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Campus Racial Climate, the Diversity Rationale, and Affirmative Action Policy: Towards a Socially Just and Socially Engaged Democratic Citizenship

Author

Fuentes, Marcia

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Campus Racial Climate, the Diversity Rationale, and Affirmative Action Policy: Towards a Socially Just and Socially Engaged Democratic Citizenship

A dissertation submitted in partial satisfaction of the requirements

for the degree Doctor of Philosophy

in Education

by

Marcia Violeta Fuentes

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ABSTRACT OF THE DISSERTATION

Campus Racial Climate, the Diversity Rationale, and Affirmative Action Policy: Towards a Socially Just and Socially Engaged Democratic Citizenship

by

Marcia Violeta Fuentes

Doctor of Philosophy in Education

University of California, Los Angeles, 2015

Professor Walter R. Allen, Chair

The United States is undergoing such rapid shifts in the racial demographics of its population, that it is projected to become a majority-minority country in less than four decades. Will its citizenry be ready to participate socially and politically within the new racial/ethnic context? Higher education is positioned to play a role in the cultivation of a socially engaged democratic citizenship through its influence on students' social agency, the extent to which a student values political and social involvement as a personal goal, which empirical research indicates is positively affected through students' engagement with racially diverse peers. Selective institutions, particularly, serve as pathways to official positions of leadership for students who will govern an increasingly diverse democracy. In order to provide the opportunity of diversity benefits to all students, selective institutions may use affirmative action policies and

practices to admit students of color historically denied admission. This study proposed the campus racial climates of institutions, in addition to the admission of a diverse student body and cross-racial engagement amongst peers, may play an important role in the development of social agency. This study, therefore, examined the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate on social agency across White, Asian/Asian American, African American/Black, and Latina/o racial/ethnic groups.

Grounded in a set of theoretical frameworks on the benefits of diversity, intergroup relations, and campus racial climate, this study employed multiple group, multi-level structural equal modeling (MSEM) using national and longitudinal undergraduate student survey data. The author tested three different measures of campus racial climate, one per each of the three models, in order to investigate if results were sensitive to how it was operationalized. The study's key findings include: the impact of campus racial climate in connection to the diversity rationale, outcomes of equity and affirmative action policy should be understood through the unique dimension the variable employed measures; particular dimensions of the campus racial climate impact the levels of cross-racial interaction for all students but does not impact outcomes of social agency for students of color; and greater engagement with diverse peers is associated with greater levels of social agency values at the end of college.

The dissertation of Marcia Violeta Fuentes is approved.

Mitchell J. Chang

Franklin D. Gilliam, Jr.

Sylvia Hurtado

Walter R. Allen, Committee Chair

University of California, Los Angeles

2015

DEDICATION PAGE

I dedicate my dissertation to the loving memory of my father, Javier R. Fuentes (1958-2006), who left us much too early. I derive my altruism, leadership, and advocacy values from him. From a very young age, I watched him use his ever-growing sense of agency and navigational skills to demand retributions for others when he witnessed or learned they had been discriminated, to work through the bureaucratic U.S. immigration process until he successfully attained residency for relatives, and to religiously exercise his right to vote in affirmation of his earned citizenship status and the belief he could help shape political outcomes. Lastly, he labored incessantly to accumulate the economic capital he felt could help his children break through the barriers of social mobility and surpass his minimal access to formal education. After he passed, and my mother and I visited the factory where he toiled for more than 20 years, a co-worker of his reached out to us with an envelope containing a collection of donations as a form of payback on behalf of my dad's legacy. The man explained that my father had always led initiatives to raise funds for any fellow in need, and he himself was touched by the goodwill when his family was confronted with insurmountable hospital bills to treat his baby girl.

When I stop to consider the common prejudicial narrative of Mexican/Mexican American immigrants in the U.S., I think of my father. I wonder not why he was so deficient or un-American but rather what more he would have contributed to society had he been given just access to institutions and channels of leadership and empowerment. He was always so proud of his children's educational milestones, be it middle school or college, and I can only imagine what he would feel to have his daughter attain a terminal degree. I wonder if he, like my mother, would liken my academic journey that pulled me far from family to his own journey from Mexico in hope of better life opportunities. I would have told him, "You did it, papi."

TABLE OF CONTENTS

VITA

EDUCATION:

UNIVERSITY OF MICHIGAN, ANN ARBOR
Master of Arts, 2008
Center for the Study of Higher and Postsecondary Education, School of Education

Master of Public Policy, 2008
Gerald R. Ford School of Public Policy

UNIVERSITY OF ILLINOIS, URBANA-CHAMPAIGN
Bachelor of Science, Psychology and Political Science, 2004

RESEARCH & TEACHING AGENDA:

Using quantitative methods, I have a particular interest in social justice and equity policy issues impacting historically underrepresented and excluded communities in higher education.

PUBLICATIONS:

Comeaux, E. & **Fuentes, M.V.** (forthcoming). *Cross-racial interaction of division I student-athletes: An examination of the campus climate for diversity*. In E. Comeaux (Ed.), Introduction to Athletics in American Higher Education. Baltimore, MD: Johns Hopkins University Press.

Romero, R.C., **Fuentes, M.V.** (forthcoming). Latin@s and Affirmative Action: History and Implications of *Fisher v. Texas*. *Association of Mexican American Educators Journal* Special Issue on Chican@s/Latin@s, Affirmative Action, and Education.

Haslerig, S., Bernhard, L., **Fuentes, M.V.**, & Allen, W.R., Panter, A.T., and Daye, C. (2013). A compelling interest: Activating the benefits of classroom-level diversity. *Journal of Diversity in Higher Education, 6*(3), 158-173.

Romero, R.C., **Fuentes, M.V.** (2013). *The United States Supreme Court's Ruling in 'Fisher v. Texas': Implications for Latinos and Higher Education* Policy Report. UCLA Chicano Studies Research Center Latino Policy and Issues Brief, Number 28.

Fuentes, M.V., Ruiz, A., Berdan, J., and DeAngelo, L. (2013). Mentorship matters: Does early faculty contact lead to quality faculty interaction? *Research in Higher Education*, 1-10.

Fuentes, M.V. (2012). Findings from the 2011 administration of the Your First College Year (YFCY): National aggregates. Los Angeles, CA: Higher Education Research Institute, UCLA.

Fuentes, M.V. (2011). Findings from the 2010 administration of the Your First College Year (YFCY): National aggregates. Los Angeles, CA: Higher Education Research Institute, UCLA.

SELECTED LIST OF CONFERENCE PRESENTATIONS:

Comeaux, E., **Fuentes, M.V.** (2014). Cross-Racial Interaction of Division I Student-Athletes: An Examination of the Campus Climate for Diversity. Roundtable presented at the annual meeting of the American Educational Research Association: Philadelphia, PA.

Fuentes, M.V., St. John, E. (2014). College Access and Success of Latin@s: The Role of Academic Capital Formation. Paper presented orally at the annual meeting of the American Association of Hispanics in Higher Education: Costa Mesa, CA.

Fuentes, M.V. (2013). Understanding the Role of Campus Racial Climate on Benefits of Diversity. Paper orally presented at the annual meeting of the Association for the Study of Higher Education: St. Louis, MO.

Fuentes, M.V. (2013). Does a race-neutral admissions policy have the potential to yield the same educational benefits as race-conscious affirmative action? An examination of class-based affirmative action. Paper presented orally at the annual meeting of the American Educational Research Association: San Francisco, CA.

Haslerig, S., Bernhard, L., **Fuentes, M.V.**, and Allen, W.R. (2012). A compelling interest: Activating the benefits of classroom-level diversity. Paper presented orally at the annual meeting of the Association for the Study of Higher Education: Las Vegas, NV.

Fuentes, M.V. (2012). Fostering cross-racial interactions in the first year of college. Paper presented orally at the annual meeting of The First Year Experience: San Antonio, TX.

Fuentes, M.V. and Pryor, J.H. (2011). Assessing multifaceted student learning: Theoretical framework of the CIRP surveys. Paper presented orally at the annual meeting of the National Association of Student Personnel Administrators Assessment and Persistence: Las Vegas, NV.

RESEARCH & TEACHING EMPLOYMENT at UCLA:

GRADUATE STUDENT RESEARCHER

The Choices Project, **April 2014-Present**

Ralph J. Bunche Center for African American Studies, **July 2013-October 2013**

Cooperative Institutional Research Program at HERI, **August 2010-December 2012**

TEACHING ASSOCIATE

César E. Chávez Department of Chicana/o Studies, **Fall 2012-Winter 2014** Undergraduate Level

Higher Education & Organizational Change, **Spring Quarters 2013, 2014** Graduate Level

COMMUNITY ENGAGEMENT at UCLA:

PROGRAM COORDINATOR

The Social Justice Academy (SJA), **March 2011-June 2012**

Developed the program structure, designed the curriculum, and served as lead facilitator for SJA, a year-long experience involving a cohort of 31 local LA-area African American and Latina/o high school students. SJA aimed to foster positive and meaningful intergroup relations and raise students' critical consciousness of social justice issues.

ACADEMIC MEMBERSHIPS:

Association for the Study of Higher Education (ASHE): 2010-Present; American Educational Research Association (AERA): 2011-Present; American Association of Hispanics in Higher Education (AAHHE): 2011-Present; American Institutional Research (AIR): 2011-Present; The First Year Experience (FYE): 2011-Present

CHAPTER ONE

Introduction

This dissertation explores the conditions necessary to achieve equitable benefits of diversity for all undergraduate students attending predominantly White institutions of higher education in the U.S. Specifically, this dissertation explores the theoretical interrelationship of structural diversity, interactional diversity, and campus racial climate to better understand how higher education can positively influence social agency across racial/ethnic lines. This study adds to the scholarship on student diversity in higher education within the context of race-conscious affirmative action policy. Findings from this dissertation will help inform policymakers, scholars, administrators, faculty, and students on how to ensure affirmative action is a policy and practice that rests on the interests of all students and ultimately ensures the prosperity of an increasingly diverse democratic society.

Significance

The 2012 re-election of President Barack Obama, the nation's first Black President, spurred renewed interest in the changing racial demographics of the United States. Analysis of the 2012 presidential election revealed that a record 28% of the electorate consisted of racial minority voters (including Hispanics, Blacks, and Asians), up from 26% in the 2008 election, and 80% of this constituency cast their ballots for President Obama ensuring his re-election (Taylor & Cohn, 2012). These same racial minority groups are projected to turn the U.S. into a majority-minority country by the year 2050 (Taylor & Cohn, 2012). While mainstream news coverage focused largely on deciphering how the rapidly shifting racial/ethnic demographics will impact the political landscape (Bartels, 2013; Nuño, 2013; Wehner, 2014; Williams, 2013), greater discourse is needed to address the racial/ethnic (under)representation within the political

leadership, equitable access to social and political engagement for all citizens, and the cultivation of skills necessary for members of society to engage within an increasingly diverse democracy.

According to a diversity initiatives report by the National Urban Fellows (2012), greater racial and ethnic diversity in leadership within the public sector is urgent because a "diverse and inclusive leadership (among government, nonprofits and philanthropy) can more effectively address the social issues that confront the nation" (p. 1). The report highlights the historical and contemporary failure of public service leadership to represent people of color residing in the U.S. (36% in 2010). President Obama is not just the first Black U.S. President, he is the first non-White, non-Hispanic origin President. Among congressional representatives and state governors, people of color make up only 16% of House and Senate members combined and only eight percent are governors. The lack of racial/ethnic representation in leadership exists even in the most diverse states. Communities of color are also underrepresented within the federal court system; only 6 of the 112 justices who have ever served the U.S. Supreme Court have been people of color. Lastly, people of color comprise only 14 percent and 15 percent of nonprofit boards of directors and philanthropic boards respectively. The National Urban Fellows (2012) advocate for a change in current affairs in order for the U.S. to attain a leadership and citizenry better equipped to collectively resolve longstanding societal ills and develop a truly inclusive democracy consistent with American idealistic values.

As demographics change and the political landscape is reshaped, higher education is uniquely positioned to prepare leaders and citizens for a majority-minority country *and* a leadership reflective of that diversity. Citing prior research (McBee, 1980; Morrill, 1980), Pascarella, Ethington, and Smart (1988) write:

> College has been regarded as one among a number of fundamental social/cultural institutions which prepares the young adult for concerned and involved citizenship in a democracy. Consequently, the fostering of humanitarian and civic values has been regarded as an important national benefit of a college education. (p. 412)

While some scholars question whether higher education is in fact able to impact political engagement (Kam & Palmer, 2008), empirical research indicates the undergraduate college experience has a significant and unique impact on civic values even after controlling for the values and characteristics students bring with them to college (Pascarella et al., 1988). Humanitarian and civic involvement values are also known as civic values, social activism, citizenship engagement, and social agency in the literature (Lott & Eagan, 2011). As a whole, this list of values is regarded as a set of democratic outcomes that enables students to successfully participate in an increasingly diverse and complex society (Hurtado, Engberg, Ponjuan, and Landreman, 2002). This study focuses on social agency, defined as the extent students value political and social involvement as a personal goal.

In addition to impacting the type of civic values necessary to engage within an increasingly diverse democracy, higher education has the ability to produce politically engaged members of society. As Nie, Junn, and Stehlik-Barry (1996 as cited in Kam & Palmer, 2008) explain, higher education acts as both an enhancer of human capital and as a sorting mechanism. The human-capital enhancing argument states entry to college confers individuals the networks and access to resources that propel political participation. Higher education also acts as a sorting mechanism that positions college-educated citizens to access higher prestige occupations, greater wealth, and increasing participation with voluntary service. These indicators in turn place individuals in a position where they are more likely to mobilize and even run for political office.

Social agency is a value driven construct, but the types of values it represents have been linked to political engagement six years after college (Misa, Anderson, & Yamamura, 2005).

While social and political involvement can be manifested without holding formal office, the pathway to political positions must be equally available to all racial/ethnic groups. Currently Blacks and Latinos are less likely than Whites to consider running for political office (Fox & Lawless, 2005), and this could be related to their limited access to institutions of higher education. In order to ensure future political leaders are racially representative of the population, especially in light of a looming majority-minority nation, colleges and universities must expand access to historically excluded racial/ethnic communities including African Americans and Latinos. One notable policy of access for these populations of color is affirmative action. Court Justices in federal court cases upholding the constitutionality of affirmative action have affirmed institutions must be open to students of all racial backgrounds in order to facilitate a fully functioning democracy. Justice Powell writing for the majority in *Regents of the University of California v. Bakke* (1978) affirmed leaders must be trained in a racially diverse context in order to successfully lead a racially diverse citizenry, writing: "It is not too much to say that the 'nation's future depends upon leaders trained through wide exposure' to the ideas and mores of students as diverse as this nation of many peoples" (Cantor, 2004, p.8).

In addition to the pedagogic interest described by Justice Powell in Bakke, Justice O'Connor writing for the majority in *Grutter v. Bollinger* (2003), affirmed diversity for reasons of democratic legitimacy (Lehman, 2004). As cited by Lehman (2004), Justice O'Connor:

> We have repeatedly acknowledged…education as pivotal to 'sustaining our political and cultural heritage' with a fundamental role in maintaining the fabric of society…For this

> reason, the diffusion of knowledge and opportunity through public institutions of higher education must be accessible to all individuals regardless of race or ethnicity… (p.91)

The Court further recognized higher education and a handful of selective law schools in particular are responsible for producing a large proportion of the political leadership, including United States Senators (Lehman, 2004). The Court, however, stopped short of allowing higher education to take affirmative action as a means to pursue racial representational equity within their student bodies given the pathway to civic and political engagement it promotes. The Court has continued to shy away from upholding the constitutionality of the policy using a social justice rationale; it has instead affirmed the use of affirmative action under a different and evolving rationale that does not directly target the admission or graduation of a representative college educated citizenry, as discussed later in this study. Affirmative action, nevertheless, remains a tool of policy higher education can use to cultivate a racially diverse student body able and willing to engage within and lead a majority-minority country.

Statement of Problem

Admissions policies help shape the doors of access to college. This is especially true at selective institutions of higher education in the United States, where competition for entry is high and what is at stake is even higher. Students who obtain degrees from the most selective institutions enjoy comparatively higher premiums than students with degrees from less selective institutions, including greater access to graduate school, pathways to elite careers, and higher paying jobs (Carnevale & Rose, 2004; Carnevale & Strohl, 2010). They also assume positions of status, power, influence, and leadership in the country; purportedly 42% of government leaders and 54% of corporate leaders in the U.S. are graduates from just twelve of the most elite institutions of higher education (Dye, 2002). Given the high premiums at stake, it is not

surprising race-based affirmative action, a policy practiced at selective institutions and which gives consideration or preference to an applicant based on their race (Gurin, Dey, Gurin, & Hurtado, 2003), is scrutinized and debated by a wide array of constituents, including policymakers, scholars, faculty, students, and the public.

According to Orfield (1998) race-based affirmative action practices in college admissions were first designed and voluntarily adopted by institutions in the 1960s. From an institutional perspective affirmative action was a way to remedy racial discrimination, expand access to higher education to previously excluded racial groups including African Americans, Latinos, and Native Americans, and achieve racially diverse student bodies (Orfield, 1998). Over time the rationale upholding its purpose and constitutionality has been shaped and reshaped due in part to the long line of lawsuits brought forth by White plaintiffs alleging racial discrimination (see *DeFunis v. Odegaardt*, 1974; *Regents of the University of California v. Bakke*, 1978; *Hopwood v. University of Texas Law School*, 1996; *Smith v. University of Washington Law School*, 2000; *Johnson v. Board of Regents of the University of Georgia*, 2001; *Gratz v. Bollinger*, 2003; *Grutter v. Bollinger*, 2003; *Fisher v. Texas*, 2013). The need to ameliorate past and present discrimination gave way to a need to provide a better education for all students through the presence of a diverse student body (Zamani-Gallaher, O'Neil Green, Brown, & Stovall, 2009). The history of the evolving rationale for affirmative action policy will be discussed in the literature review of this study.

Critical race theory (CRT) scholars allege pushback from Whites aimed at preserving their privilege and power led to a shifted rationale that now exemplifies a race equity policy resting on interest convergence (Yosso, Parker, Solorzano, & Lynn, 2004; Zamani-Gallaher et al., 2009). Interest convergence means that Whites will only support policies serving the needs

of people of color as long as it serves their particular interests (Bell, 1980, 1987, 2004). Whites accordingly accept affirmative action policy so long as it serves their interests (Zamani-Gallaher et al., 2009; Harper, Patton, & Wooden, 2009), which the diversity rationale articulates as a plethora of educational and societal benefits stemming from exposure to racially diverse college peers.

By shifting towards a frame of interest convergence to maintain affirmative action, critical race theorists believe "well-intentioned affirmative action diversity advocates" uphold a White majoritarian structure of privilege (Yosso et al., 2004, p.7). The benefits of diversity are articulated in relation to White students due to the historical resistance of enrolling students of color in White institutions. The argument is then made of allowing access to students of color so they can add diversity to a campus and "help White students become more racially tolerant, liven up class dialogue, and prepare White students for getting a job in a multicultural, global economy" (Yosso et al., 2004, p.8). CRT scholars question what the benefits are for students of color beyond simply accessing historically White institutions.

CRT scholars also point out the interests and needs of students of color have been silenced in affirmative action court cases. In the *Grutter* and *Gratz* Supreme Court cases, Black, Chicana/o, Latina/o, Asian American, and other students attending the University of Michigan were admitted as a third party respondent, called "student intervenors" (Yosso et al., 2004). Student intervenors put forth evidence the University of Michigan continued to impart effects of discrimination through its hostile campus climate that led them to experience microaggressions, tokenism, and exclusion from the mainstream student community due to their unequal racial statuses (see Allen & Solorzano, 2001; Yosso et al., 2004). Both the Court and the University

dismissed the students' evidence of a hostile campus racial climate, and the empirical research upholding the diversity rationale also failed to include these students' voices.

In response to the criticism of the diversity rationale, Hurtado (2007) wrote:

> The goal of this emerging body of work is the production of citizens for a multicultural society that can result in leadership with greater social awareness and the complex thinking skills to alleviate social problems related to the complexities of inequality. The end goal is the improvement of education for students from different racial, economic, and religious communities who must work together to achieve a vision of the pluralistic democracy we aspire to become. (p. 193)

In other words, in order to advance towards a more socially just citizenry and leadership representative of the population it serves, higher education must educate and train students within a diverse context.

A large body of social science research provides resounding evidence of the benefits stemming from a diverse student body. Compositional diversity[1], the numerical representation of student racial diversity on a campus, allows for the opportunity to engage with racially diverse peers[2] (Chang, 1999; Gurin, Dey, Hurtado, & Gurin, 2002), which in turn has the potential to shape the leadership necessary for a functioning multiracial democracy (Hurtado, 2007). It is important to understand how these democratic benefits can be attained for students across racial/ethnic groups, something diversity researchers have not always answered. Perhaps the shift towards interest convergence may have overshadowed the need to understand the benefits

[1] Compositional diversity was originally termed "structural diversity"; scholars renamed the concept in order to give greater clarity to its meaning (Milem, Chang, & Antonio, 2005). Compositional diversity is the "numerical and proportional representation of various racial and ethnic groups on a campus" (Milem et al., 2005, p. 15).

[2] Engagement with racially diverse peers is used interchangeably in this study with cross-racial interaction (CRI), interactional diversity, and intergroup contact.

by racial/ethnic groups, focusing instead on the benefits for all students generally. At times this may have also been a result of the national and longitudinal datasets available to researchers on the impact of college on students. An overwhelmingly White student sample in the datasets available may dissuade and complicate efforts to address differences *across* racial/ethnic groups. In order to ensure equitable benefits, however, we need to understand the conditions necessary to yield benefits for all racial/ethnic groups.

Expanding our understanding of how campus climate connects empirically within the diversity rationale is an important step towards ensuring that the interests of students of color, like those of the student intervenors in *Gratz* and *Grutter*, are considered further by the Courts in future affirmative action cases. It may be that if campus climate is an intertwining feature of how the diversity rationale is explained to activate benefits to students and thereby the country, the Court will give greater consideration to the voices and experiences of students of color who are "adding" diversity to institutions of higher education. Giving greater attention to campus climate within the established legal framework of the diversity rationale may also result in institutions taking greater action to ameliorate present discrimination in order to create an inclusive environment. The interests of students of color, thereby, would extend beyond simply accessing predominantly White institutions.

Purpose of the Study

This study seeks to further understand how the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate impacts social agency outcomes for students across racial/ethnic groups. While abundant empirical research exists on the impact of exposures to diversity on student outcomes and another large body of research examines the impact of campus racial climate on student outcomes, only one known study (Jayakumar, 2008)

explores the interrelationship of structural diversity, cross-racial interaction, and campus racial climate on a known benefit of diversity. Jayakumar (2008) found a mediation effect of campus racial climate on the relationship between compositional diversity and cross-racial interaction for White students. In other words, the presence of a racially diverse student body made it possible to engage with diverse peers where a positive campus racial climate was present. Given greater levels of cross-racial interaction were associated with beneficial outcomes, a more positive campus racial climate activated greater workforce competencies for White students (Jayakumar, 2008). This study seeks to confirm the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate and investigate if it also holds true for African American, Latina/o, and Asian American students. Using social agency as the outcome of interest, this study will seek to understand if cross-racial interaction leads to greater levels of social agency dependent on the positive or negative state of the institution's campus racial climate.

Recent studies have found a positive relationship between engagement with diverse peers and social agency (Chang, Astin, & Kim, 2004; Cuellar, 2012; Gurin et al., 2002; Hurtado, Ruiz, & Whang, 2012; Nelson Laird, 2005; Pascarella, Salisbury, Martin, & Blaich, 2012), including motivation to take action for inclusion and social justice within a diverse democracy (Zúñiga, Williams, & Berger, 2005), but only one of these studies examined its benefits across racial/ethnic groups (Gurin et al., 2002). Other studies examined the differences between White students and students of color generally (Hurtado et al., 2012; Nelson Laird, 2005; Pascarella et al., 2012; Zúñiga et al., 2005), controlled for race/ethnicity within a single model (Chang et al., 2004), or used one student racial group as their sample (Cuellar, 2012). Furthermore, one of these studies was cross-sectional and did not benefit from the measurement of a student's social agency at the start of college (Nelson Laird, 2005) and another study examined social agency as

an outcome at the end of the first year of college (Pascarella et al., 2012). Lastly, few studies examined the direct impact of campus racial climate on Latina/o students' social agency levels at the end of college (Cuellar, 2012). This study builds on the existing literature base by using a longitudinal student sample to examine the effect of cross-racial student engagement on social agency at the end of college across racial/ethnic groups.

Perhaps the opportunity to shift the compelling interest rationale back to ensuring students of color are given access to higher education as a means to remedy for past and current racial discrimination is past. The courts have deemed institutions of higher education cannot use affirmative action to remedy past discrimination (see *Hopwood v. Texas*, 1996). Considering the viability of a reversal of judgment on part of the courts is outside the scope of this study. It is possible, however, to engage in research which further illuminates how affirmative action policy can be applied with equity ends in mind. This study addresses this need by taking into account the interests of students of color through further consideration of the role campus racial climate plays on their resulting benefits of social agency values. The findings, therefore, could help craft practices and policies aimed at providing a leadership representative of the majority-minority population.

With this in mind, this study seeks to answer the following questions of inquiry:

Research Questions

RQ1: a) What is the interrelationship of compositional diversity, student cross-racial interaction, and campus racial climate? b) Does the interrelationship differ across racial/ethnic groups?

RQ2: a) Does campus racial climate mediate the relationship between compositional diversity and student cross-racial interaction? b) Does the mediation differ across racial/ethnic groups?

RQ3: a) Does campus racial climate have a direct effect on student gains of social agency? b) Does the direct relationship of campus racial climate and student social agency differ across racial/ethnic groups?

RQ4: Is the interrelationship of compositional diversity, student cross-racial interaction, campus racial climate, and social agency sensitive to the operationalization of campus racial climate?

CHAPTER TWO

Literature Review

In this chapter I first discuss the history of affirmative action in higher education. Specifically, I focus on the court cases seeking to disallow the consideration of race in college admissions processes. It is critical to illustrate how the compelling interest for affirmative action policy has been shaped over time in order to understand the macro-level policy and historical contexts situating this study. The current compelling interest upholding the constitutionality of affirmative action policy in higher education is often coined the diversity rationale.

This literature review will additionally discuss the link between the diversity rationale and campus racial climate. In particular this section will focus on the paths this study seeks to examine using structural equation modeling analyses (reference Figure 2): compositional diversity on cross-racial interaction; compositional diversity on campus racial climate; campus racial climate on cross-racial interaction; and cross-racial interaction and campus racial climate on social agency. Embedded throughout is consideration for how compositional diversity and campus climate have been measured and what is known about racial/ethnic differences of the effects reviewed. Lastly, factors influencing social agency beyond diversity and campus climate are reviewed due to their potential incorporation in the analyses.

Historical Context of Affirmative Action

Affirmative action was a concept coined by President John F. Kennedy in 1961 in an executive order urging that employers take affirmative action in recruiting, hiring, and promoting underrepresented minorities (Moreno, 2003). The policy, however, was not enforced until the passage of the Civil Rights Act of 1964. Title VI of this act called for the desegregation of higher education and threatened the loss of federal funds if institutions did not abide with the law. In an effort to subscribe to the federal mandate, institutions of higher education started the

use of affirmative action policies and practices in which they considered and gave preference to applicants of historically underrepresented racial groups.

Although the intention of affirmative action policy was to open the doors of access to historically underrepresented racial groups to institutions previously denied to them, opponents to race-conscious affirmative action cite this very legislation in their efforts to dismantle the policy in the courts. Citing the Equal Protection Clause (EPC) of the Fourteenth Amendment to the U.S. Constitution and Title VI of the Civil Rights Act of 1964, White plaintiffs argue affirmative action allows colleges and universities to discriminate against them on the basis of their race (Edley, Jr., 1998). Under the Equal Protection Clause (EPC) of the Fourteenth Amendment to the U.S. Constitution, the government cannot discriminate on the basis of race or ethnicity, unless there is a compelling interest and the race-conscious practice is narrowly tailored (Edley, Jr., 1998). In other words, institutions must prove the reason race should be considered in the admissions process is compelling and serves a government interest, and narrow tailoring refers to how that policy is enacted in practice at the institution. For the purpose of framing this study, the case history of what institutions have argued as a compelling interest and what the courts have accepted to be compelling enough is important.

DeFunis v. Odegaardt (1974) was the first lawsuit against the use of affirmative action in college admissions to be reviewed by the U.S. Supreme Court (SCOTUS). The case involved a lawsuit filed by Marco DeFunis alleging that he had been denied admission to the University of Washington Law School (UWLS) on the basis of his White race. Ultimately dismissed on grounds of mootness, the Court remanded the decision back to the holding of the Supreme Court of Washington in which the use of affirmative action was affirmed (*DeFunis*, 1973). Seeking to establish a compelling interest, UWLS had argued its use of affirmative action policy was a

necessary step to remedy continuing effects of past segregation and discrimination of Black Americans, Chicano Americans, American Indians and Philippine Americans. In order to yield a reasonable representation of these and other disadvantaged racial groups and acknowledging that their traditional measures of admissions would unjustly deny members of these groups, the university gave race-based preferences. In addition to a reasonable representation of racial minorities in its classrooms, the law school sought to increase the participation of racial and ethnic groups who have historically been denied access to the legal profession (*DeFunis*, 1973).

The Supreme Court of Washington found that the use of race as one factor in admissions criteria was not in violation of the Equal Protection Clause of the Fourteenth Amendment because it sought to bring together races, not separate them, heavily basing its opinion on the integration efforts of *Brown v. Board* (1954). The Court further found that the state's compelling interest was valid and based on three premises: 1) to eradicate effects of past discrimination, 2) to allow for a "racially balanced student body" that would provide all students with an interplay of ideas that would better prepare them to serve in the legal profession, and 3) because the shortage of minorities in law school and subsequently a shortage of "minority prosecutors, judges and public officials - constitutes an undeniably compelling state interest. If minorities are to live within the rule of law, they must enjoy equal representation within our legal system (*DeFunis*, 1973)." The state supreme court affirmed the compelling interest rationale set forth by UWLS.

Regents of the University of California v. Bakke (1978) is often considered the first landmark affirmative action case in higher education because the U.S. Supreme Court made a ruling setting federal precedent and law as to the use of affirmative action in college admissions. The case involved a lawsuit against the University of California at Davis Medical School (UC

Davis Medical School) for its differential treatment of Native American, Latino, Asian, and African American applicants from White applicants. Alan Bakke, a White plaintiff, alleged he had not been admitted because of his race. UC Davis Medical School argued it furthered a compelling interest in using a special admissions track for minority applicants based on four reasons: 1) "reducing the historic deficit of traditionally disfavored minorities in medical schools and in the medical profession", 2) "countering effects of societal discrimination", 3) "increasing the number of physicians who will practice in communities currently underserved", and 4) "obtaining the educational benefits that flow from an ethnically diverse student body (*Bakke*, 1978)." The Court, however, judged that the attainment of a diverse student body was the sole compelling and constitutionally permissible goal. The Court dictated the "nation's future depends upon leaders trained through wide exposure to that robust exchange of ideas which discovers truth" as promoted by a diverse student body. Diversity was viewed broadly by the Court, extending beyond an applicant's race or ethnicity, citing Harvard as an exemplary model.

Four White plaintiffs challenged their denial of admission to the University of Texas at Austin Law School, rising to the Fifth Circuit Court of Appeals in *Hopwood v. Texas* (1996). The lower District Court had affirmed the UT Austin's consideration of race with regards to African and Mexican-American applicants due to the legacy of racial discrimination in the educational system of Texas, the hostile racial climate that the institution's legacy of discrimination and exclusion towards these racial/ethnic groups had created, and due to the benefits of diversity (Henry, 1996). On the matter of remedying past discrimination, it deemed that UT Austin could only remedy present effects of past discrimination that it had acted on, not on behalf of the entire educational system of Texas. The Court held that UT Austin did not demonstrate present effects of discrimination because while the institution had in the past

excluded African and Mexican-American applicants, this was no longer the case. Furthermore, the Circuit Court concluded that any racial tension on the campus was based on societal discrimination unrelated to the institution's legacy of discrimination. It pointed to the applications of African-American and Mexican-American students as proof that UT Austin was not hostile or behaved discriminatorily towards these communities (Henry, 1996). Thus, the Fifth Circuit Court struck down remedial purpose as a compelling interest as argued by UT Austin.

The Fifth Circuit Court additionally reconsidered diversity as a compelling interest as set forth by *Bakke* (1978). The Circuit Court deemed a majority of justices in the *Bakke* case agreed with the outcome of the case but it was not definitively clear if a majority agreed on the diversity rationale articulated solely by Justice Powell and therefore not a precedent they were tied to (Henry, 1996). The Circuit Court decided diversity was not a compelling interest because it treated minorities as a group rather than individuals and thus engendered racial stereotypes that fueled racial hostility. Ironically, the Circuit Court deemed the only compelling state interest by which institutions could consider an applicant's race was to remedy present effects of their own past discrimination (Henry, 1996). Not finding a compelling state interest, the Court struck down the use of race-conscious affirmative action in the states it governed.

The University of Washington Law School (UWLS) use of race in its admissions practices was once more contested by White plaintiffs in *Smith v. University of Washington Law School* (2000). This time UWLS argued that it considered race as one factor of many due to the compelling interest of diversity, per Justice Powell's diversity rationale upheld in *Bakke* (1978). Before the case was appealed and decided by the Ninth Circuit Court of Appeals, the people of the state of Washington passed Initiative Measure 200 in November 1998 enacting a provision

stating that "the state shall not discriminate against, or grant preferential treatment to, any individual or group on the basis of race, sex, color, ethnicity, or national origin in the operation of public employment, public education, or public contracting (*Smith*, 2000)." The Ninth Circuit Court made a ruling[3], not finding it moot to do so, deciding that Justice Powell's diversity rationale was a compelling state interest.

In *Johnson v. Board of Regents of the University of Georgia* (2001) the Eleventh Circuit Court of Appeals heard a case against the institution's race-conscious affirmative action policy in undergraduate admissions. The plaintiffs were three White females alleging reverse racial discrimination because the University of Georgia (UGA) awarded points to Asian or Pacific Islander, African-American, Hispanic, American Indian, and Multiracial student applicants. UGA defended its practice under the diversity rationale argued by Justice Powell in *Bakke* (1978). The Circuit Court reserved judgment on whether or not diversity is a compelling interest because it did not need to do so to find UGA's policy unconstitutional on the grounds that it was not narrowly tailored. The Circuit Court did, however, file an opinion that the definition of diversity used by UGA was problematic because it did not extend sufficiently beyond considering an applicant's race or ethnicity.

The differing opinions by the Circuit Courts of Appeals set a need for the U.S. Supreme Court to once more clarify the constitutionality of affirmative action in higher education. The first U.S. Supreme Court cases on affirmative action in higher education since *Bakke* (1978), the rulings on *Gratz v. Bollinger* (2003) and *Grutter v. Bollinger* (2003) stipulate current federal law governing the use of affirmative action policy. Since *Gratz* (2003) focused on the narrowly tailored requirement, the second prong of the strict scrutiny test, the review of these coupled

[3] After the 2000 bench trial, the plaintiffs appealed once more to the Ninth Circuit Court. In 2004, the Ninth Circuit affirmed the ruling.

cases will focus on *Grutter* (2003) where the courts focused on the existence of a compelling interest. In *Grutter* (2003) a White female plaintiff alleged reverse discrimination upon being denied admission to the University's law school. The University of Michigan argued the diversity rationale as a compelling interest to discriminate based on an applicant's race. The U.S. Supreme Court upheld the University's use of affirmative action because it served a compelling state interest of diversity, stating that a "…critical mass of underrepresented minorities is necessary to further its compelling interest in securing the educational (and societal) benefits of a diverse student body (*Grutter v. Bollinger*, 2003)." The Supreme Court acknowledged racial diversity in colleges and universities promotes learning outcomes and cross-racial understanding, breaks down racial stereotypes, facilitates greater understanding of persons of different races, increases the diversity of ideas in the classroom, prepares students for an increasingly diverse workforce and society, provides better professional training, allows for the civic participation of all racial and ethnic groups, and fosters a training ground for leadership positions in the country that draws from a (racial and ethnic) heterogeneity of the population (*Grutter v. Bollinger*, 2003). The Court additionally affirmed the University of Michigan's broad definition of diversity which extended beyond an applicant's race and ethnicity.

Per *Grutter* (2003), institutions of higher education are permitted to employ affirmative action in admissions practices as a means to craft a diverse student body. This standing continues to hold as federal law even after another attempt to dismantle affirmative action was heard and ruled by SCOTUS in *Fisher v. Texas* (2013). Abigail Fisher, the White plaintiff in this lawsuit, and her legal team argued her constitutional rights were violated when she was denied admission to the University of Texas Austin (UT Austin), due to the institution's discriminatory practice of using race/ethnicity as one factor in one layer of their non-Top Ten Percent Plan

admissions practices. Fisher further argued UT Austin had a workable race-neutral alternative to yield a diverse student body vis-à-vis their Top Ten Percent Plan, a state-wide policy admitting the top ten percent of graduates from each high school, and while UT Austin argued this policy was insufficient to yield the necessary classroom-level diversity, Fisher and her team argued the latter was not a compelling state interest. The lower courts judged in favor of the University of Texas Austin's (UT Austin) use of affirmative action in its undergraduate admissions (*Fisher v. Texas*, 2009/2011), affirming the institution overlaid a constitutional *Grutter*-like plan on its race-neutral Top Ten Percent Plan. SCOTUS remanded the case to the Fifth Circuit Court on the basis it did not appropriately apply the strict scrutiny test, and ordering it to rehear the case under more precise guidelines that UT Austin must prove its consideration of race/ethnicity in admissions practices are necessary to yield its educational needs of diversity and furthermore that workable race-neutral options (like its Top Ten Percent policy) do not suffice to meet these intended outcomes. The pending Fifth Circuit Court's rehearing, while it will not change federal law per *Grutter*, could have broad implications for the constitutionality of affirmative action practice and implementation for institutions across the country because it renews contestation on the permissibility and exact usability of race-conscious admissions.

Affirmative action case law history within higher education illustrates the shift in rationale and compelling interest from one of remedying the effects of past discrimination of racial minority groups to that of affirming the educational and societal benefits of diverse student bodies where race/ethnicity is but one factor considered as adding to diversity. In fact, Jeffrey Lehman, University of Michigan Law School Dean, divorced affirmative action in higher education from a policy to redress history's racial injustices. In an invited talk before the Mexican American Legal Defense Fund in 2003, during the *Grutter* case, he stated:

> It has been suggested that I helped to draft a policy that constituted an important step in the fight for racial justice in America…I want to say that such praise is not appropriate and is potentially dangerous…[Our] admissions policy is not about corrective action, either in its design or in its effect. It is not about racial justice in that sense…No…very different mix of values. It is individualistic. It is meritocratic. It is self-interested. It is, at its core, pragmatic. (Lehman, 2004, p.81)

The University of Michigan *Grutter* and *Gratz* (2003) cases produced an impetus for the study of the benefits of diversity. The strong theoretical rationale and empirical research provided to the Court on behalf of the University of Michigan clearly linked diversity and education for the first time (Gurin et al., 2002). Social science researchers have since established a large body of research seeking to determine what if any are the benefits of diversity. In present times, upholding affirmative action policy is predicated on the ability of higher education to continue to demonstrate that the consideration of race in admissions is necessary to derive the educational and societal benefits first affirmed by Justice Powell.

Interrelationship of Compositional Diversity, CRI, and Campus Climate

According to the authors of the theoretical framework undergirding the diversity rationale that solidified the basis upon which affirmative action was upheld by the U.S. Supreme Court in *Grutter* (2003), benefits of a racially diverse student body operate through students' interactions with diverse peers inside and outside of the classroom m (Gurin et al., 2002). The quantity and quality of students' engagement with diverse peers outside of the classroom is known as informal interactional diversity. Engagement with diverse peers inside the classroom as well as exposure to diversity curriculum and content (e.g. ethnic studies courses, diversity workshops) is known as classroom diversity (Gurin et al., 2002). Due to empirical evidence indicating engagement with diverse peers has a larger effect on educational benefits over curricular and co-curricular

diversity initiatives (Hurtado, 2001; Bowman, 2010; Bowman, 2011; Denson, 2009; Pettigrew & Tropp, 2006) this study and literature review is focused on student cross-racial interaction as an impetus for social agency.

Compositional diversity as prerequisite for cross-racial interaction. Social science research gives evidence that compositional diversity is a necessary prerequisite for informal interactional diversity. A more racially/ethnically diverse student body is associated with higher levels of engagement with diverse peers (Chang, 1996; Chang, 1999; Chang, Astin, & Kim, 2004; Denson & Chang, 2008; Engberg, 2007; Pike & Kuh, 2006; Saenz, Ngai, & Hurtado, 2007). It is additionally related to more meaningful intergroup contact, including interracial friendships (Antonio, 2001; Bowman, 2012) and interracial romantic relationships (Bowman, 2012). Engberg (2007) found that the positive relationship between compositional diversity and cross-racial interaction holds true across academic majors. Importantly, as mentioned previously, Jayakumar (2008) found that the relationship between compositional diversity and cross-racial interactions is mediated by an institution's campus racial climate. The vast base of literature indicates the need of institutions to admit a racially diverse student body in order to provide students with the opportunity to engage with racially diverse peers.

Operationalization of compositional diversity. Current literature operationalizes compositional diversity using three primary definitions. Some studies measure it as the cumulative percentage of students of color, or non-White students (Chang et al., 2004; Engberg, 2007; Engberg & Hurtado, 2011). Other studies restrict it to the percentage of students of color considered underrepresented in historically White colleges and universities, thereby excluding Asian and Asian American students (Denson & Chang, 2008; Saenz et al., 2007). Yet other researchers utilize a diversity index (Chang, 1999; Jayakumar, 2008; Pike & Kuh, 2006; Umbach

& Kuh, 2006), which assigns higher scores to institutions with greater proportional representation of all racial/ethnic student groups. It is unclear if and how the differences in measurement of compositional diversity matter for the conversation of the role of campus racial climate within this established relationship.

Compositional diversity and cross-racial interaction across racial/ethnic groups. When examining the relationship of structural diversity on the level of cross-racial interactions by racial/ethnic group, the literature yields inconsistent findings. This may be due to differences in the measurement of compositional diversity. Sensitivity analysis, whereby one takes into account if findings differ by how compositional diversity is measured, is needed to further our understanding of this relationship across racial/ethnic groups.

Chang, Astin, and Kim (2004) found that White students have a greater likelihood of engaging with racially diverse peers as the non-White student population increases. The authors suggested a hypothesis of availability; the greater the number of students of color, the greater the opportunity for White students to engage with different-race peers. The hypothesis of availability, however, did not hold for students of color. Increasing the number of students of color on campus increased their level of cross-racial interactions, but the relationship leveled or dropped off for Asian and Latina/o students (Chang et al., 2004). Using the same definition of compositional diversity, Engberg and Hurtado (2011) also found increased positive cross-racial interactions for White students, but the same relationship did not hold for non-White students.

Other studies looking at this relationship across racial/ethnic groups have measured compositional diversity as the proportion of underrepresented students. Using this definition, research has demonstrated that compositional diversity is associated with higher levels of cross-

racial interaction for White students (Saenz, 2010; Saenz et al., 2007). This relationship, however, did not hold for students of color.

Bowman (2012) found that increased compositional diversity, as measured by a diversity index accounting for the representation of several racial/ethnic groups, was positively associated to having close interracial friendships and a different-race romantic partner for White students. Increased compositional diversity, however, was not related to increased interracial friendships and different-race romantic partners for Black and Hispanic students. Meanwhile for Asian students increased compositional diversity was not related to having a different-race romantic partner, and was negatively related to interracial friendships.

Scholars have also studied the relationship using single-institution studies. Deo (2011) found law students at the University of Michigan reported having fewer and more distant interactions with Latino and Native American peers, and discussed these student groups as being less represented than other racial/ethnic groups as a possible explanation. Antonio (2001) found Black students had homogenous friendship groups more than other racial/ethnic student groups at UCLA, but Black students were also the smallest racial group on campus (40% white, 35% Asian American,16% Latino, and 6% African American during the 1996–1997 school year). These studies suggest that students from racial/ethnic groups that are most underrepresented within their college are less prone to interact cross-racially and less likely to have different race peers engage with them.

Taken together these findings suggest that the relationship between compositional diversity and cross-racial interaction is not static across racial/ethnic groups. It seems that for White students, increased compositional diversity is associated with increased levels of cross-racial interaction regardless of how it is measured. There is a different pattern, however, for

students of color. There may be a tipping point; perhaps after a student body reaches a certain level of racial diversity students of color are not any more likely to engage cross-racially. Deo's (2011) and Antonio's (2001) findings suggest that the least represented racial/ethnic groups on a campus may not be able to have frequent cross-racial interactions even if the number of students of color as a whole suggests a racially diverse student body. It may also be that campus racial climate mediates the relationship between compositional diversity and structural diversity. In other words, a relationship may only exist dependent on the quality of the campus racial climate. In addition to sensitivity analysis of compositional diversity, more research is needed to take into account the representation of each racial/ethnic group at an institution and continue to examine the relationship across racial/ethnic groups, the latter of which is addressed in this study.

The impact of compositional diversity on campus climate. Jayakumar (2008) found increased compositional diversity was related to a more positive campus racial climate on part of White students. Conversely, Pike and Kuh (2006) found compositional diversity to be unrelated to the campus environment, but their measure differs vastly from Jayakumar's (2008). Pike and Kuh (2006) measured the supportive nature of the campus which may not be a measurement of racial relations. They did, however, urge future research to continue to examine the relationships among compositional diversity, informal interactional diversity, and perceived supportiveness of the campus environment.

While many support the notion that greater racial diversity on campus leads to positive intergroup contact, others argue that increased diversity leads to balkanization or the self-segregation of racial groups and heightened racial tension (D'Souza, 1991; Thernstrom & Thernstrom, 1997). Higher education scholars affirm campuses must take proper steps to ensure they provide the racial context necessary to foster positive intergroup relations, and that the

absence of proper conditions may indeed lead to challenges related to diversity (Milem, Chang, & Antonio, 2005). It is important to note, however, it is not the diversity of the students that is the challenge, but whether or not an institution is capable of transforming to embrace the changing demographics of its students. This study seeks to further the field's understanding of the relationship between compositional diversity and campus racial climate.

Operationalization of campus climate. Current literature on the impact of diversity measures campus racial climate in two primary approaches, the level of cross-racial interaction taking place across campus and perceptions of the campus by students and faculty. Some researchers choose to use a peer average of cross-racial interaction at the institution level to account for institutions fostering higher levels of positive intergroup contact, acknowledging that it is difficult to measure for a non-racist campus environment (Chang, Denson, Saenz, & Misa, 2006; Denson & Chang, 2008; Jayakumar, 2008). Other researchers have utilized student-reported perceptions of the campus racial climate using indicators such as hearing faculty express discriminatory remarks, feeling singled out because of their race/ethnicity, and level of racial tension on campus (Cuellar, 2012; Saenz et al., 2007). Meanwhile, Astin (1993) measured the climate using a measure of institutional diversity emphasis, reflecting the extent to which faculty believed their institution was committed to goals such as an increase in the number of minority faculty and students and to the creation of an environment appreciative of multiculturalism. This study employs three different measures of campus racial climate, thereby extending the field's understanding on whether or not there are important differences to consider when studying its effects on matters of diversity.

Campus climate affects the engagement of diverse peers. Research suggests perceptions of an unhealthy campus climate can negatively affect students' interactions with

others and their outcomes from college (Astin, 1968; Tierney, 1987, as cited in Hurtado et al., 1998). The perception of a negative racial climate leads to feelings of alienation for all racial/ethnic groups but particularly for African Americans (Cabrera & Nora, 1994, as cited in Hurtado et al., 1998). In fact, African American students who perceived racial tension on campus experienced lower levels of positive cross-racial interaction (Saenz et al., 2007). For White students, on the other hand, the perception of a positive campus climate, led to greater levels of positive cross-racial interaction (Jayakumar, 2008) and more non-White friends (Gillard, 1996, as cited in Hurtado et al., 1998). The research suggests that campus racial climate influences the quantity and quality of interactions with diverse peers.

Social Agency Outcomes

Impact of cross-racial interaction on social agency. In support of the diversity rationale, several studies have found that the benefit of increasing students' social agency values is attained through their interaction with diverse peers (Antonio, 2001; Astin, 1993; Chang et al., 2004; Gurin et al., 2002; Hurtado et al., 2012; Pascarella et al., 2012; Rhee & Kim, 2011). The quality of the interactions matters; when taken into account together it is positive cross-racial interactions over those that are negative that are associated with social agency values (Nelson Laird, 2005). Gurin et al. (2002) found the positive impact of cross-racial interactions on social agency held across four racial/ethnic groups, Whites, African Americans, Asian Americans, and Latinos. Whether the presence of a diverse student body is of itself directly beneficial to social agency is inconclusive; defined as the percentage of non-White students Rhee & Kim (2011) found a positive relationship but Pascarella and co-authors (2012) did not find a significant relationship.

Impact of campus climate on social agency. The literature yields inconsistent findings with regards to the role of campus climate on social agency. Some research indicates that a positive campus climate fosters greater social agency (Astin, 1993; Hurtado et al., 2012). Cuellar (2012), however, found that a negative campus racial climate was associated with a positive change in social agency for Latina/o students. Rhee and Kim (2011), on the other hand, found little evidence the institutional climate influenced gains in civic values of undergraduate students. The authors, however, defined their indicator of institutional climate by faculty behaviors showing respect, support, and encouragement towards students, which may not specifically measure for the campus racial context. The operationalization of campus racial climate differed across this set of studies suggesting the possibility that the difference in findings may be due to distinctions in variable measurement.

Impact of campus climate on social agency across racial/ethnic groups. No studies have examined the role of campus climate on gains of social agency across racial/ethnic groups, to this author's knowledge, a gap this study seeks to fill.

Social agency outcomes by race/ethnicity. It is less clear how social agency outcomes differ across racial/ethnic student groups. Gurin and co-authors (2002) found positive effects on citizenship engagement across all four student racial/ethnic groups analyzed, Whites, African Americans, Asian Americans, and Latinos. Comparing White students to students of color, two studies found no difference between the two groups in their level of social agency at the end of an introductory college course (Nelson Laird, 2005) nor at the end of the first year of college (Pascarella et al., 2012). Conversely, a different study found that Asian students had lower levels of civic values by the end of college compared to White students (Rhee & Kim, 2011). The difference in findings may be related to how far along students are in their college education

when their level of social agency is studied in addition to the difference in how these studies are accounting for racial/ethnic differences.

One study gives evidence that one could expect differences in the factors that influence social agency across racial/ethnic groups (Pascarella et al., 1988). The authors found different direct and indirect effects for each subgroup of Black men, Black women, White men, and White women for humanitarian/civic values nine years after entering college. More research is needed to understand the factors that matter for different racial/ethnic groups because this may play a role in yielding equitable outcomes of social agency.

Factors beyond diversity impacting social agency. This study will account for factors beyond diversity impacting social agency in the statistical model. The literature indicates students' levels of social agency entering college are an important predictor of their social agency levels at the end of college (Cuellar, 2012; Nelson Laird, Engberg, & Hurtado, 2005) and after college (Pascarella et al., 1988). During college, involvement in social leadership activities in college (Pascarella et al., 1988) and participating in a racial/ethnic student organization (Antonio, 2001) are positively related to higher levels of social agency. Participation in a fraternity or sorority, however, was negatively related to social agency, perhaps because it is also related to lower levels of engagement with diverse peers (Antonio, 2001). Institutional size had a negative indirect effect on humanitarian/civic values after college because it depressed the level of social leadership experiences (Pascarella et al., 1998).

Summary

The wide-breath of research reviewed signals a need for this study. There are numerous studies examining one or more paths between compositional diversity, cross-racial interaction, and campus racial climate, but more work is needed to further understand how these three

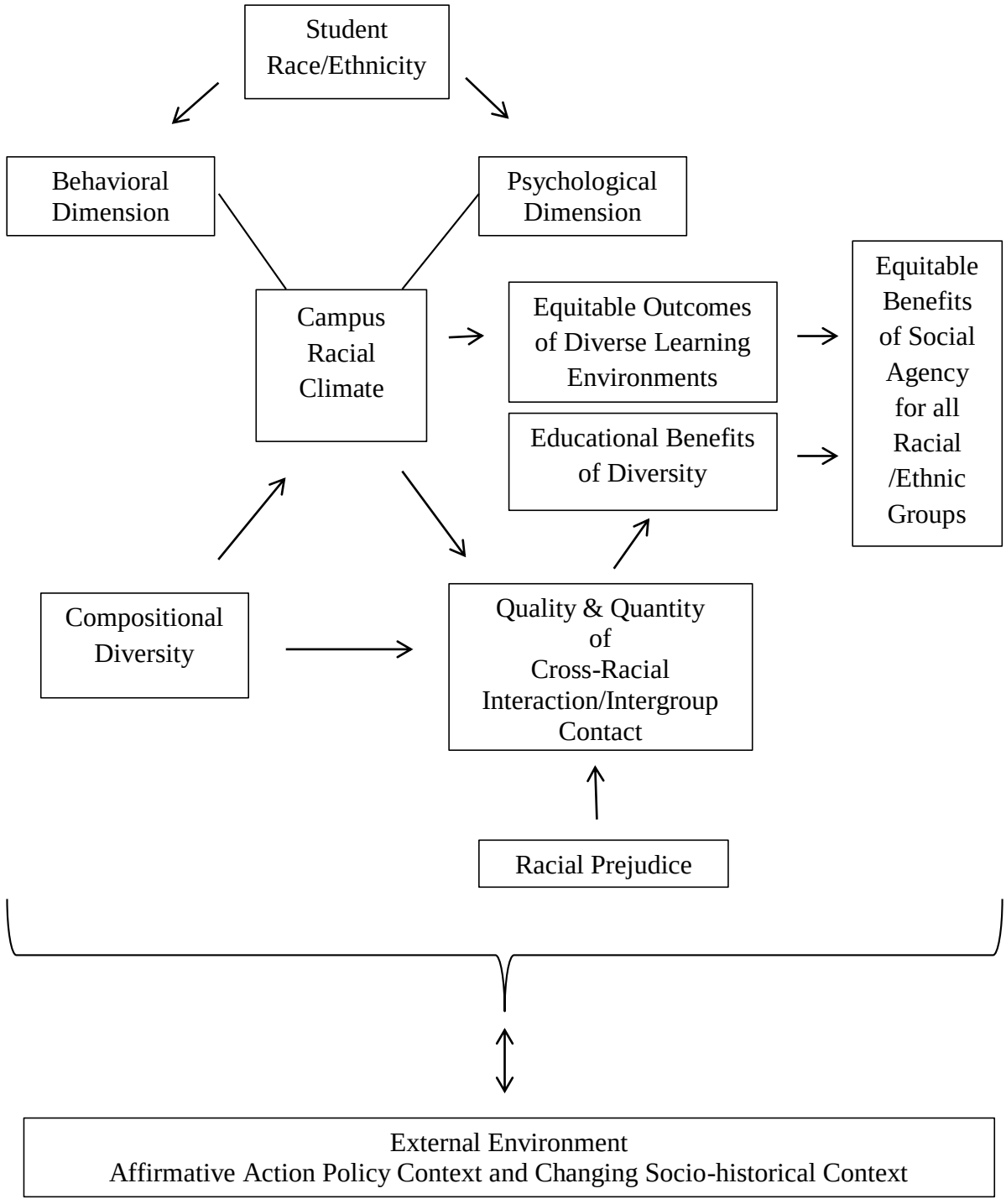
elements are interrelated. Additionally, the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate has not been examined across racial/ethnic groups to this author's knowledge, a gap this study seeks to fill. Current research indicates a link between cross-racial interaction and social agency, but more work is needed to understand the role of campus racial climate (whether direct or indirect) in relation to this important outcome, especially across racial/ethnic groups. Lastly, the review of literature highlighted the numerous ways that compositional diversity and campus racial climate are measured across studies, and there is a need to give further consideration to differences in study findings that may arise due to measurement or operationalization of these important variables.

CHAPTER THREE

Conceptual Framework

While the literature review gives an overview of the empirical research related to this study's research questions, the following section will bring together key theories informing the study. In order to conceptually understand the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate on students' social agency, this study offers tenets from three interrelated theoretical frameworks. The first is the impact of diversity which is useful to understand how diversity is associated with the educational benefit of social agency (Gurin et al., 2002). The second is Gordon Allport's (1954) intergroup contact theory, updated by Pettigrew (1998), which allows the consideration that students hold racial prejudices that impact their intergroup relations and that institutions may have a role in providing the conditions needed to foster positive cross-racial interactions. The third framework undergirding this study is the campus racial climate framework defined by Hurtado, Milem, Clayton-Pedersen, and Allen (1998), later updated by Milem, Chang, and Antonio (2005), and more recently expanded to include a diversity of social identities beyond race/ethnicity in the multi-contextual Model for Diverse Learning Environments (or DLE model) by Hurtado, Alvarez, Guillermo-Wann, Cuellar, and Arellano (2012). The campus racial climate provides a lens of how climate impacts the educational benefits of diversity theorized by Gurin et al. (2002). Figure 1 offers a graphical depiction of the conceptual framework guiding this study and the interrelationship of the tenets from each theoretical framework utilized.

Figure 1. Conceptual Framework Visual Depiction



Impact Theory of Diversity on Educational Outcomes

Gurin et al. (2002) theorize how diverse higher education provides educational benefits for students. As discussed previously, higher education exposes students to racial and ethnic diversity in three ways, two of which will be empirically examined in this study. The first is structural diversity, or the numerical representation of racial/ethnic groups, on a campus. Students are exposed to varying levels of structural diversity depending on the student body composition of the institution they attend. The second is interactional diversity, the quality and quantity of intergroup interaction or cross-racial interaction outside of the classroom context. While structural diversity makes interactional diversity possible, Gurin et al. (2002) theorize the impact of diversity on educational outcomes, such as social agency, is educed through students' engagement with racially diverse peers. The more students engage cross-racially (Chang et al., 2006) and the better the quality (positive vs. negative) (Nelson Laird, 2005; Chang, 2011; Engberg & Hurtado, 2011), the greater their outcomes from diversity. This study measures interactional diversity as the level of positive cross-racial interactions.

This proposed study similarly conceptualizes compositional diversity as a necessary precursor to intergroup contact. The quantity and quality of positive cross-racial interaction students engage with activates educational benefits. The democracy outcome examined in this proposed study is social agency.

Intergroup Contact Theory & Nature of Prejudice

Gordon Allport (1954) helps us understand the impact of racial prejudice on the propensity of students to interact with peers racially different from themselves. Allport explains "…man has a propensity to prejudice" (1954, p.27), and this nature of prejudice allows individuals to make distinctions between groups of people, classify them (out-groups), classify

ourselves (in-groups), and assign value to each group (Allport, 1954). In-groups are based on race, religion, ethnicity, social class, and other similar designations valuable to individuals. People, including students, stay within their groups out of ease; it is easier to interact with others more similar to you because it does not incur the strain of managing and understanding differences. Although separation is natural, it sets the ground for differences between groups to be exaggerated and erroneous, and can also lead to intergroup conflict, both real and imaginary (Allport, 1954). Furthermore, casual contact (seeing someone in passing or in public spaces) does not reduce prejudice, and may in fact increase prejudice, due to the notion individuals are primed to selectively gather information of others that fit into their prejudiced categories. As such, contrary to popular belief, simply bringing a diverse group of students together on a campus does not ensure the quantity and quality of meaningful cross-racial interactions associated with educational outcomes of diversity theorized by Gurin et al. (2002); instead, certain conditions must be met.

Allport's (1954) intergroup contact theory outlines four conditions necessary to yield positive intergroup contact effects (Pettigrew, 1998): 1) equal status within the situation of contact; 2) sharing common goals; 3) intergroup cooperation instead of intergroup competition; and 4) the support of authority, laws, or customs that sets the norm for intergroup contact. A fifth condition was added by Thomas Pettigrew: "The contact situation must provide the participants with the opportunity to become friends" (1998, p.76). The type of meaningful interaction conducive to friendships is important because it carries the potential for "extensive and repeated contact in a variety of social contexts" (Pettigrew, 1998, p.76).

In addition to allowing us a clearer lens into how intergroup contact, both positive and negative, can be understood, Allport (1954) also allows us to acknowledge that individuals hold

racial prejudices that impact intergroup relations. Indeed, research indicates White students perceive Latinas/os as uneducated, and less intelligent and productive than their White Anglo peers (Jackson, 1995). Additionally, Whites were found to associate less positive affect towards African Americans and greater than with White counterparts (Jackson, Hodge, Gerard, Ingram, Ervin, & Sheppard, 1996). Positive intergroup relations, under the correct conditions, can reduce these type of racial prejudices (Allport, 1954). Undergraduate students who engaged in cross-racial friendships held fewer biases and expressed less anxiety of racially diverse peers at the end of college (Levin, van Laar, & Sidanius, 2003). The reduction of racial prejudice may in turn encourage greater levels of positive cross-racial interaction which, in turn, links to greater educational benefits like higher levels of social agency. The proposed student data for this study does not measure the racial prejudice of students, but it is important not to omit this reality of human behavior when studying intergroup contact. The five conditions outlined by Allport (1954) and Pettigrew (1998) also substantiate the role institutions of higher education can play to foster the positive intergroup relations beneficial to all students.

Campus Racial Climate Framework

Gurin et al.'s (2002) theory on the impact of diversity on educational outcomes does not incorporate the role of campus racial climate. Scholars, however, have acknowledged the importance of providing a nonracist campus climate environment that fosters positive student cross-racial interactions in addition to the presence of a racially diverse student body (Hurtado et al., 1998). In fact, Hurtado, Milem, Clayton-Pedersen, and Allen (1998) assert the conversation of racial diversity should be understood within the context of campus climate. Campus racial climate encompasses "how students, faculty, and administrators perceive the institutional climate

for racial/ethnic diversity, their experiences with campus diversity, and their own attitudes and interactions with different racial/ethnic groups" (Hurtado et al., 1998, p. 281).

Dimensions of campus racial climate. The authors developed a framework for understanding campus climate to be used as a vehicle "to create comfortable, diverse environments for learning and socializing that facilitate the intellectual and social development of all students (p.281)." The original framework outlined four dynamic and interconnected dimensions, and it was later updated to include a fifth dimension (Milem et al., 2005). The five dimensions include the institution's historical legacy of inclusion or exclusion of different racial and ethnic groups, the compositional diversity (formerly structural diversity), the psychological climate of perceptions among and between groups, the behavioral climate characterized by intergroup relations on campus (Hurtado et al., 1998), and the organizational/structural diversity aspects of a campus (Milem et al., 2005). The five concepts reflect both institutional-level (historical legacy of inclusion or exclusion, compositional diversity, and organizational/structural) and student-level dimensions (psychological perceptions and behavioral climate). Three of the five dimensions, historical legacy, compositional diversity[4], and organizational/structural diversity, are not directly modeled in this study, but are briefly defined because no single dimension is considered discrete (Hurtado et al., 1988).

Historical legacy, compositional diversity, and organizational/structural diversity. An institution's historical legacy of inclusion or exclusion of different racial and ethnic groups impacts its campus climate, as evidenced by institutional resistance to desegregation, continuation of campus policies that service the needs of a homogenous White population, and

[4] In this study compositional diversity is modeled as part of the diversity rationale, a necessary precursor to cross-racial engagement per Gurin et al. (2002), whereas the campus racial climate framework links compositional diversity to how students experience the campus racial climate (Hurtado et al., 1998).

attitudes and behaviors that barricade cross-racial interaction. Compositional diversity, as discussed in the literature review, is related to the possibility of cross-racial interactions. For students of color, low compositional diversity may translate to experiences of tokenism (Hurtado et al., 1988). Organizational/structural diversity "represents the organizational and structural aspects of colleges and the ways in which benefits for some groups become embedded into these organizational and structural processes…that guide the day-to-day business" of institutions (Milem et al., 2005, p.18). The organizational/structural dimension thus impacts the campus racial climate through functions such as the curriculum, admissions processes, and tenure decision making processes.

Psychological climate of perceptions. The psychological dimension involves "individuals' views of group relations, institutional responses to diversity, perceptions of discrimination or racial conflict, and attitudes toward those from other racial/ethnic backgrounds than one's own" (Hurtado et al., 1998, p. 288). Importantly an individual's position and power within the institution influences his or her perception of the campus climate. White students are more likely than students of color to perceive that the institution is supportive of underrepresented racial/ethnic groups and most believed racism was no longer a prevalent social ill (see for example Hurtado, 1992). Not only do White students perceive a more positive campus environment, they also believe their different-race peers are satisfied with the campus climate and experiences in college (Harper & Hurtado, 2007).

There is also variation amongst students of color; the more heightened an individual is of his or her racial/ethnic identity the more likely they are to report instances of racial discrimination in college (Hurtado et al., 1998). In one study, while students of color perceived greater differential treatment compared to their White peers, African American/Black students

perceived greatest racial discrimination followed by Asian/Asian Americans and Latinas/os (Suarez-Balcazar, Orellana-Damacela, Portillo, Rowan & Andrews-Guillen, 2003). Ancis, Sedlacek, and Mohr (2000) also found that while White students agreed with a more positive campus racial climate than students of color, African Americans experienced a more negative experience, including more racial tension, racial pressures, residence hall tension, and faculty racism, than their Latina/o and Asian American peers. Differential racial statuses on campus impacting perceptions of the climate may also be related to the varying forms of racial discrimination that students encounter. Asian American students, for example, experience greater pressure to conform to racial stereotypes regarding their academic performance and social behavior, aka the "minority myth" (Ancis et al., 2000; Museus, 2008), and this pressure to conform affects their acceptance by peers (Ancis et al., 2000) and can lead them to disengage academically inside and outside the classroom (Museus, 2008).

Research indicates this differences in perceptions of the campus racial climate between White students and students of color is associated with attitudes and experiences. For instance, White students' greater levels of color-blindness and unawareness of racial privilege leads them to view the climate more positively (Worthington, Navarro, Loewy, & Hart, 2008). Additionally they experience comparatively less personal experiences with racial discrimination (Ancis et al., 2000). These set of indicators may explain White students' lessened ability to recognize subtle cues of racism at an interpersonal level or at the institutional/systematic level (Worthington et al., 2008). The framework and corroborating literature makes evident the value in examining the role of campus racial climate on social agency outcomes across student racial/ethnic groups; the distinct experiences based on the position within the environment that an individual's

race/ethnicity confers is likely to differentially impact the role of campus racial climate on benefits of diversity.

Behavioral climate of intergroup relations. The fourth dimension of campus climate is behavioral and consists of "a) actual reports of general social interaction, b) interaction between and among individuals from different racial/ethnic backgrounds, and c) the nature of intergroup relations on campus" (Hurtado et al., 1998, p. 293). In other words, it is the climate of interactions with same-race/ethnic peers and different-race/ethnic peers. The authors discuss that the behavioral dimension is viewed differently by students based on their race/ethnicity. For example, while White students may deem low levels of cross-racial interactions as evidence that students of color are self-segregating, students of color see the engagement with same-race/ethnic peers as valuable to seeking a community on campus. This study utilizes a peer average of positive cross-racial interaction at the institution level to measure the behavioral campus racial climate and study its effects across racial/ethnic groups.

External environment. It is important to acknowledge the campuses in this study's sample do not exist in a vacuum. While the five dimensions constitute the institutional racial context within which students are educated, there are also external forces impacting the campus racial climate (Hurtado et al., 1998). The external context is understood as two domains, the policy context and the socio-historical context (Hurtado et al., 1998). Indeed the long history of lawsuits seeking to dismantle the use of race-conscious affirmative action maintains a conversation of whether a compelling interest exists that establishes a need for affirmative action policy, which has ignited educational research on the benefits of diversity. Additionally, the first African American President of the United States was elected in 2008, during the college years of the students in this study's sample, a socio-historical event that undoubtedly impacted the racial

context exerting a force on institutions. The changing racial demographics of the U.S. are additionally reshaping the socio-historical context.

Multicontextual model for diverse learning environments. The campus racial climate theorized by Hurtado et al. (1998) has recently been updated as the DLE model (Hurtado, Alvarez, Guillermo-Wann, Cuellar, & Arellano, 2012). Hurtado et al. (2012) expanded the climate model to be inclusive of the multiple and intersecting social identities held by students, beyond race and ethnicity, and to capture non-predominantly White institutions. This study utilizes a student sample derived primarily from predominantly White institutions and it is concerned primarily with the campus racial climate that is experienced from a student's racial/ethnic social identity. The DLE model, however, is important to the conceptual framework of this study because it makes explicit the relationship between campus climate and equity of outcomes. The authors theorize interaction of systems and dynamic dimensions impacting the campus climate either facilitates or obstructs an institution's ability to lead social transformation. A negative campus climate, therefore, may position an institution to continue to produce social inequalities. A healthy campus climate can be a vehicle to promote equitable outcomes of retention achievement for all students, and it facilitates competencies for a multicultural world, a set of skills that enable students to engage with individuals of diverse social identities and facilitate civic equality within society (Hurtado et al., 2012). Although the DLE model does not explicitly link the quality of an institution's campus climate and equitable outcomes of the multicultural competencies, it is conceivable that it is likewise linked to the equitable distribution of these outcomes for all students.

Connecting the Pieces

As theorized by Gurin et al. (2002) compositional diversity is a necessary condition for cross-racial interaction and the quality and quantity of this intergroup contact activates the educational benefits of diversity. The state of the campus racial climate further impacts students' level of positive cross-racial interaction; a nonracist campus climate fosters positive cross-racial interactions through its behavioral and psychological dimensions (Hurtado et al., 1998). A student's race/ethnicity impacts their position within an institution and connects with their views of the behavioral and psychological climate (Hurtado et al., 1998). Students may or may not engage with peers of a different race/ethnicity depending on their negative racial prejudices (Allport, 1954). Finally, the external environment impacts institutions and the students within.

Methodology

This section outlines the methodology employed to answer the research questions presented. College student survey data is used, and structural equation modeling was chosen as a method of analysis due to its appropriateness in answering the research questions posed. The conceptual structural equation path diagram (see Figure 2) is derived from the larger conceptual framework diagram presented in Chapter Three. This statistical representation includes only the paths salient in the research questions of this study empirically examined.

Hypotheses

RQ1: a) What is the interrelationship of compositional diversity, student cross-racial interaction, and campus racial climate? b) Does the interrelationship differ across racial/ethnic groups?

Hypothesis 1a. Per the impact of diversity theory (Gurin et al., 2002), aka the "diversity rationale", greater compositional diversity is hypothesized to be associated with greater levels of cross-racial interaction which in turn will have a positive effect on students' levels of social

agency values. Based on the author's hypothesized relationship between the Gurin et al. (2002) diversity rationale theory and the Hurtado et al. (1998, 2012) campus climate framework, greater compositional diversity will be related to a less hostile campus racial climate, and a positive campus racial climate will be linked to greater levels of cross-racial interaction.

Hypothesis 1b. The interrelationship of variables will differ by racial/ethnic group, due to their distinct racial statuses within the institution, as suggested by the theoretical framework (Hurtado et al., 1998).

RQ2: a) Does campus racial climate mediate the relationship between compositional diversity and student cross-racial interaction? b) Does the mediation differ across racial/ethnic groups?

Hypothesis 2a. Consistent with Jayakumar (2008) this study expects to find that a relationship between compositional diversity and student cross-racial interaction exists if the campus racial climate is positive. Campus racial climate will partially mediate the relationship between compositional diversity and students' levels of cross-racial interaction.

Hypothesis 2b. According to the theoretical framework, this study expects the campus racial climate will mediate the relationship between compositional diversity and cross-racial interaction for all racial/ethnic groups due to its role in providing the institutional support and norms Allport (1954) suggests are necessary to foster positive intergroup relations and outcomes. Given the literature indicating the distance in perceptions and experiences of the campus environment by racial/ethnic group (Ancis, Sedlacek, & Mohr, 2000; Cuyjet, 1997; Rankin & Reason, 2005; Reid & Radhakrishnan, 2003), the author expects varying effect sizes across racial/ethnic groups.

RQ3: a) Does campus racial climate have a direct effect on student gains of social agency? b) Does the direct relationship of campus racial climate and student social agency differ across racial/ethnic groups?

Hypothesis 3a. The author hypothesizes campus racial climate has a role in providing equitable outcomes of social agency based on tenets theorized by Hurtado et al. (2012) in this study's framework. A healthy campus racial climate will have a direct effect on social agency at the end of college.

Hypothesis 3b. The impact of campus racial climate on student social agency will differ by racial/ethnic group. For example, with Latina/o students, I expect to find that a negative campus racial climate relates to a positive change in social agency as indicated by previous research (Cuellar, 2012). I expect that a positive campus racial climate will relate to a positive change in social agency for White students, extrapolated from findings by Jayakumar (2008). It is unclear how African American/Black and Asian/Asian American students will differ due to limited research on the relationship of campus racial climate on social agency for these racial/ethnic groups.

RQ4: Is the interrelationship of compositional diversity, student cross-racial interaction, campus racial climate, and social agency sensitive to the operationalization of campus racial climate?

Hypothesis 4. The interrelationship, however, will differ dependent on how campus racial climate is measured, a hypothesis based on how much findings within these relationships varied-potentially due in part to measurement differences- in the literature reviewed. I expect that each of the three measurements used in this study will result in unique findings with relation

to social agency because each is potentially measuring a slightly different dimension of the campus racial climate framework.

Data Source

This study utilizes longitudinal student response data from the 2006 Freshman Survey (TFS) and the 2010 College Senior Survey (CSS), survey instruments administered by the Cooperative Institutional Research Program (CIRP) at the Higher Education Research Institute (HERI) at the University of California, Los Angeles (UCLA) to institutions of higher education across the United States. The TFS is administered at the start of students' freshman year in college, and the CSS is administered at the end of students' senior year in college. This study additionally incorporates institutional level data from the Integrated Postsecondary Education Data System (IPEDS) provided by the National Center for Education Statistics (NCES). One IPEDS institutional-level variable of interest, percentage of students of color, was merged with the CIRP longitudinal data set.

Sample. Participating institutions in the sample are four-year public and private colleges and universities located across the U.S. Only non-Historically Black Colleges and Universities (HBCUs) that administered both the TFS 2006 and the CSS 2010 are included in the sample. Lastly, only first-time full-time White, Asian/Asian American, African American/Black, and Latina/o college students are included[5]. This yields a sample[6] of 102 colleges and universities, a majority of which are selective private institutions, and 12,651 students. The racial/ethnic group[7]

[5] Native American students are excluded due to the lack of power their small number yields for this study's methods, and Multi-racial students are excluded because IPEDS data does not reflect this group of students as a distinct racial/ethnic group.
[6] Sample statistics reflect baseline model within which all students are included.
[7] The collapsing of ethnic groups assumes homogeneity within each racial category for statistical purposes, which the author acknowledges as problematic conceptually.

composition is 87.1% White/Caucasian, 5.6% Asian/Asian American, 4.4% are Latina/o[8], and 2.9% African American/Black. Females comprise 62.2%[9] of the sample.

Measures

Key dependent variable. The dependent variable is social agency, which measures the extent to which a student values political and social involvement as a personal goal. Social agency is a CIRP construct composed of six variables measured at the end of the senior year of college (CSS 2010). The construct was put together using Item Response Theory by researchers at CIRP (for full details see Sharkness, DeAngelo, & Pryor, 2010). Each of the six variables has four response options and asks students to indicate the importance to them personally of items including keeping up to date with political affairs and helping to promote racial understanding. See Appendix B for a full list of items making up this construct.

Key dependent and independent variables. There are two variables of key interest that serve as both dependent and independent variables, positive cross-racial interaction and campus racial climate.

Positive cross-racial interaction (P-CRI). P-CRI is a six-item CIRP construct that measures students' levels of positive interaction with diverse peers by their senior year of college (CSS 2010). It is a construct validated with Item Response Theory (IRT) by CIRP researchers (for full details see Sharkness et al., 2010). The interactions are presumably positive in nature although not explicitly asked, and range from engagements that could have been very casual in nature (dining, studying, partied) to interactions requiring deeper contact with one another (shared personal feelings & problems, discussed racial/ethnic relations outside of class, had

[8] Latina/o students are respondents who marked Mexican American/Chicano, Puerto Rican, and Other Latino.
[9] Within racial/ethnic student groups, there are 60.9% Asian/Asian American, 63.1% African American/Black, 67.1% Latina/o, and 62.0% White females.

intellectual discussions outside of class). It is unknown what, if any, of these interactions were prompted by co-curricular involvement and/or associated with campus diversity initiatives. For a full list of P-CRI construct items and corresponding response options, see Appendix B.

Campus racial climate. Campus racial climate is operationalized in three distinct ways, positive campus race relations, negative campus race relations, and negative perceptions of the campus climate, which enables the author to examine whether the hypothesized relationships are sensitive to the measurement of campus racial climate. This methodological decision is also driven by the MMDLE's assertion that each dimension of the campus racial climate can have its own set of measures (Hurtado et al., 2012). All three measures are focused on the individual-level dimensions, either the psychological perceptions of individuals or the behavioral dimension, of campus racial climate as outlined in the theory framing this study (Hurtado et al., 1998). Each is explained in detail next.

Borrowing from existing literature (Chang et al., 2006; Denson & Chang, 2008; Jayakumar, 2008), this study first measures campus racial climate as positive campus race relations, positive cross-racial interaction (P-CRI) aggregated at the institutional level. Positive campus race relations, modeled as a behavioral dimension, reflect the general social interaction between students of different racial/ethnic groups. Statistically the measure is understood to capture a compositional effect, or a common impact on each student attending a particular institution, of a campus quality influencing cross-racial engagement (Chang et al., 2006). Conceptually it is not known with precision what this variable is measuring, but it is understood to reflect a "complex set of institutional qualities and patterns associated with race relations"; campuses with higher levels of positive campus race relations may indicate a greater commitment to the curricular, programmatic, and institutional mission strategies, in additional to

attention to the remaining dimensions of the racial climate that reinforce an inclusive campus environment (Chang et al., 2006, p. 450).

Second, campus racial climate is an aggregate peer average variable of *negative* cross racial interaction (N-CRI) at the institutional level. N-CRI is a three-item CIRP construct that measures the level of negative interactions with diverse peers students experience their senior year of college (CSS 2010), and it is validated using IRT by CIRP researchers (for full details see Sharkness et al., 2010). Reference Appendix B for a full list of items and corresponding response options. Negative campus race relations, modeled as a behavioral dimension, reflect intergroup relations negative in nature. It is a measure derived from students' responses to survey questions directly asking for the level of frequency with negative cross-racial encounters (had guarded, cautious interactions; had tense, somewhat hostile interactions; and felt insulted or threatened because of their race/ethnicity). Although it is also a behavioral dimension, it is tapping into a different element than positive campus race relations, as the two are not highly correlated within any of the racial/ethnic groups included in this study. This dissertation is the first known empirical study to examine negative campus race relations as a measure of campus racial climate.

Third and lastly, campus racial climate is operationalized as negative student perceptions of the campus climate, a multi-level three-item factor that measures the extent to which students perceive the climate to be negative at the time they were seniors in college (CSS 2010). The factor reflects the psychological dimension of the campus racial climate framework (Hurtado et al., 1998). While the indicators included in the factor are consistent with past research investigating social agency outcomes (Cuellar, 2012), this study uses a multi-level factor to account for nested data, thereby accounting for the dependency in the data, yielding better

standard errors for parameter estimates, more accurate model fit statistics, and sturdier factor analytic results by avoiding contamination of two sources of variance (Reise, Ventura, Nuechterlein, & Kim, 2005). Students were asked their level of agreement with statements conveying experiences with discrimination based on social identity (not exclusive to race/ethnicity), stereotyping behaviors by faculty in the classroom directed at racial/ethnic groups, and overall racial tension on campus. See Appendix A for a full list of items, corresponding response options, and loadings.

Key independent variables. There is one key independent variable, compositional diversity.

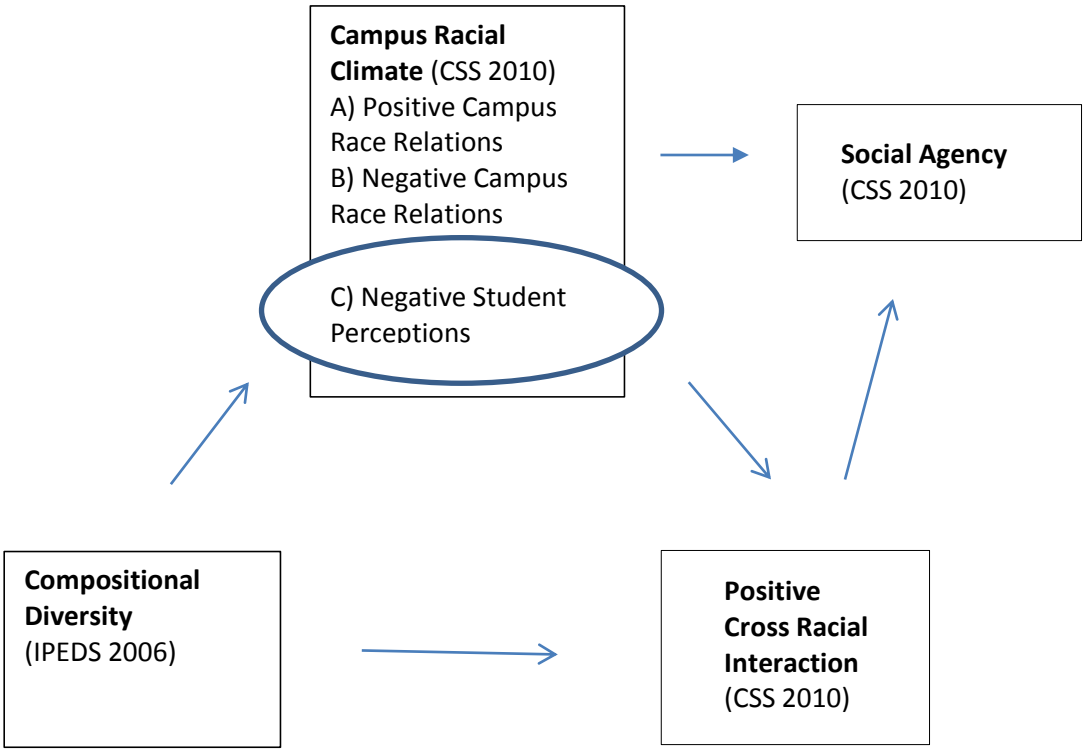
***Compositional diversity*.** This study measures compositional diversity as the cumulative percentage of all students of color or non-White students (IPEDS 2006).

Environmental variables. The inclusion of environmental variables is restricted for two reasons. First, it is not the purpose of this study to investigate all the student and institutional variables that contribute to a student's level of social agency by the end of college. Second, due to the use of structural equation modeling (SEM), the number of environmental variables will be limited in order to keep the number of overall measures in the model lower, which will in turn allow for a simpler path diagram. Per the literature review, environmental variables include participation in a racial/ethnic organization and participation in a student Greek organization.

Control Variables. The models of analyses include control variables that account for characteristics students bring with them to college, measured at the start of college with the TFS 2006. Control variables are students' pre-college social agency, students' pre-college engagement with diverse peers including the racial composition of students' high schools and the extent to which students socialized with someone of a different race/ethnicity in the year prior to

college, and sex (female/male). There are additionally two variables at the institutional level, control (public/private) and selectivity.

Figure 2. *Conceptual Path Analysis Diagram*



Note: A= Model A, B= Model B, C= Model C. Each uses a distinct measure of campus racial climate as illustrated within this figure.

Method of Analysis

The method of analysis is organized within three models, A, B, and C, each of which makes use of a different operationalization of campus racial climate. Model A includes positive campus race relations, Model B utilizes negative campus race relations, and Model C tests negative student perceptions of the climate. Model A, in contrast to Models B and C, is a single-level model. Models B and C are two-level models. The details are herein discussed.

Multiple-group, multi-level structural equation modeling (MSEM) is employed using MPLUS statistical software version 6.0 (Muthen & Muthen, 2007) for Models B and C. MSEM analysis is appropriate to exploring the theoretical relationships of interest due to its ability to model complex relationships between variables, observed (manifest) or unobserved (latent). Additionally, it is able to investigate the fit of a model that simultaneously tests interrelationships between multiple outcomes (Bollen & Long, 1993). It can also estimate the indirect, direct, and total effects using path analysis (Skrondal & Rabe-Hesketh, 2005) and account for nested data, students at level one and institutions at level two (Raudenbush & Bryk, 2002). A single-level SEM model is used for Model A because positive campus race relations is a between-level variable and could not be parsed out into within- and between-level effects. Since the direct path from positive campus race relations to positive cross-racial interaction is essential to this study's model, the best option was to utilize a single-level model.

A multi-group setup, meanwhile, is utilized across all models in order to test the path diagram across four racial/ethnic groups, White, Latina/o, African American, and Asian/Asian American students[10]. In addition to running the multi-group model, this study tested a baseline model in which all students were included and their race/ethnicity was controlled. This offers a comparable model to a large fraction of existing literature using a more generalized approach.

SEM framework allows one to model the measurement structure of latent variables (or the relationship between latent variables and manifest variables) and the relationship among latent variables (Raudenbush & Bryk, 2002). In this study's analysis, campus racial climate will be treated as a latent construct, which is appropriate because campus racial climate cannot be

[10] The small number of Native American students does not lend enough power within this methodology to yield accurate results. The author is remiss in additionally excluding multiracial students. IPEDS, however, does not accurately count the number of multiracial students at each institution. This disallows the ability to run a model for multiracial students using the "representational" diversity measure proposed.

measured directly. Rather a set of three indicators predict an estimation of campus racial climate (see Appendix A). Latent variables strengthen the robustness of a structural equation model because they account for errors of measurement yielding more reliable coefficients from the path analysis (Lei & Wu, 2007). The conceptual path diagram (Figure 2) indicates latent variables with eclipses.

This model tests categorical variables with a small number of categories, including binary variables. Treating Likert scale data as continuous outcomes in confirmatory factor analysis violates the assumption of multivariate normality (Muthén & Kaplan, 1985), which left unaccounted biases the parameter estimates and distorts the fit of the model (Bentler & Wu, 2002). In order to account for both the non-normality of the data and missing data patterns, robust estimation methods must be employed. MPlus offers an MLR option which stands for full information maximum likelihood estimation with robust standard errors. The MLR option is the appropriate robust option for this model due to its multilevel structure and because the missing data pattern is not missing completely at random or MCAR (Yuan & Bentler, 2000; Yuan, Lambert, & Fouladi, 2004).

Limitations

There are several limitations that should be outlined in order to fairly contextual this study's results. First, a majority of the institutions in the sample are private and all are four-year colleges and universities. Thus, findings from this study may be less generalizable to the full spectrum of institutional types students are exposed to within the higher education system. Additionally, the student sample in this study is predominantly White and female. Given this study's purpose and methods, it would have been beneficial to have had a greater representation of students of color and males. A higher number of students of color respondents would have

been particularly helpful to increase the power of multiple group modeling analysis across racial/ethnic groups.

There are also some conceptual limitations to this study's framework and methods. First, this study does not account for heterogeneity and intersectionality of social identities within racial/ethnic groups and thus unintentionally essentializes the experiences of members within each racial/ethnic group. This has been cited as problematic, particularly with regards to Asian/Asian Americans, by education scholars who argue this statistical approach, however necessary for the models to run, (un)intentionally positions these students as a wedge group in the Black-White paradigm. Failing to disaggregate within group by ethnicity, class, immigration status, and language also raises questions regarding the purpose of said research: Is it to play oppression Olympics or to better the educational outcomes/experiences of groups? (Teranishi, 2007). Lastly, this study should not be understood as a full and comprehensive test of the relationship between the diversity rationale and campus racial climate. This study is limited to the availability and inclusion of measures for three of the five dimensions theorized by Hurtado et al. (1998, 2012).

CHAPTER FOUR

Findings

This study proposed the campus racial climates of institutions, in dynamic interplay with the admission of a diverse student body and cross-racial engagement amongst peers, may have an important role in the development of social agency for college students across racial/ethnic lines. This chapter reviews the findings of this dissertation study. Findings are organized by three sets of models (A, B, C); each operationalized campus racial climate distinctly. Model A (positive campus race relations) operationalized campus racial climate as the institutional aggregate peer average variable of positive cross-racial interaction, Model B (negative campus race relations) modeled campus racial climate as an aggregate peer average as well but with negative cross-racial interaction, and Model C (negative student perceptions) measured campus racial climate based on student reports of climate. Findings are organized by the research questions guiding this study under each set of models. All paths tested in the statistical models are presented in Tables 1-18 and a summary of key relationships is provided in Table 19.

The research questions, recapped:

RQ1: a) What is the interrelationship of compositional diversity, student cross-racial interaction, and campus racial climate? b) Does the interrelationship differ across racial/ethnic groups?

RQ2: a) Does campus racial climate mediate the relationship between compositional diversity and student cross-racial interaction? b) Does the mediation differ across racial/ethnic groups?

RQ3: a) Does campus racial climate have a direct effect on student gains of social agency? b) Does the direct relationship of campus racial climate and student social agency differ across racial/ethnic groups?

RQ4: Is the interrelationship of compositional diversity, student cross-racial interaction, campus racial climate, and social agency sensitive to the operationalization of campus racial climate?

Model A

Model A operationalized campus racial climate as positive campus race relations, measured as positive student cross-racial interaction, a CIRP construct, aggregated to the institutional level. It was first analyzed using all students in the sample, controlling for race/ethnicity, followed by a multigroup analysis across White students, Asian/Asian American students, African American/Black students, and Latina/o students. The goodness-of-fit results are reported for the single-level model using all students followed by the multgroup model.

Goodness-of-Fit

All students. The goodness-of-fit results for Model A, all students, are x^2= 689.8, df=49, p<.000; RMSEA=0.032; CFI=0.589; and SRMR=0.063. The root mean-square error of approximation (RMSEA) and standardized root mean-squared residual (SRMR), absolute measures of fit, are less than 0.06 and less than 0.08 respectively, indicating the model was an excellent fit to the data (Hu & Bentler, 1999). Although the comparative fit index (CFI) is lower than the ideal value of 0.95 or greater (Hu & Bentler, 1999), this is a relative fit measure, which can be low if the difference between the worst and best fitting models used for comparison are not very large. The chi-square value is given for standard reporting, but it is considered unreliable for interpretation of fit with samples larger than 400. The baseline model, therefore,

offers a probable description of the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate and the impact of these relationships on social agency fitting this study's sample.

Multigroup model. The goodness-of-fit results for Model A multigroup, are x^2= 1300.3, df=124, p<.000; RMSEA=0.055; CFI=0.745; and SRMR=0.054. Collectively, this set of indices indicates the model fit is adequate; while the comparative fit index (CFI) should ideally have a value of 0.95 or greater (Hu & Bentler, 1999), this model meets benchmarks of an RMSEA less than 0.06 (Hu & Bentler, 1999), and an SRMR of less than 0.08 (Hu & Bentler, 1999). The multigroup model, therefore, offers an adequate description of the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate and the impact of these relationships on social agency.

Interrelationship of Compositional Diversity, Cross-Racial Interaction, and Campus Racial Climate

All students. Greater positive campus race relations are positively and significantly related to higher levels of student cross-racial interaction (β= 0.272, p<.000). Interestingly, higher percentages of compositional diversity are associated with lower levels of cross-racial engagement (β= -0.059, p<.000) but positively and significantly related to greater positive campus race relations (β= 0.366, p<.000). In other words, increased presence of students of color relates to less engagement with racially diverse peers but a more positive campus racial climate. Direct parameter estimates of relationships are provided in Table 1.

Across racial/ethnic groups. In the multigroup analysis, the direct effect of compositional diversity on positive cross-racial interaction is not statistically significant for any racial/ethnic group of students in this study. More positive campus race relations, however, are

positively and significantly related to greater levels of cross-racial interaction for White students (β= 0.251, p<.000), Asian/Asian American students (β= 0.343, p<.000), African American/Black students (β= 0.499, p<.000), and Latina/o students (β= 0.381, p<.000). Lastly, the direct effect of compositional diversity on positive campus race relations is positive and significant (β= 0.724, p<.000) for White students but not for other racial/ethnic groups. In short, the greater the percentage of students of color at an institution, the greater the levels of positive campus race relations reported by White students. The direct path estimates across racial/ethnic groups in Model A are provided in Tables 2-5.

Mediating Effect of Campus Racial Climate

All students. The indirect parameter estimates for the mediation modeled for baseline analysis are provided in Table 6. For all students, controlling for student race/ethnicity, positive campus race relations have a positive and significant mediating effect on the relationship between compositional diversity and positive cross-racial interactions (b= 0.153, p<.000). In other words, the percentage of students of color on campus positively affects cross-racial interaction through a healthier campus racial climate. Given a negative and significant relationship between compositional diversity and positive cross-racial interaction stated earlier (see Table 1), this indirect effect indicates the relationship between these two variables would have been even more negative were it not for a more positive campus racial climate.

Across racial/ethnic groups. The multigroup analysis yielded a more nuanced set of findings (see Table 6 for indirect and total effects). For Asian/Asian American, African American/Black, and Latina/o student groups the indirect effect is insignificant; campus racial climate does not have a mediating effect on the relationship between compositional diversity and cross-racial interaction for these groups. For White students, conversely, a positive and

significant mediation effect was found (b= 0.171, p<.000); greater compositional diversity within the student body increases the level of cross-racial interactions when the level of positive campus race relations is higher. Given the direct relationship between compositional diversity and positive cross-racial relations was additionally not significant for White students (see Table 2), the significance of a mediation effect might lead one to consider campus racial climate fully mediates the relationship between these two variables. The insignificance of the direct relationship, however, does not necessarily mean a full mediation effect is present (Preacher & Hayes, 2004) and thus that assumption is not made for these set of findings.

Campus Racial Climate and Social Agency

All students. In Model A, attending an institution with a more positive campus racial climate is negatively related to all students' levels of social agency at the end of college (β= -0.070, p<.000). In other words, the greater the level of positive race relations on a campus, the lower the levels of student social agency. See Table 1 for the related parameter estimates.

Across racial/ethnic groups. In the multigroup analysis across racial/ethnic groups, positive campus race relations are negatively related to social agency at the end of college for White students (Table 2; β= -0.082, p<.000). Campus racial climate, however, does not have a statistically meaningful relationship to social agency among Asian/Asian American, African American/Black, or Latina/o students at the end of college (see Tables 3-5). Albeit a small effect size, these set of findings may point to a complacency effect for White students, whereby experiencing a positive campus racial climate decreases their impetus to value political and social involvement. However, no such relationship holds for Asian/American, African American/Black, or Latina/o students.

Model B

Model B operationalized campus racial climate as student-level negative cross-racial interaction, a CIRP created construct, aggregated to the institutional level and termed negative campus race relations. It was first analyzed using all students in the sample, followed by a multigroup analysis across White students, Asian/Asian American students, African American/Black students, and Latina/o students. The goodness-of-fit results are given for the model using all students and then for the multgroup model.

Goodness-of-Fit

All students. The goodness-of-fit results for Model B, all students, are x^2= 158.4, df=23, p<.000; RMSEA=0.022; CFI=0.970; SRMR within=0.024, and SRMR between=0.084. Based on these figures, the model fit is good (Hu & Bentler, 1999). The baseline model, therefore, offers a probable description of the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate and the impact of these relationships on social agency.

Multigroup model. The multigroup model has fit indices of x2 overall= 457.9, df=68, p<.000; RMSEA 0.043; CFI=0.934; SRMR within=0.042, and SRMR between=0.086. The RMSEA is below 0.06 (Hu & Bentler, 1999), and although the CFI value is slightly lower than 0.95 as advised (Hu & Bentler, 1999), the fit indices still give a good indication that the relationships in the multigroup model are probable and fit the data. Findings will now be discussed for the baseline model and then by racial/ethnic student group.

Interrelationship of Compositional Diversity, CRI, and Campus Racial Climate

All students. For all students, controlling for race/ethnicity, more negative campus race relations (β= 0.423, p<.000) and higher compositional diversity (β= 0.493, p<.000) are positively and significantly related to greater student cross-racial interaction. Higher compositional diversity is positively and significantly related to negative campus race relations (β= 0.366,

p<.000). In other words, the greater the percentage of students of color attending an institution, the greater the rate of negative campus race relations, and the higher the level of student cross-racial interaction. Meanwhile, the greater the negative campus race relations present, the higher the level of cross-racial interaction. See Table 7 for a complete set of findings related to all students in Model B.

Across racial/ethnic groups. In the multigroup analysis, the path from compositional diversity to positive cross-racial interaction yielded statistically significant results for the White racial/ethnic student group only; the greater the percentage of students of color on campus, the higher the levels of cross-racial interaction for White students (β= 0.688, p<.000). Greater negative race relations on campus are positively and significantly related to higher levels of cross-racial interaction for White students (β= 0.261, p<.01) and Asian/Asian American students (β= 0.779, p<.000), while a significant relationship was not found for African American/Black or Latina/o students. Meanwhile the direct effect of compositional diversity on negative campus race relations was positive and significant for White students (β= 0.400, p<.01) only; the greater the percentage of students of color at an institution, the greater the levels of negative campus race relations reported by White students. Direct parameter estimates for all relationships tested are provided in Tables 8-11 for the distinct racial/ethnic groups.

Mediating Effect of Campus Racial Climate

All students. The parameter estimates for the mediation modeled for all students, controlling for race/ethnicity, are provided in Table 12 for Model B. A small indirect effect of compositional diversity on positive cross-racial interaction through campus racial climate emerged for all students (b= 0.024, p<.01). In other words, a greater percentage of students of color allows for students to engage at higher levels of cross-racial interaction where a more

negative campus racial climate exists. The total effect was also positive and significant (b= 0.099, p<.000).

Across racial/ethnic groups. For Asian/Asian American, African American/Black, and Latina/o student groups the mediation effect of campus racial climate was statistically insignificant in Model B as it was in Model A; an indirect effect between compositional diversity and cross-racial interaction, through the level of negative campus race relations, was not meaningful. For White students, conversely, a positive and significant mediation effect was found, albeit the coefficient is small (b= 0.019, p<.05); a greater percentage of compositional diversity within the student body makes increased cross-racial interactions possible when the level of negative campus race relations is higher. Given the effect size and its significance level are for the largest racial/ethnic group in the sample, White students, this finding is read with caution. The total effect of compositional diversity on cross-racial interaction is also positive and significant for White students (b=0.143, p<.000). The indirect and direct parameter estimates for the mediation modeled across racial/ethnic groups are provided in Table 12.

Campus Racial Climate and Social Agency

All students. In the model with all students included in the analysis, negative campus race relations (β= 0.583, p<.01) are positively related to students' levels of social agency at the end of college. In other words, attending an institution with a more negative campus racial climate is related to a higher commitment to social and political commitment. See Table 7 for the parameter estimates of all relationships in the baseline model.

Across racial/ethnic groups. Turning to the multigroup analysis, negative campus race relations are positively and significantly (β= 0.628, p<.01) related to social agency at the end of college for White students (see Table 8). Given a positive climate is related to lower levels of

social agency, as stated in findings for Model A, this finding corroborates a pattern in which the quality of a campus climate matters for the levels of social agency values White students report. Campus racial climate, however, does not have a statistically significant relationship to social agency levels of Asian/Asian American, African American/Black, or Latina/o students in Model B at the end of college (see Tables 9-11). This result is also consistent with Model A's findings.

Model C

Model C operationalized campus racial climate as negative student perceptions, a factor composed of three items measuring students' experiences with discrimination at their institution. Similar to Models A and B, Model C was tested using all students in the sample, controlling for race/ethnicity, followed by a multigroup analysis across White students, Asian/Asian American students, African American/Black students, and Latina/o students. The goodness-of-fit results are reported first for the baseline model and then for the multgroup model.

Goodness-of-Fit

All students. This model's goodness-of-fit results are x^2= 1252.4, df=67, p<.000; RMSEA=0.037; CFI=0.880; SRMR within=0.057, and SRMR between=0.198. Based on these collective indices, the model fit is adequate; although the CFI is slightly below the ideal level per Hu and Bentler (1999). Baseline Model C, therefore, offers a probable description of the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate and the impact of these relationships on social agency for students at the end of college.

Multigroup model. This model's goodness-of-fit results are x^2= 1480.9, df=230, p<.000; RMSEA=0.041; CFI=0.896; SRMR within=0.055, and SRMR between=0.237. The CFI is slightly below the ideal level, but the RMSEA and SRMR at the within level meet the recommended guidelines of fit (Hu & Bentler, 1999). The chi-square value is given for standard

reporting, but it is considered unreliable for interpretation of fit with large samples. Multigroup Model C, therefore, offers a probable description of the interrelationships fitting this study's sample.

Interrelationship of Compositional Diversity, CRI, and Campus Racial Climate

All students. Greater compositional diversity is directly related to increased levels of cross-racial interaction (β= 0.677, p<.000), but this institutional factor did not yield a statistically significant effect on the perception of campus climate by students in their senior year. A student's negative perception of the campus climate, additionally, is not significantly associated with their level of engagement with racially diverse peers. Direct parameter estimates for Model C baseline results are provided in Table 13.

Across racial/ethnic groups. For Latina/o and White students in the study, compositional diversity is positively and significantly related to cross-racial engagement (β= 3.840, p<.05; β= 0.790, p<.000), but this path is not statistically significant for other students. Meanwhile, the relationship between compositional diversity and campus racial climate is statistically significant for all racial/ethnic groups in Model C. Asian/Asian American, African American/Black, and Latina/o students reported less agreement with the perception of a negative campus climate when the percentage of students of color was higher (β= -0.674, p<.01; β= -0.506, p<.01; β= -0.975, p<.000 respectively). For White students, on the other hand, the greater the compositional diversity in the student body, the more negative their perceptions of the campus climate (β= 0.402, p<.01). The effect of negative perceptions of the campus racial climate on students' level of cross-racial interaction, finally, is not statistically significant for any racial/ethnic group. See Tables 14-17 for a complete set of parameter estimates for White, Asian/Asian American, African American/Black, and Latina/o students consecutively.

Mediating Effect of Campus Racial Climate

All students. The indirect effect of compositional diversity on cross-racial interaction through campus racial climate is not statistically significant for all students in the baseline model. The total effect, however, is positive and significant (b= 0.101, p<.000). See Table 18 for the parameter estimate results for all students, controlling for race/ethnicity.

Across racial/ethnic groups. The indirect effect of compositional diversity on cross-racial interaction through campus racial climate is negative and significant for Latina/o students in Model C (b= -0.347, p<.000), but the total effect is not statistically significantly. In other words, the percentage of students of color decreases the level of positive cross-racial interaction when Latina/o students report perceptions of a less negative campus racial climate. Meanwhile a significant mediation effect does not exist for Asian/Asian American, African American/Black, or White racial/ethnic student groups. The total effect, however, is statistically significant and positive for White students (b= 0.141, p<.000). In other words, while compositional diversity does not have a direct or indirect effect on the level of positive cross-racial interactions for students of color racial/ethnic groups, the overall effect for White students is positive and significant. Indirect effects and total effects for Model C analyses across racial/ethnic student groups are found in Table 18.

Campus Racial Climate and Social Agency

All students. The Model C analysis of all students, controlling for race/ethnicity, yielded a statistically significant relationship between campus racial climate and social agency (β= 0.387, p<.01). A more negative perception of the campus racial climate is associated with higher levels of social agency at the end of college. See Table 13 for parameter estimates.

Across racial/ethnic groups. A statistically significant association was not found for any racial/ethnic student group in the multigroup analyses. A more negative campus racial climate does not directly affect students' levels of commitment to social and political involvement. These findings are reported in Tables 14-17 for each racial/ethnic group.

Overview of Findings for RQ1, RQ2, and RQ3

An overview of the findings corresponding to Research Questions 1, 2, and 3 is presented in Table 19. This table illustrates readily distinctive patterns of findings resultant from interchanging the measurement of campus racial climate in each of the three models, A, B, and C. The following section provides the findings related to the three distinct operationalizations of campus racial climate used in this study, thus providing results for Research Question 4.

Operationalization of Campus Racial Climate

Three different measurements of campus racial climate were utilized in this study to examine its role within the diversity rationale yielding benefits of social agency. Distinct measures were used due to the unavailability of a golden standard for measuring campus racial climate in the literature, thus leaving researchers to study the concept in a diverse set of ways without a compass for its validity and benchmarking findings. Three distinct measures were also used in order to tap into the various dimensions of this study's conceptual framework. Model A measured campus racial climate as positive campus race relations (positive cross-racial interaction aggregated to the institutional level), Model B as negative campus race relations (negative cross-racial interaction aggregated to the institutional level), and Model C as negative student perceptions of the climate (three-item factor). The findings indicate some differences in the key relationships analyzed depending on which measure of campus racial climate is in the model.

Campus Racial Climate and Positive Cross-Racial Interaction

If campus racial climate is operationalized as positive race relations, it has a positive and significant effect on the level of cross-racial engagement reported by all students and across all racial/ethnic groups (see Table 19). If campus racial climate is instead operationalized as negative campus race relations, as in Model B, a positive and significant effect on positive cross-racial interaction continues to hold for all students, White students, and Asian/Asian American students, but not African American/Black or Latina/o students (see Table 19). Lastly, when campus racial climate was operationalized as the degree of negative student perceptions, climate does not relate statistically and significantly to any student group's engagement with diverse peers (see Table 19).

Campus Racial Climate and Compositional Diversity

The effect of compositional diversity on campus racial climate is positive and significant for all students in Models A and B, when climate is measured as either positive or negative campus race relations. There is a positive and significant relationship between these variables across all three models for White students (see Table 19); an increase in the percentage of students of color on campus raises the levels of both positive and negative campus race relations reported by White students in addition to the degree to which they agree with a negative campus climate. This relationship between variables is only statistically meaningful for Asian/Asian American, African American/Black, and Latina/o students in the multigroup analyses of Model C, when campus racial climate is measured by their individual reports of perceptions of the campus racial climate (see Table 19). In this latter case, as the level of compositional diversity increases, students of color racial/ethnic groups report less agreement with the perception of a negative campus climate.

Campus Racial Climate and Social Agency

Regardless of how campus racial climate was operationalized across the three sets of Models, it did not have a significant direct effect on levels of social agency at the end of college for Asian/Asian American, African American/Black, or Latina/o students. For all students and White students, on the other hand, a statistically significant relationship was found with social agency in Models A and B, when campus racial climate is operationalized as positive or negative campus race relations respectively (see Table 19). These findings give evidence White students' levels of social agency are lower at the end of college in the presence of more positive campus race relations, but higher with greater negative campus race relations.

Campus Racial Climate and Mediation of Key Variables

Lastly, different operationalizations of campus racial climate yielded different findings in response to whether the campus climate mediates the relationship between compositional diversity and cross-racial interaction (see Table 19). If campus racial climate is measured by positive or negative campus race relations, a positive mediation effect is found for all students (controlling for race/ethnicity) and White students, but no significant indirect effects are found if campus racial climate is measured by students' negative perceptions. Meanwhile, no significant mediation is present for Asian/Asian Americans or African American/Black students regardless of how campus racial climate is measured. Lastly, a significant and negative indirect effect is present for Latina/o students when campus climate is measured by negative student perceptions.

Other Findings of Interest

This section reviews findings germane to the literature, theoretical and methodological contexts of this study. First, the findings relating students' levels of positive cross-racial interaction on their resulting levels of social agency are given because, as theorized by Gurin et

al. (2002), the benefits of diversity are educed through intergroup contact. Additionally, findings for paths encompassing key variables of interest to this study, positive cross-racial interaction, social agency (including the pre-test), campus racial climate, are reported. Special attention is given to paths resulting in distinctive patterns across models and racial/ethnic groups.

Social Agency on P-CRI

Across Models A, B, and C, in baseline and multigroup analyses, positive cross-racial interaction had a positive and significant effect on social agency. Confirming the diversity rationale (Gurin et al., 2002), greater engagement with racially diverse peers was associated with greater levels of social agency benefits for students across racial/ethnic lines. Coefficient sizes ranged from β=0.149 to β=0.225 (for all students, see Tables 1, 7, and 13; for White students, see Tables 2, 8, and 14; for Asian/Asian American students, see Tables 3, 9, and 15; for African American/Black students, see Tables 4, 10, and 16; and for Latina/o students, see Tables 5, 11, and 17). The only exception to this was for African American/Black students in Model B, where the relationship was positive but insignificant (see Table 10).

Distinctions by Identities of Race/Ethnicity and Sex.

Baseline model effects. Baseline analyses across models yielded consistent racial/ethnic and sex effects with regards to levels of social agency and levels of cross-racial interaction. Females (compared to males) enter and leave college with higher levels of social agency. Asian/Asian American, African American/Black, and Latina/o students (compared to White students) also enter and leave college with higher levels of social agency[11]. Additionally, Asian/Asian American, African American/Black, and Latina/o students engage with different-race peers at higher rates than White students the year prior to entering college, and this pattern

[11] Means-tests were conducted and verify the difference between racial/ethnic groups on levels of social agency at the start and end of college are statistically distinct and significant.

continued in college as measured by positive cross-racial interaction[12]. Parameter estimates for these findings are provided in Tables 1 (Model A), 7 (Model B), and 13 (Model C).

Multigroup effects. Sex effects within racial/ethnic groups in relation to levels of positive cross-racial interaction were also found. Consistent across all three models, Asian/Asian American females interact across racial/ethnic lines at higher rates than their male counterparts in college. Meanwhile, Model C yielded a statistically significant sex effect for African American/Black and Latina females; these groups engaged cross-racially at higher levels than their male counterparts. However, no sex effect was found for White students in any of the three models.

Sex effects within racial/ethnic groups were also found in association to levels of social agency, both the pre-test and at the end of college. White females enter and leave college with higher levels of social agency than White males, a finding consistent across all three models. Conversely, a statistically significant gender/sex effect was absent for Asian/Asian American students with regards to levels of social agency at start or end of college in all models. Lastly, African American females have lower levels of social agency at the end of college, in Models B and C, than their male counterparts, and Latina females have a small comparative effect over Latino males at the end of college in Model A.

Role of Racial Context Prior to Entering College

Interestingly, the racial composition of a student's high school the year prior to entering college[13] only had bearing on White students' levels of social agency pre-test; the more White

[12] Means-tests were conducted to explore the differences in cross-racial interaction before and during college; results indicate statistically distinct and significant means on these two outcomes.

[13] Means tests indicate White students reported attending high schools that were more White in racial composition than Asian/Asian American, African American/Black, and Latina/o students, and these differences are statistically significant.

the racial/ethnic composition of the high school they attended, the greater their levels of social agency at the start of college. The racial composition of a student's high school, however, did not have a statistically significant effect on students' levels of positive cross-racial interaction in college. These findings may link to prior research indicating students who attended high schools with higher percentages of students of color had lower levels of social agency and attributed this relationship to a correlation with lower school resources which in turn may depress students' hopes for the potential of social change (Nelson Laird, 2005). Engaging with racially diverse high school peers the year before college, meanwhile, had a positive and significant effect on students' levels of engagement with diverse peers in college for White students and Asian/Asian American students but not for African American/Black or Latina/o students. Bowman and Denson (2012) found that the relationship between cross-racial interaction and beneficial outcomes was stronger for students who had greater exposure to racial/ethnic diversity prior to entering college. Though this research study did not include social agency as an outcome, it may be that pre-college exposure to diversity moderates the effect between cross-racial engagement and social agency benefits for African American/Black and Latina/o students. .

Strongest Factor Associated with Social Agency

The social agency pre-test was the strongest indicator of social agency at the end of college, unsurprisingly. It had the largest standardized coefficient for outcomes of social agency measured for Asian/Asian American, African American/Black, and Latina/o students in all three models. This finding extended to White students in Models A and C, but in Model B campus racial climate, as accounted for by negative race relations, had the largest effect in predicting their levels of social agency at the end of college.

Role of Social and Curricular Choices

Social sorority or fraternity membership. Joining a social Greek organization had a significant and positive effect on levels of cross-racial engagement for African Americans and Latinas/os in Models B and C, but no significant effect in Model A. Meanwhile, membership to a social sorority or fraternity had only a small and significant positive effect on White students' levels of cross-racial interaction in Model A.

Ethnic studies curricular involvement. Taking an ethnic studies course played a mixed role in relation to positive cross-racial interaction and social agency across models and by racial/ethnic group, and mixed findings were especially for African American/Black and Latina/o students. White students benefited from taking an ethnic studies course in college, a finding consistent across models; engaging in this type of curriculum had a positive and significant effect on their levels of cross-racial engagement and outcomes of social agency. Meanwhile, across models, Asian/Asian American students benefit with regards to social agency. Whereas for African American/Black students, taking an ethnic studies course only has a positive and significant effect on their levels of social agency in Model C; no statistically significant path was found between taking an ethnic studies course and cross-racial interaction in any model. Lastly, for Latina/o students, taking an ethnic studies course in college has a positive and significant effect on their levels of cross-racial engagement in Models B and C, whereas in Model A they benefited with regards to their social agency values in addition to intergroup contact.

Effect of Institutional Selectivity and Type

Lastly, the models controlled for institutional selectivity and the private/public designation of an institution. For White students in Model, institutional selectivity had a negative and significant relationship with cross-racial interaction. In Models B and C, however, the more selective an institution, the *more* White students engage cross-racially with peers. For

African American/Black students in Model A, a negative and significant relationship was found between an institution's level of selectivity and levels of cross-racial interaction; the higher the level of selectivity, the less African American/Black students engaged cross-racially. The latter negative effect was also found in Models B and C, but it was not statistically significant. The private or public context of an institution was only statistically meaningful for White students in Models B and C; White college students attending private institutions engaged cross-racially more than their peers attending public institutions.

Synthesis of Findings by Research Question

The following section provides a synthesis of the findings in response to each of the four research questions guiding this study.

RQ1: a) What is the interrelationship of compositional diversity, student cross-racial interaction, and campus racial climate? b) Does the interrelationship differ across racial/ethnic groups?

Findings RQ1a. Based on the baseline modeling analysis, the greater the compositional diversity the less students engage cross-racially in Model A, while it allows for greater cross-racial interaction in Models A and B. Meanwhile, the higher the percentage of students of color attending an institution, the greater positive and negative campus race relations. Lastly, the more campus racial climate measures increase, whether positive or negative campus race relations, the greater the level of positive cross-racial engagement in Models A and B.

Findings RQ1b. Yes; the interrelationship of compositional diversity, student cross-racial interaction differs across racial/ethnic groups based on the findings of the multiple group analysis across Models A, B, and C.

In regards to the relationship of cross-racial interaction on compositional diversity: For White students, in Models B and C, the greater the percentages of students of color the higher their levels of cross-racial interaction. Meanwhile, compositional diversity and cross-racial interaction were not statistically related for Asian/Asian American or African American/Black students. Lastly, compositional diversity allowed for greater cross-racial engagement for Latina/o students in Model C.

In regards to the relationship of cross-racial interaction on campus racial climate: While more positive campus race relations allows for greater cross-racial engagement across all racial/ethnic groups in Model A, the findings were dissimilar in Models B or C. Greater negative race relations is associated with higher cross-racial interaction for White students and Asian/Asian American students in Model B, but no relationship exists statistically for African American/Black and Latina/o students. Greater agreement with negative perceptions of campus racial climate, meanwhile, does not statistically affect any racial/ethnic group's level of cross-racial interaction.

In regards to the relationship of campus racial climate on compositional diversity: While greater compositional diversity allows for more positive campus race relations across all racial/ethnic groups in Model A, the findings were dissimilar in Models B or C. In Model B, greater compositional diversity also allows for more negative campus race relations for White students, but no statistically significant relationship exists between these two variables for any other racial/ethnic group. Meanwhile, the higher the percentage of students of color enrolled at an institution, the less Asian/Asian American, African American/Black, and Latina/o students perceive a negative campus racial climate to be present in Model C. Conversely, greater

compositional diversity relates to greater agreement a negative campus racial climate is present for White students in the same model.

RQ2: a) Does campus racial climate mediate the relationship between compositional diversity and student cross-racial interaction? b) Does the mediation differ across racial/ethnic groups?

Findings RQ2a. Yes, for a majority of baseline analysis models, a mediation effect is present. Campus racial climate mediates the relationship between compositional diversity and student cross-racial interaction in Models A and B; the greater the percentage of students of color enrolled, the more students engage cross-racially with one another when the level of positive campus race relations and the level of negative race relations are higher. Meanwhile, no mediation effect was found in Model C; the degree to which students agree with perceptions of a negative campus racial climate does not mediate the relationship between compositional diversity and cross-racial interaction.

Findings RQ2b. Yes, the mediation effect of campus racial climate on the relationship between compositional diversity and cross-racial interaction does differ across racial/ethnic groups. Campus racial climate mediates the relationship between compositional diversity and student cross-racial interaction for White students in Models A and B. In other words, a larger percentage of students of color on campus allows for greater cross-racial engagement for White students where campus race relations are both more positive and more negative. Campus racial climate does not have a mediation effect in the multiple group analysis for Asian/Asian American or African American/Black racial/ethnic groups of students. Lastly, if measured by students' agreement with negative perceptions of the campus racial climate, it does have a negative mediating effect for Latina/o students; greater compositional diversity has a negative

effect on cross-racial interaction through Latina/o students' perceptions of a more positive campus climate. In other words, higher compositional diversity is associated with lower negative campus racial climate, which in turn is associated with lower positive cross racial interactions for Latina/o students.

RQ3: a) Does campus racial climate have a direct effect on student gains of social agency? b) Does the direct relationship of campus racial climate and student social agency differ across racial/ethnic groups?

Findings RQ3a. Yes, campus racial climate does have a direct effect on student gains of social agency in college, according to the results of the baseline modeling analyses. In Model A, more positive campus race relations are associated with lower levels of social agency. In Model B, more negative campus race relations are associated with greater levels of social agency. Finally, the more students agree with statements that indicate a negative campus racial climate, the greater their levels of social agency at the end of college.

Findings RQ3b. Yes, the direct relationship of campus racial climate and student social agency differs across racial/ethnic groups, based on the multiple group analyses results. For White students in Model A, greater positive campus race relations relate to lower levels of social agency, while in Model B, greater negative campus race relations relate to higher levels of social agency. For Asian/Asian American, African American/Black, and Latina/o students, however, campus racial climate does not have a statistically significant effect on their resulting levels of social agency by the end of college.

RQ4: Is the interrelationship of compositional diversity, student cross-racial interaction, campus racial climate, and social agency sensitive to the operationalization of campus racial climate?

Findings RQ4. Yes, the interrelationship of compositional diversity, student cross-racial interaction, campus racial climate, and social agency is sensitive to the operationalization of campus racial climate, based on results of using three different measures across three sets of models.

CHAPTER FIVE

Discussion and Conclusion

The United States is undergoing rapid racial demographics shifts and will be a majority-minority country by 2050. Will its citizenry be ready to participate socially and politically within the new racial context? Higher education is expected to produce socially engaged citizens. One avenue to achieve this outcome is through its positive influence on students' social agency, the extent to which a student values political and social involvement as a personal goal, which empirical research indicates is positively affected through students' engagement with racially diverse peers. Elite universities are pathways to leadership positions for students who will govern an increasingly diverse democracy. In order to broaden access and offer these benefits to all students, selective institutions may use affirmative action policies and practices to admit students of color historically denied admission.

This chapter offers a brief overview of the study, followed by a discussion of key findings, offers directions for future research, and concludes with important implications for practice and policy.

Study Overview

Since colleges and universities began the use of race-conscious affirmative action in the 1960s, as a means to increase access for students of color, the policy has faced persistent contestation (Edley, 1998). The rationale currently upholding the constitutionality of race-conscious affirmative action admissions policy is to provide a better education for all students through the presence of a diverse student body (Zamani-Gallaher et al., 2009). Indeed, a large body of research substantiates a relationship between a racially diverse student body and a breadth of educational and societal benefits important to college graduates (Bowman, 2011; Chang et al., 2006; Denson, 2009; Engberg & Hurtado, 2011; Gurin et al., 2002; Nelson Laird,

2005). The role of campus racial climate, however, has been largely disconnected from the field's understanding of how to activate benefits of diversity for all students, in spite of court evidence presented by students of color attesting exposure to a negative campus racial climate on predominantly White institutions negatively impacting their college experiences (see Allen & Solorzano, 2001; Yosso et al., 2004). Critical race theorists, therefore, question the benefits of affirmative action for students of color beyond accessing historically White institutions. In response to the critiques, Hurtado (2007) argues higher education must educate all students within a diverse context in order to advance towards a more socially-just citizenry and leadership representative of the population it serves.

This study proposed the campus racial climates of institutions, in addition to the admission of a diverse student body and cross-racial engagement amongst peers, may play an important role in the development of social agency. Social agency is the extent to which a student values political and social involvement as a personal goal. Social agency values are important to activate, within racially diverse student bodies affirmative action policy makes possible, due to a need for an engaged citizenry and leadership representative of the looming majority-minority population demographics of the U.S. (Taylor & Cohn, 2012). This study, therefore, sought to answer four core questions of inquiry:

RQ1) What is the interrelationship of compositional diversity, student cross-racial interaction, and campus racial climate?

RQ2) Is campus racial climate related to student social agency?

RQ3) Does campus racial climate have a direct effect on student gains of social agency?

RQ4) Is the interrelationship of compositional diversity, student cross-racial interaction, campus racial climate, and social agency sensitive to the operationalization of campus racial climate?

Only one known study previously explored the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate, a model of analysis utilized in this dissertation. Using a White student sample, Jayakumar (2008) found the presence of a racially diverse student body made it possible to engage with diverse peers where a positive campus racial climate was present and thus a more positive campus racial climate indirectly activated greater diversity benefits related to workforce competencies. Additionally, only one known study examined the direct impact of campus racial climate on Latina/o students' social agency levels (Cuellar, 2012). This study extends the literature through its investigation of the interrelationship between compositional diversity, cross-racial interaction, and campus racial climate for African American, Latina/o, and Asian American students in addition to White students. This study also examines the direct effect of campus racial climate on gains of social agency across these racial/ethnic groups.

In order to conceptualize the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate on students' social agency, this study pulled tenets from three theoretical frameworks. The first is the impact of diversity, which is useful to understand how diversity is associated with the educational benefit of social agency (Gurin et al., 2002). The second is Gordon Allport's (1954) intergroup contact theory, updated by Pettigrew (1998), which theorizes how students' racial prejudices impact their intergroup relations and considers the role institutions have to provide the conditions needed to foster positive cross-racial interactions. The third framework is the campus racial climate framework defined by Hurtado, Milem, Clayton-Pedersen, and Allen (1998) as "how students…perceive the institutional climate for racial/ethnic diversity, their experiences with campus diversity, and their own attitudes and interactions with different racial/ethnic groups" (p. 281), and later updated by Milem, Chang,

and Antonio (2005) and Hurtado et al. (2012). The latter provides a lens of how climate impacts the educational benefits of diversity theorized by Gurin et al. (2002).

This study utilized longitudinal student response data from the 2006 Freshman Survey (TFS) and the 2010 College Senior Survey (CSS), administered by the Cooperative Institutional Research Program (CIRP) at HERI at UCLA, linked to 2006 institutional data from IPEDS. Analyses were conducted in three sets of models (A, B, C); each operationalized campus racial climate differently to capture its multidimensionality per the conceptual framework. Utilizing MPLUS statistical software, multiple-group, single-level structural equation modeling (SEM) was employed for Model A, and multiple-group, multi-level structural equation modeling (MSEM) was used to run Models B and C. This method was chosen due to its ability to model complex theoretical relationships, examine multiple outcomes simultaneously, and estimate the indirect, direct, and total effects amongst variables using path analysis (Skrondal & Rabe-Hesketh, 2005). A multi-level analysis accounts for nested data as permitted in Models B and C, students at level one and institutions at level two (Raudenbush & Bryk, 2002), and a multi-group setup allowed the conceptual path diagram modeled (Figure 2) to be tested across four racial/ethnic student groups, White (n=11,020), Asian/Asian American (n=711), Latina/o (n=551), and African American/Black (n=369) nested within 102 four-year institutions. An overview of the key findings across models and racial/ethnic groups is provided in Table 19.

Discussion

The most recent U.S. Supreme Court ruling on affirmative action in higher education, *Fisher v. Texas* (2013), left intact the option for selective institutions to use affirmative action policies and practices; although this ruling permits a set of tools historically designed to admit students of color historically denied access to postsecondary education, its constitutionality rests

on the educational benefits students derive from attending diverse institutions. This study investigated whether the state of an institution's campus racial climate, in addition to the cultivation of a racially/ethnically diverse student body and cross-racial student engagement, plays an important role in the development of social agency, a democratic outcome necessary to engage within and lead the U.S. as it approximates a majority-minority racial/ethnic population. This study's findings indicate elements of the campus racial climate of an institution are directly and indirectly related to the diversity rationale, relationships are complex and distinct for White, Asian/Asian American, African American/Black, and Latina/o students, and the quality of the campus racial climate plays a pivotal role in fostering social agency for White students. This study reaffirms the need to consider the dynamic set of factors necessary to ensure benefits of diversity are fostered equitably across racial/ethnic lines. It is not sufficient to allow students of color to access the doors of the most selective institutions of higher education, the conditions of the campus environment must also allow them to develop the same privileges and diversity outcomes benefitting White students.

Complexity and Significance of Distinct Campus Racial Climate Measurements

Campus racial climate can be understood as a complex set of five dimensions in dynamic interplay, at the individual, institutional, mesa- and macro-levels, and which together shape the institutional environment students learn within (Hurtado et al., 2012; Hurtado et al., 1998; Milem et al., 2005). Campus racial climate is what one understands in statistical terms to be a latent variable; it cannot be measured directly but is rather approximated using a subset of indicators grounded in theory and available to the researcher (Skrondal & Rabe-Hesketh, 2005). While each dimension can have its own hosts of measures and actors (Hurtado et al., 2012), researchers within higher education currently have typically made little distinction between each, what this

means, and why it is meaningful to further understand for implications related to theory, practice, and policy. Instead, measures tapping into distinct tenets of campus racial climate are equivocally referenced and discussed as "campus climate" or "campus racial climate", although scholars acknowledge the plethora of measurements available (Nelson Laird & Niskode-Dossett, 2010) and the fact that different proxies may yield divergent results (Chang et al., 2006). Yet, as findings from this study indicate, it is beneficial to clearly decipher the meaning behind a chosen measure (or set of measures) to advance the field's understanding of the role campus racial climate plays within the study of higher education and importantly, student outcomes.

This dissertation is the only known study to use three different measures of campus racial climate to investigate its relationship to the impact of diversity in higher education. All three variables, positive campus race relations, negative campus race relations, and negative perceptions of the campus climate, reflect individual-level dimensions per one set of actors, students. Each, furthermore, approximates either the behavioral (via positive campus race relations and negative campus race relations) or psychological dimensions (via negative perceptions of the campus climate).

This dissertation's findings indicate the behavioral and psychological dimensions of campus racial climate have distinctive patterns of impact in connection to the diversity rationale and resultant benefits of social agency. Campus race relations impact students' levels of engagement with racially/ethnically diverse peers. Campus race relations also affect whether students end four years of college with higher or lower levels of social agency values. The behavioral dimension of campus racial climate, furthermore, offers the most consistent evidence of a mediation effect impacting the relationship between diverse student bodies and resultant levels of cross-racial interaction. Lastly, the compositional diversity of a student body

meaningfully affects both behavioral and psychological dimensions of the campus racial climate experienced by students. These results affirm the need for researchers, practitioners, and policy makers to examine, interpret, and implement empirical evidence related to campus racial climate within its appropriate context and dependent on the measure employed.

Campus Racial Climate and the Diversity Rationale

The behavioral and psychological dimensions of campus racial climate modeled in this study resulted in distinctive patterns of connectivity to the diversity rationale currently upholding the constitutionality of affirmative action in higher education. This study's findings indicate the need to consider the campus environment and the degree it is inclusive of the racial/ethnic groups affirmative action historically excluded from the most selective and prestigious institutions of higher education.

Impact of student body diversity on campus racial climate. Although the sheer presence of racially diverse student body contexts does not in of itself guarantee diversity benefits, the level of compositional diversity present has important implications on the behavioral dimension that students experience. The more institutions enrolled compositionally diverse student bodies, the higher the level of positive campus race relations experienced by students, regardless of their racial/ethnic group. The latter extends existing literature evidencing this relationship for White students (Jayakumar, 2008). Given compositional diversity did not also lead to greater cross-racial interaction for all racial/ethnic groups, this set of findings corroborate existing research that campus race relations constitutes a distinct measurement from positive cross-racial interaction (Chang et al., 2006). Thus, while greater compositional diversity may not uniformly affect students' individual behaviors of engagement with diverse peers, a finding consistent with past research (Chang et al., 2004; Engberg & Hurtado, 2011; Saenz,

2010; Saenz et al., 2007), this study offers evidence it is related to campus qualities, practices, and strategies contributing to an inclusive environment associated with greater positive race relations (Chang et al., 2006).

The level of enrollment of students of color also impacts the psychological dimension of campus racial climate students perceive and learn within. Asian/Asian American, African American/Black, and Latina/o students had a less negative perception of the campus racial climate on campuses with greater percentages of students of color. For White students, conversely, the more diverse their college classmates, the more they agreed with the perception of a negative campus racial climate. Given White students experience a more positive campus racial climate than students of color (Ancis et al., 2000; Mohr, 2000; Rankin & Reason, 2005; Suarez-Balcazar et al., 2003), due partially to differential racial/ethnic group statuses at an institution (Hurtado et al., 1998), it is not surprising their experiences of more racially diverse contexts result in distinct psychological perceptions.

Moreover, higher compositional diversity also relates to greater negative campus race relations for White students. It seems then, for White students, attending institutions with more racially/ethnically diverse student bodies augments their exposure to both greater positive and greater negative behavioral dimensions of the campus climate, and has a negative effect on their perceptions of the campus climate. These findings could reflect the group threat White students experience as the proportion of students of color grows on campuses they historically understood to be reflective of their majority race. Headlines in student newspapers have recently demonstrated intolerance as numbers of Asian and Asian Americans increases at highly selective institutions, claiming they feel their campus is being overtaken or overrun (National Commission on Asian American and Pacific Islander Research in Education, 2008). It may also be a critical

mass of students of color translates to greater push-back on the dominant ideologies and behaviors of White students inside and outside the classroom.

Impact of campus racial climate on student-level cross-racial engagement. This study does not offer consistent evidence regarding if and how the state of an institution's campus racial climate impacts a student's propensity to engage with diverse peers. Greater positive campus race relations allow students, across racial/ethnic groups, to engage cross-racially at higher rates. This resultant effect on students' behaviors, however, are unsurprising given positive race relations is constructed as an aggregate measure of the student level cross-racial interaction.

Perhaps more interesting is the finding that greater negative race relations have a positive effect on White and Asian/Asian American students' levels of cross-racial interaction. This finding could indicate the "buffer zone" or "middle man" role Asian American students play as tensions rise amongst White students and African American/Black and Latina/o students; in particular Asians/Asian Americans face racial triangulation (Kim, 1999). They are racialized as comparatively "better" than African Americans/Blacks (aka the "model minority") but simultaneously ostracized as an "other" or foreigner, a phenomenon heightening in education, particular within colleges and universities (Kim, 1999; Ng, Lee, Pak, 2007). The "neutral" role they come to occupy in these situations may allow them to engage more with different-race peers who are both White and other students of color. Likewise, majority-White students may feel comfortable increasing their levels of cross-racial interaction with Asian/Asian Americans whom they deem "honorary Whites" (Kim, 1999; Ng, Lee, Pak, 2007), even if the campus is reflecting a higher degree of negative race relations which they could attribute to the presence of non-Asian/Asian American students of color.

Meanwhile, the psychological dimension of campus racial climate did not have a statistically meaningful relationship on the extent students engage cross-racially; negative perceptions of the climate are not associated with the level of cross-racial interaction for any racial/ethnic group in this study. This finding contradicts existing research indicating the perception of racial tension on campus depresses the level of cross-racial interaction for African American sophomore undergraduate students (Saenz et al., 2007), but given the difference in the year of college data was collected, the relationship between psychological dimension of campus climate and cross-racial interaction may relate to the developmental stage of students or their time spent on campus. This finding may also reflect research indicating despite reports of racial discrimination, conflict, alienation, and tension from students of color, they also describe interactions and communication across racial divides (Allen & Solorzano, 2001). Lastly, students' psychological perceptions may impact student behaviors dependent on the casual or meaningful nature of the interaction. Given the survey items constituting the CIRP positive cross-racial interaction construct utilized in this study reflect a spectrum of the depth of engagement, future research should consider parsing apart the interactions based on the level of engagement they reflect.

Impact of Cross-Racial Engagement on Social Agency

Confirming the diversity rationale and extensive literature (Astin, 1993; Antonio, 2001; Gurin et al., 2002; Chang et al., 2004; Rhee & Kim, 2011; Pascarella et al., 2012; Hurtado et al., 2012), greater engagement with racially diverse peers was associated with greater levels of social agency benefits for students, and importantly this relationship sustains across racial/ethnic lines. Although the finding is not novel, especially as it concerns White students, it is important to continue to build our understanding of the institutional and student factors necessary to activate

the benefits stemming from exposure to and engagement with different-race/ethnic peers and specifically for students of all racial/ethnic groups. This is particularly true given the value and necessity to provide greater access for historically excluded students of color continues to be contested inside and outside the court systems by various stakeholders.

Effects of Campus Racial Climate on Social Agency

Students' levels of social agency at the end of four years of college were not uniformly impacted, based on this study's findings, by the quality of the campus racial climate. In fact, only the behavioral dimension of the campus racial climate had a statistically meaningful effect and only for White students; the greater the positive campus race relations, the lower their level of social agency, and the higher the negative campus race relations, the greater their level of social agency. Since White students generally perceive the campus racial climate as more positive and more inclusive than their non-White peers (Ancis et al., 2000; Harper & Hurtado, 2007; Hurtado et al., 1998; Reason & Rankin, 2005) given in part to their inability to recognize covert and subtle forms of racism (Worthington et al., 2008), experiences with greater levels of overt racial tensions as seen through negative campus race relations may make social and political involvement seem more necessary. Conversely, when the behaviors of peers on campus reflect a positive state of affairs, White students may be satisfied to maintain the status quo.

A different explanation for these findings may be linked to the added finding that White students reported attending high schools with greater White student compositions than any other racial/ethnic group. It may be that comparatively greater exposure to diverse peers once in college affects how White students make meaning of and are impacted by the quality of the campus racial climate. For instance, a White college student from a predominantly White high

school may be more motivated to seek social and political involvement after encountering negative racial/ethnic interactions for the first time.

The psychological dimension, as measured by negative student perceptions, was not related to outcomes of social agency, despite differing perceptions of the campus climate across racial/ethnic groups within this study's sample of participants. This finding also contradicts existing research using a similar measure indicating the perception of a negative climate was associated with greater levels of social agency for Latina/o students (Cuellar, 2012). It is important to note, that although this study's findings should not be considered definitive, none of the measures reflecting the psychological or behavioral dimensions of campus racial climate impacted students' of color social agency benefits. It may be the impact of the perception of racial discrimination has an indirect effect on students' of color social agency, given prior research found an indirect relationship on outcomes of adjustment to college compared to a direct effect found for White students and reasoned students of color may grow accustomed or resistant to racial discrimination experienced in college (Nora & Cabrera, 1996). Alternatively, Asian/Asian American, African American/Black, and Latina/o students may respond to discriminatory contexts by building communities and critical navigational skills as forms of resistance that help counter the negative racial context they endure as was found for Latina/o students in prior research (Yosso, Smith, Ceja, & Solórzano, 2009).

This set of findings indicates students from different racial/ethnic groups may have distinct processes of engaging with and benefiting from the diversity on their campuses. Indeed scholars urge institutions to take a multidimensional approach in constructing policies and practices aimed at activating the benefits of diversity; a one size fits all students model is discouraged due to its likely ineffectiveness (Milem et al., 2005). Researchers point out, for

example, that students from distinct racial/ethnic groups have different preferences of engaging with diversity. Using a single-institution study sample, White students were found to prefer informal opportunities to engage diversity while African American students sought formal campus programs (Duster, 1993; Milem et al., 2005). Similarly, students of color benefit educationally from same-race interaction in ways that white students do not. An alternative explanation may be that if the conditions set forth by Allport (1954), including the institution's failure to address racial prejudice, are unmet students of color may not reap optimal benefits from greater campus race relations. It may also be the case that since they enter college with higher levels of social agency than their White peers, a different set of factors influences their gains of social agency, beyond cross-racial interaction, that are not captured by campus racial climate measures used in this study. At the same time, students' of color may enter and leave college with comparatively higher levels of social agency precisely due to their greater levels of cross-racial engagement before and during college.

These findings may also point to an indirect mechanism to foster increased levels of social agency for Asian/Asian American, African American/Black and Latina/o students. One path may be to support their engagement with student organizations that provide spaces empowering their engagement with racially/ethnically diverse peers. Membership in a social sorority or fraternity had a significant and positive effect on levels of cross-racial engagement for African Americans and Latinas/os in two of the three models tested. Indeed, scholars state "safe" cultural spaces contribute to a positive campus racial climate experience for students of color (Milem et al., 2005). Likely if students of color have a "safe" space with same-race peers they are more likely to take the risk to engage cross-racially. Drawing from this study's conceptual framework, engagement within a social Greek organization could provide the ability

for students to become more self-aware, and Allport (1954) suggests students who are most self-aware are better able to engage with diverse others. Additionally, engaging with same-race and engaging across racial lines does not have to be mutually exclusive (Hurtado et al., 1998). Lastly, research indicates African Americans and Latina/o students create and utilize counterspaces in order to resist the racial discrimination they experience on predominantly White campuses, perhaps providing a space to process any negative encounters that come from engaging cross-racially (Allen & Solórzano, 2001; Solórzano, Ceja, & Yosso, 2000; Yosso, Smith, Ceja, & Solórzano, 2009).

In addition to accounting for the internal factors, via indicators of the campus racial climate, external factors must be considered in studies assessing the mechanisms by which equitable benefits of diversity can be achieved. External factors may be working in concert with or against intended outcomes of race conscious admissions policies (Dey, 1997 as cited in Chang, 2011). Additionally scholars theorize "there are significant period effects on students and their outcomes" where notable changes in the external context shape the policies institutions respond to and the environment students learn within, both on and off campus (Hurtado et al., 2012, p.99). Within the time period of data collection reflected in this study, 2006-2010, first-time full-time college students attending four-year schools witnessed the election of the first President of color of the United States, the proportion of minority racial/ethnic representation continued to rise at the national level, a demographic shift particularly notable in certain regions and states, and two additional states passed ballot initiatives banning affirmative action, Michigan in 2006 and Nebraska in 2008. Lastly, one has to wonder how the evolving history of changing rationales justifying the constitutionality of affirmative action is impacting the meaning, value and purpose institutions and students attach to greater compositional diversity

and intergroup relations on their campuses. In the future, it may be possible to use trend data from CIRP of students' views on issues, like whether racial discrimination continues to be a major problem in the U.S. and whether they support affirmative action, as a contextual backdrop to this cohort's experiences.

Implications

This study has important implications for affirmative action policy. Importantly, the diversity rationale alone is insufficient in meeting equity ends for all racial/ethnic groups of students. As discussed by Moses and Chang (2006) although the diversity rationale informed affirmative action policy, when used alone, it fails to address social justice and equity issues. Yet, the long string of court cases contesting the constitutionality of affirmative action (*DeFunis v. Odegaardt*, 1974; *Regents of the University of California v. Bakke*, 1978; *Hopwood v. Texas*, 1996; *Smith v. University of Washington Law School*, 2000; *Johnson v. Board of Regents of the University of Georgia*, 2001; *Gratz v. Bollinger*, 2003; *Grutter v. Bollinger*, 2003; *Fisher v. Texas*, 2013) have shaped the role race can play in college access (Moses & Chang, 2006) and ultimately predicated its legality on the condition it yields educational benefits for students. Given these two realties, how do we incorporate the voices of students of color, like those serving as "intervenors" in the *Grutter* and *Gratz* 2003 cases (Allen & Solorzano, 2001)?

Institutions of higher education, including the leadership, faculty, and practitioners, should acknowledge, affirm, and act on the understanding that the benefits of diversity cannot be reserved for any one group of students, nor should "students of color…be burdened as 'the diversity' with whom all others (white students) should interact" (Milem et al., 2005, p.19). Although this is acknowledged by scholars, little is known about the specific measures institutions must take to ensure equitable benefits. While this study takes steps to further out

understanding of the role campus racial climate plays a role in furthering equity ends, institutions must conduct campus-level assessments of climate; per Harper and Hurtado (2007), when the qualitative realities of race were underexplored it signaled to students their institutions did not care about their racialized experiences on campus.

In their assessments and understanding of the state of their campus racial climate and its impact on students, institutions must take into account the racial dynamics between groups of students (Milem et al., 2005). We cannot assume that everyone will engage cross-racially in the same manner or sets of patterns, due to differential racial statuses on campuses. External, longstanding, or contemporary events additionally keep these racial dynamics and status in flux, thereby inhibiting or encouraging intergroup relations between particular groups of students. For example, 9/11 catalyzed a hostile campus for students visibly identifiable as or thought to be Muslim; racialized immigration policy debates question Mexican/Mexican Americans' right to remain in the U.S. and access social institutions; Greek-sponsored racially themed parties break down trust and dissuade targeted students of color from engaging with White peers; and institutionalized race-based mascots may create longstanding divisions between students who recognize it as racist and those who do not. As such, not only should assessment tools keep these factors in mind but the resultant institutional practices and programming must take racial dynamics into account or risk limiting the effectiveness of their actions (Milem et al., 2005).

Institutional leaders and practitioners should seek to comprehend results of their campus climate studies with an understanding of the dimensions measured by their assessment tools. As evidenced in this study, different dimensions and measures of these dimensions may lead to very distinct interpretations. For example, an assessment tool that simply asks students if they engage with diverse peers may come away with a positive or negative report of their campus

environment based on a single measure of the behavioral dimension. Practitioners may then put in place a set of programs to bring diverse students together within social spaces, but could unintentionally create an artificial demonstration of engagement that ignores students' conflicting perceptions of the climate or racial prejudices held of one another. Instead, practitioners are urged to provide diversity programming that helps students develop a greater awareness of issues of racial privilege and the persisting role of race as a means to improve the campus climate (Worthington et al., 2008). In the absence of intervention, majority students will continue to adhere to greater colorblindness and thus more positive perceptions than is possibly warranted and contradictory to perceptions of students of color. This may, in turn, sustain or increase the distance between racial/ethnic groups, which can lead to greater racial tensions and conflict (Allport, 1954). Furthermore, as the racial context evolves in the U.S. and old forms of racism take on new forms, particular measures may inadequately assess students' views, experiences and behaviors within the racial context of their institution and therefore miss-assess/miss-address the impact it has on their outcomes from college.

Faculty should take into consideration the voices of student intervenors, particularly as it relates to their teaching and facilitation practices within the classroom. As the measure of psychological perceptions in this study demonstrated, students of color perceive a less negative campus climate, which includes an indicator of how often they hear faculty express stereotypes, when the compositional diversity is greater. It may be faculty members on more diverse campuses are more aware of their students' racial identities or that faculty members with greater understanding of racial attitudes are drawn to institutions with greater diversity; in either case, whether their classroom has many, just one, or no students of color, faculty must be trained to teach and mentor in a way that makes use of the diversity present in a way that does not tokenize,

stereotype, or overburden students of color (Haslerig, Bernhard, Fuentes, Panter, Daye, & Allen, 2013).

Researchers should incorporate the voices of intervenors in their studies by examining the role distinct dimensions of campus racial climate have on the quality and quantity of students' exposure to diversity and how this impacts their educational outcomes. Additionally, more work is needed to understand the factors contributing to *equitable* outcomes of diversity across racial/ethnic lines, which also implicates the need for researchers to conduct more multi-group analyses. Lastly, more work is needed to incorporate the intersectionality of student identities (e.g., sex, immigration status, SES/class), pointing to a need for researchers to gather this demographic information from study participants, and examine subsets of disaggregated data, and move to qualitative methods when quantitative methods do not allow for small sample sizes.

The courts and policymakers must take into account that a set of conditions must be met in order to effect positive benefits of contact between diverse groups of college students (Allport, 1954), a longstanding theory validated by meta-analytic research using hundreds of studies (Pettrigrew & Tropp, 2006). Importantly, compositional diversity, or sheer numbers of racial/ethnic group representation on a campus, is necessary but does not ensure benefits (Gurin et al., 2002) or equity in outcomes (Hurtado et al., 2012; Milem et al., 2005). Instead, institutions, must create a campus racial climate that fosters fluid and quality cross-racial interaction inside and outside the classroom-students will not engage cross-racially simply because their college or university expects them to do so (Harper & Hurtado, 2007). The steps taken to achieve this goal must incorporate an acknowledgment of racial dynamics between students (Milem et al., 2005) and must recognize the persistent and evolving role of racial discrimination (Omi & Winant, 1993). Otherwise perceptions of the campus climate will

continue to be a source of division between students of color and White students, which may sustain distanced intergroup engagement instead of the meaningful interaction that can lead to friendships important to activate greater intergroup understanding and breaking down of racial prejudices (Pettrigrew, 1998). While the Courts have abandoned remedying effects of longstanding racial discrimination through affirmative action (Moses & Chang, 2006; Yosso et al., 2004; Zamani-Gallher et al. 2008), the rapidly changing racial demographics and changing racial context cannot be ignored. To ignore this reality would be to undermine their support of the educational benefits diversity makes possible. As such, the testimony of students of color should not only be considered germane in their consideration of race-conscious admissions practices but it should be seen as a crucial element to understand.

Students of color have a right and deserve access to an equal education that allows them the same set of benefits as their White peers, including and importantly outcomes that can determine equitable ends within public leadership. As an institution, higher education, is uniquely positioned to foster outcomes of social agency and competencies for an evolving racial society. Campuses must take responsibility for the factors within their historical, organizational/structural, psychological, behavioral, and compositional diversity dimensions of campus racial climate that determine the degree to which certain racial/ethnic groups are permitted access to the institution and access to a learning environment conducive to their long term success.

Future Research

This study's measure of the psychological dimension of campus climate encompasses overt evidence of discrimination even though scholarship indicates these manifestations of negative racial prejudices are increasingly replaced by covert forms of racism depending on the

context. For example, research indicates students report more overt or more covert experiences of discrimination depending on the social or academic context (Allen & Solorzano, 2001), and students of color describe regular experiences of microaggressions across contexts and from various actors on campus (Solórzano et al., 2000; Yosso et al., 2009). Future research, therefore, should investigate more nuanced projections of behaviors reflecting the campus racial climate and the connection of these to the diversity rationale. Additionally, given research indicating a student's perception of the climate is mediated by their level of color blindness, the belief that race should not and does not matter and their related awareness/unawareness of racial privilege (Worthington et al., 2008), scholars should consider including a measure of color blindness to study intergroup relations and campus racial climate across racial/ethnic lines. This is particularly pertinent to college students because color blindness is most evident within politically correct environments like institutions of higher education and it will illuminate a more nuanced perception of between and within group differences on perceptions of the campus climate (Worthington et al., 2008). These steps may prevent researchers, and by extension higher education stakeholders, from misestimating and misinterpreting the role of campus racial climate plays within the diversity rationale.

In addition to measuring student body diversity as the percentage of underrepresented students, students of color, and a diversity index, future research should explore compositional diversity as the representation of each racial/ethnic group on campus. A group's own level of representation may impact their cross-racial engagement with different-race/ethnicity peers; both because it may impact how others engage with them and their level of comfort engaging outside of their racial/ethnic group. Deo (2011) and Antonio (2001) found students from racial/ethnic groups that are most underrepresented within their college are less prone to interact cross-racially

and less likely to have different-race peers engage with them. Deo's (2011) and Antonio's (2001) findings suggest that the least represented racial/ethnic groups on a campus may not be able to have frequent cross-racial interactions even if the number of students of color as a whole suggests a racially diverse student body. This measure could additionally lend further insight to the relationships found in this study between compositional diversity and perceptions of the climate and negative campus race relations and an individual's level of cross-racial interaction. Is there so-called group threat or a tipping point phenomenon impacting students' experiences on campus and their resultant benefits of diversity? As such, future research should assess if different operationalizations of compositional diversity result in unique and important patterns of findings, just as this study explored distinct measures of campus racial climate.

This study along with existing literature (Jayakumar, 2008) examined the interrelationship of dimensions of campus racial climate on the impact of diversity using a positive indicator of cross-racial interaction. Research is needed to assess the interrelationship using negative cross-racial interaction, thereby accounting for the quality of cross-racial interaction. This could yield meaningful results that extend a base of literature indicating quality is more important than quantity (Chang, 2011). Future research seeking to build upon this study should additionally seek to replicate these findings across a set of multilevel models inclusive of all the factors directly or indirectly associated with social agency.

Further research is also needed to parse apart the impact of casual/social interactions vs. close/friendship interactions across racial/ethnic groups. While some research indicates casual contact is more beneficial than close friendships depending on the degree of homogeneity or heterogeneity of their closest circle of friends (Antonio, 2001), scholars also recognize the importance of interracial friendships because these relationship are more likely to model the

equal status condition theorized by Allport (Milem et al., 2005). Thus, there is a need to extend this study's research to examine the impact of campus racial climate on intergroup relations, but distinguishing between types of interaction in terms of the degree of closeness. It may be that campus racial climate is most impactful, for example, on the level of casual interactions White students will engage within but that it is contrastingly most impactful on interracial friendships or closer interactions for students of color.

Conclusion

This study examined the interrelationship of compositional diversity, cross-racial interaction, and campus racial climate on an outcome of diversity, social agency, across student racial/ethnic groups, thereby seeking to extend the field's understanding of conditions necessary to cultivate a leadership and citizenry representative and able to engage within a majority-minority nation. Higher education stakeholders must provide the opportunity of diversity benefits to all students by allowing greater compositional diversity, supporting conditions that foster quality cross-racial engagement, and transforming institutional practices that impact the campus racial climate in line with the changing internal and external racial context.

An important step towards a socially just and socially engaged democratic citizenship is to challenge the dominant research paradigm that dichotomizes diversity as either a source of consequences for students of color when it is lacking or a source of benefits for White students when it is present. If we continue this frame, we (un)intentionally produce scholarship complicit in the racial discourse positioning students of color as meriting access to elite institutions of higher education in exchange for the value they add to White students' experiences. This frame, furthermore, encourages the continuation of a larger social discourse on college access whereby students of color are inherently deficient by "race-neutral" admissions standards and do not merit

entry to selective institutions. Implicitly (or explicitly depending on the author), the key justification to consider admitting "less qualified" groups is for the benefits they bring to "qualified" students who will gain important competencies necessary to lead this country, although even their value as facilitators of diversity benefits is contested (Kow, 2010). The weight of the argument that more students of color improves a campus racial climate more conducive of these students' learning outcomes, then, is diluted given the foregone assumption they are not as meritorious. This study, therefore, cautions the field of higher education from continuing down a path which may ultimately lead us further away from affirmative action as a means to social equality.

Affirmative action has proven its ability to pry open greater access to historically exclusionary institutions for underrepresented students. It is imperative, however, to re-acknowledge the fact race-conscious affirmative action policies and practices, historically and contemporarily, constitute just one set of tools institutions can take to ensure equitable access to higher education and its resultant benefits. Institutions have the ability to construct admissions criteria that simultaneously challenge conventional measures of "race-neutral merit", account for the persistent existence of race-based barriers in K-12 (Hurtado et al., 2012), and acknowledge the role one's race and ethnicity continues to play in shaping life opportunities. Accordingly, affirmative action as a public federal policy does not of itself accomplish greater social equality across racial/ethnic lines.

Table 1. Estimates of Direct Effects for All Students in Baseline Model A

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.075***	0.013
Asian/Asian American	0.056***	0.013
African American/Black	0.095***	0.011
Latina/o	0.081***	0.011
Socialized with someone of another racial/ethnic group last year before college	0.139***	0.010
Racial Composition of HS-More White	0.030**	0.009
Direct Effect on Positive Cross Racial Interaction		
Female	0.015	0.009
Asian/Asian American	0.107***	0.012
African American/Black	0.064***	0.008
Latina/o	0.074***	0.012
Socialized with someone of another racial/ethnic group last year before college	0.151***	0.009
Social Agency Pre-Test	0.136***	0.009
Racial Composition of HS-More White	0.009	0.009
Joined a social fraternity or sorority	0.022*	0.009
Taken an ethnic studies course	0.092***	0.010
CRC: Positive Campus Race Relations	0.272***	0.021
Compositional Diversity	-0.059***	0.011
Selectivity	-0.018**	0.006
Private Institution	-0.014***	0.004
Direct Effect on Social Agency		
Female	0.025**	0.009
Asian/Asian American	-0.002	0.010
African American/Black	0.036***	0.010
Latina/o	0.043***	0.009
Social Agency Pre-Test	0.495***	0.010
Joined a social fraternity or sorority	0.020*	0.008
Taken an ethnic studies course	0.078***	0.007
Positive cross-racial interaction	0.220***	0.010
CRC: Positive campus race relations	-0.070***	0.015
Selectivity	-0.003	0.016
Private Institution	-0.014	0.010
Direct Effect on CRC: Positive Campus Race Relations		
Compositional Diversity	0.729***	0.034

*p<.05, **p<.01, ***p<.001; x2=689.8 (df=49, p<.000); CFI=0.589; RMSEA=0.032; SRMR=0.063; $n_{students}$=12, 651

Table 2. Estimates of Direct Effects for White Students in Multigroup Model A

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.083***	0.014
Socialized with someone of another racial/ethnic group last year before college	0.150***	0.011
Racial Composition of HS-More White	0.038***	0.009
Direct Effect on Positive Cross Racial Interaction		
Female	0.008	0.010
Socialized with someone of another racial/ethnic group last year before college	0.153***	0.009
Social Agency Pre-Test	0.131***	0.011
Racial Composition of HS-More White	0.004	0.009
Joined a social fraternity or sorority	0.019*	0.010
Taken an ethnic studies course	0.098***	0.011
CRC: Positive Campus Race Relations	0.251***	0.019
Compositional Diversity	-0.010	0.005
Selectivity	-0.015**	0.006
Private Institution	-0.004	0.003
Direct Effect on Social Agency		
Female	0.029**	0.009
Social Agency Pre-Test	0.496***	0.011
Joined a social fraternity or sorority	0.024*	0.010
Taken an ethnic studies course	0.077***	0.007
Positive cross-racial interaction	0.225***	0.010
CRC: Positive campus race relations	-0.082***	0.016
Selectivity	0.004	0.019
Private Institution	-0.014	0.011
Direct Effect on CRC: Positive Campus Race Relations		
Compositional Diversity	0.724***	0.043

*p<.05, **p<.01, ***p<.001; x2 overall=1300.3 (df=124, p<.000), x2 group, contribution=1214.3; CFI=0.745; RMSEA=0.055; SRMR=0.054; $n_{institutions}$=100, $n_{students}$=11,020

Table 3. Estimates of Direct Effects for Asian/Asian American Students in Multigroup Model

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.058	0.034
Socialized with someone of another racial/ethnic group last year before college	0.121***	0.033
Racial Composition of HS-More White	0.014	0.031
Direct Effect on Positive Cross Racial Interaction		
Female	0.099**	0.033
Socialized with someone of another racial/ethnic group last year before college	0.143**	0.044
Social Agency Pre-Test	0.171***	0.037
Racial Composition of HS-More White	0.023	0.040
Joined a social fraternity or sorority	0.034	0.037
Taken an ethnic studies course	0.044	0.034
CRC: Positive Campus Race Relations	0.343***	0.036
Compositional Diversity	-0.004	0.022
Selectivity	-0.005	0.012
Private Institution	-0.005	0.014
Direct Effect on Social Agency		
Female	-0.020	0.033
Social Agency Pre-Test	0.519***	0.029
Joined a social fraternity or sorority	-0.038	0.032
Taken an ethnic studies course	0.092***	0.026
Positive Cross-Racial Interaction	0.190***	0.043
CRC: Positive campus race relations	0.035	0.039
Selectivity	0.023	0.033
Private Institution	-0.027	0.023
Direct Effect on CRC: Positive Campus Race Relations		
Compositional Diversity	-0.103	0.184

*p<.05, **p<.01, ***p<.001; x2 overall=1300.3 (df=124, p<.000), x2 group contribution=19.5; CFI=0.745; RMSEA=0.055; SRMR=0.054; $n_{institutions}$=78, $n_{students}$=711

Table 4. Estimates of Direct Effects for African American/Black Students in Multigroup Model A

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	-0.015	0.053
Socialized with someone of another racial/ethnic group last year before college	-0.002	0.057
Racial Composition of HS-More White	0.001	0.055
Direct Effect on Positive Cross Racial Interaction		
Female	-0.044	0.044
Socialized with someone of another racial/ethnic group last year before college	0.108	0.072
Social Agency Pre-Test	0.126*	0.057
Racial Composition of HS-More White	0.014	0.049
Joined a social fraternity or sorority	0.051	0.035
Taken an ethnic studies course	0.017	0.043
CRC: Positive Campus Race Relations	0.499***	0.048
Compositional Diversity	0.005	0.019
Selectivity	-0.036**	0.013
Private Institution	-0.015	0.013
Direct Effect on Social Agency		
Female	-0.098*	0.044
Social Agency Pre-Test	0.490***	0.040
Joined a social fraternity or sorority	-0.074	0.048
Taken an ethnic studies course	0.096	0.049
Positive cross-racial interaction	0.149**	0.056
CRC: Positive campus race relations	0.057	0.059
Selectivity	-0.034	0.069
Private Institution	-0.078	0.068
Direct Effect on CRC: Positive Campus Race Relations		
Compositional Diversity	0.013	0.106

*p<.05, **p<.01, ***p<.001; x2 overall=1300.3 (df=124, p<.000), x2 group contribution=21.3; CFI=0.745; RMSEA=0.055; SRMR=0.054; $n_{institutions}$=81, $n_{students}$=369

Table 5. Estimates of Direct Effects for Latina/o Students in Multigroup Model A

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.025	0.045
Socialized with someone of another racial/ethnic group last year before college	0.060	0.038
Racial Composition of HS-More White	-0.023	0.041
Direct Effect on Positive Cross Racial Interaction		
Female	0.046	0.035
Socialized with someone of another racial/ethnic group last year before college	0.097*	0.047
Social Agency Pre-Test	0.125**	0.039
Racial Composition of HS-More White	0.045	0.055
Joined a social fraternity or sorority	0.057	0.031
Taken an ethnic studies course	0.124**	0.040
CRC: Negative Campus Race Relations	0.381***	0.043
Compositional Diversity	-0.012	0.019
Selectivity	-0.021	0.011
Private Institution	0.006	0.011
Direct Effect on Social Agency		
Female	0.066*	0.032
Social Agency Pre-Test	0.467***	0.028
Joined a social fraternity or sorority	0.050	0.034
Taken an ethnic studies course	0.076*	0.037
Positive Cross-Racial Interaction	0.183***	0.042
CRC: Positive campus race relations	0.045	0.032
Selectivity	-0.047	0.033
Private Institution	0.002	0.025
Direct Effect on CRC: Positive Campus Race Relations		
Compositional Diversity	0.100	0.106

*p<.05, **p<.01, ***p<.001; x2 overall=1300.3 (df=124, p<.000), x2 group contribution=45.2; CFI=0.745; RMSEA=0.055; SRMR=0.054; $n_{institutions}$=78, $n_{students}$=551

Table 6. Model A Effects of Compositional Diversity on Cross-Racial Interaction through Campus Racial Climate

	All		White		Asian/Asian American		African American/Black		Latina/o	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Indirect Effect	0.153***	0.018	0.171***	0.018	-0.017	0.031	0.003	0.027	0.015	0.017
Total Effect	0.108***	0.020	0.162***	0.017	-0.019	0.025	0.006	0.033	0.010	0.021

*p<.05, **p<.01, ***p<.001

Table 7. Estimates of Direct Effects for All Students in Baseline Model B

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.075***	0.012
Asian/Asian American	0.056***	0.013
African American/Black	0.095***	0.010
Latina/o	0.081***	0.009
Socialized with someone of another racial/ethnic group last year before college	0.138***	0.010
Racial Composition of HS-More White	0.030**	0.009
Direct Effect on Positive Cross Racial Interaction		
Female	0.015	0.010
Asian/Asian American	0.110***	0.012
African American/Black	0.064***	0.008
Latina/o	0.077***	0.012
Socialized with someone of another racial/ethnic group last year before college	0.157***	0.009
Social Agency Pre-Test	0.143***	0.010
Racial Composition of HS-More White	0.009	0.009
Joined a social fraternity or sorority	0.020*	0.010
Taken an ethnic studies course	0.101***	0.011
CRC: Negative Campus Race Relations	0.423***	0.117
Compositional Diversity	0.493***	0.091
Selectivity	0.255	0.183
Private Institution	0.068	0.045
Direct Effect on Social Agency		
Female	0.025**	0.009
Asian/Asian American	-0.001	0.008
African American/Black	0.035***	0.010
Latina/o	0.039***	0.008
Social Agency Pre-Test	0.496***	0.009
Joined a social fraternity or sorority	0.023**	0.008
Taken an ethnic studies course	0.076***	0.007
Positive cross-racial interaction	0.217***	0.010
CRC: Negative campus race relations	0.583**	0.218
Selectivity	0.029	0.191
Private Institution	-0.172*	0.080
Direct Effect on CRC: Negative Campus Race Relations		
Compositional Diversity	0.366***	0.105

*p<.05, **p<.01, ***p<.001; x2=158.4 (df=23, p<.000); CFI=0.970; RMSEA=0.022; $SRMR_{within}$=0.024, $SRMR_{between}$=0.084; $n_{institutions}$=102, $n_{students}$=12,651

Table 8. Estimates of Direct Effects for White Students in Multigroup Model B

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.083***	0.014
Socialized with someone of another racial/ethnic group last year before college	0.150***	0.011
Racial Composition of HS-More White	0.038***	0.009
Direct Effect on Positive Cross Racial Interaction		
Female	0.008	0.011
Socialized with someone of another racial/ethnic group last year before college	0.160***	0.010
Social Agency Pre-Test	0.138***	0.011
Racial Composition of HS-More White	0.006	0.009
Joined a social fraternity or sorority	0.017	0.011
Taken an ethnic studies course	0.107***	0.012
CRC: Negative Campus Race Relations	0.261**	0.097
Compositional Diversity	0.688***	0.078
Selectivity	0.302*	0.123
Private Institution	0.088*	0.037
Direct Effect on Social Agency		
Female	0.031**	0.009
Social Agency Pre-Test	0.497***	0.010
Joined a social fraternity or sorority	0.028**	0.010
Taken an ethnic studies course	0.074***	0.007
Positive cross-racial interaction	0.221***	0.010
CRC: Negative campus race relations	0.628**	0.228
Selectivity	0.217	0.278
Private Institution	-0.126	0.084
Direct Effect on CRC: Negative Campus Race Relations		
Compositional Diversity	0.400**	0.125

*p<.05, **p<.01, ***p<.001; x2 overall=457.9 (df=68, p<.000), x2 group contribution=285.5; CFI=0.934; RMSEA=0.043; $SRMR_{within}$=0.042, $SRMR_{between}$=0.086; $n_{institutions}$=100, $n_{students}$=11,020

Table 9. Estimates of Direct Effects for Asian/Asian American Students in Multigroup Model B

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.058	0.034
Socialized with someone of another racial/ethnic group last year before college	0.121***	0.032
Racial Composition of HS-More White	0.014	0.031
Direct Effect on Positive Cross Racial Interaction		
Female	0.111**	0.034
Socialized with someone of another racial/ethnic group last year before college	0.153**	0.046
Social Agency Pre-Test	0.191***	0.039
Racial Composition of HS-More White	0.012	0.045
Joined a social fraternity or sorority	0.049	0.042
Taken an ethnic studies course	0.068	0.035
CRC: Negative Campus Race Relations	0.779***	0.217
Compositional Diversity	-0.038	0.208
Selectivity	-0.272	0.366
Private Institution	0.085	0.076
Direct Effect on Social Agency		
Female	-0.020	0.033
Social Agency Pre-Test	0.522***	0.029
Joined a social fraternity or sorority	-0.026	0.031
Taken an ethnic studies course	0.091***	0.025
Positive Cross-Racial Interaction	0.190***	0.041
CRC: Negative campus race relations	0.359	0.719
Selectivity	0.117	0.288
Private Institution	-0.141	0.114
Direct Effect on CRC: Negative Campus Race Relations		
Compositional Diversity	0.064	0.103

*p<.05, **p<.01, ***p<.001; x2 overall=457.9 (df=68, p<.000), x2 group contribution=36.3; CFI=0.934; RMSEA=0.043; $SRMR_{within}$=0.042, $SRMR_{between}$=0.086; $n_{institutions}$=78, $n_{students}$=711

Table 10. Estimates of Direct Effects for African American/Black Students in Multigroup Model B

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	-0.015	0.053
Socialized with someone of another racial/ethnic group last year before college	-0.006	0.056
Racial Composition of HS-More White	-0.001	0.054
Direct Effect on Positive Cross Racial Interaction		
Female	0.075	0.048
Socialized with someone of another racial/ethnic group last year before college	0.250*	0.097
Social Agency Pre-Test	0.280***	0.061
Racial Composition of HS-More White	0.060	0.048
Joined a social fraternity or sorority	0.126*	0.048
Taken an ethnic studies course	0.113	0.077
CRC: Negative Campus Race Relations	0.908	2.418
Compositional Diversity	0.278	2.290
Selectivity	-0.175	0.728
Private Institution	-0.192	0.588
Direct Effect on Social Agency		
Female	-0.095*	0.048
Social Agency Pre-Test	0.501***	0.036
Joined a social fraternity or sorority	-0.085	0.051
Taken an ethnic studies course	0.102	0.065
Positive cross-racial interaction	0.186	0.115
CRC: Negative campus race relations	-0.456	5.045
Selectivity	-0.169	1.909
Private Institution	-0.171	1.133
Direct Effect on CRC: Negative Campus Race Relations		
Compositional Diversity	0.040	0.124

*p<.05, **p<.01, ***p<.001; x2 overall=457.9 (df=68, p<.000), x2 group contribution=72.9; CFI=0.934; RMSEA=0.043; $SRMR_{within}$=0.042, $SRMR_{between}$=0.086; $n_{institutions}$=81, $n_{students}$=369

Table 11. Estimates of Direct Effects for Latina/o Students in Multigroup Model B

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.026	0.045
Socialized with someone of another racial/ethnic group last year before college	0.059	0.038
Racial Composition of HS-More White	-0.022	0.041
Direct Effect on Positive Cross Racial Interaction		
Female	0.117	0.077
Socialized with someone of another racial/ethnic group last year before college	0.190	0.118
Social Agency Pre-Test	0.213**	0.078
Racial Composition of HS-More White	0.039	0.063
Joined a social fraternity or sorority	0.119*	0.054
Taken an ethnic studies course	0.158***	0.045
CRC: Negative Campus Race Relations	0.775	0.679
Compositional Diversity	0.406	0.540
Selectivity	0.350	0.498
Private Institution	0.135	0.482
Direct Effect on Social Agency		
Female	0.043	0.084
Social Agency Pre-Test	0.447***	0.035
Joined a social fraternity or sorority	0.034	0.038
Taken an ethnic studies course	0.063	0.045
Positive Cross-Racial Interaction	0.188***	0.046
CRC: Negative campus race relations	-0.183	1.677
Selectivity	-0.554	1.586
Private Institution	-0.204	0.556
Direct Effect on CRC: Negative Campus Race Relations		
Compositional Diversity	0.021	0.106

*p<.05, **p<.01, ***p<.001; x2 overall=457.9 (df=68, p<.000), x2 group contribution=63.2; CFI=0.934; RMSEA=0.043; $SRMR_{within}$=0.042, $SRMR_{between}$=0.086; $n_{institutions}$=78, $n_{students}$=551

Table 12. Model B Effects of Compositional Diversity on Cross-Racial Interaction through Campus Racial Climate

	All		White		Asian/Asian American		African American/Black		Latina/o	
	b	S.E.	b	S.E.	b	S.E.	b	S.E.	b	S.E.
Indirect Effect	0.024**	0.009	0.019*	0.008	0.006	0.010	0.004	0.012	0.001	0.006
Total Effect	0.099***	0.018	0.143***	0.018	0.001	0.026	0.036	0.184	0.032	0.034

*p<.05, **p<.01, ***p<.001

Table 13. Estimates of Direct Effects for All Students in Baseline Model C

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.075***	0.012
Asian/Asian American	0.056***	0.013
African American/Black	0.095***	0.010
Latina/o	0.081***	0.009
Socialized with someone of another racial/ethnic group last year before college	0.138***	0.010
Racial Composition of HS-More White	0.030**	0.009
Direct Effect on Positive Cross Racial Interaction		
Female	0.014	0.010
Asian/Asian American	0.110***	0.011
African American/Black	0.065***	0.008
Latina/o	0.077***	0.012
Socialized with someone of another racial/ethnic group last year before college	0.157***	0.009
Social Agency Pre-Test	0.143***	0.010
Racial Composition of HS-More White	0.009	0.009
Joined a social fraternity or sorority	0.020*	0.010
Taken an ethnic studies course	0.100***	0.011
CRC: Negative student perceptions	0.007	0.102
Compositional Diversity	0.677***	0.062
Selectivity	0.289	0.184
Private Institution	0.089	0.053
Direct Effect on Social Agency		
Female	0.025**	0.009
Asian/Asian American	0.000	0.008
African American/Black	0.035***	0.010
Latina/o	0.039***	0.008
Social Agency Pre-Test	0.496***	0.009
Joined a social fraternity or sorority	0.022**	0.008
Taken an ethnic studies course	0.076***	0.007
Positive cross-racial interaction	0.217***	0.010
CRC: Negative student perceptions	0.387**	0.117
Selectivity	-0.171	0.197
Private Institution	-0.169*	0.083
Direct Effect on CRC: Negative Student Perceptions		
Compositional Diversity	0.037	0.105

*p<.05, **p<.01, ***p<.001; x2=1252.4 (df=67, p<.000); CFI=0.880; RMSEA=0.037; $SRMR_{within}$=0.057, $SRMR_{between}$=0.198; $n_{institutions}$=102, $n_{students}$=12,651

Table 14. Estimates of Direct Effects for White Students in Multigroup Model C

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.083***	0.014
Socialized with someone of another racial/ethnic group last year before college	0.150***	0.011
Racial Composition of HS-More White	0.038***	0.009
Direct Effect on Positive Cross Racial Interaction		
Female	0.006	0.011
Socialized with someone of another racial/ethnic group last year before college	0.159***	0.010
Social Agency Pre-Test	0.138***	0.011
Racial Composition of HS-More White	0.006	0.009
Joined a social fraternity or sorority	0.018	0.011
Taken an ethnic studies course	0.106***	0.012
CRC: Negative student perceptions	0.048	0.117
Compositional Diversity	0.790***	0.066
Selectivity	0.279*	0.130
Private Institution	0.106*	0.042
Direct Effect on Social Agency		
Female	0.030**	0.009
Social Agency Pre-Test	0.497***	0.010
Joined a social fraternity or sorority	0.029**	0.010
Taken an ethnic studies course	0.074***	0.007
Positive cross-racial interaction	0.221***	0.010
CRC: Negative student perceptions	0.335	0.216
Selectivity	0.042	0.305
Private Institution	-0.074	0.097
Direct Effect on CRC: Negative Student Perceptions		
Compositional Diversity	0.402**	0.153

*p<.05, **p<.01, ***p<.001; x2 overall=1480.9 (df=230, p<.000), x2 group contribution=1054.0; CFI=0.896; RMSEA=0.041; $SRMR_{within}$=0.055, $SRMR_{between}$=0.237; $n_{institutions}$=100, $n_{students}$=11,020

Table 15. Estimates of Direct Effects for Asian/Asian American Students in Multigroup Model C

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.059	0.034
Socialized with someone of another racial/ethnic group last year before college	0.120***	0.032
Racial Composition of HS-More White	0.015	0.031
Direct Effect on Positive Cross Racial Interaction		
Female	0.112**	0.034
Socialized with someone of another racial/ethnic group last year before college	0.148**	0.047
Social Agency Pre-Test	0.196***	0.039
Racial Composition of HS-More White	0.017	0.045
Joined a social fraternity or sorority	0.041	0.040
Taken an ethnic studies course	0.070	0.036
CRC: Negative student perceptions	0.704	0.722
Compositional Diversity	0.430	0.617
Selectivity	-0.299	0.464
Private Institution	0.187	0.162
Direct Effect on Social Agency		
Female	-0.020	0.033
Social Agency Pre-Test	0.520***	0.029
Joined a social fraternity or sorority	-0.030	0.030
Taken an ethnic studies course	0.089***	0.026
Positive cross-racial interaction	0.194***	0.041
CRC: Negative student perceptions	0.426	0.397
Selectivity	0.075	0.467
Private Institution	-0.186	0.205
Direct Effect on CRC: Negative Student Perceptions		
Compositional Diversity	-0.674**	0.221

*p<.05, **p<.01, ***p<.001; x2 overall=1480.9 (df=230, p<.000), x2 group contribution=127.1; CFI=0.896; RMSEA=0.041, $SRMR_{within}$=0.055, $SRMR_{between}$=0.237; $n_{institutions}$=78, $n_{students}$=711

Table 16. Estimates of Direct Effects for African American/Black Students in Multigroup Model C

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	-0.014	0.053
Socialized with someone of another racial/ethnic group last year before college	-0.006	0.055
Racial Composition of HS-More White	0.000	0.054
Direct Effect on Positive Cross Racial Interaction		
Female	0.094*	0.045
Socialized with someone of another racial/ethnic group last year before college	0.265**	0.093
Social Agency Pre-Test	0.307***	0.060
Racial Composition of HS-More White	0.064	0.059
Joined a social fraternity or sorority	0.133*	0.051
Taken an ethnic studies course	0.126	0.075
CRC: Negative student perceptions	1.038	2.064
Compositional Diversity	0.689	1.543
Selectivity	-0.380	0.545
Private Institution	-0.153	0.312
Direct Effect on Social Agency		
Female	-0.090*	0.044
Social Agency Pre-Test	0.504***	0.037
Joined a social fraternity or sorority	-0.085	0.051
Taken an ethnic studies course	0.107*	0.051
Positive cross-racial interaction	0.175*	0.071
CRC: Negative student perceptions	-0.017	0.408
Selectivity	-0.169	0.301
Private Institution	-0.168	0.246
Direct Effect on CRC: Negative Student Perceptions		
Compositional Diversity	-0.506**	0.156

*p<.05, **p<.01, ***p<.001; x2 overall=1480.9 (df=230, p<.000), x2 group contribution=148.8; CFI=0.896; RMSEA=0.041; $SRMR_{within}$=0.055, $SRMR_{between}$=0.237; $n_{institutions}$=81, $n_{students}$=369

Table 17. Estimates of Direct Effects for Latina/o Students in Multigroup Model C

Path	B	S.E.
Direct Effect on Social Agency Pre-Test		
Female	0.025	0.044
Socialized with someone of another racial/ethnic group last year before college	0.061	0.038
Racial Composition of HS-More White	-0.023	0.041
Direct Effect on Positive Cross Racial Interaction		
Female	0.078*	0.037
Socialized with someone of another racial/ethnic group last year before college	0.130*	0.052
Social Agency Pre-Test	0.165***	0.041
Racial Composition of HS-More White	0.018	0.062
Joined a social fraternity or sorority	0.075*	0.034
Taken an ethnic studies course	0.140***	0.039
CRC: Negative student perceptions	3.637	1.987
Compositional Diversity	3.840*	1.884
Selectivity	0.417	0.507
Private Institution	0.162	0.279
Direct Effect on Social Agency		
Female	0.079	0.058
Social Agency Pre-Test	0.490***	0.040
Joined a social fraternity or sorority	0.067	0.107
Taken an ethnic studies course	0.094*	0.044
Positive cross-racial interaction	0.194***	0.044
CRC: Negative student perceptions	-0.574	4.415
Selectivity	-0.186	1.290
Private Institution	-0.021	0.362
Direct Effect on CRC: Negative Student Perceptions		
Compositional Diversity	-0.975***	0.154

*p<.05, **p<.01, ***p<.001; x2 overall=1480.9 (df=230, p<.000), x2 group contribution=150.9; CFI=0.896; RMSEA=0.041; $SRMR_{within}$=0.055, $SRMR_{between}$=0.237; $n_{institutions}$=78, $n_{students}$=551

Table 18. Model C Effects of Compositional Diversity on Cross-Racial Interaction through Campus Racial Climate

	All		White		Asian/Asian American		African American/Black		Latina/o	
	b	S.E.	B	S.E.	B	S.E.	b	S.E.	b	S.E.
Indirect Effect	0.000	0.001	0.003	0.008	-0.034	0.043	-0.066	0.037	-0.347***	0.053
Total Effect	0.101***	0.018	0.141***	0.018	-0.003	0.022	0.021	0.041	0.029	0.026

*p<.05, **p<.01, ***p<.001

Table 19. Overview of Paths of Interest Across Models, Y on X

	All	White	Asian/Asian American	African American/Black	Latina/o
Model A: Positive Campus Race Relations					
Positive Cross-Racial Interaction on Compositional Diversity	-	0	0	0	0
Positive Cross-Racial Interaction on Campus Racial Climate	+	+	+	+	+
Campus Racial Climate on Compositional Diversity	+	+	+	+	+
Mediation Effect	+	+	0	0	0
Social Agency on Campus Racial Climate	-	-	0	0	0
Model B: Negative Campus Race Relations					
Positive Cross-Racial Interaction on Compositional Diversity	+	+	0	0	0
Positive Cross-Racial Interaction on Campus Racial Climate	+	+	+	0	0
Campus Racial Climate on Compositional Diversity	+	+	0	0	0
Mediation Effect	+	+	0	0	0
Social Agency on Campus Racial Climate	+	+	0	0	0
Model C: Negative Student Perceptions					
Positive Cross-Racial Interaction on Compositional Diversity	+	+	0	0	+
Positive Cross-Racial Interaction on Campus Racial Climate	0	0	0	0	0
Campus Racial Climate on Compositional Diversity	0	+	-	-	-
Mediation Effect	0	0	0	0	-
Social Agency on Campus Racial Climate	+	0	0	0	0

0 = No statistical effect, + = Positive statistical effect, - = Negative statistical effect

Appendix A
Campus Racial Climate Multilevel Factor Loadings

	All		White		Asian/Asian American		African American/Black		Latina/o	
Item	Within	Between	Within	Between	Within	Between	Within	Between	Within	Between
I have been singled out because of my race/ethnicity, gender, or sexual orientation	0.571	0.701	0.539	0.700	0.567	0.896	0.524	0.930	0.549	0.980
I have heard faculty express stereotypes about racial/ethnic groups in class	0.650	0.835	0.633	0.995	0.640	0.999	0.651	1.000	0.662	0.999
There is a lot of racial tension on this campus	0.669	0.877	0.656	0.498	0.701	0.773	0.646	0.945	0.683	0.840

Response Options: 1= Strongly disagree, 2= Disagree, 3= Agree, 4= Strongly Agree

Appendix B
Variable Definitions, Construct Items, and Coding Schemes

Variables	Scale and Coding Schemes
Social Agency Construct (6 Items)	
Measures the extent to which students value political and social involvement as a personal goal.	1= Not Important, 2=Somewhat Important, 3=Important, 4=Very Important
Importance personally of each of the following:	
Keeping up to date with political affairs	
Participating in a community action program	
Influencing social values	
Becoming a community leader	
Helping others who are in difficulty	
Helping to promote racial understanding	
Social Agency Construct Pre-Test (6 Items)	
Measures the extent to which students value political and social involvement as a personal goal at the start of college.	
Positive Cross-Racial Interaction Construct (6 Items)	
Measures students' level of positive interaction with diverse peers by their senior year of college	1=Never, 2=Seldom, 3=Sometimes, 4=Often, 5=Very Often
Experienced with students from a different racial/ethnic group:	
Dined or shared a meal	
Had meaningful and honest discussions about race/ethnic relations outside of class	
Shared personal feelings and problems	
Had intellectual discussions outside of class	
Studied or prepared for class	
Socialized or partied	
Positive Cross-Racial Interaction Construct Aggregated	
Measures students' level of positive interaction with diverse peers by their senior year of college at the institutional level.	
Year Before College: Socialized with Someone of Another Racial/Ethnic Group	1=Not at all, 2=Occasionally, 3=Frequently
Negative Cross-Racial Interaction Construct Aggregated (3 Items)	

Measures students' level of negative interactions with diverse peers. — 1=Never, 2=Seldom, 3=Sometimes, 4=Often, 5=Very Often

Experienced with students from a different racial/ethnic group:
- Had guarded, cautious interactions
- Had tense, somewhat hostile interactions
- Felt insulted or threatened because of race/ethnicity

Campus Racial Climate Factor Score (3 Items)

Measures students' perceptions of the campus racial climate. — 1=Strongly Disagree, 2=Disagree, 3=Agree, 4=Strongly Agree

Extent of agreement or disagreement with the following statements:
- I have been singled out because of my race/ethnicity, gender, or sexual orientation
- I have heard faculty express stereotypes about racial/ethnic groups in class
- There is a lot of racial tension on this campus

Racial Composition of the High School — 1=Completely non-White, 2=Mostly non-White, 3=Roughly half non-White, 4=Mostly White, 5=Completely White

Act in College: Joined a social fraternity or sorority — 1=No, 2=Yes

Act in College: Taken an ethnic studies course — 1=No, 2=Yes

Institutional Control — 1=Public, 2=Private

FTE Percentage Undergraduate Students of Color

Institutional Selectivity

Appendix C
Descriptive Statistics

Variables	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
	All		White		Asian/Asian American		African American/Black		Latina/o	
Social Agency Construct	52.74	9.49	52.09	9.26	54.37	9.89	58.10	9.95	57.06	9.85
Social Agency Construct Pre-Test	49.83	9.06	49.24	8.79	51.74	9.26	54.53	10.04	53.07	9.82
Positive Cross-Racial Interaction Construct	52.29	8.41	51.28	8.27	57.09	7.24	56.60	7.85	56.73	7.80
Positive Cross-Racial Interaction Construct Aggregated	52.01	2.40	51.79	2.34	53.47	2.16	52.96	2.28	53.87	2.33
Year Before College: Socialized with Someone of Another Racial/Ethnic Group	2.59	0.56	2.56	0.56	2.80	0.45	2.86	0.38	2.79	0.45
Negative Cross-Racial Interaction Construct Aggregated	52.17	1.70	52.07	1.67	52.73	1.66	52.83	1.73	53.11	1.80
Campus Racial Climate Factor Score										
Racial Composition of the High School	3.78	0.77	3.89	0.66	3.12	1.03	3.01	1.05	2.95	1.10
Act in College: Joined a social fraternity or sorority	1.22	0.41	1.22	0.42	1.21	0.41	1.18	0.38	1.19	0.39
Act in College: Taken an ethnic studies course	1.53	0.50	1.51	0.50	1.59	0.49	1.66	0.47	1.63	0.48
Institutional Control	1.92	0.27	1.92	0.27	1.95	0.21	1.95	0.22	1.95	0.22
FTE Percentage Undergrad. Students of Color	15.81	10.62	14.51	8.66	23.44	14.89	21.71	14.92	28.25	19.53
Institutional Selectivity	1171.65	108.10	1171.66	105.30	1207.77	108.28	1131.93	130.03	1151.44	130.51

References

Allen, W.R., & Solorzano, D. (2001). Affirmative action, educational equity and campus racial climate: A case study of the University of Michigan Law School. *Berkeley La Raza Law Journal, 12*, 237-363.

Allport, G. (1954). *The Nature of Prejudice*. Cambridge, MA: Perseus Books.

Ancis, J. R., Sedlacek, W. E., & Mohr, J. J. (2000). Student perceptions of campus cultural climate by race. *Journal of Counseling & Development, 78*, 180–185.

Antonio, A. L. (2001). Diversity and the influence of friendship groups in college. *The Review of Higher Education, 25*(1), 63-89.

Astin, A.W. (1993). Diversity and multiculturalism on the campus: How are students affected? *Change, 25*(2), 44-49.

Bartels, L. (2013, April 16). Can the Republican Party thrive on white identity? *The Washington Post*. Retrieved from http://www.washingtonpost.com/blogs/monkey-cage/wp/2014/04/16/can-the-republican-party-thrive-on-white-identity/

Bell, D. A. (1980). Brown v. Board of Education and the interest-convergence dilemma. *Harvard Law Review, 93*(3), 518–533.

Bell, D. A. (1987). And we are not saved: The elusive quest for racial justice. New York: Basic Books.

Bell, D. A. (2004). Silent covenants: Brown v. Board of Education and the unfulfilled hopes for racial reform. New York: Oxford University Press.

Bentler, P.M., & Wu, E.J.C. (2002). *EQS for Windows user's guide.* Encino, CA. Multivariate Software, Inc.

Bollen, K.A. and Long, J.S. (1993). *Introduction*. In (Bollen, K.A. and Long J.S., eds.), Testing Structural Equation Models. Newbury Park, London, New Delhi: Sage.

Bowman, N.A. (2010). College diversity experiences and cognitive development: A meta-analysis. *Review of Educational Research, 80*(1), 4-33. Published on http://rer.aera.net. doi: 10.3102/0034654309352495.

Bowman, N.A. (2011). Promoting participation in a diverse democracy: A meta-analysis of college diversity experiences and civic engagement. *Review of Educational Research, 81*(1), 29-68. Published on http://rer.aera.net on October 4, 2010. doi: 10.3102/0034654310383047.

Bowman, N.A. (2012). Structural diversity and close interracial relationships in college. *Educational Researcher, 41*(4), 133-135. Published on http://er.aera.net. doi: 10..3102/0013189X12439934.

Bowman, N.A. & Denson, N. (2012). What's past is prologue: How precollege exposure to racial diversity shapes the impact of college interracial interactions. *Research in Higher Education, 53*(4), 406-425.

Cantor, N. (2004). Introduction. In *Defending diversity: Affirmative action at the University of Michigan* (pp.1-16). Ann Arbor, MI: University of Michigan Press.

Carnevale, A.P., & Rose, S.J. (2004). Socioeconomic status, race/ethnicity, and selective college admissions. In R.D. Kahlenberg (Ed.), *America's untapped resource: Low-income students in higher education* (pp. 101-156). New York, NY: The Century Foundation Press.

Carnevale, A.P., & Strohl, J. (2010). How increasing college access is increasing inequity, and what to do about it. In R.D. Kahlenberg (Ed.), *Rewarding strivers: Helping low-income students succeed in college* (pp. 71-190). New York, NY: The Century Foundation Press.

Chang, M.J. (1996). *Racial diversity in higher education: Does a racially mixed student*

population affect educational outcomes? (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI Number: 9626812)

Chang, M. J. (1999). Does racial diversity matter? The educational impact of a racially diverse undergraduate population. *Journal of College Student Development, 40*, 377–395.

Chang, M.J. (2011). Quality matters: Achieving benefits associated with racial diversity [White paper]. Retrieved from http://kirwaninstitute.osu.edu/wp-content/uploads/2012/09/Mitchell-Chang_final_Nov.-1-2011_design_3.pdf

Chang, M. J., Astin, A.W., & Kim, D. (2004). Cross-racial interaction among undergraduates: Some consequences, causes, and patterns. *Research in Higher Education, 45* (5), 529-553.

Chang, M.J., Denson, N., Saenz, V., & Misa, K. (2006). The educational benefits of sustaining cross-racial interactions among undergraduates. *The Journal of Higher Education, 77*(3), 430-455.

Cuellar, M. (2012). *Latina/o student success in higher education: Models of empowerment at Hispanic Serving Institutions (HSIs), emerging HSIs, and non-HSIs*. (Doctoral dissertation). Retrieved from ProQuest Dissertations and Theses. (UMI Number: 3497388)

Cuyjet, M. J. (1997). African American men on college campuses: Their needs and their perceptions. *New Directions for Student Services, 80*, 5–16.

DeFunis v. Odegaard, 507 P. 2d 1169 - Wash: Supreme Court (1973).

DeFunis v. Odegaard 416 U.S. 312 (1974).

Denson, N. (2009). Do curricular and cocurricular diversity activities influence racial bias? A

meta-analysis. *Review of Educational Research, 79*(2), 805-838. Published on http://rer.aera.net. doi: 10.3102/0034654309331551

Denson, N., & Chang, M.J. (2009). Racial diversity matters: The impact of diversity-related student engagement and institutional context. *American Educational Research Journal, 46*(2), 322-353. Published on http://aerj.aera.net on October 27, 2008. doi: 10.3102/0002831208323278.

Deo, M.E. (2011). The promise of Grutter: Diverse interactions at the University of Michigan Law School. *Michigan Journal of Race and Law, 17*(1), 63-118.

D'Souza, D. (1991). *Illiberal Education,* Free Press, New York.

Duster, T. (1993). The Diversity of California at Berkeley: An Emerging Reformulation of 'Competence' in an Increasingly Multicultural World. In B. W. Thompson and Sangeeta Tyagi (Eds.), Beyond a Dream Deferred: Multicultural Education and the Politics of Excellence. Minneapolis, MN: University of Minnesota Press.

Dye, T.R. (2002). *Who's running America? The Bush restoration* (7th ed.). Upper Saddle River, NJ: Prentice Hall.

Edley, Jr., C. (1998). Foreward. In G. Orfield & E. Miller (Eds.), *Chilling admissions: The affirmative action crisis and the search for alternatives* (pp. 1-16). Cambridge, MA: Harvard Education Publishing Group.

Engberg, M.E. (2007). Educating the workforce for the 21st century: A cross-disciplinary analysis of the impact of the undergraduate experience on students' development of a pluralistic orientation. *Research of Higher Education, 48*(3), 283-317.

Engberg, M.E. & Hurtado, S. (2011). Developing pluralistic skills and dispositions in college: Examining racial/ethnic group differences. *The Journal of Higher Education,*

82(4), 416-443.

Fisher v. Univ. of Tex. at Austin, 645 F. Supp. 2d 587, 590 (W.D. Tex. 2009), *aff'd*, No. 09-50822 (5th Cir. 2011).

Fisher v. University of Texas at Austin et al., 570 U.S. ___ (2013).

Fox, R.L., & Lawless, J.L. (2005). To run or not to run for office: Explaining nascent political ambition. *American Journal of Political Science, 49*(3), 642-659.

Gratz v**.** Bollinger, 539 U.S. 244 (2003).

Grutter v. Bollinger, 539 U.S. 306 (2003).

Gurin, P.Y., Dey, E.L, Gurin, G., Hurtado, S. (2003). How does racial/ethnic diversity promote education? *Western Journal of Black Studies, 27*(1), 20-29. Retrieved from: http://igr.umich.edu/documents/How%20Does%20Racial.pdf

Gurin, P., Dey, E., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review, 72*(3), 330-366.

Harper, S.R., Hurtado, S. (2007). Nine themes in campus racial climates and implications for institutional transformation. *New Directions for Student Services*, no. 120, 7-24. doi: 10.1002/ss.254.

Haslerig, S., Bernhard, L., Fuentes, M.V., Panter, A.T., Daye, C.E., & Allen, W.R. (2013). *Journal of Diversity in Higher Education, 6*(3), 158-173.

Henry, Jr., J. A. (1996). Hopwood v. Texas. *Race and Ethnic Ancestry Law Digest*, *3*, 97-101.

Hopwood v. University of Texas Law School 236 F.3d 256 (1996).

Hurtado, S. (1992). The campus racial climate: Contexts of conflict. *Journal of Higher Education, 63*(5), 539–569.

Hurtado, S. (2001). Linking diversity and educational purpose: How diversity affects

the classroom environment and student development. In G. Orfield (Ed.), *Diversity challenged: Evidence on the impact of affirmative action* (pp. 187–203). Cambridge, MA: Harvard Education.

Hurtado, S. (2007). Linking diversity with the educational and civic missions of higher education. *The Review of Higher Education, 30*(2), 185-196.

Hurtado, S., Alvarez, C.L., Guillermo-Wann, C., Cuellar, M., Arellano, L. (2012). A model for diverse learning environments. In J.C. Smart, M.B. Paulsen (eds.), *Higher Education Handbook of Theory and Research, 27*, 41-122.

Hurtado, S., Engberg, M.E., Ponjuan, L., & Landreman, L. (2002). Students' precollege preparation for participation in a diverse democracy. Research in Higher Education, 43(2), 163-186.

Hurtado, S., Milem, J. F., Clayton-Pedersen, A. R., & Allen, W. R. (1998). Enhancing campus climates for racial/ethnic diversity: Educational policy and practice. *The Review of Higher Education, 21*(3), 279-302.

Hurtado, S., Ruiz, A., & Whang, H. (2012). Assessing students' social responsibility and civic learning. Paper presented at the annual forum of the Association for Institutional Research, New Orleans, LA.

Jackson, L.A. (1995). Stereotypes, emotions, behavior, and overall attitudes toward Hispanics by Anglos. JSRI Research Report No. 10. The Julian Samora Research Institute, Michigan State University, MI.

Jackson, L.A., Hodge, C.N., Gerard, D.A., Ingram, J.M., Ervin, K.S., & Sheppard, L.A. (1996). Cognition, affect, and behavior in the prediction of group attitudes. *Personality and Social Psychology Bulletin, 22*(3), 306-316.

Jayakumar, U.M. (2008). Can higher education meet the needs of an increasingly diverse and global society? Campus diversity and cross cultural workforce competencies. *Harvard Educational Review, 78*(4), 615-651.

Johnson v. Board of Regents of the University of Georgia, 263 F.3D 1234 (11th Cir. 2001)

Kam, C.D., & Palmer, C.L. (2008). Reconsidering the effects of education on political participation. *The Journal of Politics, 70*(3), 612-631. http://dx.doi.org/10.1017/S0022381608080651

Kim, C.J. (1999). The racial triangulation of Asian Americans. *Politics & Society, 27*(1), 105-138.

Lei, P., & Wu, Q. (2007). An NCME instructional module on introduction to structural equation modeling: Issues and practical considerations. Accessed from http://ncme.org/linkservid/47EFEB5A-1320-5CAE-6EC90BFDF09AA39E/showMeta/0/

Lehman, J.S. (2004). The evolving language of diversity and integration in discussions of affirmative action from *Bakke* to *Grutter*. In *Defending diversity: Affirmative action at the University of Michigan* (pp.61-96). Ann Arbor, MI: University of Michigan Press.

Levin, S., Van Laar, C., & Sidanius, J. (2003). The effects of ingroup and outgroup friendships on ethnic attitudes in college: A longitudinal study. *Group Processes & Intergroup Relations, 6*(1), 76-92.

Lott, J.L., & Eagan, M.K., Jr. (2011). Assessing the psychometric properties of civic values. *Journal of Student Affairs Research and Practice, 48*(3), 333-347. doi:10.2202/1949-6605.6288

Milem, J. F., Chang, M. J., & Antonio, A. L. (2005). *Making diversity work on campus: A research based perspective*. Washington: American Association of Colleges and Universities.

Misa, K., Anderson, J., & Yamamura, E. (2005). *The lasting impact of college on young adults' civic and political engagement*. Paper presented at the Association for the Study of Higher Education, Philadelphia, PA.

Moreno, P.B. (2003). The history of affirmative action law and its relation to college admission. *Journal of College Admission, 179*, 14-21.

Moses, M. S., & Chang, M. J. (2006). Toward a deeper understanding of the diversity rationale. *Educational Researcher, 35*(1), 6-11.

Museus, S. D. (2008). The model minority and inferior minority myths: Stereotypes and their implications for student learning. *About Campus, 13*(3), 2–8.

Muthén, B. & Kaplan, D. (1985). A comparison of some methodologies for the factor analysis of non-normal Likert variables. *British Journal of Mathematical and Statistical Psychology, 38*, 171-189.

Muthén, L. K.., & Muthén, B. O. (2007). Mplus User's Guide (6th ed.). Los Angeles, CA: Muthén & Muthén.

National Commission on Asian American and Pacific Islander Research in Education (2008). Asian Americans and Pacific Islanders facts, not fiction: Setting the record straight. The College Board.

National Urban Fellows (2012, May). Diversity Counts: Racial and Ethnic Diversity among Public Service Leadership. Retrieved from http://www.nuf.org/sites/default/files/Documents/NUF_diversitycounts_V2FINAL.pdf

Nelson Laird, T. F. (2005). College students' experiences with diversity and their effects on academic self-confidence, social agency, and disposition toward critical thinking. *Research in Higher Education, 46*(4).

Nelson Laird, T. F., Engberg, M.E., & Hurtado, S. (2005). Modeling accentuation effects: Enrolling in a diversity course and the importance of social action engagement. *The Journal of Higher Education, 76*(4), 448-476.

Nelson Laird, T.F., & Niskode-Dossett, A.S. (2010). How gender and race moderate the effect of interactions across difference on student perceptions of the campus environment. *Review of Higher Education, 33* (3), 333-356.

Ng, J.C., Lee, S.S., Pak, Y.K. (2007). Contesting the model minority and perpetual foreigner stereotypes: A critical review of literature on Asian Americans in education. *Review of Research in Education, 31*, pp. 95–130.

Nuño, Stephen A. (2013, July 15). Opinion: A changing population, but Republicans are not getting the memo. NBC Latino. Retrieved from http://nbclatino.com/2013/07/15/opinion-a-changing-population-but-republicans-are-not-getting-the-memo/

Omi, M. & Winant, H. (1993). On the theoretical status of the concept of race. In McCarthy, C. & Crichlow, W. (eds.) *Race, Identity, and Representation in Education.* New York & London: Routledge, 3-10.

Orfield, G. (1998). Campus resegregation and its alternatives. In G. Orfield & E. Miller (Eds.), *Chilling admissions: The affirmative action crisis and the search for alternatives* (pp. 1-16). Cambridge, MA: Harvard Education Publishing Group.

Pascarella, E.T., Ethington, C.A., & Smart, J.C. (1988). The influence of college on humanitarian/civic involvement values. *The Journal of Higher Education, 59*(4), 412-437.

Pascarella, E.T., Salisbury, M.H., Martin, G.L., & Blaich, C. (2012). Some complexities in the effects of diversity experiences on orientation toward social/political activism and political views in the first year of college. *The Journal of Higher Education, 83*(4), 467-496.

Pettigrew, T. F. (1998). Intergroup Contact Theory. *Annual Review of Psychology, 49*, 65-85.

Pettigrew, T.F., & Tropp, L.R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*(5), 751-783.

Pike, G.R., & Kuh, G.D. (2006). Relationships among structural diversity, informal peer interactions and perceptions of the campus environment. *The Review of Higher Education, 29*(4), 425-450.

Preacher, K. J., & Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments, & Computers, 36*, 717-731. doi:10.3758/BF03206553.

Rankin, S. R., & Reason, R. D. (2005). Differing perceptions: How students of color and White students perceive campus climate for underrepresented groups. *Journal of College Student Development, 46*(1), 43–61.

Raudenbush, S.W., & Bryk, A.S. (2002). *Hierarchical linear models: Applications and data analysis methods* (2nd ed.). Thousand Oaks, CA: Sage Publications, Inc.

Regents of the University of California v. Bakke, 438 U.S. 265 (1978).

Reid, L. D., & Radhakrishnan, P. (2003). Race matters: The relation between race and general campus climate. *Cultural Diversity and Ethnic Minority Psychology,9*(3), 263–275.

Reise, S.P., Ventura J., Nuechterlein, K.H. & Kim, K.H. (2005). An illustration of multilevel factor analysis. *Journal of Personality Assessment, 84*(2), 126-136.

Rhee, B.S., & Kim, A. (2011). Collegiate influences on the civic values of undergraduate students in the US revisited. *Asia Pacific Education Review, 12*, 497-508.

Saenz, V.B. (2010). Breaking the segregation cycle: Examining students' precollege racial environments and college diversity experiences. *The Review of Higher Education, 34*(1), 1-37.

Saenz, V.B., Ngai, N.H., & Hurtado, S. (2007). Factors influencing positive interactions across race for African American, Latino, and White college students. *Research in Higher Education, 48*(1), 1-38.

Sharkness, J., DeAngelo, L., and Pryor, J. (2010). CIRP construct technical report. Cooperative Institutional Research Program at the Higher Education Research Institute at UCLA.

Skrondal, A., & Rabe-Hesketh, S. (2005). *Generalized latent variable modeling: Multilevel, longitudinal, and structural equation modeling*. Boca Raton, FA: Chapman & Hall/CRC.

Smith v. University of Washington Law School, 233 F. 3d 1188 (9th Cir. 2000).

Solórzano, D., Ceja, M., & Yosso, T. (2000). Critical race theory, racial microaggressions, and campus racial climate: The experiences of African American college students. *Journal of Negro Education, 69*(1/2), 60-73.

Suarez-Balcazar, Y., Orellana-Damacela, L., Portillo, N., Rowan, J.M., & Andrews-Guillen, C. (2003). Experiences of differential treatment among college students of color. *Journal of Higher Education, 74*(4), 428–444.

Taylor, P., & Cohn, D. (2012, November 7). A milestone en route to a majority minority nation. Retrieved from http://www.pewsocialtrends.org/2012/11/07/a-milestone-en-route-to-a-majority-minority-nation/

Teranishi, R.T. (2007). Race, ethnicity, and higher education policy: The use of critical quantitative research. *New Directions for Institutional Research*, no.133, 37-49. doi: 10.1002/ir.203.

Thernstrom, S., and Thernstrom, A. (1997). *America in Black and White: One Nation Indivisible,* Simon & Schuster, New York.

Umbach, P.D., & Kuh, G.D. (2006). Student experiences with diversity at liberal arts colleges: Another claim for distinctiveness. *The Journal of Higher Education, 77*(1), 169-192.

Wehner, P. (2014, February 6). Demographics and the GOP. *Commentary Magazine*. Retrieved from http://www.commentarymagazine.com/2014/02/06/demographics-and-the-gop/

Williams, J. (2013, April 29). Opinion: Shifting demographics change face of politics in Washington, beyond. *The Hill*. Retrieved from http://thehill.com/opinion/columnists/juan-williams/296485-shifting-demographics-are-changing-the-face-of-politics-in-washington-and-beyond

Worthington, R.L., Navarro, R.L., Loewy, M., Hart, J. (2008). Color-blind racial attitudes, social dominance orientation, racial-ethnic group membership and college students' perceptions of campus climate. *Journal of Diversity in Higher Education, 1* (1), 8-19.

Yosso, T.J., Parker, L., Solorzano, D.G., & Lynn, M. (2004). From Jim Crow to affirmative action and back again: A critical race discussion of racialized rationales and access to higher education. *Review of Research in Education, 28*, 1-25.

Yosso, T.J., Smith, W.A., Ceja, M., & Solórzano, D.G. (2009). Critical Race Theory, Racial Microaggressions, and Campus Racial Climate for Latina/o Undergraduates. *Harvard Educational Review*, *79*(4), 659-90.

Yuan, K., & Bentler, P.M. (2000). Three likelihood-based methods for mean and covariance structure analysis with nonnormal missing data. *Sociological Methodology*, *30*, 165-200.

Yuan, K., Lambert, P.L., & Fouladi, R.T. (2004): Mardia's multivariate kurtosis with missing data. *Multivariate Behavioral Research*, *39*(3), 413-437.

Zamani-Gallher, E.M., O'Neil Green, D., Brown, II, M.C., & Stovall, D.O. (2009). The case for affirmative action on campus: Concepts of equity, considerations for practice. Sterling, VA: Stylus Publishing.

Zúñiga, X., Williams, E. A., & Berger, J. B. (2005). Action-oriented democratic outcomes: The impact of student involvement with campus diversity. *Journal of College Student Development*, *46*(6), 660-678.