating when I explained my question and the assistant said, “That makes sense.”

Navigating software was another significant challenge. I have never used Microsoft Excel as much in my life as I did over the last few months. I had lots of outside help from YouTube and my husband to automate the calculations I needed. I made many mistakes and had to backtrack several times. YouTube also came to the rescue with SPSS 27. Out of the whole dissertation process, the data analysis is what I am most proud of.

The biggest barrier to the analysis process was my own ego. After recognizing that my proposal used the language of “graduation rate” to describe the racial demographic makeup of the graduating class and not actually the graduation rate, Dr. Hu asked me to revise the language to fit what I was proposing. However, as I was beginning to do that, I decided I really wanted to use the actual graduation rate. I thought it would make my results more impactful and relevant.

I edited my proposal to fit the language of graduation rate and began analyzing the data accordingly. I triumphantly ran my bivariate correlation and came up with extremely confusing results. I ran the correlation with the data arranged and aggregated in different ways. I used percentages rather than decimals. Nothing clarified the results. I determined that there was
nothing wrong with the data itself; there were probably just too many unknown factors impacting graduation rate, which interfered with the bivariate correlation. A more complex procedure may have been able to isolate those factors, but that was beyond the scope of my dissertation.

I had to quickly pivot back to my original proposal, with language altered to reflect the demographic composition of the graduating cohort rather than graduation rate and re-calculate all of the data. Luckily, this did not take very long because I already had so many spreadsheets. I estimate that I lost five weeks of research time because of this, but I refused to beat myself up over it, and I simply moved forward.

In general, I do not fear making mistakes and sometimes I must bump into boundaries and bounce off limitations to know where they are and how to navigate them in the future. If I were able to go back through this process again, I might stick with the revisions that were asked of me, rather than trying to make my work more meaningful to others. There is some security in recognizing that one’s work is meaningful as it is! Alternatively, I might make the same choice but perhaps would explore both options in parallel so there would not be too much commitment to one or the other. Then, at the point that I know one is not working, I could stop that process and simply continue with the one that is working. One significant thing I have learned about myself throughout this process is that I need to take time to reflect and process information before deciding. A little more time spent reflecting could have saved me a lot of time in the research process.

Applications to Research

I quickly became overwhelmed at the prospect of writing an article. The length of the article and the expertise required intimidated me. Choosing a publication helped me break down the article writing process into more manageable pieces. The instructions for the publication I
chose, Community College Journal of Research and Practice, are clear. There is a bit of irony in the fact that the typical full-length manuscript is 20-35 pages, including all tables, figures, references, and appendices. I will have to make significant cuts! I struggle with being concise, so this is an opportunity to enhance my skills in that area. The publishable paper is the best part about the dissertation of practice. I am excited that my dissertation will have a life beyond ProQuest.

My outlook on the overall research process has evolved through the dissertation process. Although the dissertation is the completion point of a structured program, I realized that one does not have to be in a specific program, or otherwise be directed to do research; one can simply do research. At any point, I can choose to start a research project just because I am curious. Using existing data through IPEDS helped shift my mindset about conducting research in the future because the data are already there and available to use at any time.

Although I see myself primarily as a practitioner, I can envision myself conducting more research in the future. One of the challenges of the dissertation process is the sudden lack of structure, community, and interaction after more than two years of class work. So I am interested in future research with a partner or a team. Although I cannot see myself doing qualitative research anytime soon, I would be delighted if someone wanted to collaborate on a mixed-methods study to further my dissertation research.

Applications to my Professional Practice

The Process

The dissertation process has impacted my professional practice in several ways. First, it has demonstrated to me how we shape and are shaped by the circumstances and reality around us. The DLE model emphasizes the influence of many external and internal factors on the
campus climate, and studying the model brought to the forefront those factors in my own institution. I feel like I have a stronger grasp on the context of the institution, as well as community colleges in general and the environment they create for the campus community. I think many of my early struggles in my community college career were exacerbated because I did not fully understand the context and the levels of influence that impact the campus environment.

Second, the process has brought to light themes of rigidity vs. flexibility in my life and work. I notice it throughout this scholarly reflection, places where I held too tightly to an idea for too long or assumptions I made that did not leave room for other possibilities. I am often the barrier standing in my own way, but I do not have to be. The Ed.D. program helped me be more reflective as a scholar and practitioner. Continuing to practice reflection will help me recognize future opportunities for flexibility. Speaking of flexibility, although I have said in the past that I do not see myself ever pursuing faculty life, I am starting to open up to the idea; I think I would like to teach foundational statistics and courses focused on student affairs practice such as legal issues.

The Study

I work at a rural, public, two-year community college in Illinois. Most of our students are (according to IPEDS categories) White (64%), 25% are Hispanic or Latino, 4% are two or more races, 3% are race/ethnicity unknown, 2% are Asian, 2% are Black or African American, and 0% are American Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and non-resident alien. According to internal documents at my college, in 2020 our staff (using the same categories used in the study) was 79% White, 8% Hispanic or Latino, 7% race/ethnicity Unknown, 3% Black or African American, 3% Asian, 1% two or more races, and 0% American
Indian or Alaska Native, Native Hawaiian or other Pacific Islander, and non-resident alien. Most notably, our proportion of Hispanic or Latino staff is far below that of students. Our institutional data suggests that “minority” students (the college aggregates most non-White racial demographic categories at the institutional level) are persisting and completing college at lower rates than our White students.

My study and my findings have caused me to ask some questions about my institutional context. First, why do we aggregate the non-White racial categories in this way? I believe it will be far more helpful for us to disaggregate this data to give each category full representation as we analyze our population. Second, how has the diversity of our staff and students changed over the last several years? Using IPEDS data, a percent change could be calculated for each population. Correlational tests would be difficult to do with data from just one institution because there are not as many observations available (only one per year and only for the years that both sets of data are available). However, results would not have to be statistically significant to be meaningful to the institution. It would still be enlightening to see the changes over the years. I am also interested in pursuing at my institution the areas that were beyond the scope of my study, such as learning about students’ experiences in their own words. Qualitative data could add to this study by bringing underrepresented voices to the forefront. By gathering both quantitative and qualitative data at my college, a report of findings could be brought to life for individuals who value both types of inquiry. Qualitative data could also give clues as to the reasons for the associations between variables.

Recently, the institution has taken big steps toward improving the campus climate for diversity, equity, belongingness, and inclusion (DEBI, for short). Many conversations are happening around outcomes for underrepresented students, as well as employee satisfaction and
retention. I fear that if we separate the two populations and their outcomes based on the categories of “student” and “employee,” we may make some movement forward in each, but we will not make the holistic movement forward as an institution that we seek. I think we risk sacrificing one for the other. For example, putting all of our efforts into outcomes for underrepresented students will undoubtedly tax staff emotionally and physically and add to the invisible labor of racially minoritized employees; we would risk subjecting our staff to racial battle fatigue and burnout, which could eventually lead to attrition. Then, our diverse student population will see less of themselves represented in the institution’s employees, potentially leading to a chilling of the climate for diversity. Not to mention that before we even get to the point of attrition, burned out employees, through no fault of their own, may not have the capacity for effective student service.

Either way, if we do not address the climate for all members of the campus community, we risk doing more harm than good. While my research does not extend far enough to determine a cause for the relationship between the demographic representation of staff and graduates, just knowing there is a link is helpful to move these ideas forward. I hope that in my professional practice, by sharing what I have learned from this challenging exploratory quantitative study, I can advocate for staff and students in a language, and at a volume, that those in power can hear.
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