THE EFFECTS OF RACIAL SELF-IDENTITY ON COLLEGE GPA AND STUDENT SATISFACTION AT VERY SELECTIVE COLLEGES AND UNIVERSITIES

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A B S T R A C T

DuBois (2007) began a broad and rich tradition of investigating multi-racial identities and interracial relations. Today, much of the empirical research on race takes place at the level of higher education. Racial identities and racial friendship networks in college have been investigated by many researchers. Several researchers have found that interracial interactions positively affect cognitive outcomes and college satisfaction for all students. Yet, studies that have explored the relationship between the attitudes of minority students and educational outcomes have mixed findings. Using data from the National Longitudinal Survey of Freshmen, this study examines how minority students' racial self-identity affects college cumulative GPA and various measures of college satisfaction and whether the effects of self-identity (attitudes) are separate from those of interracial friendship circles (behaviors). Results of this study show that, for Black and Hispanic students, embracing a racial-group identity (Black or Hispanic) or a compound identity (Black-American or Hispanic-American) over identifying primarily as an American does not affect college GPA but does negatively impact some measures of college satisfaction; furthermore, the effects of self-identity are separate from the consequences of having few interracial friendships. Finally, racial identity did not significantly affect Asian student satisfaction or GPA.

Keywords: Race, racial self-identification, higher education, GPA, college satisfaction

INTRODUCTION

Although the percentage of Black and Hispanic students at very selective college campuses has increased dramatically over the past few decades, Black and Hispanic students continue to underachieve academically and report lower levels of college satisfaction even after controlling for several demographic factors (Massey, Charles, Lundy, & Fischer 2003; Massey, Charles, Mooney, & Fischer 2009). Whether minority underachievement is due to a resource-poor environment that disadvantages minorities or if it is due to an academic culture that discriminates against minorities remains in dispute. In their two books based on the National Longitudinal Survey of Freshmen (NLSF), an in depth survey given to students at very selective colleges and universities from 1999 to 2003 that asks about their background and

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college experiences, Massey et al. (2003; 2009) attempt to uncover some of the factors contributing to minority underachievement. Several differences were found between White, Black, Hispanic, and Asian students, some of which affect GPA and college satisfaction, although much remains unanswered. One thing that remains unclear is what we are calling here the DuBois question of racial self-identity on college GPA and college satisfaction. Does it really matter if minority students have primarily a minority racial self-identity, a multi-racial identity, or a majority racial identity?

Massey et al. (2003) mentioned that White students, being the dominant group, often do not have to consider their race as a part of their identity to the extent that minority students do. Minority students, on the other hand, must consider what it means to be a member of their own racial group and confront stereotypes associated with their group (Massey et al. 2003). Massey et al. (2003) found that the stereotypes associated with

each minority group are different. For example, as a whole, the students surveyed in the NLSF gave Asians lower unintelligence and laziness scores than any other racial group while giving Blacks and Hispanics high unintelligence and laziness scores (Massey et al. 2003). Depending on the stereotypes associated with each racial group, racial identity may affect each minority group differently; having a stronger racial identity may affect Black and Hispanic students negatively because there are negative stereotypes associated with their racial group but may affect Asians positively because there are positive stereotypes associated with their racial group.

Helms (1995) also seems to agree that race takes on different meanings for Whites than it does for minorities because she proposed two separate racial identity models for them. For Whites, Helms (1995) argues that the primary developmental issue is "abandonment of entitlement," (p. 184) and for minorities the primary issue is overcoming negative stereotypes and attitudes. Since there are negative stereotypes associated with Blacks and Hispanics and positive stereotypes associated with Asians in terms of academics and work ethic, then it would make sense to suggest that it is more difficult for Blacks and Hispanics to overcome negative stereotypes and develop a healthy racial identity than it is for Asians, which may be the reason why Blacks and Hispanics underachieve while Asians do not.

Massey et al. (2003) also refer to the work of Kluegel and Smith (1986) and Hochschild (1995), which suggest that White students tend to perceive themselves in a more individualistic sense than minority students do, and these individualistic views match the "dominant American ideologies" and lead to greater success academically (p. 133). Thus it makes sense to suggest that minorities may feel, more so than Whites, as though there are certain expectations as to how they should think and behave, and such expectations may affect their attitudes and diversity experiences, which in turn could impact their college satisfaction and success differently than it would impact Whites. The NLSF data show that Hispanic students, and especially Black students, reported prioritizing their racial identity above their American identity at rates much higher than Asian students (Massey et al. 2003). According to Massey et al. (2003) those who prioritized their racial identity over their American identity felt more attached to people of their racial group and less attached to other racial

groups. This could indicate that Blacks and Hispanics may, as a whole, feel less comfortable interacting with diverse peers. Based on the number of interracial friendships reported in the NLSF data, White students, more than any other group, tended to have homogenous friendship circles followed by Black students (Massey et al. 2003). Although the data would suggest that White students lack diversity experiences more than any other racial group, lack of diversity may have different consequences for White students than it would for minority students because Whites do not have to deal with expectations and stereotypes as much as minorities do.

Several studies have suggested that college students can benefit in a number of ways by interacting with people who are of a different race. One suggested benefit is that exposure to diversity tends to directly correlate with positive beliefs about other racial groups and ease of getting along with people of another race while inversely correlating with beliefs that suggest a negative outlook on other racial groups (Bowman 2013; Bowman & Denson 2012). Exposure to racial diversity has also been found to correlate positively with several measures of college satisfaction and, in some cases, emotional well-being (Bowman 2013; Bowman & Denson 2012). Furthermore, several studies have found that interacting with other racial groups is positively correlated with improved cognitive outcomes (Bowman 2010; Denson & Chang 2009). Interracial interaction has also been found to correlate positively with a better understanding of diverse people (Chatman 2008), which is important in an increasingly diverse country.

There are several studies about interracial interactions and how they affect student attitudes, college satisfaction, psychological well-being, and cognitive outcomes (Bowman 2010; Bowman 2013; Bowman & Denson 2012; Chatman 2008; Denson & Chang 2009), but these studies do not look at the effects of students' racial identity. In *Taming the River*, Massey et al. (2009) test the effects of perceived social distance from Whites against college GPA and college satisfaction. The authors found that social distance from Whites had no significant effect on GPA but had a significant and negative effect on college satisfaction (Massey et al. 2009). However, the social distance from Whites variable consists of three very similar factors: closeness to Whites in general, closeness to White men, and closeness to White women (Massey et al. 2003). While a strong minority-racial

identity would most likely correlate to greater social distance from Whites and a more homogenous friendship group to some extent, those who do not feel close to Whites may not necessarily have such a strong racial identity and vice versa; attitudes and behaviors may be two similar but separate things.

Several models have been created to better understand racial and ethnic identity (Atkinson, Morten, & Sue 1993; Cross 1995; Helms 1995; Ruiz 1990; Sellers, Smith, Shelton, Rowley, & Chavous 1998). Some models (Atkinson et al. 1993; Helms 1995) describe racial/ethnic identity development for all minorities while others (Cross 1995; Ruiz 1990; Sellers et al. 1998) are made for specific minority groups, suggesting that the process of racial identity development is different for each minority group and can therefore affect each group differently. Thus it is important to examine these effects on each minority group separately.

Several studies have examined the effects of racial identity on academic performance, especially for African Americans (Awad 2007; Herman 2009; Reid 2013; Spurgeon & Myers 2010; Wright 2009). These studies have mixed findings on the effects of racial identity on GPA and college satisfaction, and these studies each examine racial identity somewhat differently and use different controls. While these studies do address racial identity and how it affects GPA, most of them do not address college satisfaction variables, and none of them control for the effects of interracial interactions. Furthermore, none of the studies address how the students prioritize their racial identity compared to how they prioritize their American identity.

This study explores, for each racial minority group, how students' most important self-identification affects college cumulative GPA and various measures of college satisfaction and whether the effect of racial self-identity is separate from that of interracial interactions.

PREVIOUS RESEARCH ON RACIAL/ETHNIC IDENTITY MODELS

Racial/ethnic identity models: Several racial and ethnic identity development models have been proposed. Helms (1995) proposed separate models, each consisting of several "statuses" (p. 182), for Whites and minorities. Although it is expected that one moves from one developmental status to another in the order described, more than one status can manifest at a time (Helms 1995). For Whites, Helms (1995) suggested that the primary developmental issue is "abandonment of

entitlement" (p. 184) and proposed a model consisting of six statuses. In the first status, Conformity, one is unaware of racism and their contribution to it (Helms 1995). The second status, Disintegration, is characterized by conflict between ingroup loyalty and "humanism" (Helms 1995, p. 185). In the third status, Reintegration, one has a positive attitude toward Whites and a negative attitude toward outgroups (Helms 1995). In the fourth status, Pseudoindependence, one becomes committed to their ingroup and somewhat tolerant of outgroups (Helms 1995). In the fifth status, Immersion/Emersion, one chooses to develop an understanding of racism and how he or she benefits from it (Helms 1995). Helms (1995) characterizes the final stage, Autonomy, as "self-definition" based on "internal" (p. 185) rather than external standards and rejection of actions that result in racially oppressing others.

For people of color, Helms (1995) suggested that the primary developmental issues are overcoming negative stereotypes associated with one's racial group and overcoming negative attitudes toward oneself and one's ingroup. Helms (1995) proposed a model consisting of five "statuses" (p. 182). The first, Conformity (pre-encounter), is characterized by idealization of White standards and devaluation of one's racial group (Helms 1995). In the second status, Dissonance, one questions their commitment to their racial group and their self-definition in terms of race (Helms 1995). The third status, Immersion/Emersion, is characterized by self-definition based on ingroup standards, commitment to the ingroup, and rejection of White standards (Helms 1995). The fourth status, Internalization, is characterized by self-definition based on internal standards and formation of "objective responses" to "the dominant group" (Helms 1995, p. 186). The final status, Integrative Awareness, is characterized by having a positive attitude toward one's "collective identity" and empathizing with other "oppressed groups" (Helms 1995, p. 186).

Atkinson et al. (1993) also proposed a Minority Identity Development (MID) Model consisting of five stages. Stage one, Conformity, is characterized by depreciation of oneself, one's racial group, and other minority groups while idealizing the dominant group (Atkinson et al. 1993). Atkinson et al. (1993) characterize stage two, Dissonance, as a conflict between "appreciating and depreciating" (p. 34) one's racial group, other minority

groups, and the dominant group. Stage three, Resistance and Immersion, is characterized by commitment to one's racial group, rejection of the dominant group, and conflict between empathy toward other minority groups and ingroup loyalty (Atkinson et al. 1993). In stage four, Introspection, one questions the basis and nature of their attitudes toward the self, their ingroup, other minority groups, and the dominant group (Atkinson et al. 1993). Atkinson et al. (1993) characterize stage five, Synergetic Articulation and Awareness, as sustained appreciation toward oneself, one's ingroup, and other minority groups in addition to "selective appreciation" (p. 34) toward the dominant group.

Other proposed racial identity models are specific to different minority groups. Cross (1995) proposed a revised "Nigrescence model" (p. 96) consisting of five stages describing the development of African American racial identity. According to Cross (1995), the Pre-encounter stage is often characterized by "low-salience attitudes" (p. 98) toward race in which one places little emphasis on being Black. Some in this stage view race as a problem related to discrimination (Cross 1995). Others in this stage hold "anti-Black attitudes" (Cross 1995, p. 99). According to Cross (1995), those in the Pre-encounter stage tend to be "miseducated" (p. 99) regarding the role of African Americans in United States history and favor a Eurocentric point of view. Cross (1995) suggested that these individuals tend to believe that Black people's problems are "'self-made'" and could be resolved if they "became part of the system" (p. 102). In the Encounter stage, one tends to hold "Afrocentric" points of view and identify as "Black American" (Cross 1995, p. 106). The Immersion-Emersion stage has two components. In the Immersion component, one becomes "immersed" (Cross 1995, p. 107) in Black issues and culture and tends to reject "Whiteness" (p. 107). In the Emersion component, one begins to focus more seriously on issues related to being Black rather than immersion in Black culture (Cross 1995). The Internalization stage is characterized by a "new identity" (Cross 1995 p. 113) that "gives high salience to Blackness" (p. 113). According to Cross (1995), this "new identity" (p. 113) serves three main purposes. One is protection from racist insults, the second is to "provide a sense of belonging," (Cross 1995, p. 113) and the third is to help one deal with situations "beyond the world of Blackness" (p. 113). The final stage, Internalization-Commitment, is similar to the Internalization stage, but individuals in this stage demonstrate a higher level of commitment than those in the Internalization stage (Cross 1995). This model was used to develop the Cross Racial Identity Scale (CRIS), which consists of forty items divided into six subscales: Pre-encounter-assimilation, Pre-encounter-miseducation, Pre-encounter-self-hatred, Immersion-emersion, Internalization Afrocentricity, and Internalization multiculturalist (Vandiver, Cross, Worrell, & Fhagen-Smith 2002).

Another model specific to African Americans is the Multidimensional Model of Racial Identity (MMRI), which consists of four dimensions (Sellers et al. 1998). The first dimension, "salience," (Sellers et al. 1998, p. 24) refers to "the extent to which race is relevant to one's self-concept" (p. 24) in a specific situation. The second dimension, "centrality," (Sellers et al. 1998, p. 25) refers to how one consistently "defines himself or herself with regard to race" (p. 25) across varying situations. "Centrality" also deals with the importance of one's racial identity compared to other identities such as gender (Sellers et al. 1998). The third dimension, "regard," (Sellers et al. 1998, p. 26) refers to the extent of one's appreciation or depreciation of one's race. Sellers et al. (1998) also discuss "public regard," (p. 26) which refers to the "extent to which one feels others view African Americans positively or negatively" (p. 26). The fourth dimension, "ideology," (Sellers et al. 1998, p. 27) refers to how one feels members of their race should behave. Sellers et al. (1998) describe three ideologies. The first is the "nationalist ideology," (Sellers et al. 1998, p. 27) which focuses on the uniqueness of African Americans. The second, "assimilationist ideology," (Sellers et al. 1998, p. 28) focuses on how African Americans are similar to other members of United States society. The third, "humanist ideology," (Sellers et al. 1998, p. 28) focuses on the similarities between all humans. This model, unlike others, focuses much less on the development of racial identity and instead measures one's current racial identity (Sellers et al. 1998).

Ruiz (1990) proposed a five stage ethnic identity model specific to Chicanos, Latinos, and Mexican Americans that describes the development and resolution of ethnic identity conflict. The "casual stage" (Ruiz 1990, p. 4) describes the initial development of this conflict and takes into account experiences, such as encounters with racism, ethnocentrism, classism, parental influences, and traumatic or humiliating events, which cause one to view

their ethnicity in a positive or negative light. Ruiz (1990) focuses on how such events lead to the development of a negative attitude toward one's ethnicity. In the "cognitive stage" (Ruiz 1990 p. 5) one views their ethnicity as a limiting factor and typically holds one of three false beliefs about their ethnicity. One belief is that by maintaining their ethnic identity, he or she will face poverty and prejudice throughout their life (Ruiz 1990). Another belief is that the only way to escape poverty and prejudice is to assimilate (Ruiz 1990). Similarly, the third belief is that one must assimilate in order to be successful (Ruiz 1990). The "consequence stage" (Ruiz 1990, p. 6) is characterized by "fragmentation" (p. 6) of one's ethnic identity where the individual rejects and denies aspects of their ethnic identity. In this stage, one tends to take on an "alien ethnic identity" (Ruiz 1990, p. 6) and use defense mechanisms to cope with their ethnic identity conflict. These behaviors often result in rejection from other members of their ethnic group (Ruiz 1990). During the "working through" (Ruiz 1990, p. 7) stage, one realizes that denying their ethnic identity and taking on an "alien ethnic identity" (p. 7) no longer works. This stage is characterized by an increase in ethnic awareness and rebuilding and coming to terms with their ethnic identity rather than idealizing and "embracing" an "Anglo-American" identity (Ruiz 1990, p. 8). The final stage, "successful resolution," (Ruiz 1990, p. 8) is characterized by a positive ethnic identity. Individuals exhibit "harmony" (Ruiz 1990, p. 8) toward other members of their ethnic group and view their ethnic identity as beneficial rather than detrimental.

Empirical studies on racial identity and academic outcomes: Several studies have examined the effects of racial identity on academic performance. One study by Herman (2009) compared the academic performance of mixed race and monoracial high school students. Herman (2009) used two measures of racial identity when assessing mixed race students. One measure, "ancestry," (Herman 2009, p. 27) was based on the race of the students' biological parents, and the other, "identification," (p. 27) addressed how students self-identified in terms of race. Herman (2009) compared the academic performance of students in the same biracial category who self-identified differently and found that students who identified as Black or Hispanic tended to have lower grades than those who identified as White or Asian. Herman (2009) concluded that

ancestry is not significantly related to grades, but self-identifying as Black or Hispanic, or even as White for White-Asian students, negatively impacted grades. Although this study addresses the impact of racial self-identification, it does not address how these students prioritize their racial identity with respect to their American identity and does not control for interracial interactions.

Other studies assessed racial identity using scales based on Cross' (1971; 1995) "Nigrescence" (p. 93) models. One study by Awad (2007) examined the effect of racial identity, academic self-concept, and self-esteem on GPA and GRE verbal scores for African American college students. Awad (2007) found academic self-concept to be the only predictor of grades and concluded that racial identity has no direct impact on grades. Awad (2007) suggested that racial identity may indirectly impact grades by working through academic self-concept. Reid (2013) and Spurgeon and Myers (2010) used versions of the Racial Identity Attitude Scale (RIAS). Reid (2013) examined the relationship between African American males' success at predominantly White research universities and self-efficacy, racial identity attitudes, and institutional integration. Reid (2013) found that only academic self-efficacy and academic integration positively correlated with GPA. Regarding racial identity, Reid (2013) found that students who "had a positive and stable Black identity" (p. 85) (that is, whose attitudes resembled the Internalization subscale of Cross' model) tended to have higher GPAs. These students were also more likely to benefit from interacting with professors and peers while students who were in the Immersion/Emersion stage did not benefit as much. Reid (2013) also mentioned that those with less homogenous friendship circles tended to perform better academically. Reid (2013) implied that there was an indirect link between racial identity and GPA. Spurgeon and Myers (2010), using a longer version of the RIAS scale to assess racial identity, examine how racial identity, well-being, type of college (predominantly White or historically Black), and the success of African American males are related. Spurgeon and Myers (2010) defined success as completing two or more years of college and found that students attending predominantly White colleges tended to score higher on the Internalization subscale than those attending historically Black colleges. The authors concluded that Black males attending predominantly White universities

tended to commit to a Black identity and participate in activities that maintained this identity (Spurgeon & Myers 2010). Spurgeon and Myers (2010) found no relationship between racial identity and well-being.

Wright (2009) reviewed several studies relating to academic achievement and racial identity in African American males. One study by Oyserman, Harrison, and Bybee (2001) found that a positive racial ethnic identity benefitted academic performance, but a racial/ethnic identity that only focused on the identity itself rather than its connection to society could negatively affect academic performance (Wright 2009). Chavous, Bernat, Schmeelk-Cone, Caldwell, Kohn-Wood, and Zimmerman (2003), using the Multidimensional Model of Racial Identity, found that students with a negative regard, negative public regard, and little connection to their racial group were most likely to drop out and to have negative academic attitudes (Wright 2009). Students with a positive regard and strong centrality had more positive outlooks on academics and were more likely to attend college (Chavous et al. 2003; Wright 2009). Wright (2009), referring to the work of Wright (2007), stated that if students are "aware of discrimination" (p. 129) but have a positive connection to their racial group, then they were more likely to have positive outlooks on the value of education. While many of these studies address the relationship between academic success and racial identity, none of them control for friendship network diversity, and none of them address how these students prioritize their American identity with respect to their racial identity and how this impacts grades and college satisfaction.

Several studies have researched the effects of interracial interactions on college students. Two studies (Bowman 2013; Bowman & Denson 2012) use data from the National Longitudinal Survey of Freshmen (NLSF) to study these effects on students at elite colleges and universities. In one of these studies, Bowman and Denson (2012) researched the effects of college interracial interactions, "precollege exposure to difference" (p. 412) (direct contact with racial outgroups) and "precollege exposure to heterogeneity" (p. 412) (the likelihood that everyone in the student's high school or neighborhood would interact with someone of a different race), and the interaction between precollege measures and college interactions on several measures of college satisfaction and emotional well-being. The researchers found that

college interracial interactions positively correlate with all measures of satisfaction (Bowman & Denson 2012). Precollege measures alone did not affect any satisfaction variable (Bowman & Denson 2012). The interaction term for precollege exposure to difference positively correlated with satisfaction and well-being (Bowman & Denson 2012). The interaction term for precollege exposure to heterogeneity correlated positively with college satisfaction but not emotional well-being (Bowman & Denson 2012). In another study, Bowman (2013) researched how interacting with people of each racial group affected Black, White, Hispanic, and Asian students in terms of various measures of college satisfaction and student growth. Bowman found that interactions between any combination of racial groups (except for Whites with Asians) positively correlates with college satisfaction, and Asian interaction with any outgroup positively correlates with reported preparation for post-college life and becoming a better person (Bowman 2013). Both of these studies suggest a positive relationship between interracial interactions and various measures of college satisfaction and discuss how such interactions affect students' beliefs about racial outgroups. However, neither of them discuss how racial identity affects college GPA and satisfaction. Furthermore, frequency of interracial interactions is not necessarily an indicator of students' most important racial identity or attitudes toward diverse interactions.

Bowman (2010) also did a meta-analysis of various studies that explored the relationship between experience with diversity and cognitive outcomes. All of the studies used in Bowman's (2010) meta-analysis consisted of either undergraduate students or students reflecting on their undergraduate experiences, had an independent variable regarding a type of college diversity experience, had a dependent variable that measured cognitive skills (thinking, reasoning, and processing abilities) or cognitive tendencies ("inclination toward certain types of thinking"), (p. 6) and provided statistics regarding the degree to which the independent variables affected cognitive outcomes. Bowman's (2010) meta-analysis suggests that college diversity experiences, which include interracial interactions, diversity coursework, diversity workshops, and interactions with others who are diverse in ways other than race, have a positive effect on cognitive outcomes. Although this study did cover cognitive outcomes, it did not cover college GPA as an outcome,

and it did not cover the effects of students' most important identity.

Chatman (2008) explored how campus diversity (in terms of race/ethnicity, socioeconomic status, religion, immigrant status, and political views) affected about 58,000 students' understanding of those who are different from them and their sense of belonging on University of California campuses. Chatman (2008) studied the relationship between frequency of diverse interactions and increased understanding of diverse people, and he studied the correlation between increased understanding and group characteristics, size, and campus composition. Chatman (2008) found that students often reported increased understanding of others as a result of interacting across racial/ethnic lines (Chatman 2008). Although this study implies that diverse interactions can improve one's understanding of others, it does not address how the frequency of diverse interactions improves one's college satisfaction through sense of belonging. This study also does not address how such interactions affect college grades, and it does not study the effects of students' most important identity.

Denson and Chang (2009) explored the relationship between diversity and general academic skills using data from 20,178 students from 236 institutions who provided information via the Student Information Form from their first year and the College Student Survey (CSS) from their fourth year. Denson and Chang (2009) found that participation in diversity workshops or diversity related classes or interaction with students of a different race was positively correlated with reported general academic skills (Denson & Chang 2009). Regardless of the students' experiences with diversity, attending an institution with higher levels of participation in diversity workshops or diversity related classes positively correlated with general academic skills (Denson & Chang 2009). Like other studies mentioned, this study does not discuss the effects of most important identity on GPA and college satisfaction.

Studies exploring a relationship between student attitudes and actualization of their attitudes are also relevant because this study is based in part on minority students' attitudes regarding their most important identity being separate from interracial interactions. Downey, Ainsworth, and Qian (2009) addressed three issues regarding the paradox of Black students' strong pro-school attitudes yet poor achievement. The first issue Downey et al. (2009) address is based on Mickelson's (1990) "key proposition" (p. 2) which suggest that Black students' pro-school attitudes are not credible because they are "abstract attitudes" (p. 2) that do not predict success and that Black students lack the "concrete attitudes" (p. 2) that predict success. Downey et al. (2009) test whether this "key proposition" (p. 2) holds true nationwide. The second issue Downey et al. (2009) address is whether Black students' attitude-achievement patterns are different from those of other minority groups. The third issue Downey et al. (2009) address is whether social conditions and availability of "strategic resources" (p. 5) affect attitude-achievement patterns in Black students (Downey et al. 2009). Downey et al. (2009) used data from the National Educational Longitudinal Survey, which consisted of 7,739 White students, 1,065 Black students, 1,419 Hispanic students, 779 Asian students, and 122 Native American students who were all around 26 years old when they finished the survey. Downey et al. (2009) researched how attitudes toward the future, attitudes toward teachers, attitudes toward school rules, and perception of how others viewed them affected educational attainment and also explored the effects of an interaction term between these test variables and race on educational attainment. The researchers controlled for socioeconomic status, type of high school, family structure, money saved for college, and number of times students changed schools. For most test variables, Downey et al. (2009) found that Black students exhibit more positive attitudes compared to White students (except for agreeing that discipline was fair) and that many of the attitudes Black students supported predict educational attainment. Thus, according to Downey et al. (2009), Mickelson's (1990) "key proposition" (p. 2) was not supported at a national level by this study. After adding control variables, only the interaction between Asian students and being a good student was significant (Downey et al. 2009). These results suggest that Black students' attitude-achievement patterns are not significantly different from other racial groups. All control variables were found to be significant, suggesting that the social conditions Black students face may make it more difficult for them to actualize their pro-school attitudes (Downey et al. 2009). Although this study investigated the relationship between attitudes and actualization of these attitudes, it did not explore racial identity and how it affected GPA and college satisfaction.

ANALYTIC STRATEGY, DATA, AND METHODS

The present study uses the National Longitudinal Survey of Freshmen (NLSF) as the data set, which consists of students from 28 elite colleges and universities who were first interviewed in 1999 and were interviewed again during each spring semester until spring 2003 (Massey et al. 2003). The students had to be first time freshmen who were US citizens or resident aliens (Massey et al. 2003). 4,573 students were approached, but only 3,924 completed the entire survey. The final sample of students consisted of 998 Whites, 1,051 African Americans, 916 Hispanics, and 959 Asians (Massey et al. 2003). This study looks only at the students who completed the survey. This data set is ideal for this study because it contains large, relatively even samples of each of the four major racial groups in the United States so that no group is underrepresented. This data set asks the students extensive questions regarding their attitudes toward themselves, people of their racial group, attitudes toward people of other races and social classes, academic achievement, and college satisfaction in addition to questions regarding many aspects of their precollege environment and college experience, which will be used as control variables.

The test variables from the NLSF that will be used in this study deal with the students' racial identity. Each student, regardless of their race, who participated in the NLSF were asked which identity they thought Black people should consider most important: their racial identity, their American identity, or both. Each student was asked the same question regarding Hispanics and Asians. Although all students were asked each of these questions, this study will be looking only at the responses that students gave regarding their own race.

Cumulative grade point average as of the students' final undergraduate semester was normalized into a twenty step scale. Each step contained roughly five percent of the responders. The values for the dependent variable, therefore, are not meant to be interpreted as specific grades. The bottom category contains the bottom 6.1% of students, the next step from 6.1% to 9.8%, and so on. Several measures of college satisfaction were used as dependent variables in the data. Students were asked in their final interviews, on a scale of 0 to 10 (with 0 being completely disagree and 10 being totally agree), how satisfied they were with the quality of instruction, how satisfied they were with the friends and acquaintances made in college, how prepared they felt for real world, the

likelihood of them contributing funds to their college, and the extent to which college made them a better person. This study explores whether or not students reported a 10 on original scale for each of these questions.

This study controlled for gender, parents' education, income (quintile 2, or middle class, was left out as the reference group), pursuing a STEM major (as of 2003, linear models only), high school grades (whether or not students made mostly A's, linear model only), college cumulative GPA (binary regression only), type of college the student attended (liberal arts college was left out as a reference group), physical health (measured by whether or not students sought medical treatment for an illness more than once since fall 2002), mental health (measured by whether or not students sought counseling for a mental problem or emotional distress since fall 2002), and having three or fewer interracial friendships during the freshman year of college. The effects of the test variables on cumulative grade point average were analyzed using an ordinary least squares regression. The effects of the test variables on each measure of college satisfaction were analyzed using a binary logistic regression.

There are two hypotheses proposed for this study:

Minority students who prioritize their racial identity will have lower college satisfaction than students who prioritize their American identity because they tend to feel closer to their own racial group and therefore may feel less comfortable with interracial interactions and would have to deal with associated stereotypes and expectations more so than those who do not identify primarily with their racial group. The effects will be more negative for Black and Hispanic students than for Asian students because Blacks and Hispanics have negative stereotypes associated with their racial group while Asian students have positive stereotypes associated with their group.

Minority students who prioritize their racial identity will have a lower college cumulative GPA than those who prioritize their American identity because their individualistic ideologies, which are associated with academic success, are not as strong as those who prioritize their American identity.

FINDINGS

Descriptive results: Table 1 shows a cross tabulation between number of interracial friendships and most important identity for each minority group. The descriptive statistics table (Appendix A) shows means and standard deviations for all variables.

The most important finding from these descriptive statistics is that, according to Table 1, favoring a racial identity often does not mean that students have three or fewer interracial friendships, and, similarly, having three or fewer interracial friendships usually does not mean that the student favors their racial identity. Thus,

attitudes regarding racial identity are separate from diverse interactions and potentially have different effects. However, it is clear from both tables that Black students at elite universities, regardless of which identity they favor, tend to have homogenous friendship networks more frequently than Hispanics and Asians.

Table 1. Percentages for Cross Tabulation of Most Important Identity and Three or Fewer Interracial Friendships for Blacks, Hispanics, and Asians.

Most Important Identity	Blacks		Hispanics		Asians	
	3 or fewer interracial friendships	4-10 interracial friendships	3 or fewer interracial friendships	4-10 interracial friendships	3 or fewer interracial friendships	4-10 interracial friendships
Racial identity	13.60%	4.87%	1.64%	8.69%	0.98%	3.06%
Compound identity	35.94%	35.33%	5.28%	70.42%	19.23%	66.34%
American identity	4.06%	6.19%	0.07%	13.26%	1.31%	9.07%

BINARY REGRESSION RESULTS

Black students: Table 2 shows binary regression results for the effects of the test and control variables on different measures of college satisfaction for Black students. Model 1 shows the effects of the test and control variables on whether or not students agree that their college experience prepared them to deal with the real world. Compared to Black students whose father did not have a bachelor's degree or higher, Black students who had a father with a bachelor's degree or higher were significantly less likely to agree that their college experience prepared them for the real world, and Black students who attended a public college were more likely than Black students who attended a liberal arts college to agree that their college experience prepared them for the real world. Surprisingly, Black students who had three or fewer interracial friendships were 2.308 times more likely to agree that college prepared them for the real world than Black students who had four or more interracial friendships. Black students who identified with a compound identity were .37 times as likely as Black students who prioritized their American identity to feel prepared for the real world.

Model 2 shows the effects of the test and control variables on whether or not the students agree that they plan to contribute funds to their college after graduation. College cumulative GPA was positively correlated with Black students agreeing that they would contribute funds to their college after graduation. Black students who were of a quintile 3 background were more likely than Black students from a quintile 2 background to

agree to contribute funds after graduation. Black students who attended a private research university were less likely than Black students who attended a liberal arts college to agree they would contribute funds to their college. Black students who sought counseling were less likely to agree to contribute funds after graduating than Black students who did not seek counseling. Compared to Black students who prioritized their American identity, Black students who prioritized their racial identity were .285 times as likely to agree to contribute funds while Black students who identified with a compound identity were .25 times as likely.

Model 3 shows the effects of the test and control variables on whether or not the students agree that they are satisfied with the friends and acquaintances they made in college. Compared to Black students from a quintile 2 background, Black students from a quintile 1 background were less likely to agree that they were satisfied with the friends and acquaintances they made in college. Black students who prioritized their racial identity were .389 times as likely as Black students who prioritized their American identity to agree that they were satisfied with the friends and acquaintances they made in college while Black students who favored a compound identity were .437 times as likely.

Model 4 shows the effects of the test and control variables on whether or not the students agree that they are satisfied with the quality of instruction they received in college. Black students who attended a public or a private university were less likely than Black students who attended a liberal arts college to feel satisfied with the quality of instruction they received. Compared to Black students who prioritized their American identity, Black

students who prioritized their racial identity were .11 times as likely to feel satisfied with quality of instruction. The racial identity variables were not found to have a significant effect on whether Black students agreed that their college experience made them a better person. College cumulative GPA positively correlated with Black students agreeing that their college experience made them a better person (data not shown).

Table 2. Binary Logistic Regression on Measures of College Satisfaction for Black Students.

Term	Model 1		Model 2		Model 3		Model 4	
	Beta	Exp (B) (S.E.)	Beta	Exp (B) (S.E.)	Beta	Exp (B) (S.E.)	Beta	Exp (B) (S.E.)
Cumgpa	.048	1.049 (.027)	.078**	1.081 (.029)	.024	1.024 (.019)	.016	1.016(.032)
IncomeQ1	.004	1.004 (.388)	-.185	.831 (.438)	-.623*	.536 (.280)	-.654	.520 (.502)
IncomeQ3	.494	1.639 (.394)	.742*	2.100 (.362)	.066	1.068 (.274)	-.536	.585 (.493)
IncomeQ4	-.427	.652 (1.082)	.153	1.165 (.811)	-.705	.494 (.598)	-.607	.545 (1.094)
IncomeQ5	.850	2.340 (.547)	-.069	.934 (.594)	-.842	.431 (.455)	-.935	.393 (.811)
M≥BA	.048	1.049 (.335)	.370	1.448 (.346)	-.078	.925 (.234)	.520	1.682 (.409)
F≥BA	-.711*	.491 (.348)	-.097	.908 (.362)	-.196	.822 (.244)	-.161	.851 (.399)
Gender	-.070	.933 (.324)	.620	1.859 (.362)	.061	1.063 (.225)	-.537	.584 (.357)
Coll priv	.826	2.283 (.786)	-1.41**	.244 (.474)	-.712*	.491 (.361)	-1.44**	.236 (.507)
coll_pub	1.617*	5.039 (.785)	-.704	.494 (.469)	-.270	.763 (.368)	-1.085*	.338 (.524)
Physhealth	.259	1.296 (.305)	.502	1.652 (.298)	-.192	.825 (.214)	.009	1.009 (.350)
Menthealth	-.795	.452 (.577)	-1.499*	.223 (.645)	-.439	.644 (.341)	.422	1.526 (.484)
b3interracial	.836**	2.308 (.318)	-.041	.960 (.311)	.095	1.100 (.212)	.510	1.666 (.355)
Blackracialid	-.826	.438 (.521)	-1.256*	.285 (.532)	-.945*	.389 (.412)	-2.21*	.110 (.864)
Blackcompoundid	-.996*	.370 (.432)	-1.39**	.250 (.422)	-.828*	.437 (.341)	-.629	.533 (.476)
Constant	-2.882**	.056 (.950)	-1.368	.255 (.715)	0.852	2.345 (.547)	-.518	.596 (.776)

Notes: *: ($p \leq 0.05$), **: ($p \leq 0.01$) (two tailed tests)

Hispanic students: Table 3 shows binary regression results for the effects of the test and control variables on different measures of college satisfaction for Hispanic students. Model 1 shows the effects of the control and test variables on whether or not students agreed that their college experience made them a better person. Compared to Hispanic students who prioritized their American identity, Hispanic students who prioritized their racial identity were .363 times as likely to agree that their college experience made them a better person.

Model 2 shows the effects of the control and test variables on whether or not students agreed that their college experience prepared them to deal with the real world. Compared to Hispanic students who prioritized their American identity, Hispanic students who prioritized their racial identity were .196 times as likely to feel that their college experience prepared them for the real world while Hispanic students who favored a compound identity were .271 times as likely to feel prepared for the real world.

Model 3 shows the effects of the control and test variables on whether or not students agreed they would contribute funds to their college after graduation. Hispanic students who were from a quintile 1 background

were more likely to agree that they would contribute funds compared to Hispanics from a quintile 2 background. Compared to Hispanic students who favored an American identity, Hispanic students who favored a compound identity were .467 times as likely to agree that they would contribute funds to their college.

None of the test variables significantly impacted Hispanic students' satisfaction with friends and acquaintances or quality of instruction, although some of the control variables did (data not shown). Hispanic students who sought counseling were less likely to feel satisfied with the friends and acquaintances they made in college. Hispanic students who sought medical attention more than once since their fall 2002 semester were less likely to feel satisfied with quality of instruction they received.

As can be seen from the descriptive statistics, the frequencies for Hispanics having three or fewer interracial friendships and prioritizing an American identity or a racial identity are very low. The results are significant in the cross tabulations and in the regression models (significance is usually closer to 0.01 than to 0.05), but the authors are less confident in the results for Hispanics than for Blacks due to low frequencies in the descriptive results.

Table 3. Binary Logistic Regression on Measures of College Satisfaction for Hispanic Students.

Term	Model 1		Model 2		Model 3	
	Beta	Exp (B) (S.E.)	Beta	Exp (B) (S.E.)	Beta	Exp (B) (S.E.)
Cumgpa	-.013	.987 (.021)	-.042	.959 (.031)	-.033	.968 (.030)
IncomeQ1	.112	1.119 (.269)	.515	1.674 (.397)	.834*	2.302 (.376)
IncomeQ3	.001	1.001 (.286)	.572	1.772 (.427)	.343	1.409 (.406)
IncomeQ4	.287	1.332 (.414)	.935	2.547 (.593)	.308	1.361 (.611)
IncomeQ5	-.016	.984 (.452)	.556	1.744 (.701)	.170	1.185 (.678)
M≥BA	-.085	.919 (.238)	-.329	.720 (.362)	-.093	.911 (.346)
F≥BA	.149	1.160 (.249)	-.046	.955 (.378)	.385	1.470 (.363)
Gender	.196	1.216 (.207)	.209	1.233 (.312)	.392	1.479 (.304)
coll_priv	-.111	.895 (.337)	.350	1.419 (.587)	-.407	.665 (.449)
coll_pub	.334	1.397 (.358)	.707	2.029 (.596)	-.393	.675 (.479)
Physhealth	-.186	.830 (.225)	-.056	.946 (.342)	-.647	.523 (.353)
Menthealth	-.217	.805 (.287)	-.284	.753 (.454)	.163	1.177 (.403)
h3interracial	.407	1.503 (.402)	.037	1.038 (.547)	-.298	.743 (.587)
Hispanicracialid	-1.015*	.363 (.414)	-1.630**	.196 (.615)	-1.022	.360 (.590)
hispaniccompoundid	-.399	.671 (.295)	-1.307**	.271 (.359)	-.762*	.467 (.375)
Constant	.219	1.244 (.499)	-1.031	.357 (.761)	-1.024	.359 (.673)
Notes: *: (p≤0.05), **: (p≤0.01) (two tailed tests)						

Asian students: The tables for Asian students are not shown in this article[i]. None of the test variables or the control variables significantly impacted whether or not Asian students agreed that their college experience made them a better person or if they felt prepared for the real world. Compared to Asian students from a quintile 2 background, Asian students from a quintile 5 background were more likely to agree that they would contribute funds to their college after graduation and more likely to feel satisfied with the friends and acquaintances they made in college, and Asian students from a quintile 4 background were more likely to agree that they were satisfied with quality of instruction. Compared to Asian students who attended a liberal arts college, Asian students who attended a private institution were less likely to agree that they were satisfied with the friends and acquaintances they made in college, and Asian students who attended a public institution were less likely to feel satisfied with the quality of instruction they received in college. Compared to Asian students who did not seek counseling since their fall 2002 semester, Asian students who sought counseling were more likely to feel satisfied with the quality of instruction they received in college.

As can be seen from the descriptive statistics, the frequencies for Asians having three or fewer interracial friendships and prioritizing an American identity or a racial identity are very low. The results are significant in the cross tabulations and in the regression models (significance is usually closer to 0.01 than to 0.05), but the authors are less confident in the results for Asians than for Blacks due to low frequencies in the descriptive results.

Linear regression results: The linear regression tables are not shown. For all racial groups, none of the test variables significantly impacted college cumulative GPA, although there were some control variables that affected GPA. For all racial groups, attending a private institution positively impacted grades compared to attending a liberal arts college. Majoring in a STEM field positively impacted grades compared to majoring in a non-STEM field for Black and Hispanic students. For Black and Asian students, getting mostly A's in high school positively impacted college GPA. For Hispanic students, having three or fewer interracial friendships negatively impacted grades. For Black students, seeking counseling since the fall 2002 semester positively impacted college cumulative GPA.

Separate linear regression models that included "academic self-concept" (Awad 2007, p. 201) variables were also run since Awad (2007) concluded that such variables impacted GPA for African American college students. Awad (2007) used Reynolds' (1988) Academic Self-Concept Scale. This scale included items related to seven categories of academic self-concept: a grade/effort dimension, study habits/organizational self-perception,

peer evaluation of academic ability, self-confidence in academics, satisfaction with school, self-doubt regarding ability, and self-evaluation with external standards (Reynolds 1988). NLSF variables fitting into these categories that were used in these linear models are listed in Appendix Table B. Although a couple of the variables used to capture academic self-concept negatively affected GPA (agreeing that he or she is doing less well than he or she would like to be for Black students, and not totally agreeing that he or she was a good student in high school for Asian students), none of the test variables were significant after controlling for these variables[ii].

DISCUSSION

The results of this study provide some support for hypothesis 1 because they show that favoring a racial identity, and sometimes even a compound identity, has a negative impact on some measures of college satisfaction for Black and Hispanic students. For Black students at very selective colleges and universities, favoring a racial identity negatively correlates with agreeing to contribute funds to their college, feeling satisfied with friends and acquaintances, and feeling satisfied with quality of instruction while favoring a compound identity negatively correlated with feeling prepared for the real world, agreeing to contribute funds to their college, and feeling satisfied with friends and acquaintances. For Hispanic students, favoring a racial identity negatively correlated with becoming a better person and feeling prepared for the real world while favoring a compound identity negatively correlated with feeling prepared to deal with the real world and agreeing to contribute funds to their college. Most important identity was found to have significant effects on these variables even while controlling for having few interracial friendships in college, suggesting that minority students' attitudes toward their own identity have a separate effect from the diversity of their friendship network.

Reid (2013) stated that African American students who were in the Internalization stage, based on Cross' (1971) Nigrescence model, were more likely to benefit from interacting with professors and peers while those in the Immersion/Emersion stage did not benefit as much. From this statement, it would make sense to say that students in the Internalization stage are more satisfied with their experiences in college since they benefit more from them. Since, in the present study, Black students

who favored a racial identity were less satisfied with some of their college experiences, it is possible that their attitudes toward their racial identity resembled those of the Immersion/Emersion stage rather than the Internalization stage, which could explain why their college satisfaction is negatively affected. Based on the results of the present study, it is also possible that Hispanic students' attitudes toward their racial identity resemble the Immersion/Emersion stage of Helms' (1995) people of color racial identity model, and this could also explain why Hispanic students' college satisfaction is negatively affected.

Furthermore, the separate effect of most important identity and the results of descriptive statistics suggest that racial identity does not determine the diversity of one's friendship group in college; attitudes do not always predict actions. This finding is somewhat contradictory to the Downey et al. (2009) study which shows that Black students' pro-school attitudes predict educational attainment and implies that attitudes predict actualization.

The results of this study also suggest that the effects of most important identity are different for Blacks and Hispanics than they are for Asians. Favoring a racial identity or a compound identity as opposed to an American identity does not affect Asian students like it often does for Black and Hispanic students, thus supporting the idea that the different stereotypes associated with each racial group may cause racial identity to have a different effect on the students. Racial identity and compound identity may affect Blacks and Hispanics negatively because they have negative stereotypes to deal with while Asians do not, although Asian students were not positively affected by a strong racial identity even though they had positive stereotypes associated with them.

One other finding that seems unexpected is that for Black students, favoring a compound identity negatively impacts feeling prepared for the real world, yet having a strong racial identity does not have a significant effect. It would be expected that if a compound identity negatively affected this variable then favoring a racial identity would affect it just as negatively if not more negatively. A similar pattern can be observed for Hispanics agreeing to contribute funds to their college.

Interracial interactions were not found to be significant in most cases, although, for Black students, having three or fewer interracial friendships, surprisingly, was

positively correlated to feeling prepared for the real world. This finding is unexpected because we live in a diverse nation; therefore it would be expected that one would feel less prepared to deal with the real world if they have had fewer interactions with diverse people. This finding is also contradictory to Bowman's (2013) findings that diverse interactions increase college satisfaction.

The findings in this study could suggest that attitudes regarding racial identity and actually having interracial interactions are separate but somewhat related; they both relate to attitudes regarding race and can affect one another, but they have different effects when looked at individually.

The second hypothesis in this study was not supported because the test variables were not found to significantly affect college cumulative GPA. However, for Hispanics, having three or fewer interracial friendships did negatively affect college cumulative GPA, which supports Bowman's (2010) meta-analysis and Denson and Chang's (2009) study which both suggest that diverse interactions positively correlate with improved cognitive outcomes.

This study suggests that most important identity does not directly affect college cumulative GPA, but it is not known whether it affects college GPA in a more indirect way by affecting other factors that do impact college grades. Further research could test the effects of most important identity on the degree to which Black and Hispanic students internalize stereotypes associated with their racial group, which has been found to impact college grades (Massey et al. 2009). This study did not compare each minority group's levels of satisfaction with those of White students because White students were not asked questions regarding most important identity for their racial group. However, further research that examines how minority students with differing views regarding their identity compare to White students in terms of college satisfaction may be helpful. Further research that uses a scale similar to the Cross Racial Identity Scale (but one that instead applies to all minority groups) to determine which stage the students' attitudes toward their racial identity resemble and how this affects their GPA and college satisfaction would also be helpful. This future research could also include more thorough academic self-concept variables as controls. Other limitations of this study are that the data set did not include American Indians and that it is

limited to students attending elite colleges and universities and thus may not represent most college students in the United States.

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[i] Statistical output for Asians available upon request from the authors
[ii] Statistical output for all linear regression models available upon request from the authors

Appendix A. Descriptive Statistics for All Variables

Variable	Mean (S.D.)
Blacks: three or fewer interracial friendships	0.54 (0.5)
Hispanics: three or fewer interracial friendships	0.08 (0.26)
Asians: three or fewer interracial friendships	0.21 (0.41)
Blacks: most important identity racial identity	0.18 (0.39)
Blacks: most important identity compound identity	0.72 (0.45)
Blacks: most important identity American identity	0.1 (0.3)
Hispanics: most important identity racial identity	0.11 (0.31)
Hispanics: most important identity compound identity	0.76 (0.43)
Hispanics: most important identity American identity	0.14 (0.34)
Asians: most important identity racial identity	0.04 (0.2)
Asians: most important identity compound identity	0.85 (0.35)
Asians: most important identity American identity	0.11 (0.31)
Agree that college experience made me a better person	0.48 (0.5)
Agree that college prepared me for the real world	0.12 (0.33)
Agree to contribute funds to college after graduation	0.14 (0.35)
Satisfied with friends and acquaintances made in college	0.38 (0.49)
Satisfied with quality of instruction received in college	0.09 (0.29)
Cumulative college GPA	10.59 (5.79)
Low income (Q1) background	0.17 (0.38)
Middle class (Q2) background	0.44 (0.5)
Upper middle class (Q3) background	0.21 (0.41)
Upper class (Q4) background	0.07 (0.26)
Rich (Q5) background	0.1 (0.3)
Gender	0.58 (0.49)
Attended a private research institution	0.58 (0.49)
Attended a public institution	0.32 (0.47)
Attended a liberal arts institution	0.1 (0.29)
Father earned a bachelor's degree or higher	0.73 (0.45)
Mother earned a bachelor's degree or higher	0.64 (0.48)
Made mostly A's in high school	4.35 (1.66)
STEM major as of spring 2003	0.29 (0.46)
Physical Health	0.31 (0.46)
Mental Health	0.13 (0.34)

Appendix Table B.

Variables	
Name of Variable	**Description of Variable**
Test Variables	
Blacks: most important id racial id (blackracialid)	Dichotomous variable indicating whether or not Black students thought that Black people's racial identity should be most important to them.
Blacks: most important id American id (blackamericanid)	Dichotomous variable indicating whether or not Black students thought that Black people's American identity should be most important to them (left out as reference variable).
Blacks: most important id compound id (blackcompoundid)	Dichotomous variable indicating whether or not Black students thought that Black people's most important identity should be both their American identity and their racial identity.
Hispanics: most important id racial id (hispracialid)	Dichotomous variable indicating whether or not Hispanic students thought that Hispanic people's racial identity should be most important to them.
Hispanics: most important id American id (hispamericanid)	Dichotomous variable indicating whether or not Hispanic students thought that Hispanic people's American identity should be most important to them (left out as reference variable).
Hispanics: most important id compound id (hispcompoundid)	Dichotomous variable indicating whether or not Hispanic students thought that Hispanic people's most important identity should be both their American identity and their racial identity.
Asians: most important id racial id (asianracialid)	Dichotomous variable indicating whether or not Asian students thought that Asian people's racial identity should be most important to them.
Asians: most important id American id (asianamericanid)	Dichotomous variable indicating whether or not Asian students thought that Asian people's American identity should be most important to them (left out as reference variable).
Asians: most important id compound id (asiancompoundid)	Dichotomous variable indicating whether or not Asian students thought that Asian people's most important identity should be both their American identity and their racial identity.
Dependent Variables	
Cumulative GPA (cumgpa)	Student's normalized grade point average as of spring 2003 (their 8th semester) on a scale of 1 to 20 with each step representing roughly 5% of the students. Not to be interpreted as a specific grade point average.
Satisfaction with friends/acquaintances (satfriends)	Dichotomous variable indicating whether or not students totally agree (reported a 10 on the original scale) that they were satisfied with the friends and acquaintances they made during college
Contribute Funds (contributefunds)	Dichotomous variable indicating whether or not students totally agree (reported a 10 on the original scale) that they plan to contribute funds
Better person (better_person)	Dichotomous variable indicating whether or not students totally agree (reported a 10 on the original scale) that their college experience made them a better person

Deal with real world (postcollege)	Dichotomous variable indicating whether or not students totally agree (reported a 10 on the original scale) that their college experience prepared them to deal with the real world
Satisfaction with quality of instruction (satinstruction)	Dichotomous variable indicating whether or not students totally agree (reported a 10 on the original scale) that they were satisfied with the quality of instruction they received at their college.

Control Variables

Gender	Dichotomous variable, 1= female 0=male
Mother's education (M≥BA)	Dichotomous variable indicating whether or not student's mother has a bachelor's degree or above (used in binary logistic regressions)
Father's education (F≥BA)	Dichotomous variable indicating whether or not student's father has a bachelor's degree or above (used in binary logistic regressions)
Attended Public Research Univ. (coll_pub)	Dichotomous variable indicating whether or not student attends a public research university
Attended Private Research Univ. (coll_priv)	Dichotomous variable indicating whether or not student attends a private research university
Attended Liberal Arts College (coll_lib)	Dichotomous variable indicating whether or not student attends a liberal arts college (left out as reference variable)
Income Q1 (lowinc)	Dichotomous variable indicating whether or not students' income background is in the 0-20th percentile (quintile 1 or lower class)
Income Q2 (mdinc)	Dichotomous variable indicating whether or not students' income background is in the 21st-40th percentile (quintile 2 or middle class, left out as reference variable)
Income Q3 (upmid)	Dichotomous variable indicating whether or not students' income background is in the 41st-60th percentile (quintile 3 or upper middle class)
Income Q4 (upper)	Dichotomous variable indicating whether or not students' income background is in the 61st-80th percentile (quintile 4 or upper class)
Income Q5 (rich)	Dichotomous variable indicating whether or not students' income background is in the 81st-100th percentile (quintile 5 or rich)
Mostly A's (mostlya)	Variable on a scale from 1 to 5 indicating whether or not students agree they made mostly A's in high school (linear models only)
Blacks: interracial friendships (b3interracial)	Dichotomous variable indicating whether or not Black students had three or fewer interracial friendships in the first year of college.
Hispanics: interracial friendships (h3interracial)	Dichotomous variable indicating whether or not Hispanic students had three or fewer interracial friendships in the first year of college
Asians: interracial friendships (a3interracial)	Dichotomous variable indicating whether or not Asian students had three or fewer interracial friendships in the first year of college
STEM major (major_stem)	Dichotomous variable indicating whether or not the student majored in a STEM (includes math, biological sciences, and physical sciences) field (linear models only).

Cumulative GPA (cumgpa)	Student's normalized grade point average as of spring 2003 (their 8th semester) on a scale of 1 to 20 with each step representing roughly 5% of the students. Not to be interpreted as a specific grade point average.
Physical Health (Phys_health)	Dichotomous variable indicating whether or not the student sought medical treatment more than once since the beginning of their 2002 fall semester.
Mental Health (menthealth)	Dichotomous variable indicating whether or not the student has seen a counselor since the beginning of their 2002 fall semester.
Effort (effort)	Dichotomous variable indicating whether or not the student reported putting maximal effort into their studies as of spring 2000 (linear models only, an academic self-concept variable)
Uncertain college graduations (prob_grad_college)	Dichotomous variable indicating whether or not students were doubtful they would graduate from college. Those with a "1" did not report that it was "extremely likely" that they will graduate from college as of fall 1999 (linear models only, an academic self-concept variable)
Good Student (goodstudent)	Dichotomous variable indicating whether or not students disagree that they were a good student in high school. Students with a "1" did not report that it was "very true" of them to be a good student in high school as of fall 1999 (linear models only, an academic self-concept variable).
Other students having difficulty too (otherstudentsdiff)	Dichotomous variable indicating whether or not students totally agree that if they are having trouble in school, other students probably are too as of spring 2000 (linear models only, an academic self-concept variable).
Lesswell (lesswell)	Dichotomous variable indicating whether or not students totally agree that they are doing less well in college than they would like to be as of spring 2000 (linear models only, an academic self-concept variable).