PRINCIPALS' PERCEPTIONS OF RACE/ETHNICITY-BASED AND CLASS-BASED AFFIRMATIVE ACTION IN COLLEGE/UNIVERSITY ADMISSIONS

by

ZACHARY THOMAS SMITH

(Under the Direction of John Mativo)

ABSTRACT

This non-experimental, correlational research study examined perceptions of public high school principals toward racial/ethnic-based affirmative action and class-based affirmative action measures and post-secondary admissions preferences. Four research questions guided the study: (1) What are perceptions of principals toward race/ethnicity-based affirmative action measures and preferences in college or university admissions? (2) What are perceptions of principals toward class-based affirmative action measures and preferences in college or university admissions? (3) What is the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based affirmative action measures and post-secondary admissions preferences? (4) What is the best set of predictors to explain the variance in perceptions of principals toward class-based affirmative action measures and post-secondary admissions preferences? Public high school principals in the State of Georgia were surveyed using an instrument created specifically for this study. The Theory of Reasoned Action (TRA) was used as the framework for this study and selection of predictor and criterion variables was guided by the TRA. The mean, standard deviation, and range of principals' perceptions were reported and used to answer the first two research questions. Multiple regression was used to

answer research questions three and four in this study. Major conclusions drawn from data analysis were as follows. Principals' perceptions toward class-based measures were definitively more favorable than their perceptions toward race/ethnicity-based measures, the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based measures were principals' race/ethnicity and principals' political affiliation, and the best set of predictors to explain the variance in perceptions of principals toward class-based measures were principals' age and principals' gender.

INDEX WORDS: Affirmative Action, Class-Based, Educational Achievement, Educational Attainment, Admissions, Higher Education, Poverty, Perceptions, Theory of Reasoned Action, Race/Ethnicity

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A Dissertation Submitted to the Graduate Faculty of The University of Georgia in Partial Fulfillment of the Requirements of the Degree

DOCTOR OF EDUCATION

ATHENS, GEORGIA

2015

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December 2015

DEDICATION

I dedicate the work on this dissertation and degree to my family. A special feeling of gratitude goes to my wife, Katie Smith, who has given me so much grace in the fulfillment of this degree. Her support and motivation in all endeavors is greatly appreciated. I have deep admiration for her as she completed her doctoral degree while working and in the midst of two pregnancies. Thanks to my kids who unknowingly made sacrifices allowing for the completion of this dissertation. Thanks to my parents and sister, Ronnie, Lisa, and Natalie Smith, who are all educators and who have fully supported all of my pursuits. Thanks to dad and mom for instilling in me a passion for education. Thanks, also, to my in-laws, extended family, and all of my friends for their support and encouragement. Special thanks to Matt Garner for working with me and supporting me throughout this long process. If not for Matt, I would not have been able to succeed professionally while pursuing this degree.

ACKNOWLEDGEMENTS

I wish to thank all of my committee members who were more than generous with their time and expertise. Thanks to Dr. In Heok Lee, Dr. Karen H. Jones, Dr. John Mativo, Dr. Jack Parish, and Dr. Jay W. Rojewski. Special thanks to Dr. Mativo, my committee chair, for his countless years of grinding through this process and for all of his reflecting, reading, encouraging, and patience. Special thanks, also, to Dr. Jones for hiring me as a graduate assistant during my master's and for being such a supportive friend over the past decade. Finally, I acknowledge and thank all the Georgia high school principals who participated in this study.

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CHAPTER 1

INTRODUCTION

Rationale

Affirmative action has been used to address existing inequalities based primarily on race/ethnicity (see Appendix A for a discussion on the use of this term) and gender since President John F. Kennedy implemented Executive Order Number 10925 on March 6, 1961. Executive Order 10925 was the first order by a president or a legislative action to specifically state the term *affirmative action*. It served as the foundation for employing and treating employees without regard to race/ethnicity. Four years later, President Lyndon B. Johnson signed Executive Order 11246, which enacted affirmative action, requiring contractors of the federal government to hire employees without regard to race/ethnicity. The purpose of these executive orders was to ensure members of minority groups were provided equal opportunity and to overcome prior discrimination and exploitation. Affirmative action refers to policies that factor one's race/ethnicity, skin color, religion, or gender in an effort to benefit members of underrepresented minorities. The primary focus of most policies has been to counter the negative historical effects of discrimination by giving preference to members of minorities in employment and educational admissions (Moses, Yun, & Marin, 2009; Robinson, Seydel, & Douglas, 1998).

Since the inception of affirmative action, several important Supreme Court cases have accentuated the debate surrounding its constitutionality and legitimacy (*City of Richmond v. Croson,* 1989; *Fullilove v. Klutznick,* 1980; *Gratz v. Bollinger,* 2000; *Grutter v. Bollinger,* 2001; *Hopwood v. Texas,* 1996; *Regents of the University of California v. Bakke*, 1978). Widespread

political and social debate continues with Supreme Court rulings as recently as 2014. The Supreme Court of the United States reviewed the constitutionality of affirmative action programs in *Fisher v. University of Texas* (2013) and voters' rights to decide on issues of affirmative action in *Schuette v. Coalition to Defend Affirmative Action* (2014). Despite lack of consensus, affirmative action programs have consistently opened doors for women and members of minority groups through admissions preferences in higher education (Robinson et al., 1998). As can be dually highlighted, the absence of affirmative action measures has led to a dramatic decrease in the admission of members of minority groups. Following California Proposition 209, a voter referendum prohibiting affirmative action in university admissions, the University of California, Berkeley experienced a 52% decrease in the number of African American and Hispanic first-year students (Moses et al., 2009).

Class-based affirmative action is an amended version of the policy that has traditionally been used to grant access to women and members of minorities into employment and higher education. The class-based approach is intended to provide educational access to individuals from lower socioeconomic status (SES) backgrounds who have been underserved by America's public education system. Class-based affirmative action is defined as any policy designed to redress issues of social and educational inequity facing individuals from lower socioeconomic backgrounds. Class-based affirmative action occurs in a variety of fashions; most notably, it gives preference to economically disadvantaged students in higher education admissions (Kahlenberg, 1996).

Interest in the socioeconomic approach to affirmative action gained momentum in the late 1990s as the constitutionality of race/ethnicity-based affirmative action came under legal attack. Although racial/ethnic considerations in admissions have remained legal in 42 states, the actual

use of such considerations has commonly been diluted for fear of court actions similar to those that have taken place in the 8 states where race/ethnicity-based affirmative action is banned. Thus, the discussion for socioeconomic preferences has continued to increase in popularity (Gose, 2005). Following *Fisher v. University of Texas at Austin* (2013), the future of race/ethnicity-conscious programs seemed even more uncertain. Resultantly, there was an influx of literature relating to the viability and sustainability of class-conscious approaches to affirmative action (Daugherty, Martorell, & McFarlin, 2014; Gaertner & Hart, 2013; Gaertner & Hart, 2015; Kahlenberg, 2015; Long, 2015; Nankervis, 2014; Schwarzschild, 2013; Xiang & Rubin, 2015).

Haycock (2001) stated that our education system takes students who begin with less and systematically gives them less in terms of education. Students from low-SES schools entered high school 3.3 grade levels behind students from higher SES schools. In addition, students from the low-SES groups learned less over 4 years than children from higher SES groups, graduating 4.3 grade levels behind those of higher SES groups (Palardy, 2008). Rather than being the great equalizer among students from varying social classes, the American education system is an institution that plays a prominent role in the reproduction of social class. Students from poverty are denied access to higher education based upon characteristically lower academic outcomes (Albrecht & Albrecht, 2011).

The need for class-based affirmative action was illustrated by Carnevale and Rose (2004). In their study of 126 top-tier colleges and universities, students in the highest economic quartile made up 74% of students admitted, compared with a mere three percent from the bottom economic quartile. Thus, impoverished students were 25 times less likely to be admitted to the nation's top colleges and universities as their socioeconomically advantaged peers. The authors

argued that preference in college admissions for socioeconomically disadvantaged students would result in 38% more representation from the bottom economic half, a substantial increase from the existing 10% representation. Kahlenberg (1996) argued that colleges and universities are the gatekeepers in American society, ultimately determining those who gain upward mobility. Because of their disadvantaged backgrounds, Kahlenberg (1996) adamantly contended that lower-class students should be given special preference in college admissions.

The University of Colorado became the first university to officially adopt a class-based approach to affirmative action in their admissions process. The method developed includes two applicant traits, *obstacles for life chances* operationalized as the *Disadvantage Index* and *overcoming obstacles operationalized* as the *Overachievement Index*. Students who are identified as either disadvantaged or who exhibit extraordinary overachievement are given a *primary factor* boost in the admissions process. The *Disadvantage* and *Overachievement* Indices were fully implemented for the first time in 2011 (Gaertner & Hart, 2013; 2015).

The University of Colorado's admissions boost based on class-based affirmative had significant positive impact on both the socioeconomic and racial/ethnic diversity of admitted students. In the seminal study related to a fully implemented class-based affirmative action program, Gaertner and Hart (2013) found groundbreaking evidence in support of the positive impact such programs had on economically disadvantaged applicants as well as members of racial/ethnic minority groups. The authors found that members of underrepresented minority groups were 5.7 times as likely to be admitted under the class-based approach. Likewise, they projected that more than 700 economically disadvantaged students from the 2011 and 2012 cohorts alone would earn a college degree resulting from the class-based affirmative action admission approach.

With the renewal of current research surrounding class-based affirmative action and the important findings from Gaertner and Hart (2013; 2015), many questions remain to be answered in the literature. Specifically, there is a lack of literature related to perceptions toward class-based affirmative action measure. This is relevant because perceptions serve as a missing link to future literature and policy implementation (Lahat, 2010; Linder & Peters, 2009; Stone, 2002). *Perception* (2014) is "the way one thinks about or understands something." For this study *perception* was equated with Fishbein and Ajzen's (1975) *attitude*—a predisposition to respond favorably or unfavorably toward something.

Most literature regarding perceptions about affirmative action has focused on people, both White and non-White, affected by race/ethnicity-conscious affirmative action programs (Antwi-Boasiako & Asagba, 2005; Kravitz & Klineberg, 2000; Shteynberg, Leslie, Knight, & Mayer, 2011; Weathers & Truxillo, 2008). Minimal research exists discussing perceptions of policy stakeholders or policy makers. In his concurring opinion for *Schuette v. Coalition to Defend Affirmative Action* (2014), Justice Kennedy wrote, "Deliberative debate on sensitive issues such as racial preferences all too often may shade into rancor...but democracy does not presume that some subjects are either too divisive or too profound for public debate." Due to the political and judicial sensitivity of the issue, it seems important to identify and understand how people with policy influence perceive the merit and usefulness of class-based affirmative action. Ultimately, these individuals are gatekeepers to future policy and action related to affirmative action measures.

Little to no information exists about perceptions of class-based affirmative action (Cancian, 1998; Carnevale & Rose, 2004; Cimino, 1997; Gose, 2005; Kahlenberg, 2003; Young & Johnson; 2004). How policy stakeholders view class-based affirmative action and their

propensity to support it is not known. This lack of information mirrors the lack of political and judicial action. Given the practical importance and potential of class-based affirmative action as a solution to problems of lower-class education and intergenerational poverty, the deficiency of research relating to views and perceptions of class-based measures should be addressed. It seems important to know how individuals, in particular educational policy stakeholders, perceive the validity of and possibilities for class-based affirmative action policies. Specifically, principals' perceptions of class-based measures are of interest because they could serve two purposes: establish policy stakeholder perceptions toward affirmative action and address the deficiency in literature related to perceptions toward class-based measures.

The principal's role as a policy stakeholder cannot be understated. Principals have the authority and autonomy to mitigate social and economic conditions in education (National Association of Elementary School Principals, 2015). Amanda Karhuse said grassroots advocacy is the most effective way to influence policy decisions at the state and federal level. Congressional leaders often demand to hear more directly from principals (National Association of Secondary School Principals, 2015). As stakeholders, principals are the direct link between students, communities, and the bureaucratic controls of public education (Rousmaniere, 2013). The position of principalship is of paramount importance in the high school setting. Principals are responsible for managing the organization, building community partnerships, and facilitating conditions for student success (Militello, Gajda, & Bowers, 2009). According to DeSimone (2009), principals are influencers of educational reform and overseers of policy implementation. Even more, Good (2008) added that principals play a vital role in educational reform because they impact all aspects of school policy. Because of the stakeholder and advocacy roles of

principals, Militello et al. (2009), DeSimone (2009), and Good (2008) all studied principals' perceptions for each of the authors respective interests.

Selected individual factors that were assessed relating to principals' perceptions on affirmative action and class-based measures were divided into two groupings: factors related to the demographic characteristics of principals and factors related to the schools where principals are leaders. The groupings were determined specifically as they related to the theoretical framework in this study. According to the framework for this study, beliefs deal with an individual's understanding of self and environment. Belief formation involves a link between two different aspects (*O* and *X*) of one's world—where, in this study, *O* was the predictor variable and *X* was the belief about affirmative action and class-based measures. Factors associated with principals' demographics contribute to their behavioral beliefs, which lead to their development of attitudes. Factors associated with each of the principals' schools contribute to their normative beliefs, which lead to their development of a subjective norm (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Factors associated with principals' demographics were educational attainment, age, gender, race/ethnicity, and political affiliation. While minimal research existed that assessed perceptions of principals toward affirmative action, these factors were identified through literature relating to principals' perceptions toward a variety of educational issues, general perceptions on affirmative action, and a combination thereof. Principals' educational attainment was used as an independent variable relating to principals' perceptions of multicultural education and principals' perceptions of No Child Left Behind's adequate yearly progress requirement as it relates to students with special needs (DeSimone, 2009; McCrary & Beachum, 2010). Age was strongly supported as a predictor of perceptions toward affirmative action measures. The

literature varied, however, in how it reported the impact of age on those perceptions (Fine, 1992; Jacobson, 1985; Kluegel, 1990; Stoker, 1998). Despite inconsistent findings, Kravitz and Klineberg (2000) concluded age was an important variable to be considered when studying perceptions toward affirmative action measures. McCrary and Beachum found men more highly perceived the theoretical value of multicultural education, while Tooms et al. (2007) found gender had a significant impact on the way principals perceived workplace politics—women principals perceived the workplace to be a much more political environment. Regarding race/ethnicity, McCrary and Beachum found no significant impact on principals' perceptions toward the theoretical value of multicultural education. In studies related specifically to perceptions of affirmative action, however, extensive bodies of research found race/ethnicity and gender to have a significant impact on general perceptions of affirmative action. Lastly, these same studies also affirmed within the literature political orientation as a strong predictor of perceptions on affirmative action. Democrats had significantly greater perceptions toward affirmative action measures than did Republicans (Kravitz & Klineberg, 2000; Park, 2009).

Factors associated with principals' schools were the racial/ethnic composition of students, socioeconomic (SES) characteristics of schools, geographic location, and school size. Each factor was found in the literature relating specifically to principals' perceptions and not necessarily pertaining to affirmative action. McCrary and Beachum (2010) used racial/ethnic composition of schools' students and school SES as predictors of principals' perceptions toward the theoretical value of multicultural education. Neither variable had a significant impact on principals' perceptions in that study. Likewise, McCrary and Beachum and Tooms et al. (2007) used geographic location of schools as an independent variable in their respective studies but it was not found to be a significant predictor of principals' perceptions. Lastly, DeSimone (2009),

McCrary and Beachum , and Tooms et al., analyzed school size as a predictor of principals' perceptions in their studies but did not find it to significantly impact principals' perceptions.

All things considered, therefore, it was vital a study be conducted addressing the deficiency in literature related to understanding stakeholder perceptions toward race/ethnicity-based and class-based affirmative action measures and post-secondary admissions preferences. Furthermore, it was necessary for a to study merge principals' perceptions toward a variety of educational issues with general perceptions toward affirmative action. This study did both.

Purpose Statement

The purpose of this survey study was to examine perceptions of public high school principals on affirmative action in postsecondary admissions. The study focused on class-based affirmative action compared to that of race/ethnicity. Class-based affirmative action refers to any student admission policy designed to redress issues of socioeconomic and educational inequity facing impoverished individuals (Kahlenberg, 1996). The intent of the study was to determine how principals perceived measures that give postsecondary admission preferences to students from low socioeconomic backgrounds. Principals' perceptions of affirmative action are of particular importance because these educational leaders are policy stakeholders.

The theory of reasoned action (TRA), developed by Fishbein and Ajzen (1975), served as the framework for studying principals' perceptions. The TRA explains the relationship between an individual's beliefs, attitudes, and behaviors. According to the TRA, behavioral beliefs foster attitudes. In turn, a person's behavioral intention depends on attitudes about a particular behavior, as well as normative beliefs (perception about a behavior, which is influenced by the judgment of significant others) and subjective norms (perception of normative pressures associated with an individual's social environment) associated with the behavior (Ajzen &

Fishbein, 1980). Thus, the TRA guides an understanding of the relationship between perceptions and behaviors.

Predictor variables in this study included principals' gender, race/ethnicity, political affiliation, age, and educational level as well as the race/ethnicity, SES characteristics, geographic location (as determined by Regional Educational Service Agency (RESA) region), and size of the principals' schools. The criterion variables were defined as perceptions relating to racial/ethnic affirmative action and class-based affirmative action measures.

Research Questions

1) What are perceptions of principals toward race/ethnicity-based affirmative action measures and preferences in college or university admissions?
2) What are perceptions of principals toward class-based affirmative action measures and preferences in college or university admissions?
3) What is the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based affirmative action measures and post-secondary admissions preferences?
4) What is the best set of predictors to explain the variance in perceptions of principals toward class-based affirmative action measures and post-secondary admissions preferences?

Theoretical/Conceptual Framework

The TRA and its extension the theory of planned behavior (TPB) (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975) have been used in a variety of studies related to perceptions of individuals in educational domains (Campbell, 2010; Martin & Kulinna, 2004; Obrusnikova, Dillon, & Block, 2011; Tsorbatzoudis, 2005). The TRA explains the relationship between an individual's beliefs, attitudes, and behaviors. It is grounded on two main

assumptions. First, people have the ability to process and use available information. Second, people can use available information to arrive at a rational decision to behave in a particular way.

According to the TRA, behavioral beliefs—an individual's personal judgments concerning some discriminable aspect of their world—foster attitudes. In turn, a person's behavioral intention—one's subjective probability to perform a behavior—depends on attitude about a particular behavior. In addition to attitude, normative beliefs—perception about a behavior, which is influenced by the judgment of significant others—and subjective norms—perception of normative pressures associated with an individual's social environment—influence behavioral intention. The best predictor of a person's behavior is the intention to perform the action (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

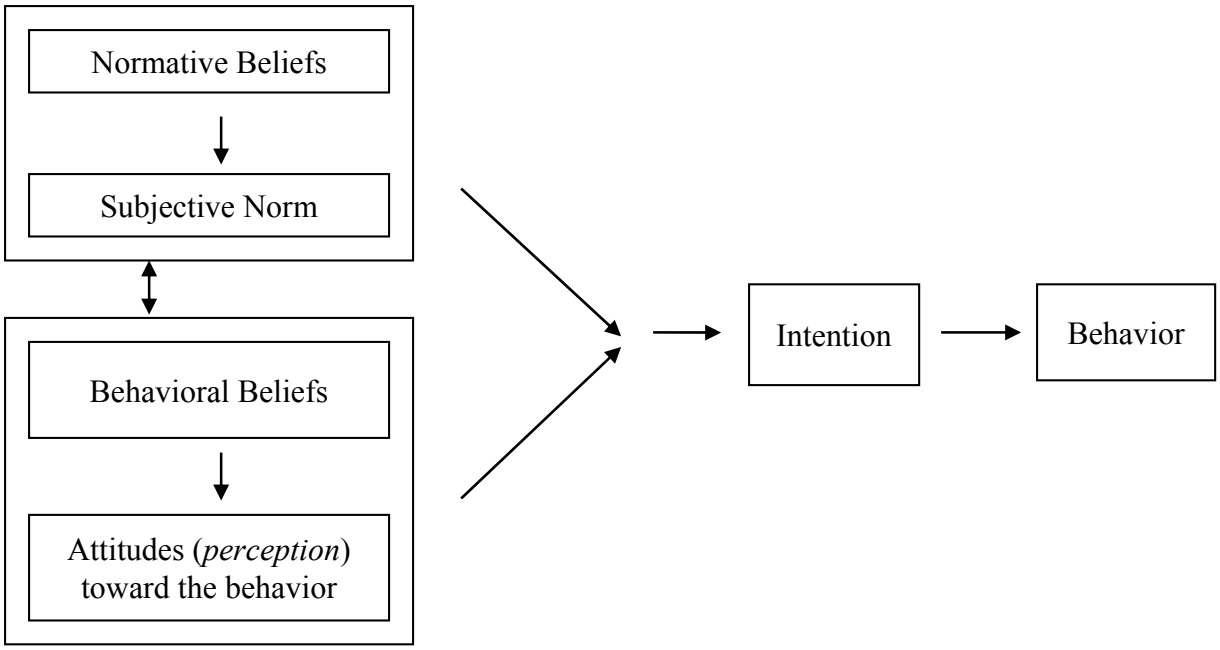

Figure 1. Theory of reasoned action by Fishbein and Ajzen (1975).

The TRA was used as the theoretical framework in this study to explore high school principals' perceptions toward affirmative action and class-based admission preferences for higher education. I expected the selected predictor variables to, in some ways, explain the

variance in perceptions among principals as they relate to racial/ethnic and class-based affirmative action measures. The rationale for my expectation was that, according to the normative and behavioral beliefs purported by the TRA, perceptions can directly influence a person's behavior.

The focus of this study was on perceptions—shaped by normative and behavioral beliefs—and how they influence behavior. *Perception* was not a precise term used in the TRA; as previously stated, however, the use of *perception* in this study fit the definition of *attitude* as espoused in the TRA. Under the TRA, perceptions influence action because they shape understanding and intent (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). In particular, I assessed principals' perceptions of race/ethnicity-based and class-based affirmative action measures and post-secondary admissions preferences.

In the 1960's, a number of executive orders and pieces of formal legislation created proactive measures to ensure that members of minority groups were provided equal opportunity and to overcome prior discrimination and exploitation. Affirmative action is any policy or program designed to benefit underrepresented members of minority groups. Although it is not necessarily limited to these realms, affirmative action is most commonly instituted in employment, governmental, and educational settings, Currently, race/ethnicity-conscious affirmative action in higher education admissions is legal in 42 states. Ballot initiatives intended to curb these policies, however, have become increasingly prevalent (Moses, Yun, & Marin, 2009; Robinson, Seydel, & Douglas, 1998).

Bell, Harrison, and McLaughlin (2000) used a context that grafted the TRA with affirmative action. They investigated the relationship between attitudes toward affirmative action programs (AAPs) and intentions/behaviors related to AAPs. Attitude toward AAPs was defined

as a general feeling of favor/disfavor regarding AAPs. This can be described by the equation below where *A* is attitude toward an object, *b* is the belief(s) about an object's attributes, *n* is the number of beliefs, and *e* is the evaluation(s) of the attributes or consequences (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

$$A = \sum_{i=1}^{n} b_i e_i,$$

Two sets of variables were assumed to contribute to beliefs about perceived attributes of AAPs—incoming information and demographic characteristics. Thereby, AAP attitude and subjective norm directly affect intention, which consequently guides behavior.

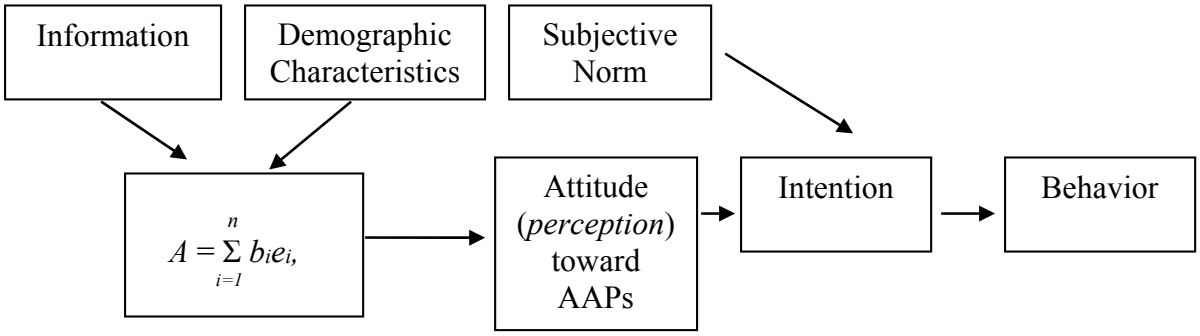

Figure 2. A model of variables associated with attitude toward AAPs by Bell et al. (2000).

If the TRA and Bell et al. (2000) hold true, then an individual's perceptions on affirmative action matters, as determined by demographics and beliefs, should indicate one's propensity to actually support affirmative action policy measures. Thus, these perceptions will help reflect on how likely or unlikely principals are to support class-based affirmative action admission preferences.

Importance of Study

The gaps in academic achievement and educational outcomes attributed to differences in socioeconomic class are a glaring and unnerving social dilemma. The relationship between

student achievement and socioeconomic background first appeared in the *Coleman Report* (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966). Poverty status is a strong predictor of lower academic performance among students. Students' participation in a free or reduced-cost lunch program has an independent, negative correlation with high school students' academic achievement (Caldas & Bankston, 1997). Even more, lower-class students have lower GPAs than students with higher socioeconomic status (Malecki & Demaray, 2006). Finally, Binkley and Williams (1996) performed a study comparing poverty levels and student outcomes. They found the high-poverty group scored much lower on achievement measures than the low-poverty group, highlighting the extent to which socioeconomic condition correlates with educational performance.

Educational attainment has long been recognized as an important avenue to social class mobility. *Attainment* refers to years of schooling and is different from the terms *achievement* or *outcomes*, which refer to educational measures such as test scores or GPA. Jencks (1979) pioneered research that claimed educational attainment is a key predictor of future wealth and professional success. Robles (2009) found that advanced post-university degrees were associated with greater private wealth and were linked to leadership in global competitiveness. Ultimately, according to human capital theory, individuals pursue education to maximize returns and subsequently improve their quality of life (Griffith, 2011; Jaeger, 2007).

The value of educational attainment is greater than ever, but the likelihood of poorer children obtaining advanced education is reduced. As this society progresses into an era where the value of advanced education is increasing, it should be a top priority to provide the means to help ambitious and talented young people from socioeconomically disadvantaged backgrounds acquire advanced education (Albrecht & Albrecht, 2011). Educational achievement and outcome

measures are the primary criteria college admission boards use to grant or deny acceptance into higher education (Bastedo & Jaquette, 2011). The problem, then, facing society is that characteristically lower academic outcomes prevent poorer students from gaining admission to institutions that would provide a path to educational attainment and social mobility.

Class-based affirmative action could plausibly increase the participation of lower-class students in higher education and raise levels of attainment for those individuals. Although there is little empirical evidence, it appears class-based affirmative action could be a possible solution to increasing educational attainment and human capital among students in poverty. Whereby, these programs would help them to exit the cycle of poverty that has kept their parents and grandparents trapped for generations past. Kannapel and DeYoung (1999) stated that it has long been recognized educational attainment is key for improving the well-being of America's poor. Higher education should exist as a channel for children to increase their human capital and to gain upward social mobility.

CHAPTER 2

LITERATURE REVIEW

Socioeconomic Disparities in Education

Class-based achievement gaps reveal blatant discrepancies between middle/upper-class students and economically disadvantaged students. These educational rifts highlight the need for policy intervention. The relationship between student achievement and socioeconomic background first appeared in the *Coleman Report* (Coleman, Campbell, Hobson, McPartland, Mood, Weinfeld, & York, 1966). The study showed that parents' economic conditions have a significant impact on student academic performance. The Programme for International Student Assessment (PISA; Schleicher, Tamassia, & Ikeda, 2004) also found that differentiation among social classes has a significant impact on educational outcomes. PISA's findings substantiated that academic performance increases in association with increases in socioeconomic status. Liu and Lu (2008) varied the samples to include different groups according to gender and ethnicity in five provinces of western China. They found that the higher a student's family socioeconomic status index, the more likely the student was to achieve relatively high math or Chinese language scores. Even more, the achievement gap refers not only to skills in basic math and literacy, but also to a wide ranging set of proficiencies such as communication skills, the ability to reason and create, an appreciation of the arts, good citizenship, and self-discipline (Rothstein, 2004). In light of these realizations, it is known that educational outcome and achievement measures are the criteria college admission boards use to grant or deny acceptance into higher education (Bastedo & Jaquette, 2011).

Markedly, poverty status is a strong predictor of lower academic performance among students. Caldas and Bankston (1997) found students' eligibility for free or reduced-cost lunch programs had an independent, significant, negative impact on high school students' academic achievement. Malecki and Demaray (2006) showed that students in poverty had lower Grade Point Averages (GPA) than students with higher socioeconomic status. Leonard and Box (2009) found that socioeconomic status was significantly related to aggregate educational outcomes. Schools with larger numbers of students in poverty were more likely to receive lower accreditation rankings, while schools with smaller numbers of students in poverty were more likely to obtain higher accreditation rankings. Finally, Binkley and Williams (1996) compared poverty levels and student outcomes. They found that the high-poverty group scored much lower on achievement measures than the low-poverty group—highlighting the extent to which socioeconomic condition impacts educational performance.

The manner in which student achievement is measured also impacts the gap in educational outcomes based upon social class. Postsecondary admissions tests such as the SAT, ACT, GRE, LSAT, MCAT, and GMAT are used prominently in deciding higher education admissions. Many test critics and some researchers now assert that these high-stakes tests used in application decisions are simply a measure of socioeconomic status. Zwick (2002) called the SAT a *wealth test*, while Kohn (2001) added that the SAT measures the size of a student's house. Furthermore, Colvin (1997) said the SAT is merely a prediction of the test-taker's socioeconomic status. Lastly, the techniques used to measure outcomes widen an achievement gap that already exists between social classes. Higher socioeconomic status leads to superior standardized test scores because wealthier individuals can afford preparation courses and have better knowledge of test-taking techniques (Sackett, Kuncel, Arneson, Cooper, & Waters, 2009).

Parents' educational backgrounds also have a direct and significant impact on student achievement (Hanushek, 1986). Parents' educational attainment, especially the mother's, has a significant positive impact on student academic performance. Students whose parents are educated are not only more likely to have a higher socioeconomic status but also more likely to do well in school (McEwan, 2003). Woessmann (2003) researched the effects of family backgrounds on educational outcomes in five Asian countries—China, South Korea, Japan, Singapore, and Thailand. Results confirmed the American findings that parents' educational backgrounds had a significant positive impact on student achievement.

Problems of Poverty in Education

Whereby educational outcomes are significantly lower for poorer students, this inequity is the "scourge that robs" poor children of their futures (Levine, 2004, p. ix). There are a variety of causes contributing to social class differences such as childrearing, styles of discipline, communication expectations, and reading with their children, among others. Children from more affluent families enter school with more skills and are more prepared to learn than poorer children. Students from poverty, thus, typically learn more slowly tending to exacerbate the achievement chasm from the time they enter school. To take full advantage of public education, children need to enter school ready to learn. Likewise, their after-school, weekend, and summer activities must reinforce what they learn at school. Social class differences influenced by a variety of background characteristics hinder the educational opportunities of poorer children (Rothstein, 2004).

The educational implications of childrearing differences among social classes are wide-ranging. Less than one-fifth of lower-class children enter kindergarten having used a computer, while almost all upper-class and most middle-class children have used computers (Rathburn &

West, 2003). Middle-class parents are much more likely than poorer parents to read to their young children and to encourage their children to read more to themselves as they grow older (Bianchi & Robinson, 1997). In a nationwide study of kindergarten children, only 36% of parents in the lowest-class quintile read to their children on a daily basis, while 62% of parents from the highest-class quintile read to their children (Coley, 2002). Likewise, the number of books in a student's home is a consistent predictor of student achievement in almost every country (Torney-Purta, Lehman, Oswald, & Schulz, 2001). Wealthier parents, who are typically more educated, use larger vocabularies and more complex sentences when speaking in the presence of their children. Parents who are working professionals speak over 2,000 words per hour to their children, while parents who are working-class speak about 1,300 and mothers who are on welfare speak about 600 words per hour to their children. Upon entering preschool, the more affluent child encounters approximately 45 million words, compared to the mere 13 million words of a typical child in a family on welfare (Hart & Risley, 2003). Moreover, parents from low-SES communities may be unable to afford resources such as books, computers, or tutors that create a positive literacy environment for their children (Orr, 2003).

In addition to language and computer literacy, homework tends to increase the achievement gap because parents from different social classes supervise it differently. Middle-class parents require problem solving, while parents from low SES backgrounds guide their children with direct instructions (Lareau, 2003). A final contributing influence is the abundance of educational experiences occurring outside school. Middle-class children are much more likely than children from poverty to take sports, dance, and music lessons, to go to zoos and museums, to attend camps, or to take family vacations exposing them to new environments (Entwisle, Alexander, & Olson, 2000).

It is important to note that families with similar incomes can still have different social class statuses based on wealth or net worth of assets. People with wealthier extended families are much more likely to possess wealth themselves because net worth can be inherited and shared with children. Likewise, a middle-income family whose extended family is poor is likely overcoming the situation of intergenerational poverty, whereby at least two consecutive generations have been in poverty. It is likely, in this case, the grandparents in that middle-income family did not attend college or help the parents with a first-time down payment on a house, which is common among families with intergenerational wealth. It probably takes at least two generations of increased socioeconomic status for a family to overcome the characteristics of poverty, fully adopting the childrearing strategies and attaining the educational levels of middle-class households (Rothstein, 2004).

The gulf in academic performance attributed to differences in class status is a glaring and unnerving social dilemma. Haycock (2001) stated that our education system takes students who begin with less and systematically gives them less in terms of education. Students from low-SES schools entered high school 3.3 grade levels behind students from higher SES schools. In addition, students from the low-SES groups learned less over 4 years than children from higher SES groups, graduating 4.3 grade levels behind those of higher SES groups (Palardy, 2008). In America, sub-standard education of economically disadvantaged students is intergenerational. The problem of poverty, thus, is also intergenerational as educational access is denied to poorer students based upon characteristically lower academic outcomes. Rather than being the great equalizer among students from varying social classes, the American education system is an institution that plays a prominent role in the reproduction of social class. In a society that

champions the opportunity to achieve, the impermeability of class boundaries to intergenerational social mobility is disconcerting (Albrecht & Albrecht, 2011).

Importance of Educational Attainment

Educational attainment has long been recognized as an important avenue to social class mobility. *Attainment* refers to years of schooling and is different from the terms *achievement* or *outcomes*, which refer to educational measures such as test scores or GPA. Jencks (1979) pioneered research that claimed educational attainment is a key predictor of future wealth and professional success. Robles (2009) found that advanced post-university degrees were associated with greater private wealth and are linked to leadership in global competitiveness. Ultimately, according to human capital theory, individuals pursue education to maximize returns and subsequently improve one's quality of life (Griffith, 2011; Jaeger, 2007).

Estimation of the typical effect of one additional year of education on hourly earnings is from 5% to 11% (Long, 2010). Likewise, lifetime earnings increase with educational attainment, so there is a clear benefit to obtaining a higher education. In 1999, full-time workers with a bachelor's degree earned, over a lifetime, nearly $1 million more than individuals with just a high school diploma. Individuals with doctoral degrees earned $1.3 million more than bachelor's degree recipients. Furthermore, professional degree holders earned $1 million more than doctoral degree recipients. In 2005, the lifetime value added of a bachelor's degree increased to $1.2 million, a doctorate over a bachelor's degree to $1.7 million, and a professional degree over a doctorate to $1.2 million. Bachelor's degree recipients' lifetime earnings were 1.86 times that of high school graduates and advanced degree recipients earned 2.71 times the average earnings of high school graduates (Kantrowitz, 2007).

In 2006, persons with less than a high school diploma earned on average $20,873, annually. High school graduates earned $31,071. Bachelor's degree earned $56,788, master's degree $70,358, doctorate $103,944, and professional degree $116,514. These annual gaps are significantly greater than in the past. The value of educational attainment is greater than ever, but the likelihood of poorer children obtaining advanced education is reduced (Albrecht & Albrecht, 2011).

Finally, the total utility of educational attainment is a combination of both economic and social returns to education including earnings potential, preservation of existing social and family networks, maintenance of family status, and conformity to dominant peer-group behavior through social recognition (Jaeger, 2007). Interestingly, attending college is also linked to lower divorce rates and better health (Long, 2010). As this society progresses into an era where the value of advanced education is increasing, it should be a top priority to provide the means to help ambitious and talented young people from socioeconomically disadvantaged backgrounds acquire advanced education (Albrecht & Albrecht, 2011).

Affirmative Action

Affirmative action refers to any public or private policy that provides opportunities or preferences based on membership in a specific group. It has been used to redress past and present inequalities in employment and education on the basis of race/ethnicity, color, religion, gender, sexual orientation, or national origin. The origins of affirmative action date to the Emancipation Proclamation and the roots of such policies can be found in various legislative and executive efforts leading to the Civil Rights Movement between 1955 and 1968. Those efforts include, but are not limited to, the 13th Amendment, 14th Amendment, Freedman's Bureau Acts, the Civil Rights Act of 1875, *Plessy v. Ferguson* (1896), Unemployment Relief Act of 1933, National

Industrial Recovery Act of 1933, and quotas in employment under the Public Works Administration (Jones, 1988). Most closely related to affirmative action in its current state, President Roosevelt's Executive Order 8802 issued on June 25, 1941 was the first Executive Order on Equal Opportunity. The Executive Order stated it was the policy of the United States "that there shall be no discrimination in employment…because of race/ethnicity, creed, color, or national origin" and "to provide for the full and equitable participation of all workers in defense industries without discrimination" (Jones, 1982, p. 71).

Although the premises of Affirmative Action policies were likely tucked into Roosevelt's Executive Order 8802, the term *affirmative action* first appeared in Executive Order 10925 signed by President Kennedy on March 6, 1961. Title VII of the Civil Rights Act of 1964 strengthened the significance of Kennedy's Executive Order through overt Congressional recognition and ratification. In 1965, President Johnson issued Executive Order 11246, which substantially changed the organizational structure of affirmative action. Most notably, Johnson's Executive Order shifted program emphasis from voluntarism to enforcement by requiring federal government contractors to hire employees without regard to race/ethnicity (Jones, 1988).

Opposition to affirmative action and debate over constitutionality have been commonplace since Executive Order 11446. In *Regents of the University of California v. Bakke* (1978), the Supreme Court, for the first time, upheld the use of race/ethnicity as a factor when choosing between qualified applicants for admission. The same case, however, established that affirmative action was unfair if it led to reverse discrimination. Less than two years later, the Supreme Court, in *Fullilove v. Klutznick* (1980), ruled that some modest quotas were constitutional. In the *City of Richmond v. Croson* (1989) case, the Supreme Court restricted *Fullilove* and ruled that discrimination in a particular industry cannot justify the use of an

unyielding racial/ethnic quota; the Court maintained affirmative action is unconstitutional unless racial/ethnic discrimination can be proven under strict scrutiny.

Near the end of the 20th century, opposition to affirmative action continued. In *Hopwood v. Texas* (1996), the 5th U.S. Court of Appeals suspended the University of Texas' admissions program and ruled that preference on the basis of race/ethnicity was invalid—the Supreme Court allowed the ruling to stand and the Texas Attorney General announced that all public universities should employ race/ethnicity-neutral criteria. In 1997, the State of California enacted Proposition 209, a voter referendum banning all forms of affirmative action. Washington and Florida enacted similar measures in 1998 and 2000, respectively. In total, eight states nationwide have instituted bans on race/ethnicity-conscious affirmative action via voter referenda, legislation, or executive order. The absence of affirmative action measures led to a dramatic decrease in the admission of individuals from minority groups. Following Proposition 209 in California, the University of California, Berkeley experienced a 52% decrease in the number of African American and Hispanic first-year students (Moses, Yun, & Marin, 2009).

Two important cases involving the University of Michigan, however, have upheld the constitutionality of affirmative action policies. In *Gratz v. Bollinger* (2000), a federal judge ruled that an affirmative action program using race/ethnicity as a factor in admissions at the University of Michigan served a compelling interest by providing educational benefits and is, thus, constitutional. *Grutter v. Bollinger* (2001) involved the University of Michigan Law School and a different judge drew the opposite conclusion of *Gratz*. The judge's ruling that invalidated the school's affirmative action policy was reversed on appeal in 2002. The *Grutter* case made it to the Supreme Court in 2003 and was upheld as constitutional so long as the affirmative action admissions program provides individualized consideration. A points system or any related quota

is unconstitutional, therefore admissions boards must look at student admissions on a case by case basis without regard to racial/ethnic quotas (Choi, 2009). In 2006, Michigan voters approved Proposal 2, which comprehensively banned affirmative action just like California's Proposition 209.

The court's ruling in *Fisher v. University of Texas at Austin* (2013) explained that a program must pass a test of *strict scrutiny*. Furthermore, it emphasized that affirmative action programs must be closely reviewed to ensure admissions programs are providing individualized consideration and they could not be implemented less all other methods to achieve diversity had been fully exhausted—a tall order for admissions officers. In *Schuette v. Coalition to Defend Affirmative Action* (2014), the Supreme Court upheld Michigan's Proposal 2 fortifying the state's ban on affirmative action. The plurality and concurring opinions reasoned the decision was not about the constitutionality of affirmative action, but that of voters' rights to decide on issues of affirmative action. Despite the debate, one substantial truth related to affirmative action as stated in *Bakke* remains: to treat some people equally, we must treat them differently.

As it pertains to education, affirmative action programs have consistently opened doors for women and members of minority groups through admissions preferences in higher education (Robinson, Seydel, & Douglas, 1998). The term *affirmative action* comes from the legal requirement that university officials take real, identifiable, and positive (*affirmative*) actions to include historically excluded groups in their applicant pools and to ensure their representation among those who are admitted (Skrentny, 1996). Affirmative action is generally accepted to be a method of positive discrimination occurring in the form of quotas and preferential selection methods to meet participation targets. Bibbings (2006) called these *hard* options of affirmative action. In America, university admission selections can involve demographic criteria as long as it

is not a principal factor and quotas are not used. *Soft* options, on the contrary, occur in the form of assistance measures and are less discriminatory in nature. They involve the positive action of outreach work and recruiting of applicants from impoverished areas. *Soft* options, however, do not aid in gaining admissions. Thus, these *soft* options cannot serve the proactive purpose of creating greater attainment for students who would not otherwise be afforded the opportunity. While *hard* options appear to be the best and most progressive approach, there is a stigma attached to them because they are discriminatory.

Many critics of race/ethnicity-based affirmative action policies claim that admittance to universities on racial/ethnic preferences is stigmatizing (Edley, 1996; JBHE, 1995). In some cases, underperforming students who gained access through affirmative action reinforce negative stereotypes. In addition, there is pressure on individual beneficiaries of racial/ethnic preferences to perform well and dispel the myth of inferiority. With so many citizens and members of the general population who are opposed to race/ethnicity-based approaches, beneficiaries of affirmative action can be stigmatized by society as undeserving. If the benefits of admission are perceived by the public as unjustified, students who are members of minority groups can easily be frowned upon by their contemporaries (Cimino, 1997).

The most condemning assertion against race/ethnicity-based affirmative action was presented by UCLA Law Professor Richard Sander (2004). The study proposed a *mismatch theory* where an analysis of affirmative action programs at law schools found affirmative action actually harmed minority students and decreased the number of Black lawyers. The author argued that members of minorities admitted via race/ethnicity-based affirmative action are often unable to meet the rigorous academic standards and tend to perform more poorly in the

classroom. Specifically, affirmative action programs lead Black law students to progressively increasing underperformance in law school and ultimately to higher rates of bar exam failure.

In 2012, *mismatch theory* was extended to include every level of higher education. The study found lower-performing students learned less and their performance declined relative to their peers due to their below-average incoming credentials. The struggle to maintain pace caused students to be come discouraged and it ultimately contributed to a downward achievement spiral. Students who received large affirmative action preferences struggled to succeed in competitive universities and did progressively less well over the course of their college careers. According to the study, Black students admitted under race/ethnicity-based affirmative action would be better off at less selective colleges and universities because those less selective institutions would be better suited to their academic credentials (Sander & Taylor, 2012).

Class-Based Affirmative Action

Class-based affirmative action is an alternative to policies and preferences based on race/ethnicity. Also called *economic*, *socioeconomic*, or *class-conscious* affirmative action, class-based affirmative action is any policy designed to redress issues of social and educational inequity facing impoverished individuals and it can occur in a variety of fashions. Most notably, class-based affirmative action gives preference to students from poverty in higher education admissions. Such policies could increase the participation of students from poverty in higher education and raise levels of attainment (Kahlenberg, 1996). Class-based policies are designed to *place a thumb on the scale* for students who have faced obstacles to upward social mobility (Gaertner & Hart, 2013). Thus, class-based affirmative action is a possible solution to the

problem of underserving children in poverty by increasing the educational attainment of those children.

Richard Kahlenberg (1996), generally considered the nation's foremost proponent of class-based affirmative action, called for genuine equal opportunity, not necessarily equal results. He also claimed class-based affirmative action should occur at "meritocratic crisis points" (p. 1067) such as college entry. He argued that colleges and universities are gatekeepers in American society that ultimately determine those who gain upward mobility. Because of their economically disadvantaged backgrounds, Kahlenberg adamantly contended that students from poverty should be given special preference in college admissions.

Interest in the economic approach to affirmative action gained momentum in the late 1990s as the constitutionality of race/ethnicity-based affirmative action came under legal attack. Although racial/ethnic considerations in admissions have remained legal in 42 states, the actual use of such considerations has commonly been diluted for fear of court actions similar to those that have taken place in the 8 states where race/ethnicity-based affirmative action is banned. Thus, the discussion for socioeconomic preferences has continued to increase in popular support (Gose, 2005). Following *Fisher v. University of Texas at Austin* (2013), the future of race/ethnicity-conscious programs seemed even more uncertain. Resultantly, there has been an influx of literature relating to the viability and sustainability of class-conscious approaches to affirmative action (Daugherty, Martorell, & McFarlin, 2014; Gaertner & Hart, 2013; Gaertner & Hart, 2015; Kahlenberg, 2015; Long, 2015; Nankervis, 2014; Schwarzschild, 2013; Xiang & Rubin, 2015).

The need for class-based affirmative action was first empirically illustrated by Carnevale and Rose (2004). In their study of 126 top-tier colleges and universities, the authors found that

students in the highest economic quartile made up 74% of students admitted, compared with a mere three percent from the bottom economic quartile. Thus, impoverished students were 25 times less likely to be admitted to the nation's top colleges and universities as their economically advantaged peers. The authors argued that preference in college admissions for socioeconomically disadvantaged students would result in 38% more representation for the bottom economic half, which was a drastic increase from the existing 10% representation.

The use of class-conscious admissions programs in addition to and in place of race/ethnicity-conscious approaches has been on the rise. A number of state universities have adopted economic preference programs. According to Kahlenberg (2003), the University of California now uses a comprehensive review, which considers background obstacles such as *low family income* and *first generation to attend college*. The University of Florida considers *students who are poor*, *attended a low performing high school*, and *whose parents did not attend college*. The University of Washington regards *family income*, *number of family members*, and *parents' educational level*. The University of Georgia considers *parents' educational background*, *job and family responsibilities*, *high school environment*, *exceptional circumstances*, *intellectual curiosity*, *commitment to service and citizenship*, and *ability to overcome hardship* (McDuff & Potter, 2014). The University of Texas institutes a *personal achievement index* as part of its holistic review process, which includes the *applicant's socioeconomic background*, *whether the applicant is from a single-parent home*, *the SES of the applicant's high school*, *the language primarily spoke in the applicant's home*, *any special family responsibilities the applicant may have had*, and *the average SAT/ACT scores at the student's high school compared to the student's own score*. (Gaertner & Hart, 2013)

Most comprehensively, though, the University of Colorado actually engages in an official class-based approach to affirmative action in their admissions process. The method developed includes two applicant traits, *obstacles for life chances* operationalized as the *Disadvantage Index* and *overcoming obstacles operationalized* as the *Overachievement Index*. Students who are identified as either disadvantaged or who exhibit extraordinary overachievement are given a *primary factor* boost in the admissions process. The *Disadvantage* and *Overachievement* Indices were fully implemented for the first time in 2011. As it relates to socioeconomic preferences, it is important to note that some major universities are taking steps to increase the educational attainment of impoverished students (Gaertner & Hart, 2013; 2015).

In a study designed to produce preliminary data on class-based models of affirmative action, Young and Johnson (2004) used a calculation of four socioeconomic variables to measure the likelihood of academic success. The four variables used in what the authors call the *SES-model* are the mean high school SAT score, the percentage of students in the graduating class that attended four-year colleges, parental educational attainment, and total family income. The study found the quality of students admitted to college was greater than those who would have been admitted under standard admissions. The SES-model appropriately identified students from impoverished backgrounds who were quality candidates for admissions and were predicted to succeed if enrolled. However, the SES-model allowed a college to retain only 75% of its original student enrollment from minorities, which is the major argument against class-based affirmative action programs. To offset the decrease in enrollment of students from minority groups, the authors called for the SES-model to be supplemented with increased targeted recruitment efforts and other *soft* measures.

Kahlenberg (1996) conceded that, in the absence of a race/ethnicity-sensitive component, class-based affirmative action admissions policies are unlikely to increase racial/ethnic diversity at universities since the great majority of students from lower-class families are White. Furthermore, Cross (1998) steadfastly opposed economic affirmative action claiming it would greatly favor White people. To begin with, White people outnumber Black people eight to one in America and poor White people outnumber poor Black people 2.7 to 1. There are more than 24 million poor White people compared to nine million poor Black people in America. Proportionately, however, 10.8% of White people live in poverty compared to 26.1% of Black people. Perhaps most notably, poor White students are more likely to have higher academic qualifications than Black students with similar socioeconomic conditions. White students in poverty are likely to have SAT scores 180 to 200 points higher than those of Black students in poverty. Cross argued that if the only preference given to students was socioeconomic status without regard to race/ethnicity, poor White students with higher test scores would disproportionately gain admission on the basis of economic affirmative action. Even Carnevale and Rose (2004) found a two percent decline in racial/ethnic diversity. Though the two percent decline in racial/ethnic diversity would produce a 28% increase in socioeconomic diversity and it did not result in the unthinkable re-segregation of our nation's top universities, any decline in minority representation and racial/ethnic diversity is disconcerting.

Kahlenberg (2003) offered a final solution to rebut Cross' (1998) findings and the decline in minority representation present in Carnevale and Rose (2004). He proposed that a socioeconomic program counting wealth and single-parent family status—two factors that plague the African American community—in addition to traditional economic factors could increase African American enrollment. At UCLA Law School, a quasi-socioeconomic affirmative action

program including those factors produced a situation where African Americans were 11.4 times as likely to be accepted opposed to traditional admissions programs. In sum, Bowen and Bok (1998) envisioned economic affirmative action as a supplement to and not a replacement for race/ethnicity-based affirmative action. Kahlenberg (2004) acknowledged that he favors race/ethnicity-based preferences over no affirmative action preferences at all, if class-based is not adopted.

Class-based affirmative action often arises in the wake of threats to race/ethnicity-conscious affirmative action. Thus, class-based programs are usually critiqued in terms of their success in maintaining levels of racial/ethnic diversity. As described above, research has shown such policies to be poor substitutes for race/ethnicity-conscious admissions. The University of Colorado's admissions boost based on class-based affirmative, however, had significant positive impact on both the socioeconomic and racial/ethnic diversity of admitted students. In the seminal study related to a fully implemented class-based affirmative action program, Gaertner and Hart (2013) found groundbreaking evidence is support of the positive impact such programs had on economically disadvantaged applicants as well as members of racial/ethnic minority groups.

The Gaertner and Hart (2013) study compared the University of Colorado's class-based affirmative action program to a race/ethnicity-based affirmative action program. The class-based approach led to slightly increased admission rates for *underrepresented-minority* (URM) applicants. The acceptance rate for Black, Latino, and Native American applicants was nine percent greater under the class-based approach than under the race/ethnicity-based approach. Holding constant high-school GPA and standardized-test scores, URMs were 1.4 times more likely than non-URMs to be admitted under the race/ethnicity-based approach. Under the class-based approach, however, using the *Disadvantage* and *Overachievement* indices, the same

URMs identified for *primary factor* consideration were 5.7 times more likely to be admitted. Such results challenge the prevailing assumption that class-based affirmative action admissions do not maintain racial/ethnic diversity.

Naturally, the University of Colorado policy also led to increased admission rates for students from economically disadvantaged backgrounds. It was projected that more than 700 economically disadvantaged students from the 2011 and 2012 cohorts alone would earn a college degree resulting from the class-based affirmative action admission approach. Finally, the study showed that despite economically disadvantaged students entering with lower academic credentials than that of the average University of Colorado student, their performance relative to their peers remained stable over time (Gaertner & Hart, 2015). This finding stood in direct contrast to Sander and Taylor (2012) and serves a strong rebuttal of their *mismatch theory*.

Cancian (1998) argued that socioeconomic affirmative action is a socially and politically palatable means of producing educational advantage to those who are in need. The intent of implementing class-based affirmative is to increase the opportunity for greater educational attainment among students from lower-socioeconomic backgrounds. The preceding discussions show that such programs would likely increase economically disadvantaged student participation in higher education and provide an opportunity for those individuals to break the cycle of poverty.

It is imperative that the Supreme Court maintains the constitutionality of affirmative action in college admissions. Doing so will support the legality of states implementing class-based approaches within their university systems. State legislatures are ultimately responsible for implementing any policy related to economic affirmative action. Only a select few states have banned affirmative action and most states have some level of tolerance for policies on their

books. It is unclear, however, the extent to which universities are willing to give affirmative action preference under *strict scrutiny*. As a more palpable policy, class-based approaches are within the law and could accomplish great ends (Kahlenberg, 1996, 2003, 2004).

With the most recent empirical evidence from Gaertner and Hart (2015), it appears class-based affirmative action is a possible solution to increasing educational attainment and human capital among students in poverty. Whereby, these programs would help them to exit the cycle of poverty that has kept their parents and grandparents trapped for generations. Kannapel and DeYoung (1999) stated it has long been recognized that educational attainment is key for improving the well-being of America's poor. Higher education should exist as a channel for children to increase their human capital and escape from the poverty that has determined much of their mal-condition.

Theory of Reasoned Action

The TRA explains the relationship between an individual's beliefs, attitudes, and behaviors (see *Figure 1*). It was "born largely out of frustration with traditional attitude-behavior research, much of which found weak correlations between attitude measures and performance of volitional behaviors" (Hale, Householder, & Greene, 2003, p. 259). The TRA is grounded on two main assumptions. First, people have the ability to process and use available information. Second, people can use this available information to arrive at a rational decision to behave in a particular way. According to the TRA, behavioral beliefs foster attitudes. In turn, a person's behavioral intention depends on attitudes about a particular behavior, as well as normative beliefs (perception about a behavior, which is influenced by the judgment of significant others) and subjective norms (perception of normative pressures associated with an individual's social environment) associated with the behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Attitude is the underlying concept at the foundation of the TRA and is the first of two fundamental concepts established in the TRA; yet, there are a variety of definitions related to the term *attitude*. It is generally accepted that there is no singular definition of the term. Instead, a diversity of related meanings exists to define attitudes (Greenwald, 1968). Thus, researchers typically choose an instrument procedure that specifically relates to their definition. Prior to 1970, more than 500 different operations had been established to measure attitude. A clear definition appears to be a minor requirement for the development of a procedure to measure attitude. The term's meaning emerges only in relation to other constructs in the framework of a general theory. Most researchers would probably agree, however, that attitude can be characterized as "a learned predisposition to respond in a consistently favorable or unfavorable manner with respect to a given object" (Fishbein & Ajzen, 1975, p. 6). Lastly, there are three underlying components to this general description of the term *attitude*: the view that attitude is learned, that it influences action, and the actions are consistently favorable or unfavorable toward the given object (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

As a predisposition, attitude is generally viewed as an underlying variable assumed to direct or impact behavior. Attitudes, thus, cannot be directly observed, but must be presumed from consistency or trends in behavior. They are a disposition toward a favorable or unfavorable behavioral pattern. These dispositions are assumed to be the result of past experiences. Residues of one's experiences influence or modify that person's behavior. Therefore, because attitudes are generally assumed to comprise such experiential residues, they are considered to be learned. Lastly, evaluative or affective consistency over time is what distinguishes between attitude and other concepts. Evaluative consistency explains that a person may perform different behaviors on different occasions with respect to an object. The overall favorability, however, conveyed by

these behaviors will remain relatively consistent (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

The second foundational piece of the TRA is the subjective norm. The subjective norm is the totality of normative beliefs and the motivation to comply with others—together referred to as normative pressures. They are the perceived social pressures to perform or not to perform a behavior. The subjective norm is attributed to beliefs that referents in one's environment hold regarding whether or not particular behaviors should be performed. These beliefs are weighted by the importance attributed to each of the opinions. Moreover, the opinions of experts are considered to affect the subjective norm (Ajzen, 1991; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Beliefs

Behavioral beliefs and normative beliefs are the building blocks for attitudes and the subjective norm, respectively. Attitudes and the subjective norm combine to form intentions, and intentions lead to behaviors. It is important to address the formation of these behavioral and normative beliefs. Beliefs refer to an individual's personal judgments concerning some discriminable aspect of their world. Beliefs deal with an individual's understanding of their environment. Belief formation involves a link between two different aspects (*O* and *X*) of one's world. Different processes lead to the formation of three separate categories of beliefs: descriptive, inferential, and informational (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Descriptive beliefs are derived from direct observation. A link between *O* and *X* is established when a person perceives that a given object has a certain attribute. Through the use of one's senses, direct experiences with a given object result in descriptive beliefs. An individual

is able to see, feel, hear, smell, and taste certain attributes related to an object, therefore, forming a link between *O* and *X* (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Beliefs, however, can go beyond directly observable relationships. These beliefs are called inferential beliefs. Inferential beliefs can be based on descriptive beliefs or on the basis of prior inferences. For example, unobservable characteristics such as friendliness or intelligence may lead to the formation of beliefs through interaction with another person. There are two ways beliefs can extend beyond observable events: one can make use of a previously learned relationship (a person who is smiling is assumed to be happy) or formal coding systems that follow various rules of logic (if *A*=*B* and *B*=*C*, then *A*=*C*). Either way, a link is formed between *O* and *X* (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Lastly, some beliefs, called informational beliefs, are formed neither by direct experience nor through inference. Rather, information is accepted from an outside source related to some object. Such sources of information include books, magazines, Internet, newspapers, radio, and television. Unlike descriptive beliefs, which are generally accepted with certainty, informational beliefs are viewed with a level of skepticism and are not always accepted. The link between *O* and *X* espoused by the information source may or may not lead to the development of an informational belief (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Attitudes

In the conceptual framework for the TRA, when a person forms behavioral beliefs about an object, an attitude toward that object is simultaneously acquired. Each belief links some attribute with the object, *O* and *X*. The person's attitude toward the object is a function of the assessments of these attributes. One automatically acquires an attitude toward some new object when that person learns its association with other objects, attributes, or qualities toward which

attitudes already exist. One learns to have favorable attitudes toward objects associated with good things and unfavorable attitudes toward objects associated with bad things (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

One's experiences lead to the formation of various beliefs about different objects, actions, and events. Some beliefs last over time, others are forgotten, and new beliefs are often formed. Although a person may possess a large number of beliefs related to any given object, only a relatively small amount of those beliefs serve to determine attitude at a particular moment. Research has shown that an individual is only capable of attending to five to nine items of information at a time, that person's attitude toward an object is primarily determined by no more than five to nine beliefs about the object (Mandler, 1967; Miller, 1956; Woodworth & Schlosberg, 1954). This limited number of beliefs that serve as attitude determinants are called salient beliefs. Salient beliefs are subject to change and can be strengthened, weakened, or replaced by new beliefs (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

According to an expectancy-value model, one's assessment of an attribute determines the attitude in proportion to the strength of one's belief. An individual processes information about an object and arrives at an evaluation of that object. This model, thus, relies heavily upon an informational basis of attitude. Since attitudes are based on an individual's total set of salient beliefs (rather than a single belief) and strength of beliefs vary, people who hold the same beliefs can have different attitudes. This can be described by the equation below where A is attitude toward an object, b is the belief(s) about an object's attributes, n is the number of beliefs, and e is the evaluation(s) of the attributes or consequences (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

$$A = \sum_{i=1}^{n} b_i e_i,$$

Intentions

Intentions, according to the TRA, are the precursor to behavior and follow directly from behavioral and normative beliefs. An intention is defined as an individual's subjective probability to perform a behavior. It is determined by the conjunction of two factors: one's attitude toward a behavior and one's subjective norm concerning the behavior. Furthermore, an intention consists of four different elements: the behavior, the target object toward which the behavior is directed, the situation, and the time at which the behavior is to be performed. Thus, one intends to perform a specific behavior toward a given object in a particular situation at a specified point in time (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

It is important to note there is no systematic association between attitudes and intentions. The relationship between attitude and intentions tends to be low and insignificant. As an intention becomes more and more specific in terms of the four elements (behavior, target object, situation, and time), its relation to a measure of attitude tends to decrease. It is more probable to obtain an index of general intentions or a cluster of intentions. These are called intentions and are described as an individual's intention to behave favorably or unfavorably toward an object. A strong relationship can only be expected when a global measure of intention is used. Global intentions can be measured directly by asking an individual to indicate whether or not the intention is to behave favorably toward an object (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Although there is no significant relationship between attitude and any given belief, there is a correspondence between attitude and the totality of one's beliefs. Therefore, a link between beliefs, attitudes, and intentions is only justified at a global level. Behavioral beliefs and normative beliefs must be considered as a whole (globally) to contemplate a measure of

intentions. As aforementioned, attitude is a function of behavioral beliefs/evaluation of consequences and the subjective norm is a function of normative beliefs/motivation to comply. Attitudes, alone, cannot determine intentions. According to the TRA's theoretical framework, when determining intentions, attitudes cannot be analyzed apart from the subjective norm. Moreover, an accurate prediction of a given intention can only be expected when the attitudinal and normative components are measured at the same levels of specificity: behavior, target, situation, and time (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Behaviors

An individual's attitude toward an object relates to the totality of behaviors with regard to that object. Freedman, Carlsmith, and Sears (1970) state that attitudes produce pressure to behave consistently with that attitude. External considerations and pressures, however, can cause people to behave in an inconsistent manner. The best predictor, then, of a person's behavior is the intention to perform the action, regardless of the nature of the attitude toward the target or the behavioral criterion. Moreover, considering the possible effects of extraneous variables, a person's intention may be a solid predictor of behavior only when those two variables are measured at the same level of specificity (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

According to the conceptual framework for the TRA, intentions are the direct antecedents to explicit behaviors. The simplicity of this relationship can be deceiving, however, because it is impractical to measure a person's intention immediately preceding the execution of a behavior. External/intervening events that impact the intention must be taken into consideration. Barring any such changes, a proper measure of intentions will typically produce a true prediction of behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Finally, if prediction of behavior is the primary objective and there are no extraneous variables, the most efficient means of obtaining a prediction is to take an appropriate measure of the individual's intention. In contrast, if understanding one's behavior is the primary objective, the factors establishing intention must be assessed. Those dually significant determinants, as previously mentioned, are one's attitudes toward an object and the subjective norms. Following the same logic, if intention and behavior are closely related, the factors influencing intentions can likewise be applied to the determinants of behavior. Therefore, attitude toward a behavior is commonly related to performance of that behavior (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975).

Theory of Planned Behavior

The theory of planned behavior (TPB) was developed by Ajzen (1991) as an extension of the TRA. It encompasses both main assumptions of the TRA (attitude and subjective norm) and adds a third and unique component called perceived behavioral control. Moreover, the TPB encompasses all aspects and explanations of beliefs, attitudes, intentions, and behaviors postulated in the TRA.

Perceived behavioral control, sometimes called self-efficacy or control beliefs, shows that an individual's confidence to perform a particular action strongly influences the ability to perform the behavior. Perceived behavioral control refers to an individual's belief about the ease or difficulty of performing a particular behavior. In general, the greater the perceived behavioral control, the stronger an individual's intention will be to perform the behavior (Ajzen, 1988).

According to Ajzen (1991), the TRA contained a limitation in dealing with behaviors over which people do not have complete volitional (voluntary or willful) control. Under the TBP, actuation of a behavior can only come to fruition if the behavior is under volitional control. The

individual must be able to decide at will whether or not to perform the behavior, giving that person *behavioral control*. Therefore, intentions would be expected to influence performance to the extent that the person has volitional control. Perceived behavioral control, then, directly impacts intentions and behaviors. Finally, fulfillment of a behavior must be a dual function of one's intentions and perceived behavioral control.

Additionally, perceived behavioral control is one's perceptions of command over an action based on *control beliefs*. Where behavioral beliefs and normative beliefs determine attitude and subjective norm, control beliefs determine perceived behavioral control. Control beliefs deal with the presence or lack of necessary resources and opportunities to perform a behavior. These beliefs may be based on past experiences with the behavior, but will also be influenced by outside information about the behavior. The more resources and opportunities an individual believes to possess and the fewer obstacles or barriers that person foresees, the greater should be perceived behavioral control.

$$PBC = \sum_{i=1}^{n} c_i p_i,$$

The above equation sufficiently describes the relationship between control beliefs and perceived behavioral control where *PBC* is perceived behavioral control, *n* is number of salient control beliefs, *c* is each control belief, *p* is perceived power of each resource/opportunity (Ajzen, 1991).

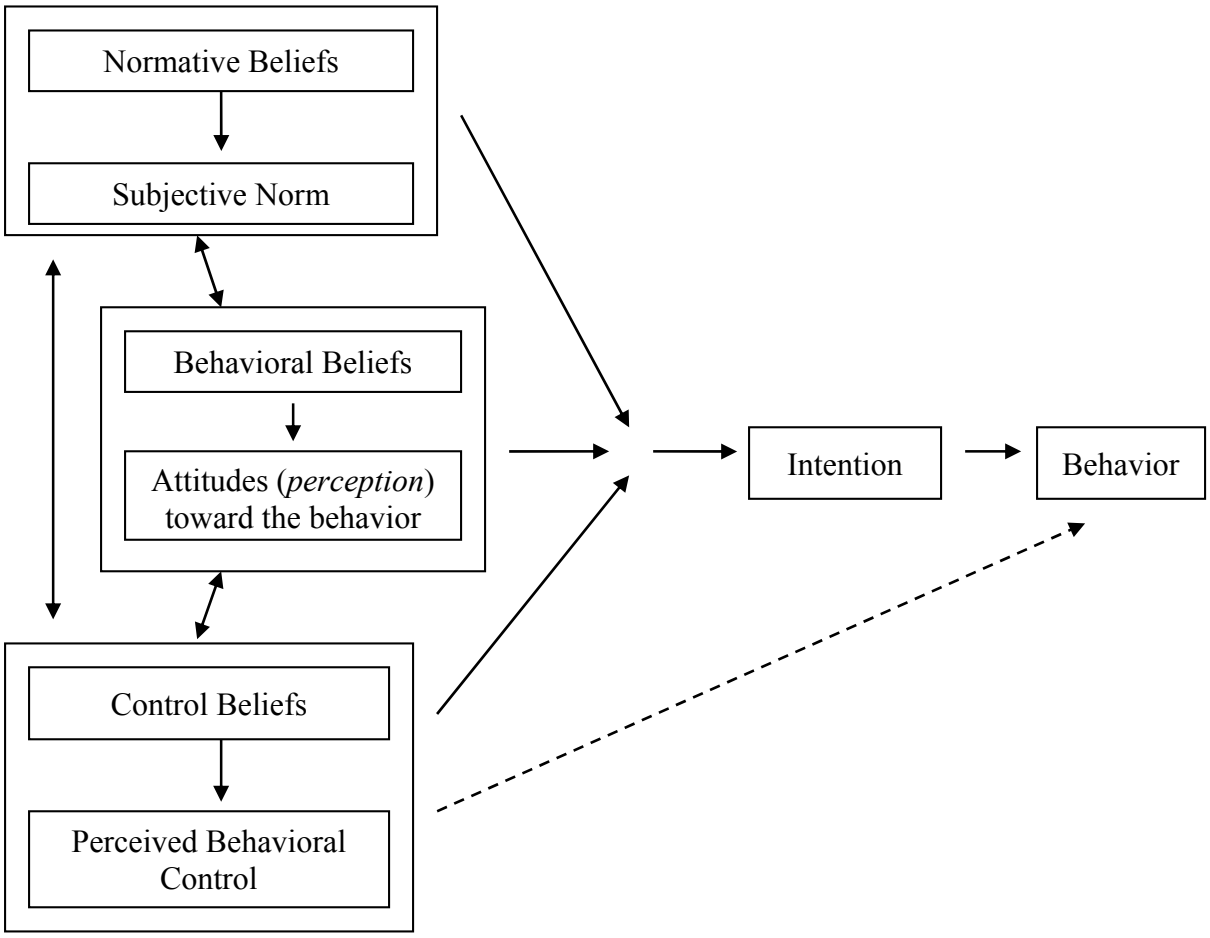

Figure 3. Theory of planned behavior by Ajzen (1991).

Ajzen (1991) acknowledged that if behaviors pose no serious problems of control, they can be predicted from intentions without regard to perceived behavioral control. This caveat allows the TRA to trump the TRB in situations where volitional control over a behavior is not an issue. In such a case, perceived behavioral control is irrelevant and the TRA is a more suitable theoretical framework. The TPB must focus on situations in which it is necessary to extend beyond totally controllable aspects of human behavior.

Theory of Reasoned Action or Theory of Planned Behavior

For the purposes of this study, the TRA was a more appropriate theoretical framework than the TPB on two accounts. First, perceived behavioral control was irrelevant and not needed.

Participants in this study had full volitional control over their responses and behaviors. Principals can willfully control their perceptions pertaining to affirmative action and class-based measures as well as any behavior related to their propensity to support such measures. Ajzen (1991) acknowledged perceived behavioral control is immaterial with respect to political behavior. Issues of perceptions related to policy matters "pose no problems of volitional control, and perceptions of behavioral control were found to be largely irrelevant" (p. 187). Therefore, perceived behavior control and the TPB were not needed in this study dealing with principals' perceptions of policy matters. Second, the TRA accurately supported the predictor variables that were analyzed in this study. Discussion of these variables and the TRA follow in the subsequent section.

Predictors of this Study and the Theory of Reasoned Action

Selected individual factors that were assessed relating to principals' perceptions on affirmative action and class-based measures were divided into two groupings: factors related to the demographic characteristics of principals and factors related to the schools where principals are leaders. Factors associated with principals' demographics were educational attainment, age, gender, race/ethnicity, and political affiliation. Political affiliation was determined by party identification. Kravitz and Klineberg (2000) established that party identification is more powerful than self-defined political ideology in predicting attitudes toward affirmative action programs. Factors associated with each of the principals' schools were race/ethnicity, socioeconomic (SES) characteristics of the schools, geographic location (as determined by Regional Educational Service Agency (RESA) region), and school size.

Recall, beliefs deal with an individual's understanding of self and environment. Belief formation involves a link between two different aspects (*O* and *X*) of one's world—where, in this

study, *O* was the predictor variable and *X* was the belief about affirmative action and class-based measures. According to the TRA and the TPB, there are three categories of beliefs: behavioral, normative, and control. Behavioral beliefs form attitudes, normative beliefs form the subjective norm, and control beliefs form perceived behavioral control. Selected individual factors in this study only impacted behavioral and normative beliefs.

Factors associated with principals' demographics contribute to their behavioral beliefs, which lead to their development of attitudes. Educational attainment, age, gender, race/ethnicity, and political affiliation are all factors contributing to a principal's behavioral beliefs. These factors are attributes that lead to attitudes toward an object. Each belief links some attribute with the object, *O* and *X*. The person's attitude toward the object is a function of an assessment of these attributes. Based on these characteristics and experiences (*O*), the principal simultaneously acquires an attitude toward affirmative action and class-based measures (*X*) when behavioral beliefs about that object are formed. The behavioral beliefs link the selected individual factors with attitudes toward affirmative action and class-based measures.

Factors associated with each of the principals' schools contribute to their normative beliefs, which lead to their development of a subjective norm. Recall that subjective norm is a product of opinions and influence by others in one's environment. It is the totality of normative beliefs and one's motivation to comply with others. Race/ethnicity of the schools, SES characteristics of the schools, geographic location, and school size are all factors contributing to a principal's normative beliefs while serving as principal at that particular school. This is subject to change as a principal moves to another school with different characteristics. These factors are attributes that lead to a subjective norm related to an object. Each belief links some attribute with the object, *O* and *X*. The principal's subjective norm is a function of assessments of these

attributes. Based on these environmental factors and experiences (*O*), normative beliefs link the selected individual factors with the subjective norm related to affirmative action and class-based measures (*X*).

Theory of Reasoned Action and Affirmative Action

Bell, Harrison, and McLaughlin (2000) used a context that grafted the TRA with the conceptual framework for affirmative action (see *Figure 2*). The study investigated the relationship between attitudes toward affirmative action programs (AAPs) and intentions/behaviors related to AAPs. In particular, the study investigated how attitudes are linked to intentions and to actual performance of a behavior related to AAPs. Attitude toward AAPs was defined as a general feeling of favor/disfavor regarding AAPs and two sets of variables were assumed to contribute to beliefs about perceived attributes of AAPs—incoming information and demographic characteristics. Thereby, AAP attitude directly affects intention, which consequently guides behavior.

Bell et al. (2000) used the TRA over the TPB for the same reasons that it was used in this study—perceived behavioral control was irrelevant and the selected individual factors were directly related to attitudes. Gender, age, race/ethnicity, length of employment, and managerial level were the demographic and informational characteristics assessed in relation to attitudes toward AAPs. All of those attributes contributed to behavioral beliefs and attitudes toward AAPs. The equation used by the authors when determining attitudes toward AAPs was a direct adaptation of the model used by Fishbein and Ajzen (1975) where Att_{AAP} is attitude toward AAPs.

$$Att_{AAP} = \sum_{i=1}^{n} b_i e_i,$$

Adapted Theoretical Framework

The theoretical framework used in this study was an adaptation I generated of Bell et al. (2000) as it adheres to the precepts of the TRA.

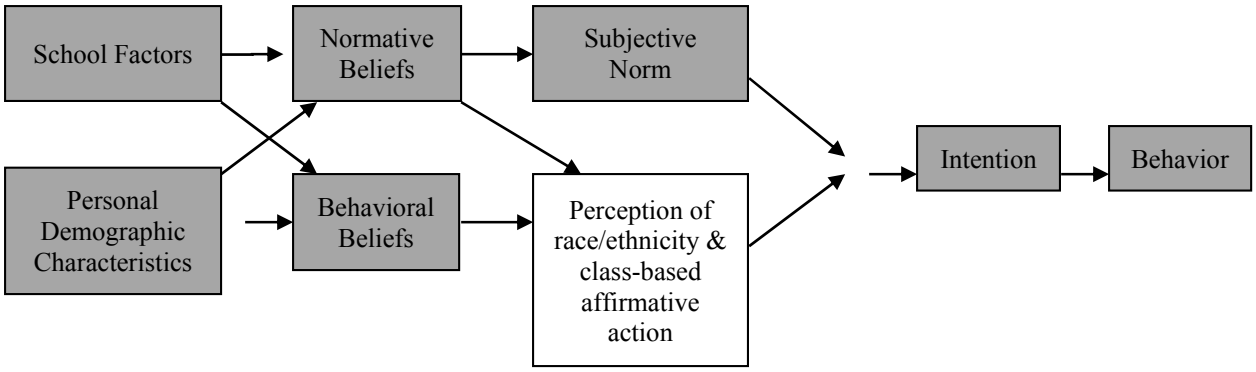

Figure 4. A model used in this study adapted from Bell et al. (2000).

The framework used in this study showed the impact of normative beliefs and behavioral beliefs on perceptions of class-based affirmative action, stemming from the individual selected factors. Ultimately, subjective norm and attitude toward class-based affirmative action determine intention, which leads to action. The precepts of perception and attitude, however, are determined by the interaction of normative and behavioral beliefs. One's demographic characteristics and those of one's social environment individually and jointly establish those beliefs. As previously stated, there is a correspondence between attitude (*perception*) and the totality of one's beliefs (normative and behavioral). Therefore, the link between beliefs and perceptions is only justified at a global level (Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975). Table 1 summarized the relationship of each questionnaire response item to the study's theoretical framework and research questions.

Table 1

Questionnaire Items in Terms of Theoretical Framework and Research Questions

Questionnaire Items	Component of theory related to item	Research questions related to item
Race/ethnicity-based affirmative action in college/university admissions is an important educational policy concern	Perception of race/ethnicity affirmative action	1, 3 (criterion)
Preferential treatment in college/university admissions to redress past racial/ethnic discrimination is morally appropriate	Perception of race/ethnicity affirmative action	1, 3 (criterion)
When used, race/ethnicity-based affirmative action measures in college/university admissions effectively compensate for past discrimination	Perception of race/ethnicity affirmative action	1, 3 (criterion)
Race/ethnicity-based affirmative action guidelines should apply to college/university admissions	Perception of race/ethnicity affirmative action	1, 3 (criterion)
In your opinion, race/ethnicity-based affirmative action is constitutional	Perception of race/ethnicity affirmative action	1, 3 (criterion)
I support the use of race/ethnicity-based affirmative action in the college/university admission process	Perception of race/ethnicity affirmative action	1, 3 (criterion)
Class-based affirmative action in college/university admissions is an important educational policy concern	Perception of class-based affirmative action	2, 4 (criterion)
Class-based affirmative action in college/university admissions is a viable addition/alternative to race/ethnicity-based measures	Perception of class-based affirmative action	2, 4 (criterion)
Preferential treatment for students in education based on socioeconomic background is morally appropriate	Perception of class-based affirmative action	2, 4 (criterion)
Class-based affirmative action in college/university admissions would increase educational attainment for students from lower-socioeconomic backgrounds	Perception of class-based affirmative action	2, 4 (criterion)

Class-based affirmative action in college/university admissions would help individuals from poverty-stricken backgrounds exit the cycle of poverty	Perception of class-based affirmative action	2, 4 (criterion)
I would support the use of class-based affirmative action in college/university admissions	Perception of class-based affirmative action	2, 4 (criterion)
What is the total number of students enrolled at your high school?	School factor – normative belief	3 (predictor) 4 (predictor)
What percent of students at your school are on free and reduced priced lunch?	School factor – normative belief	3 (predictor) 4 (predictor)
What is the most common race/ethnicity at your school?	School factor – normative belief	3 (predictor) 4 (predictor)
To which State of Georgia RESA geographic district does your school belong?	School factor – normative belief	3 (predictor) 4 (predictor)
What is your gender?	Personal demographic characteristic – behavioral belief	3 (predictor) 4 (predictor)
What is your highest degree attained?	Personal demographic characteristic – behavioral belief	3 (predictor) 4 (predictor)
What is your race/ethnicity?	Personal demographic characteristic – behavioral belief	3 (predictor) 4 (predictor)
How are you registered to vote?	Personal demographic characteristic – behavioral belief	3 (predictor) 4 (predictor)
As of your last birthday to date, what is your age?	Personal demographic characteristic – behavioral belief	3 (predictor) 4 (predictor)

If Fishbein and Ajzen (1975) and Bell et al. (2000) hold true, then an individual's perceptions on affirmative action matters, as determined by selected factors affecting behavioral and normative beliefs, should indicate one's propensity to actually support affirmative action

policy measures. According to the TRA, most designs are created to index the general disposition of favorableness or unfavorableness toward the object in question. Thus, these perceptions will help reflect on how likely or unlikely principals are to support class-based affirmative action admission preferences. The consequence of which will establish a previously unknown stakeholder perspective on an important educational policy matter.

Educational Research

Whitty (2006) found it particularly important to differentiate between education research and education*al* research. Education research is used to describe the entire body of research activity in education. These are studies *of* education with no criterion of relevance—research into education with no necessary practical outcome. Educational research is, conversely, characterized by works that are specifically geared toward improving policy and practice. These are studies *for* education. Most research investigates rather than drives policy and is, consequently, considered education research.

Byrne and Ozga (2008), in a similar designation, distinguished between two types of research in education: basic and applied. Basic research is descriptive in nature and is undertaken to acquire new knowledge of observable facts. This is done without any particular intentions of application or use. The aim is to produce knowledge and the audience is fellow researchers. This is sometimes referred to as *blue skies* research. Applied research, contrarily, is an original investigation to acquire new knowledge directed toward a specific practical objective. It is always conducted with a practical end in mind.

Educational research is close to both policy and practice. A study is especially strengthened by connecting a correlational analysis. Appropriately implemented, such research can produce more fruitful research-policy relationships (Edwards, 2002). The aim of this

correlational study is to analyze policy stakeholders' perspectives with intent on raising awareness and influencing policy. This study can, thus, be described as applied or educational research. Educational research, by nature, must be interested in considerations of use and practical outcome (Whitty, 2006). This study must, therefore, be a determined effort to have implications beyond being a mere exercise in academic discourse. In attempting to influence the research, policy, and practice process as a whole, it is important that the findings in this study will be noteworthy and applicable for stakeholders and policymakers.

Educational Policy

Policy is a complex process described as the purposive action of government. The policy process is a sequential and iterative loop much like the regression process discussed elsewhere in this study. The process has five orders of operation including (a) determining goals, (b) choosing a course of action, (c) implementing a preferred course of action, (d) evaluating results for efficiency and effectiveness, and (e) modifying policy (Ozga, 2007). It is especially important to note, educational policy development is linked closely to economic or social agendas (Poon, 2012). In this study, both agendas were at stake.

There are several criticisms of educational research in relation to policy. Researchers do not agree on evidence and often lose themselves in the academic debate, which hinders their response to policy makers' needs related to educational issues. This makes policy-relevant research quite difficult to execute (Oakley, 2004). Further, even when particular policies are given attention, researchers tend to focus on a single policy rather than the interaction of policies. Even more, educational research sometimes neglects wider developments in both social and economic theory and policy. The research, therefore, fails to draw in the full range of theoretical concepts or locate education within a general social and economic context (Byrne & Ozga,

2008). I believe the discussion of poverty issues, affirmative action, and class-based affirmative action in the foundations section has appropriately situated this study within the general economic and social context. I acknowledge, however, that class-based affirmative action is a debated issue among educational researchers, and it will be difficult for policy-makers to agree upon the set of evidence produced in this study to exact policy change.

Public Policy Lobbying

Because policy is legislated, it is, in large part, very political. A full discussion of politics and the political process is beyond the scope of this paper, but there are some important notes necessary to be addressed related to turning research into policy. The best way to forecast and understand policy outcomes is to direct attention to the organized groups competing to promote their interests through government action. These are called interest groups and each keenly advocates for their desired policies. Furthermore, these interest groups typically rely on trained/professional lobbyists who broker for them in the political process (Stephenson & Jackson, 2010). In Georgia, any person who has conversation about political issues at the State Capitol must be a registered lobbyist (Georgia Government Transparency and Campaign Finance Commission, 2012).

Public policy lobbying is a multi-billion dollar industry and there are hundreds of thousands of lobbyists operating nationwide. Some organizations employ in-house lobbyists while others contract lobbyists. The primary task of these lobbyists is to advocate for their client's interests in the policymaking process. They make use of apt communication skills, expertise in traversing the administrative and legislative process, personal relationships with important government officials and policymakers, and a unique ability to craft information and arguments to push preferred policies through the political process. Lobbyists also monitor

developments in relevant theory and policies to stay abreast of the context within which they are promoting a policy measure (Stephenson & Jackson, 2010). On the whole, lobbyists play a significant role in the policymaking process.

Principals as Stakeholders

The principal's role as an educational policy stakeholder is directly linked to their position of influence. Birdthistle, Hynes, and Fleming (2007) established principals as educational stakeholders. The position of principalship is of paramount importance in the high school setting. Principals are responsible for managing the organization, building community partnerships, and facilitating conditions for student success (Militello, Gajda, & Bowers, 2009). DeSimone (2009) affirmed principals as influencers of educational reform and overseers of policy implementation. Good (2008) added that principals play a vital role in educational reform because they impact all aspects of school policy. Because of the stakeholder and advocacy roles of principals, Militello et al. (2009), DeSimone (2009), and Good (2008) all studied principals' perceptions for each of their respective interests.

Principals have the authority and autonomy to mitigate social and economic conditions in education (National Association of Elementary School Principals, 2015). Amanda Karhuse said grassroots advocacy is the most effective way to influence policy decisions at the state and federal level. Congressional leaders often demand to hear more directly from principals (National Association of Secondary School Principals, 2015). As stakeholders, principals are the direct link between students, communities, and the bureaucratic controls of public education (Rousmaniere, 2013).

Principals are widely responsible for interest in policy matters that could impact college admissions for students at their high schools. In the case of this study, they are responsible for

that which could impact their students who are from economically disadvantaged households. If principals have favorable perceptions toward and commonly support class-based affirmative action measures, they could directly impact policy that could increase access to higher education for their students who hail from economically disadvantaged households. The principal's role as a policy stakeholder could significantly alter the future education of their students.

Stakeholders, Interests, and Policy

The number of and relationships among policy stakeholders in the policymaking process is quite large and convoluted. Due to the sheer volume of players and stakeholders, and the intricacies of the process, it is difficult for researchers and experts to influence policy decisions. Although principals have vested interests in educational policy, each of them individually carries very little weight in influencing legislative decisions (Liu, Lindquist, Vedlitz, & Vincent, 2010). Lobbyists, on the other hand, have significant influence in the policymaking process, and it appears that a certain degree of lobbying is required to actualize almost any type of policy (Stephenson & Jackson, 2010). Governmental actors and various interest groups have more influence in shaping policy than experts, academia, researchers, general public, and media. Furthermore, consensus and coalition are important political factors in the policy process (Liu et al., 2010).

Principals alone, therefore, have limited policymaking power. Although principals have clearly vested interests in educational policy, their stakes must be represented to policymakers by lobbyists on behalf of an interest group or association. The importance of consensus and coalition cannot be understated. Common interests among a group(s) carry significantly greater influence when presented to policymakers. Regardless of their agenda, if principals share a mutual policy concern, they need to have that interest represented by a group that maintains

influence in the policymaking process through the use of lobbyists (Liu et al., 2010; Stephenson & Jackson, 2010).

In Georgia, several professional educational associations exist that have their interests represented by lobbyists in the Georgia General Assembly including: Georgia Association of Educational Leaders (GAEL), Georgia Association of Secondary School Principals (GASSP), Georgia School Superintendents Association (GSSA), Professional Association of Georgia Educators (PAGE), and Georgia Association of Educators (GAE). Any number of these could potentially serve the interests of principals if they are found to favor and support class-based affirmative action. Prior to this study, however, research does not indicate that principals' perceptions toward class-based affirmative action measures had influenced policy related to admissions preferences in higher education.

Principals are responsible agents within their communities and schools to pursue the best interests of the children and their futures. In Georgia, 58.7% of kindergarten through 12th grade students are eligible for free and reduced priced lunch. 140 of 159 counties in the state have over half of their students eligible for free or reduced priced lunch (Governor's Office of Student Achievement, 2012). Furthermore, 14.4% of the total population lives below the poverty line and 22% of children in the State of Georgia live in poverty (Kids Count, 2012; United States Census Bureau, 2012). Based on the incidence of poverty across the state and in schools, I concluded that a number of high school principals in Georgia will have interest in measures that help students from poverty stricken backgrounds.

Final Discourse

The importance of educational attainment for students in economically disadvantaged situations is no novelty to the Board of Regents of the University System of Georgia (USG).

USG understands the implications of educational attainment for students from poverty and has initiated measures to increase attainment. Georgia's College Access Challenge Grant is a strategic plan to increase the number of students from poverty who graduate from college. In 2006, the rate for Bachelor's degree attainment by age 24 for students from upper-class families was 75% and a mere 9% for students from lower-class families. The goal is to increase degree attainment for lower-class students by 20%, which would, in turn, decrease the number of Georgians in poverty by 245,197 and increase median income by $6,511. The grant's challenge is to recruit more students from poverty to enroll in college (USG, 2012). Although this initiative has raised proper awareness and is a step in the forward direction, it does not offer preference to students from poverty who likely need admissions help due to their characteristically low high school educational outcomes.

With USG's current attention to the importance of educational attainment for students from poverty, a more aggressive agenda such as class-based affirmative action could have positive long-term effects on that social class. In conjunction with lobbyists supporting principals' perceptions of class-based affirmative action resulting from this study, the USG could make major headway in implementing class-based affirmative action measures and creating educational attainment opportunities for students from lower-class backgrounds. Currently, Georgia's College Access Challenge Grant has a leadership team including USG, Communities in Schools, Georgia Department of Education, Georgia Partnership for Excellence in Education, Georgia Student Finance Commission, Governor's Office of Workforce Development, Technical College System of Georgia, and Valdosta State University. The addition of GAEL or GASSP to the existing team could give secondary education stakeholders an opportunity to provide further direction for the grant and future initiatives.

At a bare minimum, this research study likely raised awareness among principals about the possibilities of class-based affirmative action. The mailing sent to each principal included a one-page cover letter introducing the study, instrument, and context. Class-based affirmative action was described in brief. As a novel idea to some principals, the description and ensuing survey might have sparked their interest in learning more about class-based affirmative action measures in higher education admissions. In such cases, this study would have raised awareness among those participants about a possibility for improving the long-term condition of individuals in their communities who are from impoverished backgrounds.

If principals now desire to become activists for the cause of students who live in the crisis of poverty, yet they do not necessarily favor class-based affirmative action, they might support other socioeconomically sensitive measures and agendas such as percent plans in the future. Percent plans guarantee admission to a state university for students who achieve a high enough class ranking. In Florida, Texas, and California, for example, students who are in the top 20%, 10%, and 4% of their class, respectively, are guaranteed admission to some state school. This guarantees higher education admission for some students from poorer communities and school systems in areas characterized by lower overall wealth (Lang, 2007). This is less aggressive than class-based affirmative action, but it is a measure to improve opportunities for impoverished students, nonetheless.

Finally, Dinham and Scott (1999) observed, “One of the most often stated requirements of doctoral research is that it should be an original and significant contribution to knowledge in the discipline” (p. 1). As previously mentioned, I am hopeful that the findings in this study have practical significance and the results contribute to the body of literature related to class-based affirmative action. If so, I believe the research will be found worthy of dissemination. Dinham

and Scott (1999) found that only 43% of doctoral dissertations are disseminated. The most popular means is conference presentations closely followed by publication in a journal. Other modes include book chapters, complete books developed from studies, dissertation abstracts, and newsletters. In my estimation, the best case scenario resulting from this study would be some element of change related to class-based measures, whether policy or action taken by an organization like the USG. At minimum, I believe this increased awareness among principals and others regarding the challenges of education for students in poverty and the criticality of educational attainment in overcoming those situations of poverty.

CHAPTER 3

METHOD

Purpose Statement

The purpose of this survey study was to examine perceptions of public high school principals on affirmative action in postsecondary admissions. The study focused on class-based affirmative action compared to that of race/ethnicity. Class-based affirmative action refers to any student admission policy designed to redress issues of socioeconomic and educational inequity facing impoverished individuals (Kahlenberg, 1996). The intent of the study was to determine how principals perceived measures that give postsecondary admission preferences to students from low socioeconomic backgrounds. Principals' perceptions of affirmative action are of particular importance because these educational leaders are policy stakeholders.

The theory of reasoned action (TRA), developed by Fishbein and Ajzen (1975), served as the framework for studying principals' perceptions. The TRA explains the relationship between an individual's beliefs, attitudes, and behaviors. According to the TRA, behavioral beliefs foster attitudes. In turn, a person's behavioral intention depends on attitudes about a particular behavior, as well as normative beliefs (perception about a behavior, which is influenced by the judgment of significant others) and subjective norms (perception of normative pressures associated with an individual's social environment) associated with the behavior (Ajzen & Fishbein, 1980). Thus, the TRA guides an understanding of the relationship between perceptions and behaviors.

Predictor variables in this study included principals' gender, race/ethnicity, political affiliation, age, and educational level as well as the race/ethnicity, SES characteristics, geographic location (as determined by Regional Educational Service Agency (RESA) region), and size of the principals' schools. The criterion variables were defined as perceptions relating to racial/ethnic affirmative action and class-based affirmative action measures.

Research Questions

1) What are perceptions of principals toward race/ethnicity-based affirmative action measures and preferences in college or university admissions?
2) What are perceptions of principals toward class-based affirmative action measures and preferences in college or university admissions?
3) What is the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based affirmative action measures and post-secondary admissions preferences?
4) What is the best set of predictors to explain the variance in perceptions of principals toward class-based affirmative action measures and post-secondary admissions preferences?

Correlational Research

Correlational research is a non-experimental design. It provides an opportunity to explain and predict the relationship among variables. This design allows the researcher to forecast an outcome. Researchers, however, do not attempt to control or manipulate the independent variables as in experimental research. Correlational research is sometimes referred to as associational research because a linkage among two or more variables is studied without an attempt to control them. It is also called ex post facto descriptive research because it describes an existing relationship among variables. Through the use of a correlation coefficient, a correlational design can describe the degree to which two or more quantitative variables are

related (Creswell, 2008; Fraenkel & Wallen, 2000; Gall, Gall, & Borg, 2007; Johnson & Christensen, 2012).

Quantitative research designs are grouped into two major categories: experimental and non-experimental. Experimental research involves the manipulation of independent variables to determine cause-and-effect relationships. If there is no manipulation of the independent variable, as in this study, it is considered a non-experimental design. The two major types of non-experimental research are correlational and causal-comparative. These two designs are closely related with only a few defining differences. In correlational designs, the independent and dependent variables are quantitative. In causal-comparative designs, the independent variable is quantitative and the dependent variable is discrete. Moreover, causal comparative designs do not typically allow for multiple independent variables (Creswell, 2008; Fraenkel & Wallen, 2000; Gall et al., 2007; Johnson & Christensen, 2012).

Correlational research was appropriate for this study due to the nature of the independent and dependent variables. As previously stated, a four-point Likert scale was used to measure the dependent variable. According to Clason and Dormody (1994), Likert scaling presumes the presence of an underlying continuous (quantitative) variable given a value to characterize the respondents' attitudes and opinions. Thus, a correlational design was used because the dependent variable was quantitative, and there were multiple independent variables.

Correlational research is conducted for one of two basic purposes: explanation or prediction. Explanatory studies seek to clarify the understanding of important phenomena through the identification of relationships among variables. They seek to explain the extent to which two or more variables co-vary—changes in one variable are reflected in changes in the other. Prediction studies extend beyond explanation if the relationship among variables is of

sufficient magnitude. Researchers seek to anticipate outcomes. Prediction was the purpose of this study; therefore, the independent variables were called predictor variables and the dependent variable was called the criterion variable (Creswell, 2008; Fraenkel & Wallen, 2000).

Advantages of correlational designs are many. According to Gall et al. (2007), they are decidedly useful for studying issues in education and in the other social sciences. Numerous important educational studies have been conducted using a correlational design. The main advantage over causal-comparative and experimental studies is that they enable researchers to analyze a large number of variables using a single study. In educational research, it is common to confront situations where several variables influence a particular behavioral pattern. Furthermore, through the use of correlation coefficients, a correlational design provides information concerning the degree of the relationship among the variables being studied. In other designs, such as causal comparative, differences in degree of relationship are ignored. Moreover, correlational research, as opposed to experimental designs, can be useful in circumstances where it is impossible to manipulate the independent variables. A final advantage is that correlational designs give the researcher the ability to make predictions about the variables in question.

Disadvantages to correlational research designs also exist. The primary problem is that a correlational study cannot determine cause-and-effect. Correlation does not prove causation. Evidence gathered in support of causation among variables in correlational designs is much weaker than evidence gathered in experimental research. As noted by Gall et al. (2007), the possibility of causation is strengthened when a time lapse occurs between measurements of the variables in question. The instrument used in this study was a cross-sectional survey, however, where the information was collected at a single point in time, not allowing for the lapse to strengthen causation (Creswell, 2008; Gall et al., 2007; Johnson & Christensen, 2012). Despite

the disadvantages, as Johnson and Christensen conceded, “We try to do the best we can, and sometimes this means we must use weaker research methods” (p. 42).

When conducting research, a variety of threats can be posed to internal and external validity. For internal validity, most of the common threats such as history, maturation, and statistical regression are unique to experimental designs and do not typically affect correlational studies. Instrumentation, mortality, testing, and selection can, however, pose a threat in correlational studies. Instrumentation threats were addressed in the previous section relating to the survey that will be used in this study. Mortality is the loss of participants due to non-availability or subsequent withdrawal from a study. Testing is when the experience of responding to the first instrument influences the participant’s response to the second instrument. Because this study was a one-step cross-sectional design, mortality and testing were not threats to internal validity. Finally, selection pertains to the possibility that respondents possess diverse characteristics and those differences may affect outcomes. To minimize the possibility that selection affects internal validity, this study examined numerous demographic characteristics of each respondent. Furthermore, the survey was administered to an entire sample group (Fraenkel & Wallen, 2000).

External validity refers to the extent to which the results of a study can be confidently generalized to a group larger than that which participated in the study. Two major threats to external validity are population and ecology. Population validity is the extent to which a sample is representative of the population from which it was selected. Population validity could pose a threat in this study because the survey was administered to a convenience sample of high school principals. Ecological validity is the extent to which the setting or context of the study are representative of the setting and context to which the results will be generalized. To help control

for the threat to ecological validity, it is important for the researcher to give careful definitions of predictor and criterion variables in a manner that is meaningful in settings beyond that in which the study is conducted (Johnson & Christensen, 2012).

Lastly, the quality of a correlational study is not determined by the complexity of design or the superiority of analytical techniques such as multiple regression in this study. Rather, quality is established by the depth of the rationale and theoretical constructs that direct the study. The likelihood of obtaining important findings is greater if the researcher uses theory and previous research to select the variables (Gall et al., 2007). In the case of this study, the predictor and criterion variables were determined by a review of the literature and the research was guided by the TRA (see Table 1 for a summary of the relationship between variables and the theoretical framework).

Design

A cross-sectional survey design was used. Survey research is the most effective and efficient method of gathering quantifiable information from a large population. This type of research involves the collection of data through questionnaires. Likewise, it is appropriate for quantitative research because the data provides opportunities for statistical comparisons (Creswell, 2009). A survey allows researchers to gather information relating to respondents' demographics, behaviors, perceptions, and beliefs (Desselle, 2005).

Dillman's (2007) Tailored Design method was used to administer the survey, which is an updated version of the Total Design Method (Dillman, 1978). The Tailored Design Method emphasizes the importance of treating survey responses as a social exchange. Among other actions, the researcher must show positive regard, say thank you, support group values, give social validation, avoid inconvenience, make the questionnaire appear short and easy, provide a

token of appreciation in advance, assure confidentiality, and make the task appear important. Respondents are more apt to return a self-administered survey if they believe the benefits gained from completion will outweigh the costs they expect to incur. When appropriately administered, the Total Design Method has received an average response rate of 77%. Dillman claims Tailored Design response rates will be similar to the Total Design Method if financial incentives are provided and five contacts are made. There are five elements of the Tailored Design: a respondent-friendly questionnaire, four contacts by first class mail and an additional special contact, return envelopes with actual first-class stamps, personalization of correspondence, and token prepaid financial incentives.

First contact was a pre-notice letter (see Appendix D); this letter provided a timely announcement asking for responses to an important survey. Second contact was the questionnaire mailing, which was sent one week after the pre-notice letter mailing. This questionnaire mailing contained a cover letter (see Appendix E), the questionnaire, a stamped return envelope, a stamped anonymity postcard (see Appendix F), and a token financial incentive. Next contact was a thank you/reminder postcard (see Appendix G). This mailing went to all participants approximately one week after the questionnaire. The intent of the thank you was to refresh the memories of those who had not yet responded. Fourth contact was the initial replacement mailing and was sent two weeks after the postcard reminder. This correspondence was more insistent and contained a resolute cover letter (see Appendix H), a replacement questionnaire, a stamped return envelope, and a stamped anonymity postcard. Final contact invoked special procedures and was mailed approximately one month after the initial replacement survey. It was sent through certified mail and contained a relaxed cover letter (see

Appendix I), a second replacement questionnaire, a stamped return envelope, and a stamped anonymity postcard (Dillman, 2007).

The strengths of survey research lend this method to be one of the most common among theses and dissertations (Hill, 2001). Primarily, surveys elicit the direct response of useful information that can be obtained only by asking people questions (Desselle, 2005). Surveys are relatively easy to administer and can provide a breadth of information through the use of a single instrument. Furthermore, surveys can provide anonymity for respondents who wish not to be identified when providing feedback on sensitive issues. Finally, the collection of data can be relatively easy to manage. (DePoy & Gitlin, 1998; Hill, 2001; Millar & Dillman, 2011; Wright, 2005). It is important to note, paper surveys sent through the mail regularly receive significantly higher response rates than web-based surveys (Manfreda, Bosnjak, Berzelak, Haas, & Vehovar, 2008). Millar and Dillman also found that simultaneous choice of web and mail response does not outperform a paper-only option even in a highly Internet-literate population.

Surveys also exhibit disadvantages. When using a survey, it can be difficult to refine complex issues in simple response items. Likewise, there is little to no opportunity for follow-up questioning and probing (Hill, 2001; Salant & Dillman, 1994). Salant and Dillman added that response errors can occur if surveys are unclear or provide vague direction. Therefore, it is important that questionnaire items are straight-forward and precise. Likewise, non-response error can occur when participants who elect not to respond exhibit different characteristics than participants who complete the survey. Moreover, respondents can lose interest or develop negative attitudes if the survey is too long or confusing. To account for these potential problems, it is important that surveys are clear and concise (Desselle, 2005). Some participants may respond erratically or intentionally distort their answers because the line of questioning makes

them apprehensive (DePoy & Gitlin, 1998). Lastly, financial costs—especially when implementing a Tailored Design—can become particularly burdensome. It is recognized that postage alone in this particular study cost $2380. That does not include cost of envelopes, paper, printing costs and the token financial incentive.

A survey was used for this study because it was the most suitable design for accomplishing my goal of obtaining diverse amounts of information from principals across the State of Georgia. Furthermore, the data obtained from the survey was also easy to manage. Ensuring instrument validity through scores produced by pilot-study questions partially accounted for measurement error, which is a primary weakness. In particular, measurement error on behalf of the respondent was minimized by writing clear and concise questions that participants could and would answer (Salant & Dillman, 1994). A group of three individuals who were knowledgeable about perceptions, surveying methodology, and principals were asked to help me determine if the instrument items actually measured what I intended for them to measure. This process included a strict scrutiny of response item clarity. I administered the survey to approximately 10 people who were similar to principals. Lastly, when implementing the survey, it was important to establish trust and clearly define benefits of the study through the use of social exchange strategies established in the Tailored Design method.

Participants

The sample group for this study was all public high school principals in the State of Georgia. Georgia has 393 public high schools in 21 cities and 159 counties (Georgia Department of Education, 2011; Georgia High School Association, 2014). Each school is led by a principal who has a consigned interest in the state's educational policies, such as socioeconomic affirmative action measures, that could directly impact some of their students. Because of

principals' vested concern with educational policy, it is common for researchers to survey principals regarding their perceptions on various educational issues (Birdthistle, Hynes, & Fleming, 2007; DeSimone, 2009; Good, 2008; Militello, Gajda, & Bowers, 2009). Contact information for all high school principals was obtained from the Georgia High School Association.

Consistent with literature pertaining to the survey of educational leaders within a particular state, this study surveyed all public high school principals in the State of Georgia for the 2013-2014 school year (Barnett & Blankenship, 2005). This convenience sample was bounded by state and was taken based on geographic proximity and the researcher's access to participants. Convenience samples are the most common form of sampling and researchers typically use them due to practical limitations. The primary constraint of convenience sampling is that findings are not generalizable to the population, which in this study was all public high school principals in the United States of America (Johnson & Christensen, 2012). Because convenience sampling cannot be generalized, the importance of the sample in this study was how participants responded, not who they represented.

A 55% response rate was produced as 393 high school principals in Georgia were surveyed and 216 responded. Non-response bias could have been problematic in this study. It is possible the 216 principals who did respond were different from the 177 who did not respond. Due to the sensitivity of response items and the anonymity of respondents in this study, it is impossible to know if non-response bias existed. The researcher chose the route of anonymity to garner the most honest responses from the study's participants. Although there is no statistical evidence, considering the 55% response rate, there is no reason not to believe their responses are

representative of all 393 principals. If this study is ever replicated, the researcher should record the arrival time of surveys and analyze bias comparing earlier and later responders.

Instrumentation

The survey instrument used in this study was a modified version of an existing instrument developed by Echols (1997) and can be found in Appendix B. The Echols Affirmative Action Inventory (EAAI) reflects the literature on affirmative action theory, research on race/ethnicity and gender studies, and the government definition of affirmative action. Modifications to the EAAI were made to more precisely answer the research questions in this study related to class-based affirmative action. Revisions to the original EAAI included alterations, deletions, or addition of questions, and rearrangement of sections. Some of Echols' questions remained in their original form.

Echols (1997) developed the EAAI based on guidelines set forth by instrument developers. Paying particular attention to survey bias, the instrument was constructed with careful consideration of tone and intensity of wording, question form and content, and question-order effects (Altrech & Settle, 1985; Dillman, 1978; Schuman & Presser, 1981; Sudman, 1976). Echols' use of Dillman's (1978) Total Design Method matches and is consistent with the Tailored Design method (Dillman, 2007) used in this current study. Dillman (2007) not only establishes a method for attaining positive response rates, but also offers procedures for item and questionnaire construction. Dillman (2007) establishes 19 principles for writing questions including, among others, (a) choose simple over specialized words, (b) use complete sentences, (c) avoid vague quantifiers, and (d) eliminate check-all-that-apply questions. Likewise, the author presents 28 questionnaire construction principles. These principles include guidelines such as (a) ask one question at a time, (b) identify the beginning of each succeeding question in a

consistent way, (c) use dark print for questions and light print for answer choices, and (d) avoid double or triple banking of answer choices. All of these principles were fully considered in this study when modifications were made to the existing instrument.

The original EAAI, as developed by Echols (1997), consisted of 42 items. A 4-point Likert scale format (strongly agree to strongly disagree) was used. The 42 items were divided into five sections including (a) knowledge of facts concerning affirmative action, (b) diversity and affirmative action, (c) quotas and affirmative action, (d) morals and ethics of affirmative action, and (e) demographic information of survey respondents. Each section contained 9, 6, 7, 8, and 12 items, respectively.

Knowledge of facts concerning affirmative action requires that respondents demonstrate their general knowledge of affirmative action—defined by Echols (1997) as a process by which public and private employers take steps to correct and undo past discriminatory practices that have kept women and members of minority groups out of the mainstream of American life. Diversity and affirmative action requires that respondents indicate their participation or lack thereof in functions related to diversity matters. Quotas and affirmative action requires that respondents indicate the extent to which they support legally defensible quotas in the application of affirmative action measures. Morals and ethics of affirmative action requires that respondents reason and justify their feelings/values about the degree of correctness related to affirmative action measures. Lastly, demographic information requires that respondents indicate their gender, race/ethnicity, age, educational level, political party, and family income.

To control for research bias and to establish reliability and validity of the questionnaire, Echols (1997) paid particular attention to the tone and intensity of survey items. A determined effort was made to neutralize tones and avoid research bias. Furthermore, basic language was

used to produce a relaxed and unobtrusive disposition for respondents. The instrument was initially piloted in a class of 30 students and was also administered to six experts. In response to recommendations and suggestions made by pilot participants, semantic changes to the instrument were the only modifications deemed necessary. All items and sections remained intact.

Cronbach's alpha reliability scores produced from the pilot study revealed that two of the sections (knowledge and diversity) produced overall low reliability. Reliability levels for each of those two sections were $\alpha = .23$ and $\alpha = .19$, respectively. Echols (1997) argued that the low reliability score of the knowledge section may be related to any number of the following: sensitivity of race/ethnicity/gender and response bias due to discomfort, resentment regarding affirmative action issues, or sampling errors such as number of items, item selection, and response error (Altrech & Settle, 1985). The other two major sections, quotas ($\alpha = .74$) and morals ($\alpha = .79$), yielded much higher Cronbach's alphas.

Validity assessments were conducted by Echols (1997) using construct validity and content validity. Construct validity of an instrument gauges the fair representation of each of the different areas underlying a concept. Content validity is concerned with the apparent or obvious meaning, which can be ascertained from the language of instrument items without additional extrinsic or external information (Baker, 1988). For construct validity, students and experts who piloted the EAAI agreed that the level and extent to which affirmative action issues were covered provided a fair representation of the overall issues of affirmative action. For content validity, pilot participants (with few semantic adjustments) indicated that they clearly understood the meaning of employed language without additional information (Echols, 1997).

The EAAI has been employed by several other research studies. Virgil (2000) maintained all five sections and 42 items of the EAAI in their original form. Carr (2007), on the other hand,

made significant modifications to the EAAI. Her version of the EAAI consisted of six sections and totaled 35 items. Carr's version significantly altered and heavily relied on two sections consisting of knowledge items and attitudes items. Cronbach's alpha was $\alpha = .77$ for the aggregated knowledge items and $\alpha = .78$ for the aggregated attitude items, suggesting both of those sections produced reliable scores.

I constructed and used a modified version of the EAAI (Echols, 1997) for this study. Primary modifications to the EAAI involved tailoring some item language to class-based affirmative action and deleting questions that did not directly address the research questions of this study. The modified instrument contained two sections including perceptions of affirmative action/class-based affirmative action and demographic information. The section pertaining specifically to perceptions more closely resembled Carr's (2007) two main constructs as opposed to Echols' five original constructs. This was justified because Carr's constructs more definitively and concisely related to the theoretical framework and research questions of this study.

The instrument used in this study consisted of 21 items. Item and questionnaire construction followed the 19 and 28 guidelines set forth, respectively, by Dillman (2007). The reduction of sections and item numbers served two main purposes: reduce the completion time for respondents and more concisely focus the instrument to answer the four research questions. There were 12 items in the first question followed by nine additional items. The first question used a 4-point Likert scale response set. A 4-point summated rating scale kept respondents from remaining neutral (Garland, 1991; Leung, 2011).

The first six items in question one measured perceptions of principals as they related to race/ethnicity-based affirmative action. This set of items was used to answer research question one and to create the criterion variable for research question three. An item example was,

"Preferential treatment in college/university admissions to redress past racial/ethnic discrimination is morally appropriate." The next six items in question one measured perceptions of principals as they related to class-based admissions preferences. These items were used to answer research question two and to create the criterion variable for research question four. An item example was, "Class-based affirmative action in college/university admissions would help individuals from poverty-stricken backgrounds exit the cycle of poverty." The remaining items, which were associated with demographic information, were answered using a variety of response options including write-in responses and multiple-choice responses. These items provided categorical and continuous responses related to the predictor variables that influence principals' perceptions. All nine items gathered data used to answer research questions three and four. An item example in this section asked respondents, "What is your gender, male or female?" Table 1 summarized each item and its related research question.

To reestablish validity and reliability of the modified EAAI, a pilot study was conducted. Initially, an expert panel consisting of three individuals who were well-versed in research was summoned to provide feedback regarding construction of the questionnaire (see Appendix C for their qualifications). This expert panel was presented with note cards containing questionnaire items written on each individual card. They were asked to sort the cards into the construct each item was measuring. The card sort results were perfectly consistent among the three experts, thus, establishing content validity for each of the questionnaire items. Once the items were set, a study containing the full questionnaire was administered to 10 assistant principals (policy stakeholders similar to principals). Cronbach's alpha was used to test reliability of the assistant principals' responses to determine if the questionnaire could be replicated. Cronbach's alpha was

$\alpha = .82$ for the 12 items measuring the assistant principals' perceptions, suggesting high reliability.

Through the use of an expert panel, a pilot study, and a Cronbach's alpha calculation, this instrument had an improved measurement of validity and reliability compared to the original EAAI. Furthermore, validity is most comprehensively established through an instrument's connection to the theoretical framework (Gall et al., 2007). In this study, selection of predictor and criterion variables was guided by the TRA. See Table 1 for the specific connection of each item to the theoretical framework.

Regression

Correlational statistics are divided into two major categories: bivariate and multivariate. Bivariate statistics are used to analyze the degree of relationship between two variables, one independent variable and one dependent variable. Bivariate statistics differ based on the nature of the variables being correlated, but include techniques such as product-moment correlation, rank-difference correlation (*rho*), Kendall's *tau*, biserial correlation, tetrachoric correlation, *phi* coefficient, contingency coefficient, and correlation ratio (*eta*). Multivariate statistics, on the other hand, measure the interrelationships among three or more variables. There are also a variety of multivariate statistics including factor analysis, path analysis, logistic regression, linear regression, nonlinear regression, and multiple linear regression (Gall et al., 2007).

Regression analysis is a correlational statistical technique for examining and modeling the relationship between variables. It is used when correlational prediction is appropriate; thus, the variables are referred to as predictor and criterion variables. The equation below is used in basic regression analysis where Y is the criterion variable, X is the predictor variable, β_0 is the intercept, β_1 is the slope, and ε is statistical error or random variable that accounts for the failure

of the model to exactly fit the data. Error is usually made up of the effects of extraneous variables.

$$Y = \beta_0 + \beta_1 X + \varepsilon$$

In almost all applications of regression, the equation is only an approximation of the true functional relationship between the predictor and criterion variables of interest (Montgomery, Peck, & Vining, 2001).

In regression analysis, there is almost always a single quantitative criterion variable. The predictor variable(s) can be discrete or quantitative. The basic regression equation expresses the regression line that best fits a pattern of observations. The two key components of the regression line and equation are the intercept (β_0) and slope (β_1). Slope is also called the regression coefficient, which can be defined as the predicted change in Y given a one-unit change in X. A large regression coefficient implies a steep line and a small regression coefficient implies a line that is more horizontal. Using the assumptions of the regression line and equation, a researcher can make valid predictions about the criterion variable (Johnson & Christensen, 2012).

Dealing with regression analysis, it is important to include a discussion of some fundamental regression techniques such as linear regression, nonlinear regression, simple regression, multiple linear regression, and logistic regression. Linear regression is an approach to modeling the relationship between a criterion variable and one or more predictor variable(s), where the mean of the criterion variable is a linear combination of the regression coefficient(s) and predictor variable(s). Nonlinear regression is more complicated because it involves the non-linear relationship of models and their parameters and also because the statistical properties of the resulting estimators are harder to determine. It is a form of regression analysis where data is modeled by a function that is a nonlinear combination of the parameters. Simple regression is the

only bivariate regression technique as it involves the analysis of a single criterion variable and a single predictor variable. Multiple linear regression, on the other hand, involves one criterion variable and more than one predictor variable. Logistic regression is different from the other regression techniques because it involves the analysis of outcomes on a categorical criterion variable where the other techniques involve a continuous criterion variable (Montgomery et al., 2001; Pedhazur, 1997).

Some calculations and statistics are at the core of regression. Sample variance is defined as the average of the squared deviations from the mean of a set of measures and is described by the equation:

$$s_x^2 = \Sigma x^2 / (N\text{-}1)$$

where s_x^2 is the variance, Σx^2 is the sum of the squared deviations of X, and N is the sample size. This can similarly be expressed using the deviation sum of squares:

$$\Sigma x^2 = \Sigma X^2 - ((\Sigma X)^2 / N)$$

where ΣX is the sum of raw scores X. Covariance is a measure of variance at the intersection of variables X and Y. It is represented by the equation:

$$s_{xy} = \Sigma xy / (N\text{-}1)$$

where s_{xy} is the covariance of X and Y and Σxy is the sum of cross products deviations of pairs of X and Y scores from their respective means. The formula for the sum of cross products is:

$$\Sigma xy = \Sigma XY - ((\Sigma X)(\Sigma Y) / N)$$

If compared to the average of variance of X and Y, the covariance gives some notion to the meaning of the relation. Such an equation would be:

$$r_{xy} = s_{xy} / \sqrt{s_x^2 s_y^2}$$

where r_{xy} is the same as r_{xy} that describes the coefficient of correlation as in the equation:

$$r_{xy} = \Sigma xy / N s_x s_y$$

This trail of equations spans from variance to the coefficient of correlation mentioned earlier as a statistic for understanding the use of correlational research designs. The purpose of these definitions and equations is to lay the foundation for understanding linear regression (Kerlinger & Pedhazur, 1973; Pedhazur, 1997). As Pedhazur (1997) stated, "sums of squares, sums of cross products, variances, and covariances are the staples of regression analysis" (p. 17).

The notion of regression is close to that of correlation. Indeed, the *r* used to indicate the coefficient of correlation really means regression. In a simple correlation calculation, r_{xy}, no distinction is made between the independent and dependent variable. Simply, the nature (positive or negative) and the degree (-1 to 1, where further from 0 indicates a stronger correlation) of relationship between variables is sought. In regression, a researcher attempts to ascertain how variation in the predictor variable *X* leads to variation in the criterion variable *Y*. When the *Y* means differ for each of the different levels of *X* and lie on a straight line, it is considered simple linear regression. Although r_{xy} is irrelevant in the regression model, r^2_{xy} expresses the variance shared in common by *X* and *Y*, meaning the percent of the variance is common to both *X* and *Y*. Moreover, r^2_{xy} is called the coefficient of determination; it is the term in regression analysis indicating the proportion of variance of *Y* accounted for by *X* (Kerlinger & Pedhazur, 1973; Pedhazur, 1997).

The equation for simple linear regression has already been stated:

$$Y = \beta_0 + \beta_1 X + \varepsilon$$

For each unit change in *X*, there is an expected change equal to the size of β_1 in the criterion variable *Y*. In simple regression, it is common for points from data sets *X* and *Y* to be plotted on a scatterplot diagram. Scatterplots can then be used to illustrate correlation and make predictions (Fraenkel & Wallen, 2000). The higher the correlation, according to the regression line, the

smaller the deviations from prediction, which means the prediction is more accurate (Kerlinger & Pedhazur, 1973; Pedhazur, 1997).

There are certain assumptions underlying linear regression that are critical to a valid application of the technique. Debate over exactly which assumptions must be met exists among researchers. A brief review of literature highlights the following assumptions: (a) linearity; (b) variable types; (c) decisions about the number of predictor variables, their range, and spacing should be made in light of practical interests and theory regarding the process being modeled; (d) non-zero variance; (e) no perfect multicollinearity; (f) homoscedasticity, (g) independent errors; (h) predictors are uncorrelated with external variables; (i) independence; (j) normally distributed errors (Berry, 1993; Kerlinger & Pedhazur, 1973; Pedhazur, 1997).

Field (2000; 2013) recommends the four most important assumptions of regression models are linearity, normality, homoscedasticity, and independent errors. Linearity assumes the values of the criterion variable for each increment of the predictor variables lie along a straight line. Normality assumes the residuals in the model are normally distributed variables with a mean of zero; it is required because regression is a parametric test. Homoscedasticity assumes the variance of the residual terms is constant at each level of the predictor variables. Independent errors assumes the residual terms are uncorrelated for any two observations. These assumptions are checked, respectively, using a scatterplot showing standardized residuals (*Y*) and standardized predicted values (*X*), a histogram showing frequency (*Y*) of standardized residuals (*X*), a scatterplot showing standardized residuals (*Y*) and standardized predicted values (*X*), and Durbin-Watson test statistic.

The initial step in a regression analysis is to estimate the unknown parameters and fit the model to the data. This step results in the simple regression equation and parameters such as the

intercept and regression coefficient. The following step is called model adequacy checking where the appropriateness of the model is considered and goodness of fit ascertained. The outcome of this process may indicate that the model is appropriate or that the original fit must be modified. Thus, regression analysis is an iterative procedure. Goodness of fit in a regression analysis describes how well the model or regression line fits a set of data. It summarizes the discrepancy between observed values and the values expected under the regression model (Montgomery et al., 2001).

The most common coefficient relating to goodness of fit is r_{xy}^2, the coefficient of determination described earlier. A major problem with R^2 ($r_{xy}^2 = R^2$) is that it tends to overestimate the population size and typically needs to be adjusted downward. R^2 shows greater bias when the sample size is small and the number of predictor variables is large (Green & Salkind, 2003). Gall et al. (2007) recommend increasing sample size by 15 for every predictor variable. Green and Salkind (2003), however, call for further action through the discovery of adjusted R^2. Adjusted R^2 is an unbiased estimate of variance explained—accounting for sample size and number of predictors. It is calculated using the following equation:

$$\text{Adjusted } R^2 = 1 - (1 - R^2)\left((N - 1) / (N - k - 1)\right)$$

where N = sample size and k = number of predictors. Finally, it is generally accepted that R^2, alone, does not provide a comprehensive understanding of goodness of fit. Its interpretation should be made in conjunction with adjusted R^2 and residual plots, which were previously discussed. The combination of estimating the unknown parameters and checking model adequacy is used to validate a regression analysis

Multiple linear regression is very similar to simple linear regression with the same assumption. Multiple regression, however, involves more than one predictor variable. The equation is an extension of the simple regression model allowing for any number of X values:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \ldots + \beta_k X_k + \varepsilon$$

where $\beta_1, \beta_2, \ldots, \beta_k$ are regression coefficients associated with each predictor variable. In multiple linear regression, the variation in the criterion variable is explained by the variance of each predictor variable as well as the combined effect of all independent variables (Creswell, 2008). In this study, there were nine predictor variables. Therefore, the multiple regression equation used to model prediction among variables was:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \varepsilon$$

where X_1 was principal's gender, X_2 was principal's race/ethnicity, X_3 was principal's political affiliation, X_4 was principal's age, X_5 was principal's educational level, X_6 was school system race/ethnicity, X_7 was school system SES characteristics, X_8 was school system geographic location, X_9 was school system size, and Y was principal's perception of affirmative action and class-based measures.

Just as each individual predictor might have an effect on the criterion variable, one or more predictor variables can interact to have an effect on the criterion variable. It is possible for predictor variables to have joint effects by enhancing the effects of each other. Interaction of two predictor variables can be defined as:

$$(AB)_{ij} = (\bar{U}_{ij} - \bar{U}) - (\bar{U}_{Ai} - \bar{U}) - (\bar{U}_{Bj} - \bar{U})$$

where $(AB)_{ij}$ is the interaction of predictor A_i and B_j, $\bar{U}_{ij}$ is the mean of combination A_i and B_j, $\bar{U}_{Ai}$ is the mean of category i of predictor A, $\bar{U}_{Bj}$ is the mean of category j of predictor B, and $\bar{U}$ is the grand mean. These numbers are generated by creating a factorial design including all the vectors

of all the predictor variables. For each interaction term not equal to zero, a regression coefficient is then determined to produce a regression model accounting for the interaction:

$$Y = \beta_0 + \beta_1 A_i + \beta_2 B_j + \beta_3 (AB)_{ij}$$

Most basic cases of multiple regression deal with a continuous criterion variable and a variety of continuous predictor variables. In some cases, however, one or more of the predictor variables may be categorical. In such cases, the categorical variable must be coded into vectors to ensure the results are interpretable. This is called dummy coding, and it is a flexible process that can be applied to any number of variables with any number of categories. Each categorical group is assigned a number to represent the coded vector. In the case where there are only two categorical groups, 1 represents membership and 0 represents non-membership. In the case where there are more than two categories, enough coded vectors must be generated equal to the number of categories per variable minus one. The omitted category is called the reference group. The interactions can then be obtained by multiplying the vectors of the variables involved. Dummy coding was used in this study on a variety of categorical predictor variables including principal's gender, race/ethnicity, and political affiliation.

Much like the coefficient of determination and goodness of fit are used in the iterative process for simple regression, Cohen's f^2 is used to measure effect size in multiple regression. Effect size estimates the amount of variance within a regression analysis that is accounted for or explained by the model. Cohen's f^2 is expressed by the following equation:

$$f^2 = R^2 / (1 - R^2)$$

where R^2 is the same as $r^2_{\hat{y}y}$ (Kerlinger & Pedhazur, 1973; Pedhazur, 1997).

There are a couple of serious problems associated with multiple regression that need to be addressed: omission of variables and multicollinearity. When omitted variables from the

regression model are correlated with the variables in the model, regression coefficients for the latter are biased. The most malign specification errors are also the most difficult to detect. These are errors of omission of relevant variables. A common approach to minimizing the error of omission is to plot residuals against a variable suspected to have been erroneously omitted. This does not, however, ensure that an omission error was not committed. The most important safeguard against omission of relevant variables is theory. Nothing can substitute for a theoretical framework, which the regression model is meant to reflect (Pedhazur, 1997). The theoretical framework in this study played an important role in aptly suiting the predictor variables within the regression model; thus, a plot of residuals against a variable suspected to have been omitted was not warranted.

Multicollinearity can dramatically impact the usefulness of multiple regression. Also called collinearity and near-linear dependence, it occurs when the correlations among predictor variables are high. The term literally means two variables falling on the same regression line. Multicollinearity is often caused by the choice of model and predictor variables. There are several approaches to dealing with multicollinearity. The one that was used in this study was model respecification. Again, it is important for the model to carefully reflect the theoretical framework. Multicollinearity indications merely explain why estimated variances are so high. Lastly, if no other resolution can be made, eliminating one of the predictor variables contributing to the linear dependence may be helpful in combating multicollinearity (Montgomery et al., 2001; Pedhazur, 1997).

Some potential problems arising from multiple regression have been discussed. Other disadvantages of multiple regression also exist. A common problem is that researchers can confuse prediction with causation. Although, Kerlinger and Pedhazur (1997) stated, “Causal

thinking is strictly theoretical…we need not fear or eschew the word *cause*. We must simply be careful with it" (p.16). Additionally, it is important to caution against having a number of variables equal to that of the sample size (Gall et al., 2007). In this study, both problems were addressed through careful consideration of data analysis interpretation and the relatively large convenience sample, respectively.

Strengths of multiple regression are many and tend to greatly outweigh the weaknesses. One strength of multiple regression is that it can be used to analyze interval, ordinal, and categorical variables. Multiple regression also models the complexity of contributing variables in educational research. It determines how each variable individually, and in combination, helps explain variation. Furthermore, it can be used to build better models for predicting the criterion variable. Multiple regression, thus, is one of the most commonly used statistical techniques in educational research. Its wide use stems from the technique's versatility and the amount of information it yields regarding relationships among variables. Multiple regression can be used to analyze experimental, causal-comparative, and correlational designs. It can handle interval, ordinal, and categorical data. Lastly, it provides estimates of both the magnitude and the statistical significance of relationships among a number of variables. This is important considering the previously mentioned consolidation that it is common to confront situations in educational research where several variables influence a particular behavioral pattern (Creswell, 2008; Gall et al., 2007; Montgomery et al., 2001).

Practical Significance

Research intended to inform policy and practice should have applied relevance, and it should demonstrate practical significance. Practical significance evaluates whether or not results have practical importance. Statistical and practical significance are often compared. Statistical

significance estimates the probability of sample results deviating as much or more than the actual sample results specified by the null hypostasis for a population, given the sample size (Cohen, 1994). Tests of statistical significance only provide information about how *un*likely the obtained difference between samples is if the populations are identical (Bothe & Richardson, 2011). Such tests do not evaluate whether results are large, beneficial, restorative, or important in any manner. Practical significance, on the other hand, addresses questions about the meaning or amount of change that has been brought about as a result of the research (Bothe & Richardson, 2011; Thompson, 2002).

Practical significance is the size of the difference between groups or the extent to which two or more distributions differ. A return to the conversation of regression and effect size is warranted to fully understand practical significance. Effect size is the degree to which findings have practical significance in the population. It accounts for sample size and quantifies the degree to which findings are considered beneficial or important (Bothe & Richardson, 2011; Hojat & Xu, 2004). Effect sizes are especially important because statistical significance is so severely influenced by sample size. In studies using multiple regression, such as this study, Cohen's f^2 is used to measure effect size. Cohen's f^2 is expressed by the following equation:

$$f^2 = R^2 / (1 - R^2)$$

where R^2 is the coefficient of determination (Kerlinger & Pedhazur, 1973; Pedhazur, 1997). The magnitude of an effect size is characterized as small, moderate, or large. For Cohen's f^2, small ≈ 0.02, moderate ≈ 0.15, and large ≈ 0.35 (Cohen, 1988). Based upon these results, the researcher must make a value judgment about the practical significance. Small effect size can have substantial practical value and it exhibits a real effect. It is, however, typically observed only

through a close study. On the other hand, large effect size is big or consistent enough that someone outside academia can observe the effect (Cohen, 1988; Cohen, 1994).

According to Kirk (1996), many in the research community had fallen into the bad habit of overreliance on statistical significance in applied research. Kirk, therefore, argued that the "time has come" for practical significance to be used in educational research (p. 746). In 1994, the American Psychological Association (APA) *Publication Manual* encouraged authors to report effect sizes. The current APA *Publication Manual* has been updated and necessitates the inclusion of effect size—failure to comply is considered a defect in the reporting of research.

Data Analysis

All statistical calculations in this study were performed using *Statistical Package for the Social Sciences* (SPSS). Computing descriptive statistics and frequencies for collected data is the first step in data analysis (Gall et al., 2007). Descriptive statistics allow researchers to convey the essential characteristics of a data set by organizing data into an explicable form (Johnson & Christensen, 2012). The mean, standard deviation, and range of principals' perceptions were reported and used to answer the first two research questions. The mean is the best measure of central tendency while standard deviation measures the extent to which scores in a distribution deviate from the mean. In addition to standard deviation, range is a solid measure of variability (Gall et al., 2007).

Multivariate statistics allow researchers to study and investigate interrelationships between three or more variables—indicating the degree of relationship among different arrangements of these variables. In particular, multiple regression (also called least squares regression, multivariate regression, and multiple linear regression) analysis measures the correlation between a criterion variable and a combination of two or more predictor variables.

(Gall et al., 2007). Multiple regression was used to answer research questions three and four in this study.

The four most important assumptions of regression models are linearity, normality, homoscedasticity, and independent errors (Field 2000; Field 2013). These assumptions are checked, respectively, using a scatterplot showing standardized residuals (*Y*) and standardized predicted values (*X*), a histogram showing frequency (*Y*) of standardized residuals (*X*), a scatterplot showing standardized residuals (*Y*) and standardized predicted values (*X*), and Durbin-Watson test statistic.

Estimating the unknown parameters and fitting the model to the data is the first step in multiple regression; it produces the parameters and regression coefficients (Montgomery et al., 2001). Educational researchers most commonly accept a statistically significant effect by the predictor variables on the criterion variable if the probability value of significance (*p*-value) is less than or equal to the alpha level of 0.05. If the parameter estimate is significant at the 0.05 alpha level, the beta coefficients of the predictors are investigated to determine how strongly the predictors affect the criterion variable (Clowes & Davis, 1982; Gall et al., 2007). The following step in multiple regression, model adequacy checking and goodness of fit, describes how well the model or regression line fits the data (Montgomery et al., 2001). The most common coefficient relating to goodness of fit is R^2 (Green & Salkind, 2003).

Multiple regression and its associated statistics have weaknesses. A common problem is that researchers can confuse prediction with causation. This study, however, was explicit in its explanatory nature and correlational (non-causal) design. Multicollinearity can also be a major problem and can impact the usefulness of regression results. Multicollinearity can be measured using tolerance statistics, variance inflation factors, and correlation matrices. Finally, a major

problem with R^2 is that it tends to overestimate the population size. R^2 shows greater bias when the sample size is small and the number of predictor variables is large (Green & Salkind, 2003). The sample size recommendation made by Gall et al. (2007) of 15 participants per predictor variable was satisfied in this study with 216 participants and nine predictor variables. Furthermore, adjusted R^2 is an unbiased estimate of variance explained—accounting for sample size and number of predictors. The interpretation of R^2 should be made in conjunction with adjusted R^2 and residual plots.

Table 2 summarizes the variables and how they were analyzed. The table includes the statistical analysis for each research question; the predictor and criterion variables are also summarized. In accordance with Carr (2007), aggregate variables for perceptions related to race/ethnicity-based affirmative action and perceptions related to class-based affirmative action were created. The aggregated perceptions were used as the criterion variables to answer the last two research questions. Cronbach's alpha was calculated for the criterion variables to measure internal consistency of the items used to create each aggregated/composite value. Cronbach's alpha was $\alpha = .91$ for race/ethnicity affirmative action items and $\alpha = .91$ for class-based affirmative action items. Both alpha scores showed a high level of internal consistency for items related to each aggregated variable, respectively. Table 3 summarizes the predictor variables and how they were coded for the regression analysis.

Table 2

Data Analysis Approach

Research questions	Predictor variables	Criterion variables	Analysis
What are perceptions of principals toward race/ethnicity-based affirmative action measures and preferences in college or university admissions?			Mean, standard deviation, range
What are perceptions of principals toward class-based affirmative action measures and preferences in college or university admissions?			Mean, standard deviation, range
What is the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based affirmative action measures and post-secondary admissions preferences?	Principal's gender, race/ethnicity, political affiliation, age, educational level; school size, race/ ethnicity, SES characteristics, geographic location	Principal perception; 1=strongly disagree 2=disagree 3=agree 4=strongly agree	Multiple regression
What is the best set of predictors to explain the variance in perceptions of principals toward class-based affirmative action measures and post-secondary admissions preferences?	Principal's gender, race/ethnicity, political affiliation, age, educational level; school size, race/ ethnicity, SES characteristics, geographic location	Principal perception; 1=strongly disagree 2=disagree 3=agree 4=strongly agree	Multiple regression

Table 3

Variables and Their Measurement for the Regression Analysis

Predictor variables	Measurement
Principal's gender	0=Female; 1=Male
Principal's race/ethnicity	0=Non-White; 1=White
Principal's political affiliation	1=Democrat; 2= Republican; 3=Other
Principal's age	As of their last birthday at the date of questionnaire distribution
Principal's educational level	Highest level of degree attained; 1=Master's or Less; 2=Specialist's; 3=Doctorate
School race/ethnicity	0=Non-White; 1=White
School SES characteristics	Percentage of students on free and reduced priced lunch
School geographic location	State of Georgia RESA district; 1=Northwest Georgia, North Georgia, Pioneer; 2=Northeast Georgia, Griffin, West Georgia; 3=Metro; 4=Middle Georgia, Chattahoochee-Flint, Southwest Georgia, Coastal Plains; 5=Oconee, Heart of Georgia, Central Savannah, Okefenokee, First District
School size	Total number of students enrolled in school

Procedure

A detailed description of the process used to collect data is important to ensure that replication of the study can be executed by other researchers (Johnson & Christensen, 2012). Soon after successfully submitting and defending the dissertation proposal, I requested permission from the University of Georgia Institutional Review Board (IRB) to conduct research. See Appendix J for a copy of the IRB approval letter. Upon IRB approval, I followed the proceeding steps to complete the study.

In May, 2014, I implemented a pilot study survey with 10 high school assistant principals. I used the following two weeks to make any necessary adjustments to my survey based on the results of the pilot study. On June 16, 2014, I mailed the pre-notice letter to every principal in the State of Georgia. One week later on June 23, I sent the initial survey to participants. I waited one week and then sent a postcard thanking and reminding the principals about the questionnaire. On July 14, I mailed another packet including a second copy of the survey. I waited four additional weeks, and on August 11, I delivered a final copy of the survey via registered mail to all participants who had not responded. On August 25, I ceased data collection.

During June, 2015, I ran statistical analysis using SPSS. Following the analysis, I completed chapters four and five of the dissertation. In early October, 2015, I submitted the dissertation to my dissertation committee. Once completed, I set a date with the committee for final defense during the fall of 2015. Likewise, in the fall of 2015, I submitted to the graduate school all forms required for a December, 2015 graduation. Copies of the dissertation were submitted to the committee four weeks prior to defense. Finally, I plan to defend my dissertation in late fall and graduate in December, 2015.

CHAPTER 4

RESULTS

Purpose Statement

The purpose of this survey study was to examine perceptions of public high school principals on affirmative action in postsecondary admissions. The study focused on class-based affirmative action compared to that of race/ethnicity. Class-based affirmative action refers to any student admission policy designed to redress issues of socioeconomic and educational inequity facing impoverished individuals (Kahlenberg, 1996). The intent of the study was to determine how principals perceived measures that give postsecondary admission preferences to students from low socioeconomic backgrounds. Principals' perceptions of affirmative action are of particular importance because these educational leaders are policy stakeholders.

The theory of reasoned action (TRA), developed by Fishbein and Ajzen (1975), served as the framework for studying principals' perceptions. The TRA explains the relationship between an individual's beliefs, attitudes, and behaviors. According to the TRA, behavioral beliefs foster attitudes. In turn, a person's behavioral intention depends on attitudes about a particular behavior, as well as normative beliefs (perception about a behavior, which is influenced by the judgment of significant others) and subjective norms (perception of normative pressures associated with an individual's social environment) associated with the behavior (Ajzen & Fishbein, 1980). Thus, the TRA guides an understanding of the relationship between perceptions and behaviors.

Predictor variables in this study included principals' gender, race/ethnicity, political affiliation, age, and educational level as well as the race/ethnicity, SES characteristics, geographic location (as determined by Regional Educational Service Agency (RESA) region), and size of the principals' schools. The criterion variables were defined as perceptions relating to racial/ethnic affirmative action and class-based affirmative action measures.

Research Questions

1) What are perceptions of principals toward race/ethnicity-based affirmative action measures and preferences in college or university admissions?
2) What are perceptions of principals toward class-based affirmative action measures and preferences in college or university admissions?
3) What is the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based affirmative action measures and post-secondary admissions preferences?
4) What is the best set of predictors to explain the variance in perceptions of principals toward class-based affirmative action measures and post-secondary admissions preferences?

Frequencies for Categorical Predictor Variables

The collection of data gathered from the sample of 216 public high school principals in the State of Georgia is summarized in this section and the next. In this section, the data reported pertains to the categorical predictor variables: principals' gender, race/ethnicity, political affiliation, and educational level as well as the race/ethnicity and geographic location (as determined by Regional Educational Service Agency (RESA) region) of the principals' schools. The data discussed in this section are summarized in Tables 4 and 5.

Table 4

Valid and Missing Responses per Categorical Predictor Variables

	Principals' gender	Principals' race/ethnicity	Principals' political affiliation	Principals' educational level	School race/ethnicity	School geographic location
Valid	213	211	207	214	215	210
Missing	3	5	9	2	1	6

Note. $n = 216$.

For principals' gender, majority ($n = 167$, 77.3%) of the sample were men and 46 were women. For principals' race/ethnicity, more than half ($n = 146$, 67.6%) of the sample identified themselves as White, 58 (26.9) were Black, 3 were Latino, and 1 was Asian. For principals' political affiliation, 90 (41.7%) were Republican, 72 (33.3%) were Democrat, and 45 (20.8%) had other political affiliation. For principals' highest educational level, half ($n = 109$, 50.5%) of the sample had a specialist's degree, 71 (32.9%) had a doctorate, and 32 (14.8%) had a master's degree.

For schools' race/ethnicity, the most common race/ethnicity was White for more than half ($n = 120$, 55.6%) of the schools. The most common race/ethnicity was Black for 84 (38.9%) of the schools, Latino for 5 (2.3%) of the schools, Asian for none of the schools, and other for 6 (2.8%) of the schools. For schools' geographic location, the highest frequencies were in Middle Georgia, Chattahoochee-Flint, Southwest Georgia, Coastal Plains ($n = 50$, 23.1%), Oconee, Heart of Georgia, Central Savannah, Okefenokee, First District ($n = 46$, 21.3%); and Northwest Georgia, North Georgia, Pioneer ($n = 42$, 19.4%). There were 39 (18.1%) schools that were located in the Metro.

Table 5

Frequency and Percentage Summaries of Categorical Predictor Variables

	Frequency	Percent	Valid percent
Principals' gender			
Female	46	21.3	21.6
Male	167	77.3	78.4
Principals' race/ethnicity			
White	146	67.6	69.2
Black	58	26.9	27.5
Latino	3	1.4	1.4
Asian	1	0.5	0.5
Other	3	1.4	1.4
Principals' political affiliation			
Republican	90	41.7	43.5
Democrat	72	33.3	34.8
Other	45	20.8	21.7
Principals' educational level			
Bachelor's	2	0.9	0.9
Master's	32	14.8	15.0
Specialist's	109	50.5	50.9
Doctorate	71	32.9	33.2
School race/ethnicity			
White	120	55.6	55.8
Black	84	38.9	39.1
Latino	5	2.3	2.3
Asian	0	0	0
Other	6	2.8	2.8
School geographic location			
Northwest, North, Pioneer	42	19.4	20.0
Northeast, Griffin, West	33	15.3	15.7
Metro	39	18.1	18.6
Middle, Chattahoochee-Flint, Southwest, Coastal Plains	50	23.1	23.8
Oconee, Heart, Central Savannah, Okefenokee, First District	46	21.3	21.9

Notes. *Georgia* omitted when reporting categories of school geographic locations. $n = 216$.

An original regression analysis was conducted using dummy coding for all categories of discrete variables in Table 5. Because of considerably low frequencies, however, the results were not plausible for the categorical variables of principals' race/ethnicity, principals' educational level, and school race/ethnicity. The frequency percentage for principals' race/ethnicity

categories of Latino, Asian, and other were 1.4, 0.5, and 1.4, respectively. Percentage of principals' educational level category of Bachelor's was 0.9. Finally, the frequency percentage for school race/ethnicity categories of Latino, Asian, and other were 2.3, 0, and 2.8, respectively.

To create a stronger and more plausible model, categories with insignificant frequencies were collapsed into larger categories. Principals' race/ethnicity and school race/ethnicity were reduced to binary variables, *White* and *non-White*. Principals' educational level remained a multicategorical variable, where categories of Bachelor's and Master's were consolidated to a single category, *Master's or less*. For each of these predictors, new dummy codes were created. Finally, new regression analyses were conducted using the updated models.

Descriptive Statistics for Continuous Predictor Variables

In this section, the data reported pertains to the continuous predictor variables: principals' age, school SES characteristics, and school size. The data discussed in this section are summarized in Table 6. The mean age of the principals was 47.13 years ($\sigma = 6.96$) with the oldest age at 68 years and the youngest age at 31 years. The mean school SES characteristics, as measured by the percentage of students on free and reduced priced lunch, was 64.11% ($\sigma =$ 24.87%) with the highest percentage of students on free and reduced priced lunch at 100% and lowest at 0%. The mean school size, as measured by the total number of students enrolled in school, was 1,163 ($\sigma = 681$) with the largest student enrollment at 3,700 and the smallest enrollment at 50 students. Assuming a normal distribution, 68.2% of schools had an enrollment between 1,844 and 482.

Table 6

Summary of Descriptive Statistics for Continuous Predictor Variables

	n	Minimum	Maximum	Mean	Standard Deviation
Principals' age	207	31.0	68.0	47.13	6.96
School SES characteristics	209	0.0	100.0	64.11	24.87
School size	206	50.0	3700.0	1163.21	681.11

Descriptive Statistics for Criterion Variables

In this section, data for aggregated/composite criterion variables, perceptions of principals toward race/ethnicity-based and class-based affirmative action measures and preferences in college or university admissions, are reported. Moving forward, perceptions of principals toward race/ethnicity-based measures and preferences in college or university admissions are referred to as *race/ethnicity comp*, which is an abbreviation for the aggregated/composite value created as the race/ethnicity-based criterion variable. Likewise, perceptions of principals toward class-based measures and preferences in college or university admissions are referred to as *class comp*, which is an abbreviation for the aggregated/composite value created as the class-based criterion variable. The criterion variables were created from the mean of each of the six item responses related to *race/ethnicity comp* and *class comp*, respectively. Some of the criterion items were missing one of the six data points. Mean imputation was used to replace any missing data points. SPSS defaults to listwise deletion and discards all cases that have missing values, which would have removed approximately 15 cases. Imputation preserved all criterion variable cases by replacing missing data points with probable values based on the mean of related data points.

This analysis addressed research questions one and two and results are summarized in Table 7. The mean scores of *race/ethnicity comp* (M = 2.28; σ = 0.77) and *class comp* (M = 2.60; σ = 0.74) were between the *somewhat disagree (2)* and *somewhat agree (3)* scales. With

such a large sample, it was not surprising that the means fell close to the scale median. With a scale median of 2.50, the mean score for *race/ethnicity comp* fell on the *somewhat disagree* side of the median. Furthermore, the mean score for *class comp* fell on the *somewhat agree* side of the median. Principals' perceptions toward class-based measures were, on average, more favorable than their perceptions toward race/ethnicity-based measures.

Respective standard deviations, however, were 0.77 and 0.74 for *race/ethnicity comp* and *class comp*. With standard deviations nearing a value of 1 and a scale ranging only 3 units from *strongly disagree (1)* to *strongly agree (4)*, it is difficult to draw definitive conclusions based on the mean values. Assuming normal distribution, 34.1% of *race/ethnicity comp* would fall in the range of 2.28 to 3.05 and 34.1% of *class comp* would fall in the range of 2.60 to 1.86. If more principals had responded, it is plausible the mean values could have been considerably different.

Furthermore, it is difficult to define 2.28 and 2.60 in terms of disagreeing and agreeing. Because the Likert scale only allows for integer responses, 2.28 (*race/ethnicity comp*), 2.60 (*class comp*), and 2.50 (neutral stand) are not definitive values on the Likert scale response set. It is most appropriate to state that *race/ethnicity comp*, on average, leans toward disagreeing and *class comp*, on average, leans toward agreeing. By analyzing all the data points as indicated by the respondents rather than the aggregated means, it is plausible to establish whether or not principals would support class-based measures.

Race/ethnicity comp item six, "I support the use of race/ethnicity-based affirmative action in the college/university admission process," received 59 *strongly disagree (1)* responses and only 22 *strongly agree (4)*. On the contrary, *class comp* item six, "I would support the use of class-based affirmative action in college/university admissions," received 26 *strongly disagree (1)* responses and 31 *strongly agree (4)*. Moreover, 105 respondents *somewhat agree (3)* with

class comp item six compared to only 80 respondents who *somewhat agree (3)* with *race/ethnicity comp* item six. When comparing *strongly agreeing (4)* responses for all items, there were 127 data points for *race/ethnicity comp* and 185 data points for *class comp*. Such results indicate that *class comp* is more favorable than *race/ethnicity comp* and that principals are, indeed, more likely to support class-based affirmative action. Comparatively, however, the overall strength of favor cannot be definitively determined.

Table 7

Summary of Descriptive Statistics for Criterion Variables

	n	Minimum	Maximum	Mean	Standard Deviation
Race/ethnicity comp	216	1.00	4.00	2.28	0.77
Class comp	216	1.00	4.00	2.60	0.74

Test of Assumptions for Multiple Regression Analysis

In this section, data reported analyzed the four major assumptions of regression models: linearity, normality, homoscedasticity, and independent errors. Separate regression analyses were conducted to answer research questions three and four. *Race/ethnicity comp* and *class comp* were used as the criterion variables to answer questions three and four, respectively. Tests for linearity, homoscedasticity, normality, and independent errors were conducted separately for *race/ethnicity comp* and *class comp*. A scatterplot of standardized residuals against standardized predicted values tests for linearity and homoscedasticity. A histogram of frequencies against standardized residuals tests for normality. Finally, a Durbin-Watson statistic is used to test for independent errors (Field, 2000).

For *race/ethnicity comp* criterion variable, the assumptions of linearity and homoscedasticity were met. Figure 5 illustrates the scatterplot used to determine assumptions of linearity and homoscedasticity. The scatterplot was a random array of dots evenly dispersed

around zero. There was no semblance of curvature in the data points, which represented linearity. Likewise, the data points did not funnel becoming more spread out across the graph, which represents heteroscedasticity. Because neither a curved nor funneled trend emerged, assumptions of linearity and heteroscedasticity were met (Field, 2000).

Normality of residuals for *race/ethnicity comp* was determined using the histogram in Figure 5. A normal distribution is illustrated by a bell-shaped curve. The distribution of standardized residuals was roughly normal and was not skewed. Because the histogram was approximately bell-shaped, the assumption of normality was met (Field, 2000).

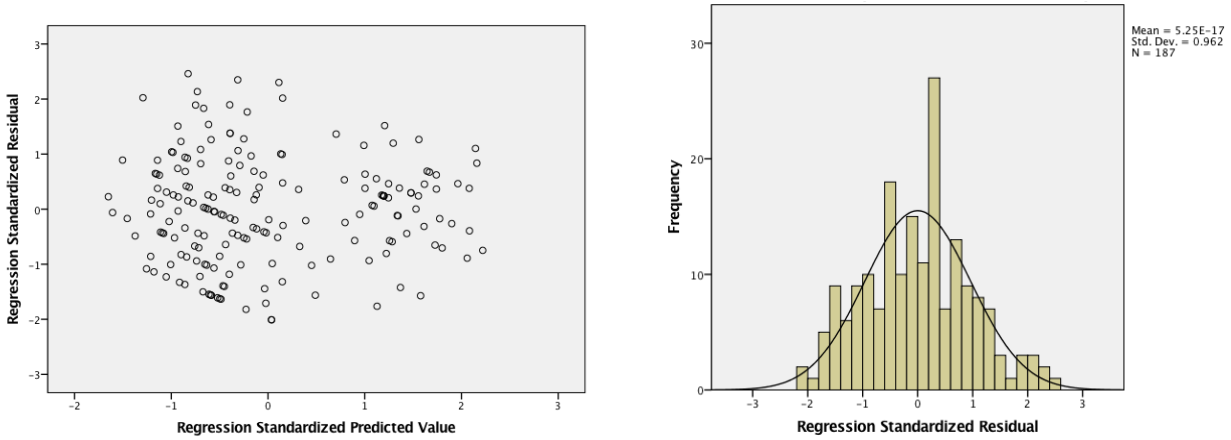

Figure 5. Scatterplot of standardized residuals (*Y*) against standardized predicted values (*X*) and histogram of frequency (*Y*) of standardized residuals (*X*) for *race/ethnicity comp*.

Dependency of residuals for *race/ethnicity comp* was tested using the Durbin-Watson test statistic, which tests whether adjacent residuals are correlated. The Durbin-Watson test varies between 0 and 4, with a value of 2 meaning the residuals are independent. Any value below 1 or above 3 is cause for concern. The closer value is to 2, the more uncorrelated the errors. As evidenced in Table 8, the Durbin-Watson for *race/ethnicity comp* was 1.91. Such a value indicated the assumption of independent errors was tenable (Field, 2000).

Table 8

Summary of Coefficient of Determination and Durbin-Watson for Race/Ethnicity Comp

R	R^2	Adjusted R^2	Standard Error of the Estimate	Durbin-Watson
0.60	0.36	0.30	0.65	1.912

For *class comp* criterion variable, the assumptions of linearity and homoscedasticity were met. Figure 6 illustrates the scatterplot used to determine both assumptions. The scatterplot was a random array of dots evenly dispersed around zero. There was no semblance of curvature in the data points, which represented linearity. Likewise, the data points did not funnel becoming more spread out across the graph, which represents heteroscedasticity. Because neither a curved nor funneled trend emerged, assumptions of linearity and heteroscedasticity were met (Field, 2000).

Normality of residuals for *class comp* was determined using the histogram in Figure 6. A normal distribution is illustrated by a bell-shaped curve. The distribution of standardized residuals was roughly normal and was not skewed. Because the histogram was approximately bell-shaped, the assumption of normality was met (Field, 2000).

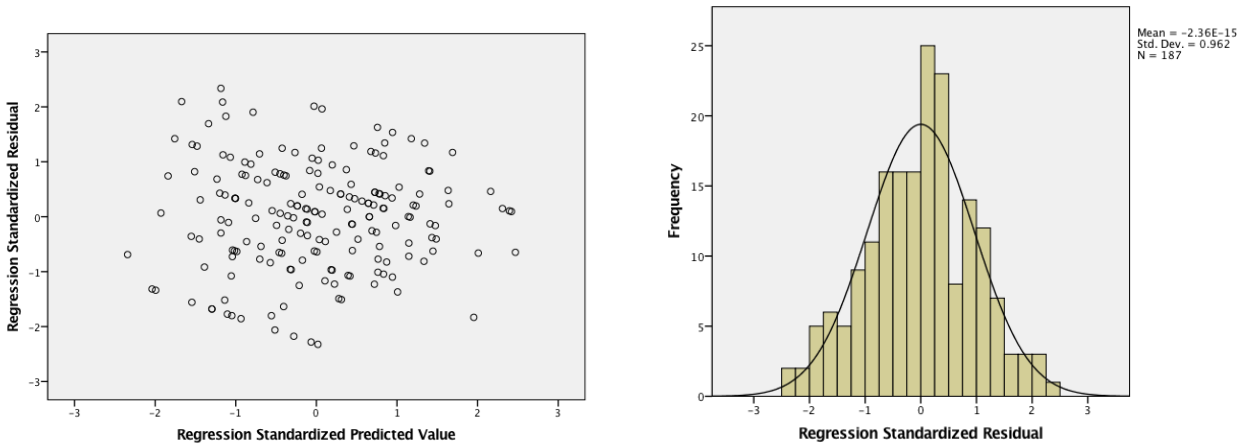

Figure 6. Scatterplot of standardized residuals (*Y*) against standardized predicted values (*X*) and histogram of frequency (*Y*) of standardized residuals (*X*) for *class comp.*

Dependency of residuals for *class comp* was tested using the Durbin-Watson test statistic. The Durbin-Watson varies between 0 and 4, with a value of 2 meaning the residuals are

independent. The closer value is to 2, the more uncorrelated the errors. As evidenced in Table 8, the Durbin-Watson for *class comp* was 2.05. Such a value indicated the assumption of independent errors was tenable (Field, 2000).

Table 9

Summary of Coefficient of Determination and Durbin-Watson for Class Comp

R	R^2	Adjusted R^2	Standard Error of the Estimate	Durbin-Watson
0.45	0.21	0.14	0.70	2.05

Regression Results

Research questions three and four were addressed using multiple linear regression models. The multiple regression models were used to determine the individual effects of each of the predictor variables (principals' gender, race/ethnicity, political affiliation, age, and educational level as well as the race/ethnicity, SES characteristics, geographic location, and size of the principals' schools) to both of the criterion variables (*race/ethnicity comp* and *class comp*). A regression model was created for each criterion variable and each model was summarized in Tables 10 and 11, respectively. For these models, $n = 187$ because SPSS discarded all cases with missing values. There were 29 cases where one or more of the data points for a predictor variable were missing.

These regression analyses determined the best set of predictors to explain the variance in perceptions of principals toward race-based and class-based affirmative action measures and post-secondary admissions preferences. Dummy variables were created for each of the categorically measured predictor variables to be included in the regression analysis. Reference groups were also established for each of the discrete variables: principals' gender (female), principals' race/ethnicity (non-White), principals' political affiliation (Republican), principals'

educational level (Master's or less), school race/ethnicity (non-White), and school geographic location (metro).

An alpha level of 0.05 was used to determine the statistical significance of predictor variables in the regression analyses. Educational researchers most commonly accept a statistically significant effect by the predictor variables on the criterion variable if the probability value of significance (*p*-value) is *less* than the alpha level of 0.05. If the parameter estimate is significant at the 0.05 alpha level, the beta coefficients of the predictors are investigated to determine how strongly the predictors affect the criterion variable (Cowles & Davis, 1982; Gall et al., 2007).

Race/Ethnicity Comp **Regression**

For the race/ethnicity-based model, only two of the nine predictor variables were statistically significant—principals' race/ethnicity, t (187) = -3.97, $p < 0.00$, and principals' political affiliation, t (187) = 2.00, $p = 0.05$ (see Table 10). These two predictors had significant effects on the variance in perceptions of principals toward race/ethnicity-based affirmative action measures and preferences in college or university admissions. The unstandardized beta coefficients of these predictors were analyzed to determine their importance and independent contributions to principals' perceptions toward race-based affirmative action measures and preferences in college or university admissions.

Table 10

Summary of Regression Analysis for Race/Ethnicity Comp Criterion Variable

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	β	Std. Error	Beta			Tolerance	VIF
(Constant)	2.777	.505		5.502	.000		
Principal's age	-.005	.007	-.046	-.711	.478	.882	1.134
Principal's gender (Male)	-.014	.123	-.007	-.113	.911	.962	1.039
Principal's race/ethnicity (White)	-.652	.164	-.378	-3.969	.000	.411	2.431
Principal's political affiliation (Democrat)	.304	.152	.187	2.001	.047	.427	2.344
Principal's political affiliation (Other)	.165	.130	.088	1.268	.206	.782	1.279
Principal's educational level (Specialist's)	-.199	.151	-.128	-1.320	.188	.397	2.520
Principal's educational level (Doctorate)	-.212	.158	-.129	-1.343	.181	.403	2.479
School size	7.241E-5	.000	.064	.864	.389	.676	1.479
School race/ethnicity (White)	.017	.131	.011	.131	.896	.538	1.858
School SES	.004	.003	.117	1.340	.182	.494	2.024
School geographic location (Northwest, North, Pioneer)	.203	.180	.107	1.124	.262	.411	2.431
School geographic location (Northeast, Griffin, West)	-.249	.186	-.113	-1.342	.182	.528	1.894
School geographic location (Middle, Chattahoochee-Flint, Southwest, Coastal Plains)	-.164	.170	-.092	-.965	.336	.414	2.413
School geographic location (Oconee, Heart, Central Savannah, Okefenokee, First District)	-.120	.173	-.063	-.693	.490	.457	2.190

Notes. *Georgia* omitted when reporting categories of school geographic locations. Regression model excluded reference groups of categorical variables.

The negative unstandardized beta coefficient value of principals' race/ethnicity (-0.65) indicated membership in the comparison group (White), other variables constant, lowered the principals' perceptions toward race-based affirmative action measures and preferences in college or university admissions compared to the reference group (non-White). It was suggested that on average, the comparison group had 0.65 lower in perceptions toward race-based affirmative action measures than the reference group between the *strongly disagree (1)* and *strongly agree (4)* scales.

The unstandardized beta coefficient value of principals' political affiliation category of Democrat (0.30) was positive indicating, other variables constant, an affirmative contribution in the variation of principals' perceptions toward race-based affirmative action measures and preferences in college or university admissions compared to the reference group of Republican. It suggested that the principals' perceptions became more agreeing if the political affiliation of the principal was Democrat as compared to Republican. Furthermore, the value indicated if the principal was Democrat, their perception on a scale of *strongly disagree (1)* to *strongly agree (4)* increased, on average, 0.30.

Class Comp **Regression**

For the class-based model, only two of the nine predictor variables were statistically significant—principals' age, t (187) = -3.01, p = 0.00, and principals' gender, t (187) = -2.09, p = 0.04 (see Table 11). These two predictors had significant effects on the variance in perceptions of principals toward class-based affirmative action measures and preferences in college or university admissions. The unstandardized beta coefficients of the two statistically significant predictors were analyzed to determine their importance and independent contributions to

principals' perceptions toward class-based affirmative action measures and preferences in college or university admissions.

Table 11

Summary of Regression Analysis for Class Comp Criterion Variable

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	β	Std. Error	Beta			Tolerance	VIF
(Constant)	3.708	.541		6.853	.000		
Principal's age	-.024	.008	-.218	-3.007	.003	.882	1.134
Principal's gender (Male)	-.276	.132	-.145	-2.094	.038	.962	1.039
Principal's race/ethnicity (White)	-.232	.176	-.139	-1.316	.190	.411	2.431
Principal's political affiliation (Democrat)	.226	.163	.144	1.387	.167	.427	2.344
Principal's political affiliation (Other)	.269	.139	.149	1.937	.054	.782	1.279
Principal's educational level (Specialist's)	-.016	.162	-.011	-.100	.921	.397	2.520
Principal's educational level (Doctorate)	-.070	.170	-.044	-.411	.682	.403	2.479
School size	5.189E-5	.000	.048	.577	.564	.676	1.479
School race/ethnicity (White)	.128	.140	.084	.911	.364	.538	1.858
School SES	.004	.003	.149	1.539	.126	.494	2.024
School geographic location (Northwest, North, Pioneer)	-.018	.193	-.010	-.094	.925	.411	2.431
School geographic location (Northeast, Griffin, West)	-.025	.199	-.012	-.123	.902	.528	1.894
School geographic location (Middle, Chattahoochee-Flint, Southwest, Coastal Plains)	-.238	.182	-.138	-1.308	.193	.414	2.413
School geographic location (Oconee, Heart, Central Savannah, Okefenokee, First District)	-.239	.185	-.130	-1.292	.198	.457	2.190

Notes. *Georgia* omitted when reporting categories of school geographic locations. Regression model excluded reference groups of categorical variables

The unstandardized beta coefficient value of principals' age (-0.02) was negative indicating a one unit increase in age, other variables constant, had a negative contribution to the variation of principals' perceptions toward class-based affirmative action measures and preferences in college or university admissions. It suggested that principals' perceptions became less agreeing as the age of the principals increased. Furthermore, the value indicated a principal's perception on a scale of *strongly disagree (1)* to *strongly agree (4)* decreased, on average, 0.02 for every one-year increase in their age. Over a 30-year career, for example, a principal's perception would decrease on average by 0.60, which is a large change on a scale ranging *1* to *4*.

The negative unstandardized beta coefficient value of principals' gender (-0.28) indicated membership in the comparison group (male), other variables constant, lowered principals' perceptions toward class-based affirmative action measures and preferences in college or university admissions compared to the reference group (female). It was suggested that on average, the comparison group had 0.28 lower in perceptions toward race-based affirmative action measures than the reference group between the *strongly disagree (1)* and *strongly agree (4)* scales.

Model Adequacy and Goodness of Fit (R^2 Discussion)

R^2 is a measure of the amount of variability in the criterion variable accounted for by the predictor variables. The percentage of variability in principals' perceptions of race/ethnicity-based affirmative action explained by the predictor variables in this study was 35.7 (see Table 8). The percentage of variability in principals' perceptions class-based affirmative action explained by the predictor variables in this study was 20.6 (see Table 9).

A major problem with R^2 is that it tends to overestimate population size and typically needs to be adjusted downward. R^2 shows greater bias when sample size is small and the number

of predictor variables is large (Green & Salkind, 2003). Gall et al. (2007) recommend increasing sample size by 15 for every predictor variable. In this study, there were nine predictors. With 216 respondents, this study satisfied the minimum needed sample size of 135 recommended by Gall et al. Green and Salkind (2003), however, call for further action through the discovery of adjusted R^2. Adjusted R^2 is an unbiased estimate of variance explained—accounting for sample size and number of predictors. It is calculated using the following equation:

$$\text{Adjusted } R^2 = 1 - (1 - R^2)\,((N - 1) / (N - k - 1))$$

where N = sample size and k = number of predictors. Finally, it is generally accepted that R^2, alone, does not provide a comprehensive understanding of goodness of fit. Its interpretation should be made in conjunction with adjusted R^2 and residual scatterplots, which were summarized in Tables 8 and 9 and Figures 5 and 7, respectively. With adjusted R^2 values of 0.30 and 0.14 for race/ethnicity comp and class comp, respectively, and lines of best fit with no significant outliers on both scatterplots, both models exhibited linearity and the predictors explained a meaningful amount of variance in the criterion variables.

Considering all possibilities for predictor variables that could have potentially contributed to the variance in criterion variables, 30% and 14% are meaningful percentages of variance explained. With thousands of potential predictor variables that could have been included in this study, even the lower of the two R^2 values, 14%, is a large ratio of variance explained by a mere nine variables. It is important to also consider the possibility that many of the principals had little to no prior knowledge/experience with class-based affirmative action. The initial cover letter that defined class-based affirmative action could have been the first academic exercise related to such programs for many of the principals. In such a case, 14% variance explained is a consequential amount. Any number of variables or combination thereof would have explained the remaining

86% of variance. Because the nine chosen variables were carefully considered and analyzed as they theoretical framework and literature

Collinearity Results

Tolerance statistic and variance inflation factor (VIF) were used to test for multicollinearity among predictor variables on the *race/ethnicity* and *class* criterion variables. These collinearity statistics were presented in Tables 10 and 11. Because both regression models were identical excluding the criterion variable, tolerance and VIF statistical values for each predictor variable were the same on both tables. The VIF indicates whether a predictor has a strong linear relationship with the other predictors, while the tolerance statistic is simply its reciprocal (1/VIF). Literature does not present a concrete value where the VIF should be cause for concern. The VIF has a lower bound of 1 but no upper bound. A VIF of 1 means the predictor is perfectly not correlated with other predictors. Several authors champion their interpretation as the rule of thumb, but there is not a generally accepted value used across collinearity analyses. Myers (1990) suggests that a value of 10 is cause for concern that multicollinearity is significantly influencing the model. Moreover, Bowerman and O'Connell's (1990) more strict interpretation suggests an average VIF substantially greater than 1 indicates multicollinearity may be biasing the regression model. Cohen (1988) uses the threshold of 2.50, which corresponds to an R^2 of 0.60 with the other predictors. Pertaining to the tolerance statistic, Myers (1990), therefore, suggests values below 0.10 indicate serious problems of multicollinearity. Lastly, Menard (1995) suggest tolerance values below 0.20 are worthy of concern.

None of the VIF values were close to Myers (1990) suggested value of 10. Only one of the VIF values exceeded Cohen's (1988) recommendation of 2.50. Principals' educational level category of Specialist's (2.52) minimally topped the standard while four others were near the

threshold, principals' race/ethnicity (2.43), principals' educational level category of Doctorate (2.48), school geographic location of Northwest Georgia, North Georgia, and Pioneer (2.43), and school geographic location of Middle Georgia, Chattahoochee-Flint, Southwest Georgia, and Coastal Plains (2.41). On the whole, the average VIF for the regression models was 1.97, which is close to 1 and confirms that collinearity was not a problem in the models.

Furthermore, the tolerance statistics verify that multicollinearity was not of concern in this study. None of the tolerance values were near Menard's (1995) 0.20 threshold for concern. All tolerance values were even further from Myers' (1990) standard of 0.10 where serious problems of collinearity exist. The lowest tolerance value was principals' educational level category of Specialist's (0.40). Because multicollinearity was not a problem and the models carefully reflected the theoretical framework, there was no need for model respecification or the elimination of any predictor variables (Montgomery et al., 2001; Pedhazur, 1997).

Practical Significance

Statistical significance estimates the probability of sample results deviating as much or more than the actual sample results specified by the null hypothesis for a population, given the sample size (Cohen, 1994). Such tests do not evaluate whether results are large, beneficial, restorative, or important in any manner. Practical significance, on the other hand, addresses questions about the magnitude or amount of change that has been brought about as a result of the research (Bothe & Richardson, 2011; Thompson, 2002).

Effect size is the degree to which findings have practical importance. It accounts for sample size and quantifies the degree to which findings are considered beneficial or important. Effect sizes are especially important because statistical significance is so severely influenced by

sample size. In studies using multiple regression, such as this study, Cohen's f^2 is used to measure effect size (Bothe & Richardson, 2011; Hojat & Xu, 2004).

The magnitude of an effect size is characterized as small, moderate, or large. For Cohen's f^2, small ≈ 0.02, moderate ≈ 0.15, and large ≈ 0.35 (Cohen, 1988). A large effect size means the effect is consistent enough to be of significance. As summarized in Table 12, *race/ethnicity comp's* large effect size (0.56) underscored its practical significance. *Class comp's* effect size (0.26) was between moderate and large which meant it was practically significant but that the implications of its significance were not as prevalent as those of *race/ethnicity comp*.

Table 12

R^2 and Cohen's f^2 for Race/Ethnicity Comp and Class Comp Criterion Variables

	R^2	Cohen's f^2
Race/ethnicity comp	.357	.555
Class comp	.206	.259

Summary

The purpose of this survey study was to examine perceptions of public high school principals on affirmative action in postsecondary admissions. The intent was to determine how principals perceive measures that give postsecondary admission preferences to students. Also, the study determined the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based and class-based affirmative action measures and post-secondary admissions preferences. This chapter presented the results and the calculations of the results of the descriptive statistics and regression analyses to address the research questions of this study. The results were generated through the SPSS statistical software.

Results of the descriptive statistics analysis indicated that perceptions of principals toward race/ethnicity-based affirmative action measures and preferences in college or university

admissions and perceptions of principals toward class-based affirmative action measures and preferences in college or university admissions were close to the median. Likewise, principals' perceptions toward class-based measures were on average more favorable than their perceptions toward race/ethnicity-based measures.

Results of the regression analysis showed the best set of predictors to explain the variance in perceptions of principals toward race/ethnicity-based affirmative action measures and post-secondary admissions preferences were principals' race/ethnicity and principals' political affiliation. Likewise, results of the regression analysis showed the best set of predictors to explain the variance in perceptions of principals toward class-based affirmative action measures and post-secondary admissions preferences were principals' age and principals' gender.

CHAPTER 5

CONCLUSIONS AND RECOMMENDATIONS

Re-establishing Context

The original inspiration for this study was an interest in the circumstances of poverty and the challenges associated with overcoming those circumstances. As described in Chapter 2, an intent of education is to provide opportunity for upward social mobility. Appropriate and realistic opportunities for individuals to exit the cycle of poverty via education are problematic, however. Barriers in economically disadvantaged households and communities commonly prevent poorer students from gaining access to the educational attainment associated with upward mobility. Such limitations are a glaring issue of social injustice confronting economically disadvantaged students who pursue an exit from cyclical poverty. Initial intrigue related to this study was concern with problems of intergenerational poverty. Through research, class-based affirmative action and preferences in college or university admissions emerged as an intriguing explication.

Llekwellyn (1995) said that schools are a microcosm of society, meaning that educational concerns and larger societal issues are reflective. It seemed appropriate that educational solutions could provide a starting point for solving larger societal issues such as intergenerational poverty. As Horace Mann (1848) said, “Education then, beyond all other devices of human origin, is the great equalizer of the conditions of men, the balance-wheel of the social machinery.” It is acknowledged that poverty, as an issue, extends beyond the context of education. A solution in education, however, could be a microcosmic starting point for a greater societal solution. Access to educational attainment and the resulting human capital gain is a tangible route to social class

mobility and an escape from intergenerational poverty (Griffith, 2011; Jaeger, 2007; Jencks, 1979; Robles, 2009).

Social justice issues are complex and they cannot be neatly compartmentalized into matters of politics, religion, race/ethnicity, gender, sexuality, education, and economics. Challenges facing economically disadvantaged households span the gamut, and such challenges cannot be isolated as singular phenomena. Problems of poverty are deeply engrained in society and have roots in most societal domains. The interconnectedness of these sectors such as politics, education, and economics make solutions difficult. It is important to acknowledge there are no simple answers to complex problems.

Some important questions related to poverty, our economic system (capitalism), social justice, and education remain. Does forgoing a blind admissions process where only the most qualified students are admitted in favor of a process that provides advantage to individuals based on their lower socioeconomic status muddle our economic system? Does not a capitalist society always have individuals who are poor relative to others? Is socioeconomic equality a goal of our economic system? Issues of poverty in a capitalist society are complex and far beyond the scope of this study. These questions, however, are pertinent due to the nature of this study.

Relevance among Other States

The State of Georgia is similar in some ways to other states and it is also unique compared to other states. As such, it is impossible to determine whether or not results from this study are representative of the United States as a whole. There are some things we know about Georgia when compared to other states, however, that make this study and its convenience sample of Georgia principals particularly meaningful nationwide. By population, Georgia is the eighth largest state in America. Moreover, it has the 14th highest poverty rate in the country with

14.4% of its residents living in poverty. With only 13 states demonstrating a higher poverty rate and with over 10 million residents, the State of Georgia and its educational policy stakeholders should certainly have a vested interest in the national debate over admissions preferences for students from lower socioeconomic backgrounds (United States Census Bureau, 2015).

With such a large contingency of residents compared to most other states and with so many of its residents living in poverty, it seems appropriate that what happens in Georgia is relevant on a national level, both educationally and in policy. Only 27.5% of Georgia residents have attained a bachelor's degree or more. The national average is 27.9% and states such states such as Massachusetts and Colorado maintain rates of 38.2% and 35.9%, respectively. Georgia ranks 21st, which is close to the median but still below it, among all other states with regard to higher educational attainment (United States Census Bureau, 2015). Considering the relationship between educational attainment and social mobility, is it a problem that Georgia ranks 14th in poverty rate but 21st in educational attainment?

Related to class-based affirmative action, eight states currently ban racial/ethnic preferences at all public universities: California, Michigan, Washington, Nebraska, Arizona, Oklahoma, Florida, and Maine. Texas had a ban in place from 1996 to 2003, but it is no longer active. The University of Georgia is unique in its handling of race/ethnicity-based affirmative action measures and preferences in college or university admissions. In 2000, the University of Georgia voluntarily dropped consideration of race/ethnicity from admissions following lower court challenges. It is the only state university in the United States to permanently ban racial/ethnic considerations without a voter referendum, executive order, or legislative action requiring all public colleges/universities in the state to do the same thing. All remaining public colleges/universities in the State of Georgia (31 in total) employ race/ethnicity under the strictest

scrutiny when all other race/ethnicity-neutral policies have been fully exhausted (The Century Foundation, 2015).

In banning considerations of race/ethnicity in admissions, the University of Georgia did not abandon the pursuit of diversity in admissions but has pursued a variety of complementary strategies intended to promote enrollment diversity. At the University of Georgia, 20% to 25% of students are admitted under the consideration of socioeconomic and non-academic factors such as parents' educational background, job and family responsibilities, high school environment, exceptional circumstances, intellectual curiosity, commitment to service and citizenship, ability to overcome hardship. Likewise, the University of Georgia guarantees admission for all valedictorians and salutatorians from fully accredited high schools in Georgia, which is similar to the percent plans used in Texas, Florida, and California. Finally, the university removed all legacy status considerations from their admissions process. The University of Georgia is not unique in their use of these newly adopted criteria. Many states and universities have begun to use such criteria in place of or in conjunction with considerations of race/ethnicity in their admissions (McDuff & Potter, 2014).

Georgia Tech takes a different approach to increasing the enrollment and retention of students from poverty. The G. Wayne Clough Georgia Tech Promise Program is designed to promote educational attainment for students from poverty. As a supplement to the State of Georgia's Helping Outstanding Pupils Educationally (HOPE) Scholarship program, the Tech Promise Program assists Georgia students whose families have an annual income of less than $33,300. Awards from the pogrom are combined with other scholarships and a Federal Work Study job opportunity to meet financial need for students from poverty. This program does not give admission preference to students from poverty. Rather, it is intended to support students

whose financial circumstances might inhibit or prevent them from attaining an undergraduate degree at Georgia Tech.

Based on Georgia's context among other states, it is appropriate that interest in this study and its results are relevant to nationwide awareness about class-based affirmative action. The State of Georgia has a relatively high poverty rate and educational attainment among the state's residents is low compared to national averages. Likewise, the differences in admissions preferences between the University of Georgia and the remaining colleges/universities in the University System of Georgia situates the state in the middle of any discussion related to class-based and race/ethnicity-based affirmative action.

Findings of Study

This study set out to determine whether how policy stakeholders perceive measures that give advantage in college and university admissions to students from poverty. Although some related measures exist, class-based affirmative action was the specific policy in question for this study. The study found Georgia principals' perceptions toward class-based affirmative action measures tended to be more favorable than their perceptions toward race/ethnicity-based measures. Furthermore, political affiliation did not have significant effects on the variance in principals' perceptions toward class-based affirmative action measures. Political affiliation, however, did have significant effects on the variance in principals' perceptions toward race/ethnicity-based measures. From these results, I concluded that class-based affirmative action measures and preferences in college/university admissions were not only more favorable, but they were also more politically palpable than race/ethnicity-based measures. Because of a principal's role as a policy advocate, general favor toward class-based measures among policy stakeholders in Georgia postulates such measures as a credible policy reform possibility. Class-

based affirmative action could be a sustainable solution to increase access and educational attainment for individuals from economically disadvantaged backgrounds.

The findings of this study, in conjunction with revolutionary admissions processes at places like the University of Colorado and the University of Georgia, support class-based affirmative action measures as a real solution for economically disadvantaged students. Educational leaders and policy stakeholders demonstrated favorable perceptions toward such policies, which means they would be likely to support the implementation of class-based measures.

Practical Significance

Educational research is characterized by works that are specifically geared toward improving policy and practice. Such research must be interested in considerations of use and practical outcome (Whitty, 2006). Research intended to inform policy and practice should have applied relevance; it should demonstrate practical significance. Practical significance evaluates whether or not results have meaning (Bothe & Richardson, 2011; Thompson, 2002).

This study was a determined effort to have implications beyond being a mere exercise in academic discourse. In attempting to influence research, policy, and practice process as a whole, the findings in this study were noteworthy and applicable for stakeholders and policymakers. Although statistics cannot determine real meaning, Cohen's f^2 for both criterion variables validated any argument pertaining to the meaningfulness of this study. This study had real meaning as it pertains to the pursuit of educational policy and societal change because the effect sizes were large enough that policymakers outside academia can observe the effect.

Final Thoughts and Recommendations

When I began research on this topic in 2006, I held a strong conviction that class-based measures could be an engine to increase educational attainment and social mobility for economically disadvantaged students. Over the past decade, the landscape of affirmative action has shifted via Supreme Court decisions and the states' handling of affirmative action policies. What an opportune time it was to be interested in such policies. In this particular study related to class-based affirmative action measures, I expected high school principals in the State of Georgia would tend to favorably perceive such measures. Likewise, I expected the selected predictor variables to, in some ways, explain the variance in perceptions among principals as they relate to racial/ethnic and class-based affirmative action measures. Based on the findings and knowledge that perceptions directly influence a person's behavior according to the TRA, I concluded high school principals in Georgia would support class-based affirmative action measures post-secondary admissions preferences. Likewise, the study showed principals' age and gender are the two significant predictors of their likelihood to support such measures.

Gaertner and Hart (2013; 2015) suggested class-based affirmative action measures have secured diversity and increased access for students from economically disadvantaged backgrounds. This study indicated educational stakeholders would likely support such measures in Georgia. Nothing is absolute, however. An officially adopted policy of class-based affirmative action would be challenged. Class-based affirmative action is not perfect and future research will certainly produce a more effective iteration of affirmative action.

Although I found principals (educational stakeholders and policy advocates) in Georgia would tend to support class-based affirmative action measures, such finding must be taken in light of Georgia's existing HOPE Scholarship program. The scholarship is merit-based and it

provides money to assist students with the educational costs of attending colleges/universities in the State of Georgia. Although HOPE scholarship provides financial assistance to the state's residents who are attending college in Georgia, the scholarship program has never been supported as a needs-based financial assistance program. As it relates to class-based affirmative action in Georgia, such an actuality raises important questions over whether or not admissions preferences in Georgia would actually be accepted. The findings of this study suggest it would, but the reality of HOPE scholarship indicates it would be met with resistance and might not be an accepted policy.

If policy stakeholders support class-based affirmative action and it is going to be a widely adopted policy in Georgia and, potentially, among other states, there needs to be consensus on how to operationalize such measures. Literature presents a number of existing/proposed operations: (a) data estimating family income through ZIP codes in conjunction with test scores; (b) family income as reported by tax returns; (c) wealth as defined by tangible assets including stocks, mutual funds, and real estate; (d) first generation college student; (e) parents' educational attainment; (f) whether or not a student lives in a high crime neighborhood or has been a shooting victim; (g) single-parent home; h) vital secondary school statistics such as the percentage of students enrolled in free or reduced priced meal programs, average student test scores, and percentage of students who attend four-year colleges; (i) students who attended a low performing high school; (j) average SAT/ACT scores at the student's high school compared to the student's own score; (k) statistics on average income by ZIP code and/or school district; (l) number of family members; (m) job and family responsibilities; (n) exceptional circumstances; (o) language primarily spoken in the applicant's home; (p) ability to overcome hardship (Geartner & Hart, 2013; Goldsmith, 2010; Kahlenberg, 2003; McDuff & Potter, 2014). The

University of Colorado's formal class-based affirmative action program uses an *Overachievement Index* measuring extent to which an applicant's academic credentials exceed those of students with similar socioeconomic backgrounds. It also uses a Disadvantage Index accounting for parents' education, family income, number of dependents in the family, native language, rural high school, percentage of students receiving free or reduced priced lunch at the applicant's high school, student/teacher ratio at high school, and the size of the twelfth-grade class (Gaertner & Hart, 2015). Future research needs to support clearly defined measures for class-conscious admissions preferences.

There are several other recommendations for future research stemming from this study. More data needs to be collected related to the results of existing class-conscious programs at colleges and universities such as the University of California, the University of Florida, the University of Washington, the University of Texas, and the University of Georgia. With knowledge of how principals perceive class-based affirmative action measures, it would also be important to know how college and university presidents, legislators, and members of the Board of Regents of the University System of Georgia perceive such measures. Finally, professional associations such as the Georgia Association of Secondary School Principals and the National Association of Secondary School Principals could lobby legislators and advocate for positive changes that would impact high school graduates from economically disadvantaged backgrounds.

Based on the literature and the findings in this study, it appears class-based affirmative action is a next step. No solution, however, is perfect. It is acknowledged that class-based measures may not be the perfect long-term solution. Future related research might show there is a better answer. If Goldsmith (2010) is correct—universities are the major pathway to power and

privilege because education transcends intergenerational economic disadvantage—it is incumbent that access is created and educational attainment is achieved for students from disadvantaged backgrounds. At this moment, class-based affirmative action is a tangible solution. Continuing research, though, to find effective educational solutions to problems of poverty is imperative.

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APPENDIX A

Use of the Term *Race/Ethnicity*

The terms *race* and *ethnicity* are commonly used synonymously. There is, however, a distinction between terms and a discussion was warranted for this study due to the nature of research and questions posed related to one's identity. According to Hirschman (2004), *race* is a fixed biological category that is inherited from generation to generation. It primarily refers to an individual's skin color, but also relies on other physical characteristics such as bone structure, eye color, and hair color/type. It assumes that aspects of physical appearance—phenotype—are external manifestations of innate traits such as belief systems, propensities for certain behaviors, and other sociocultural characteristics. Although the definition of *race* is wholly inadequate, the term remains central to American discourse on society. The term *race* is still widely accepted in the media, in literature, and by the public as it relates to differences among people groups. *Ethnicity* is a more exhaustive term. It is explicitly subjective and candidly considers sociocultural characteristics. It allows individuals to ascribe their beliefs and actions to cultural heritage. It is a form of identity where one considers ancestry, nationality, regional culture, and language. *Ethnicity* recognizes multiple ancestries and heterogeneity while remaining a term that considers physical differences in appearance a significant marker among people groups. *Ethnicity* compared to *race*, however, is a much less commonly used and understood term.

Regardless of the term used, the concept of identification is an important dimension of human differentiation. Persons tend to classify themselves in the category that most closely reflects recognition in their community. An individual's response to questions regarding *race* or

ethnicity generally measures identity rather than ancestry (Hirschman, 2004). Because the distinction between race and *ethnicity* is so confounding and there is no exclusively established use of *race* or *ethnicity* in society and scholarly lexicon, the terms were used in conjunction with one another in this study—*race*/*ethnicity*. This was done in an effort be mutually inclusive and to allow readers and respondents to establish their identity in terms of the options presented.

APPENDIX B

Survey Instrument

Perceptions of Class-Based Affirmative Action

START HERE

1 To what extent do you disagree or agree with the following statements? Circle one for each statement.

	Strongly Disagree	Somewhat Disagree	Somewhat Agree	Strongly Agree
Race-based affirmative action in college/university admissions is an important educational policy concern	1	2	3	4
Preferential treatment in college/university admissions to redress past discrimination is morally appropriate	1	2	3	4
When used, race-based affirmative action measures in college/university admissions effectively compensate for past discrimination	1	2	3	4
Race-based affirmative action guidelines should apply to college/university admissions	1	2	3	4
In your opinion, race-based affirmative action is constitutional	1	2	3	4
I support the use of race-based affirmative action in the college/university admission process	1	2	3	4
Class-based affirmative action in college/university admissions is an important educational policy concern	1	2	3	4
Class-based affirmative action in college/university admissions is a viable addition/alternative to race-based measures	1	2	3	4
Preferential treatment for students in education based on socioeconomic background is morally appropriate	1	2	3	4
Class-based affirmative action in college/university admissions would increase educational attainment for students from lower-socioeconomic backgrounds	1	2	3	4
Class-based affirmative action in college/university admissions would help individuals from poverty-stricken backgrounds exit the cycle of poverty	1	2	3	4
I would support the use of class-based affirmative action in college/university admissions	1	2	3	4

2 What is the total number of students enrolled at your high school? Fill in the blank.

_____ students enrolled

3 What percent of students at your school are on free and reduced priced lunch? Fill in the blank.

_____ % of students

4 **What is the most common race/ethnicity at your school?** Mark one.

- O White
- O Black
- O Latino
- O Asian
- O Other

5 **To which State of Georgia RESA geographic district does your school belong?** Mark one.

- O Central Savannah River
- O Chattahoochee-Flint
- O Coastal Plains
- O First District
- O Griffin
- O Heart of Georgia
- O Metro
- O Middle Georgia
- O North Georgia
- O Northeast Georgia
- O Northwest Georgia
- O Oconee
- O Okefenokee
- O Pioneer
- O Southwest Georgia
- O West Georgia

6 **What is your gender?** Mark one.

- O Male
- O Female

7 **What is your highest attained degree?** Mark one.

- O Bachelor's
- O Master's
- O Specialist
- O Doctorate

8 **What is your race/ethnicity?** Mark one.

- O White
- O Black
- O Latino
- O Asian
- O Other

9 **How are you registered to vote?** Mark one.

- O Democrat
- O Republican
- O Other

10 **As of your last birthday to date, what is your age?** Fill in the blank.

_____ years old

END OF QUESTIONNAIRE

APPENDIX C

Expert Panel

Gayle McLaurin, Ed.D.
Adjunct Professor, Piedmont College
Director, Office of Assessment
Cherokee County School District, GA

Jay W. Rojewski, Ph.D.
Professor, Career and Information Studies
The University of Georgia
Instructor, Educational Research in Workforce Education
Instructor, Research Development in Workforce Education

Kristen Sayeski, Ph.D.
Assistant Professor
Communication Sciences and Special Education
The University of Georgia

APPENDIX D

Pre-Notice Letter

4285 Bridgeton Court
Suwanee, GA 30024

June 16, 2014

Principal,

A few days from now you will receive in the mail a request to complete a brief questionnaire for an important study. The survey will take you less than five minutes to complete and its results will be made available to you upon completion of the study. I am conducting this study as a doctoral candidate at the University of Georgia under the direction of Dr. John Mativo.

My study seeks to determine perceptions of principals as they relate to class-based affirmative action and admissions preferences in colleges/universities.

I am writing in advance because it has been found many people like to know ahead of time that they will be contacted. This study is important because it will provide much needed information about stakeholder (such as yourself) perceptions related to policy that could impact educational attainment for students from lower socio-economic backgrounds.

Your response will be entirely anonymous. Likewise, your participation in this study will be completely voluntary. You should be aware of the policies and procedures within your school district for participation in studies and your participation should be consistent with those policies. Thank you for your time and consideration. It's only with the generous help of people like you that my research will be successful.

Sincerely,

Zach Smith
Doctoral Candidate
The University of Georgia

APPENDIX E

Cover Letter

4285 Bridgeton Court
Suwanee, GA 30024

June 23, 2014

Principal,

I am writing to request your help in a study of principals' perceptions. I am conducting this study as a doctoral candidate at the University of Georgia under the direction of Dr. John Mativo. This research study is part of an effort to learn about perceptions related to class-based affirmative action and the variables that are associated with those perceptions. You have received this mailing because research shows principals are important stakeholders in educational policy. I am surveying all current high school principals in the State of Georgia.

Results from this study will be used to determine the disposition of high school principals toward class-based affirmative action in admissions to colleges/universities. Class-based affirmative action is defined as any policy used to redress issues of social and educational inequity facing impoverished individuals. Most notably, it would give preference to students from poverty in higher education admissions. Class-based affirmative action is a possible solution to problems of generational poverty by increasing the educational attainment of students from poverty-stricken backgrounds. Furthermore, it is a current issue in educational policy regarding the Supreme Court's decision to uphold the ban of race/ethnicity-based admissions preferences in the State of Michigan.

Your response is entirely anonymous. Your response will in no way identify you, your school, or school district. When you complete your questionnaire, please return it in the stamped and labeled envelope. Likewise, please separately return the stamped postcard indicating your questionnaire has been completed. Doing so will ensure anonymity and will also allow me to remove you from the mailing list.

The only foreseeable risk or discomfort associated with participation is responding to potentially sensitive questionnaire items. That risk, however, is eliminated by anonymity. The benefits of participating include contributing to field of educational research, contributing to a study that could be used to influence educational policy, and receiving access to the study's results.

Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. Also, you should be aware of the policies and procedures within your district for participation in studies and your participation should be consistent with those policies.

Completion of the survey will take less than five minutes. I have included a $1 token of appreciation as a very small way of saying thanks for your help. Finally, an executive summary of results from this study will be provided to all participants.

Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, Boyd GSRC, Athens, Georgia 30602; (706) 542-3199; irb@uga.edu.

By completing and returning this questionnaire in the envelope provided, you are agreeing to participate in the above described research project. If you have any questions or comments about the study, I would be happy to speak with you. My telephone number is 770-309-2447, my email address is zachthomassmith@gmail.com, or you can write to me at the address in the letterhead. Thank you for your time and participation.

Sincerely,

Zach Smith, Doctoral Candidate
The University of Georgia

Enclosures (2)

APPENDIX F

Anonymity Postcard

This postcard is being returned to let you know that my questionnaire has been completed and returned in a separate envelope.

Please print your name or your high school name:

_____

Thank you very much for your help with this important study. I really appreciate it.

Best,

Zach Smith
Doctoral Candidate, The University of Georgia

APPENDIX G

Thank You/Reminder Postcard

4285 Bridgeton Court
Suwanee, GA 30024

June 30, 2014

Principal,

Last week, a questionnaire seeking your perceptions related to class-based affirmative action was mailed to you. You received the questionnaire because you are a current high school principal in the State of Georgia. The questionnaire response method is entirely anonymous and you, your school, or your school district will not, in any way, be identified.

If you have already completed and returned the questionnaire, please receive my most sincere thanks. If not, please do so today. I am especially grateful for your help because the success of this study will only be achieved with the help of people like you.

If you did not receive the questionnaire, or if it was misplaced, please call me at 770-309-2447 or email me at zachthomassmith@gmail.com. I will get another one in the mail to you today. Thanks, again.

Best,

Zach Smith
Doctoral Candidate
The University of Georgia

APPENDIX H

Resolute Cover Letter

4285 Bridgeton Court
Suwanee, GA 30024

July 14, 2014

Principal,

About three weeks ago, as part of a research study, I sent a questionnaire that asked about your perceptions related to class-based affirmative action in the college/university admissions process. To the best of my knowledge, your survey has not yet been returned.

The responses of people who have already completed the questionnaire are valued and much appreciated. I am writing again because of the importance that your questionnaire has for providing significant results. Although I sent a mailing to every principal in the State of Georgia, I have not yet received enough responses to produce a generalizable sample so the results are truly representative.

A few people have written or called to let me know they are no longer principals in the State of Georgia. If this concern or any other applies to you, please let me know on the questionnaire and return it in the enclosed envelope so I can delete your name from the mailing list.

An anonymity postcard is included with your unique identification number. This postcard ensures that you, your school, and your school district are entirely anonymous in this process. My receipt of this postcard allows me to know that you have completed the questionnaire. Your name will then be removed from the mailing list.

As a reminder, your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. You should be aware of the policies and procedures within your school district for participation in studies and your participation should be consistent with those policies. Completion of the survey will most certainly take less than five minutes, and an executive summary of results from this study will be provided to all participants.

The only foreseeable risk or discomfort associated with participation is responding to potentially sensitive questionnaire items. That risk, however, is eliminated by anonymity. The benefits of participating include contributing to field of educational research, contributing to a study that could be used to influence educational policy, and receiving access to the study's results.

By completing and returning this questionnaire in the envelope provided, you are agreeing to participate in the above described research project. I hope that you will complete and return the questionnaire soon. If for any reason you prefer not to respond, please let me know by returning a note or the blank questionnaire in the enclosed stamped envelope. If you have any questions or comments about the study, I would be happy to speak with you. My telephone number is 770-309-2447, my email address is zachthomassmith@gmail.com, or you can write to me at the address in the letterhead.

Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia IRB, Boyd GSRC, Athens, Georgia 30602; (706) 542-3199; irb@uga.edu. Thank you for your time and consideration.

Sincerely,

Zach Smith
Doctoral Candidate
The University of Georgia

Enclosures (2)

APPENDIX I

Relaxed Cover Letter

4285 Bridgeton Court
Suwanee, GA 30024

August 11, 2014

Principal,

During the last two months, I have sent you several mailings about an important research study I am conducting at the University of Georgia.

The purpose of this study is to determine the disposition of policy stakeholders toward class-based affirmative action in college/university admissions. This study is drawing to a close and this is the last contact that will be made.

I am sending this final contact by priority mail because of my concern that people who have not responded may have had different experiences than those who have. Hearing from you in this statewide study helps assure that the survey results are as accurate as possible. If you feel that I have made a mistake by including you in this study, please let me know by returning the blank questionnaire with a note indicating so. This would be very helpful.

An anonymity postcard is included with your unique identification number. This postcard ensures that you, your school, and your school district are entirely anonymous in this process. My receipt of this postcard allows me to know that you have completed the questionnaire.

The only foreseeable risk or discomfort associated with participation is responding to potentially sensitive questionnaire items. That risk, however, is eliminated by anonymity. The benefits of participating include contributing to field of educational research, contributing to a study that could be used to influence educational policy, and receiving access to the study's results.

Your involvement in the study is voluntary, and you may choose not to participate or to stop at any time without penalty or loss of benefits to which you are otherwise entitled. As a reminder, you should be aware of the policies and procedures within your school district for participation in studies and your participation should be consistent with those policies. Completion of the survey will most certainly take less than five minutes, and an executive summary of results from this study will be provided to all participants.

By completing and returning this questionnaire in the envelope provided, you are agreeing to participate in the above described research project. Questions or concerns about your rights as a research participant should be directed to The Chairperson, University of Georgia Institutional Review Board, Boyd GSRC, Athens, Georgia 30602; telephone (706) 542-3199; email address irb@uga.edu.

Finally, I appreciate your willingness to consider my request as I conclude this effort to better understand policy stakeholder perceptions related to class-based affirmative action. Thank you very much.

Sincerely,

Zach Smith
Doctoral Candidate
The University of Georgia

Enclosures (2)

APPENDIX J

IRB Approval Letter

The University of Georgia

Phone 706-542-3199

Office of the Vice President for Research
Institutional Review Board

Fax 706-542-3660

APPROVAL OF PROTOCOL

June 11, 2014

Dear John Mativo:

On 6/11/2014, the IRB reviewed the following submission:

Type of Review:	Initial Study
Title of Study:	PRINCIPALS' PERCEPTIONS OF COLLEGE/UNIVERSITY ADMISSIONS PREFERENCES AND CLASS-BASED AFFIRMATIVE ACTION
Investigator:	John Mativo
IRB ID:	STUDY00001081
Funding:	None
Grant ID:	None

The IRB approved the protocol from 6/11/2014.

To document consent, use the consent documents that were approved and stamped by the IRB. Go to the Documents tab to download them.

In conducting this study, you are required to follow the requirements listed in the Investigator Manual (HRP-103).

Sincerely,

Larry Nackerud, Ph.D.
University of Georgia
Institutional Review Board Chairperson