

JCSCORE

Journal Committed to Social Change on Race and Ethnicity

The Journal of the National Conference on Race and Ethnicity in American Higher Education

BREAKING DOWN WALLS AND BUILDING BRIDGES: A STUDY OF CROSS-RACIAL INTERACTIONS ACROSS TWO PREDOMINANTLY WHITE CAMPUSES

Tabitha Grier-Reed
University of Minnesota

James Houseworth
University of Minnesota

David Diehl
Vanderbilt University

Journal Committed to Social Change on Race and Ethnicity
Volume 3, Issue 2 | 2017

Copyright © 2017 Board of Regents of The University of Oklahoma on behalf of the Southwest Center for Human Relations Studies.

Permission of the Publisher is required for resale or distribution and for all derivative works, including compilations and translations. Quoting small sections of text is allowed as long as there is appropriate attribution.

Breaking Down Walls and Building Bridges: A Study of Cross-Racial Interactions Across Two Predominantly White Campuses

Tabitha Grier-Reed
University of Minnesota

James Houseworth
University of Minnesota

David Diehl
Vanderbilt University

We examined predictors of self-reported cross-racial interactions (CRIs) by exploring ego networks for 355 Black and White undergraduates at two predominantly White institutions (PWIs). One PWI was 67% White, and the other PWI was only 50% White. Institution, 1st year status, and racial homogeneity of student network were significant predictors of CRI. Students at the less structurally diverse university (that was 67% White) reported fewer CRIs; students with racially homogeneous networks (i.e., where all alters/connections were the same race as each other) also reported fewer CRIs. In contrast, 1st year students reported a higher number of CRIs. Network homophily (i.e., where alters/connections in a network were all the same race as ego--the student him or herself) did not significantly predict CRIs, and neither did parent education or ego's (i.e., the students') race or gender. There was one significant difference by race; however, a higher percentage of White students had racially homogeneous networks. The importance of structural, interactional, and curricular diversity in higher education is discussed.

In a 2016 presidential election season characterized by xenophobia, hate speech, and “build a wall” slogans, this paper explores potential benefits of integration in higher education by examining cross-racial interactions (CRIs) across more and less structurally diverse predominantly White institutions (PWIs). Structural diversity refers to the demographic composition of the student body (i.e., racial make-up). CRIs refer to

interactional diversity; that is, the extent to which students interact with racially different others. We investigate factors that predict students' CRIs.

As microcosms of society, institutions of higher education can provide unique opportunities for understanding increasing diversity in predominantly White settings. PWIs are rooted in White racial ideology, which is in many ways at odds with diversity (Gusa, 2010). This includes a basis in monoculturalism; that is, "the expectation that all individuals conform to one 'scholarly' worldview which stems from . . . beliefs in the superiority and normalcy of White culture" (Gusa, 2010, p. 474-475). This also includes White estrangement (i.e., physical and social distancing from people of color), where racial segregation is a normative part of White racial ideology (Gusa, 2010). The existence of White estrangement is evident in the historical example of "White flight", where Whites fled to suburbs to escape increasing racial diversity in urban areas. The normalcy of White estrangement is also evident in the Bonilla-Silva and Embrick (2007) study of college students, where White participants perceived the absence of interracial interactions as "natural."

Structural diversity is considered necessary but not sufficient for reaping the benefits of diversity (Allport, 1954). Structural diversity offers exposure to different viewpoints and experiences as well as opportunities for cross-racial interaction (CRI). However, the translation of these opportunities into actual outcomes is mediated by various individual and campus level factors such as student openness to diversity (Chang, Denson, Saenz, & Misa, 2006) and/or campus racial climate (Jayakumar, 2008). Even within a diverse campus, students can re-segregate.

Therefore, in line with Gordon Allport's (1954) intergroup contact theory, scholars

have focused on interactional diversity, especially informal interactions that occur outside of class (Gurin et al., 2002). A seminal scholar on the nature of prejudice, Allport (1954) theorized that under the right conditions, contact between minority and majority members of society is the best way to break down prejudice. In fact, prejudice and bias reduction is the benefit of interactional diversity that has probably received the most scholarly attention. Other primary areas of focus include cognitive and academic benefits, and social and civic benefits of interactional diversity.

Research in this area has consistently found an association between cross-racial interactions (CRIs) and lower levels of intergroup prejudice (Gottfredson et al., 2009; Pettigrew & Tropp 2005; Pettigrew & Tropp 2006). More specifically, CRI has been associated with greater cultural understanding (Antonio, 2001; Gurin et al., 2003), increased comfort interacting with people from other races (Engberg & Hurtado, 2011), and reduced perceived social distance between racial groups (Bowman, 2013). For instance, students who have diverse interactions in college are more likely to seek out diverse environments after graduating (Gurin, 1999; Jayakumar, 2008). Interestingly, prejudice reduction may differ by race. A meta-analysis by Tropp and Pettigrew (2005) found that CRI was more strongly associated with prejudice reduction among White students than among students of color.

There is also a robust set of findings connecting interactional diversity with academic and cognitive gains. For example, research has found associations between CRIs and academic skills (Luo & Jamieson-Drake, 2009), academic self-concept (Denson & Chang, 2009) and cognitive skills (Denson & Zhang, 2010). In a meta-analysis, Bowman (2010) found that interaction with racial diversity was more strongly

associated with cognitive growth than same-race interaction. In addition, research suggests that there are indirect academic benefits that flow from CRIs in the form of sense of belonging (Locks et al., 2008), satisfaction at college (Bowman, 2013), and increased retention (Chang, 1999).

Other research has found an association between interactional diversity and social and citizenship related outcomes. Jayakumar (2008), for example, found that CRI in college was associated with a pluralistic orientation and continued CRI six years after college. Other work has described links between CRI and leadership and teamwork skills (Luo & Jamieson-Drake, 2009), open-mindedness and self-questioning (Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996), and civic development (Nelson Laird et al., 2005). Interestingly and unlike the research related to prejudice reduction, the link between CRI and civic engagement seems to be similar for students across racial and ethnic backgrounds (Bowman, 2011).

Notably, but perhaps unsurprisingly, students of color at primarily White institutions consistently report more cross-racial interactions (CRIs) than their White counterparts (Chang et al., 2004; Saenz et al., 2007). This may be explained in part by a White racial ideology based in estrangement from people of color (Gusa, 2010), but it may also be due to simple mathematical reasons (Chang, Astin, & Kim 2004; Hurtado, Dey, & Trevino 1994). In the current study, we examine predictors of CRIs, particularly how students' race, gender, and institution predict CRIs. In addition, we explore how the racial diversity of students' social networks predict CRIs.

A social network perspective is useful for understanding CRIs. Research has more consistently found positive effects for CRIs than for interracial friendships (IRFs)

(Bowman & Park, 2015). This finding may be explained by the distinction in network theory between *strong ties* (e.g., close friendships and romantic partners) and *weak ties* (i.e., relations of acquaintanceship) (Granovetter, 1973). Because strong ties tend to link together people who are similar, it is the weak ties that tend to act as bridges between students of different backgrounds, providing new resources or opportunities for learning. In fact, Clarke and Antonio (2012) argue that cross-racial relations are more likely to be such weak, bridging ties; and, therefore, CRIs are more likely to be sources of new information and experiences than are IRFs. For Clarke and Antonio this explains why CRIs are more important than IRFs for cognitive and democratic outcomes.

With a focus on ego networks (i.e., individual students and their social connections), we examine predictors of self-reported CRIs. Self-reported CRIs are measured using 6 items from the Diverse Learning Environment (DLE) Core Survey assessing the frequency of interactions (such as dining or sharing a meal) with racially different others. To ascertain network connections, our research includes a standard network measure in which students respond to the question of who they talk to about important matters in their lives, where students may list a range of connections (e.g., Family/Relative, Friend, Girlfriend/Boyfriend, Roommate, Dorm mate, Other). In these networks, *ego* is the student, and *alter* is the social connection. Existing work has found that, compared to White students, students of color have smaller and less dense networks with fewer people in or who have gone to college (DeFour & Hirsch, 1990; D'Augelli & Hershberger, 1993; Kenny & Stryker, 1996). Research has also shown that students show a preference for friends of similar racial and ethnic backgrounds, similar socioeconomic backgrounds, similar ages, and even similar high schools (Biancani &

McFarland, 2013).

We explore how racial similarity within network predicts CRIs. Specifically, we examine network homophily and network homogeneity. Homophily is when ego (i.e., the student) and alter (i.e., the social connection) are the same, and we explore whether racial homophily is a significant predictor of CRI. Homogeneity refers only to alters or connections in a network, where alters are all the same as each other, and we explore racial homogeneity in network. Because there could be a distinction between whether either indicator of racial similarity (homophily or homogeneity) better predicts CRI, we examine both.

Method

Participants

Our research participants are 355 Black and White undergraduates from a large public university in the Midwest and an elite private university in the Southeastern United States. This study was an outgrowth of a larger research project on the experiences of students of African descent at PWIs. For that reason, we wanted to not only look at the social networks of Black students but also understand how these differed from majority students at PWIs. The mean age of public university students is 20.66, and the mean age for private university students is 19.41. Sixty-one percent of the participants are women, and 55% are Black students. Across year in school, 37% of students are 1st year students, 27% sophomores, 26% juniors, and 9%¹ seniors.

Settings

¹ Given the small number of seniors in our sample, all models presented in this paper were also run without seniors and the results were substantively the same.

The large public university has over 60,000 students (44,332 undergraduate and 19,870 graduate), and the private institution has over 17,000 students (7,299 undergraduate and 10,340 graduate). Across both institutions, most undergraduates are aged 24 and under, and there is a relatively equal gender distribution. Across both institutions, White students comprise the largest racial group, but the institutions differ in terms of structural diversity, selectivity, and retention and graduation rates. The private PWI is more structurally diverse than the public PWI (see Table 1). The private PWI is also more selective than the public PWI, where we used mean SAT and ACT score to assess selectivity. Finally, the private PWI has higher retention and graduation rates than the public PWI (IPEDS, 2015).

Table 1. Structural Diversity: Student Racial Demographics

	White	Black	Asians	Hispanics	Nonresident Aliens	Unknown
Public PWI	67%	3%	8%	3%	12%	7%
Private PWI	50%	7%	14%	5%	18%	6%

Instrument

In consultation with survey experts in the Duke Social Science Research Institute (SSRI) and the Duke Network Analysis Center (DNAC), we developed a Social Network Survey. The electronic survey included four major sections focused on students’ future plans, social networks, college experience, and background characteristics. The survey took approximately 15-20 minutes to complete. The current study focuses on data from the Social Network section of the survey.

Social Network Measure. The social networks in this study are egocentric networks. An egocentric network consists of the “ego” (the individual subject him or herself) and a set of “alters” or the direct connections of ego (Wasserman & Faust,

1994). Unlike socio-centric networks, ego networks are useful for understanding individual level outcomes, social support, and resources. Finding out who is in a person's ego network is commonly measured using the following question (Halgin & DeJordy, 2008; Kogovsek & Hlebec, 2008; Manfreda, Vehovar, & Hlebec, 2004):

From time to time, most people discuss important matters with other people. Looking back over the last six months -- who are the people with whom you discussed matters important to you? If you find it helpful list their first names or initials.

We included this common metric in our electronic survey to gather ego network data. This section of our survey was constructed so that the question above appeared first. Then students were prompted to provide information regarding the person they listed. Modeled after the Duke Campus Life and Learning survey, we collected demographic data for each person or alter in the students' networks. Students could provide information for up to 8 people.

Cross Racial Interaction (CRI) Measure. To measure cross-racial interactions (CRIs), we included 6 items from the Diverse Learning Environment (DLE) Core survey in the Social Network section of our survey. We asked students about the frequency with which they engaged in various activities with people from another racial/ethnic group on a scale of 1-5, where 1 = never and 5 = very often. Activities included dining or sharing a meal, meaningful and honest discussions about race/ethnic relations outside of class, sharing personal feelings and problems, intellectual discussions outside of class, studying or preparing for class, and socializing or partying. The DLE was developed by the Higher Education Research Institute (HERI), and is designed to measure student perceptions of institutional climate, faculty, staff, and peers (Hurtado &

Guillermo-Wann, 2013). The DLE has been shown to be sensitive to diverse student populations (Hurtado, Arellano, Cuellar, & Guillermo-Wann, 2011). Internal consistency reliability for cross-racial interaction (CRI) items on the DLE has been reported as .882 (Hurtado et al., 2011). We calculated an internal consistency reliability estimate of .89 for our study.

Variables

CRIs was our dependent variable, and we included a number of independent variables: homophily, homogeneity, race, gender, institution, year in school, and parent education. We were very interested in whether network characteristics such as homophily and homogeneity predicted CRIs. We defined homophily as whether ego (the student) and alter (the students' connections) were the same race in a network, where 1 = all alters same race as ego and 0 = racial diversity in network. Homogeneity focused on whether alters or connections in a network were the same as each other, where 1 = all alters same race as each other and 0 = racial diversity in network.² Additionally, we explored whether race, gender, institution, year in school, and parent education predicted CRIs. Specifically, we explored whether being a 1st year student significantly predicted CRIs, given that 1st year students are more likely to live in the

² In order to calculate racial homogeneity (i.e., to determine whether the alters were the same race as each other), we needed a minimum of two alters in a network, and networks that only included one alter were excluded from analysis. To determine whether there might be significant differences between the two groups (i.e., those with one alter and those with more than one alter), we conducted a *t*-test to compare cross-racial interactions (CRIs). There was a significant difference ($t = -4.29$, $df = 244.38$, $p < .001$). Those included in our analysis (i.e., those with more than one alter) had higher CRI scores on average ($\bar{x} = 21.78$; $SD = 5.73$) than those excluded from our analysis ($\bar{x} = 19.36$; $SD = 5.36$). Moreover, a higher percentage of students listing only one alter also demonstrated network homophily ($t = 6.42$, $df = 200.18$, $p < .001$) when compared to those with more than one alter (53% versus 22%). Consequently, the subsequent analysis is based on a subgroup of our sample with higher CRI and less homophily than our full sample.

dorm and participate in first-year programs such as living/learning communities that bring them in contact with diverse others.

Procedures

This study was conducted with the approval of the institutional review board at each institution. We collected data spring semester 2014. In collaboration with the offices of institutional research, we emailed a link for our Social Network Survey to the population of Black undergraduates and a random sample of White students at each school. We also included research incentives and reminder emails. Our response rate was approximately 19%.

Results

To explore whether network homophily and network homogeneity predicted cross-racial interactions (CRIs), we used regression modeling; we also explored whether race, gender, institution, 1st year status, and parent education were significant predictors of CRIs. For our first model each of the variables listed above were entered as independent predictors of CRIs. As can be seen in Table 2, homogeneity, institution, and 1st year status were significant predictors of CRIs, and the overall model accounted for 17% of the variance. Given that first year students are more likely to live in the dorm, the finding that 1st year status is a significant predictor of self-reported CRIs is consistent with previous research that has shown a positive relationship between living on campus and CRIs (Chang et al., 2004). Interestingly, homophily was not significant; this may be due to the overlap between homogeneity and homophily. For example, when homogeneity was excluded from the analysis homophily became a significant

predictor; however, when both variables were included, as indicated in Table 2, only homogeneity remained significant.

Table 2. *Regression Results Predicting Cross-racial Interactions (Model 1)*

Predictor	Beta	<i>t</i>	<i>p</i>
(Constant)	23.795	20.596	<.001
Race	-.900	-1.502	.134
Gender	-.148	-.258	.796
Parent Education	.119	.918	.359
1 st Year Status	1.226	2.026	<.05
Homophily	-.288	-.273	.785
Homogeneity	-3.137	-3.888	<.001
Institution	-2.614	-3.816	<.001

Note. $F(7, 339) = 11.29, p < .001, \text{adjusted } R^2 = .172$

To better understand whether there might be an interaction between homogeneity and institution given that one institution was more structurally diverse than the other, we repeated Model 1 and included an interaction between homogeneity and institution. As shown in Table 3, both homogeneity and institution remained significant, but the interaction was not. The adjusted R^2 is very similar across Models 1 and 2 indicating that the interaction explains very little additional variance in CRI scores.

Table 3. *Regression Results Predicting Cross-racial Interactions (Model 2)*

Predictor	Beta	<i>t</i>	<i>p</i>
(Constant)	24.006	20.505	<.001
Race	-.857	-1.428	.154
Gender	-.138	-.240	.810
Parent Education	.112	.866	.387
1 st Year Status	1.189	1.962	.051 [†]
Homophily	-1.290	-.926	.355
Homogeneity	-3.708	-3.866	<.001
Institution	-2.958	-3.930	<.001
Homogeneity by Institution	1.774	1.101	.272

Note. [†] = marginal significance. $F(8, 338) = 10.04, p < .001, \text{adjusted } R^2 = .173$

Homogeneity and institution predicted CRIs in expected ways. For example, in networks where homogeneity existed, i.e., alters were all the same race as each other, students scored lower in cross-racial interactions (CRIs). Moreover, at the less structurally diverse institution, students scored lower in CRIs. In sum, structural diversity seemed connected to interactional diversity (i.e., CRIs), but racial homogeneity of ego network was an important factor regardless.

Perhaps unsurprisingly, racial homogeneity of network was significantly different between Black and White students ($t = -2.5$, $df = 340.37$, $p = 0.0128$). Racial homogeneity was more characteristic of White students' ego networks. Specifically, 45% of White students in our study had ego networks characterized by racial homogeneity, but only 33% of Black students reported racially homogenous networks.

Discussion

Results underscore the importance of structural and curricular/co-curricular diversity to interactional diversity; that is, opportunities for cross-racial interactions (CRIs). In our study, institution significantly predicted CRIs, where students at the more structurally diverse institution reported more frequently: dining or sharing a meal; having meaningful and honest discussions about race/ethnic relations outside of class; sharing personal feelings and problems; having intellectual discussions outside of class; studying or preparing for class; and, socializing or partying with racially different others. Interestingly, in contrast to previous research (Chang et al., 2004; Saenz et al., 2007), the race of ego (i.e., the student him or herself) was not a significant predictor of CRIs in our study, but 1st year status was, where 1st year students reported higher CRIs. We

believe this may be due to 1st year students being more likely to live on campus and participate in first-year programs, such as living/learning communities that bring them in contact with diverse others. In fact, Chang et al. (2004) found a positive relationship between living on campus and CRIs, and currently several universities are beginning to require 1st year students to live on campus.

Our results also underscore the importance of diversity of student networks, where racial homogeneity of network significantly and negatively predicted CRIs. In accord with previous research (Chang et al., 2004; Saenz et al., 2007), we did find racial differences in diversity of network, where a higher percentage of White students reported racial homogeneity. Still, campus level factors such as structural diversity of university and individual level factors such as 1st year status and racial diversity of alters/connections in the ego network were more important than the race of ego in predicting CRIs.

Another interesting result that emerged from our data is that students who were only connected to one person were more likely to demonstrate network homophily, i.e., where ego and alter share the same race.² This highlights the general importance of helping students make connections on campus. It stands to reason that the more connections students have in a network, the higher the probability of there being some diversity within that network. By the same token, given previous research by Biancani and McFarland (2013) as well as basic social psychological principles of attraction based in similarity, it also seems likely that if students are only connected to one person, that person is likely to be the same race as them.

Implications

These findings have implications for policies that foster structural diversity and practices that foster interactional diversity. The consideration of race in postsecondary admissions has been under attack at the Supreme Court level, where just this past summer the court rejected a challenge to race-conscious admissions processes (*Fischer v University of Texas at Austin et al.*). Our research underscores the importance of considering race as part of admissions to develop a racially diverse student body, where students who were at our more structurally diverse university reported more cross-racial interactions (CRIs). These results also have implications for the potential importance of student networks to CRIs. Even more important than the student's race was the level of diversity among the alters or connections in a student's network. Diversity in a network or better yet lack thereof (i.e., racial homogeneity) significantly predicted CRIs. Thus, finding ways to connect students to racially diverse others is important to fostering interactional diversity.

Here curricular and co-curricular diversity, including living/learning communities, may be important. In fact, co-curricular activities have been found to be a positive predictor of CRI (Jayakumar, 2008; Saenz, 2010; Saenz et al., 2007). This finding is bolstered by our research, given that 1st year status was a significant predictor of higher self-reported CRIs and 1st year students are more likely to be engaged in curricular and co-curricular 1st year programs such as those that require them to live on campus.

One of the primary ways institutions of higher education can leverage structural diversity to foster interactional diversity is through curricular diversity; that is, to purposefully create curricular and co-curricular opportunities for students to engage with diverse others as well as with a broad range of ideas, cultures, beliefs, and positions.

Curricular and co-curricular diversity refers to the degree to which diverse perspectives are represented in classrooms and student organizations. Research has consistently found benefits for students engaging in curricular diversity, including improvements in intergroup attitudes (Denson 2009; Pettigrew & Tropp 2006) and diverse interactions (Nelson Laird, 2005; Nelson Laird, Engberg, & Hurtado, 2005).

For example, in a longitudinal study of 10 public institutions, Hurtado (2005) found a positive relationship between enrollment in diversity courses and cognitive, socio-cognitive, and democratic sentiments. With the same data Nelson Laird, Engberg, and Hurtado (2005) found a significant increase in students' perceptions of the importance of social action engagement compared to students who took a management course.

Chang (2002) found a positive association between enrollment in a required diversity course and positive attitudes toward African-Americans, and Antonio (2004) utilized an experimental design to show an increase in complex thinking in discussions when minority students introduced novel perspectives. Interestingly, diversity requirements may be less prevalent in upper division coursework as students complete their general education courses and move into their major courses. However, our research suggests that the upper division level may be just the time when students need these kinds of requirements to foster CRIs, particularly given the significantly lower levels of CRIs we found for students who were not in their first year. Denson (2009) conducted a meta-analysis and noted that participation in diversity-related activities was more effective in reducing bias when it incorporated cross-racial interaction (CRI); frequency of interaction seemed to moderate the effects of diversity-

related activities on reduced bias.

Racially diverse learning communities that include a diversity course may be particularly fruitful. In fact, we recommend future research along these lines. With the positive benefits associated with CRI (e.g., prejudice reduction, academic and cognitive gains, and social and civic engagement), institutions of higher education have a responsibility to develop policies and curricula that foster structural and interactional diversity. This is especially important for PWIs based in monoculturalism and estrangement from people of color (Gusa, 2010). In fact, research suggests that interactional diversity or CRIs may be even more beneficial for White students in terms of prejudice reduction (Tropp & Pettigrew, 2005) which is noteworthy given current demographic shifts. In 2014, for the first time in U. S. history, there were more African American, Latino/a, and Asian American K-12 students than White students in public education (Maxwell, 2014).

By 2044, the U. S. is projected to be a majority-minority nation (U.S. Census Bureau, 2015), and institutions of higher education have a role in preparing citizens for this shift. This may be particularly challenging as Whites and people of color experience the shift differently. One online survey reported that 71% of Whites endorsed the idea that the country is moving in the wrong direction compared to only 41% of Blacks (Ward, 2016). In fact, the same survey reported that a majority of Blacks (59%) believed that the country was moving in the right direction (Ward, 2016). Caution is warranted when examining the results of online surveys which often do not include random representative samples, but there is scholarship that helps explain these potentially divergent viewpoints. Research by Craig and Richeson (2014) suggests that as the

number of people of color rises, Whites experience group status threat (e.g., a perception of threat to status and resources) and system threat (e.g., concern or uncertainty about the future direction of society). The phenomenon seems most evident when minorities reach 40-60% of the population (Craig & Richeson, 2014). Group status threat and system threat may explain, in part, the results of the online survey reported above and the xenophobic tone and tenor of the 2016 presidential election season. Through policies and practices aimed at structural, interactional, and curricular diversity institutions of higher education can help mitigate racial strife by equipping citizens to navigate rather than fear diversity, and based on our findings it seems important that these policies and practices extend beyond students' first year of college.

Limitations

Caution is warranted when interpreting the results due to the limitations of our study. We only included two campuses in our study; hence, it is difficult to know whether our findings are representative of an anomaly or a larger trend. In addition, self-selection bias is a threat to external validity. Although we surveyed the population of Black students at each university and randomly sampled White students, our response rate was 19%; therefore, it is possible that the students who completed the survey or opted to participate in our research may have been different from those who did not participate. In other words, response bias is an issue, where the students who self-selected into our research may not necessarily be representative of the Black and White population of students at their respective university. With respect to internal validity in order to calculate racial homogeneity of alters, our analysis was based on networks in which students listed at least two alters; networks that only included one alter were

excluded from analysis.² Moreover, we found that the networks of students who were dropped from the analysis were more characterized by homophily and less characterized by cross-racial interaction (CRI) than the networks of those who remained. Hence, selective attrition is a threat to internal validity; put simply, those who were dropped from the study's analysis were significantly different from those who remained. Finally, the self-reported nature of the data is a limitation. We did not observe cross-racial interactions (CRIs); rather, we relied on students' self-reported frequency of CRIs using a 5-point scale from the DLE.

Conclusion

Our research has implications for institutions of higher education that are uniquely positioned to develop and equip citizens to embrace a more diverse United States of America. In particular, our findings suggest continuing programs that increase structural diversity at institutions of higher education and helping students make connections on campus, thus increasing chances for more diverse social networks. The engaged university understands and takes seriously its responsibility in addressing social problems—including the social ills of racism and oppression. We call upon all universities to engage and consider how their policies, practices, and curricula work to reproduce and challenge a dominant hegemony that results in racism, oppression, and an unjust society, and we recommend continued research focused on cross-racial interactions.

References

- Allport, G. W. (1954). *The nature of prejudice*. Cambridge, MA: Perseus Books.
- Antonio, A. L. (2001). Diversity and the influence of friendship groups in college. *Review of Higher Education, 25*, 63–89.
- Antonio, A. L. (2004). The influence of friendship groups on intellectual self-confidence and educational aspirations in college. *The Journal of Higher Education, 75*, 446–471.
- Biancani, S., & McFarland, D. A. (2013). Social networks behavior in higher education. In M. B. Paulsen & J. C. Smart (Eds.), *Higher education: Handbook of theory and research* (Vol. XXVIII, pp. 151–215). New York, NY: Springer.
- Bonilla-Silva, E., & Emrick, G. (2007). “Every place has a ghetto...”: The significance of whites’ social and residential segregation. *Symbolic Interaction, 30*, 323–345.
- Bowman, N. A. (2010). College diversity experiences and cognitive development: A meta-analysis. *Review of Educational Research, 80*, 4–33.
- Bowman, N. A. (2011). Promoting participation in a diverse democracy: A meta-analysis of college diversity experiences and civic engagement. *Review of Educational Research, 81*, 29–68.
- Bowman, N. A. (2013). The conditional effects of interracial interactions on college student outcomes. *Journal of College Student Development, 54*, 322–328.
- Bowman, N.A., & Park, J. J. (2015). Not all diversity interactions are created equal: Cross-racial interaction, close interracial friendship, and college student outcomes. *Research in Higher Education, 56*, 601–621.
- Chang, M. J. (1999). Does racial diversity matter? The educational impact of a racially diverse undergraduate population. *Journal of College Student Development, 40*, 377–395.
- Chang, M. J. (2002). Preservation or transformation: Where’s the real educational discourse on diversity? *Review of Higher Education, 25*, 125–140.
- Chang, M. J., Astin, A. W., & Kim, D. (2004). Cross-racial interaction among undergraduates: Some consequences, causes, and patterns. *Research in Higher Education, 45*, 529–553.
- Chang, M. J., Denson, N., Saenz, V. & Misa, K. (2006). The educational benefits of sustaining cross-racial interactions among undergraduates. *The Journal of Higher Education, 77*, 430–455.
- Clarke, C. G., & Antonio, A. L. (2012). Rethinking research on the impact of racial diversity in higher education. *Review of Higher Education, 36*, 25–50.
- Craig, M. A., & Richeson, J. A. (2014). More diverse yet less tolerant? How the increasingly diverse racial landscape affects White Americans’ racial attitudes. *Personality and Social Psychology Bulletin, 40*, 750–761.
- D’Augelli, A. R., & Hershberger, S. L. (1993). African American undergraduates on a predominantly White campus: Academic factors, social networks, and campus climate. *The Journal of Negro Education, 62*, 67–81.
- DeFour, D. C., & Hirsch, B. J. (1990). The adaptation of Black graduate students: A social network approach. *American Journal of Community Psychology, 18*, 487–503.
- Denson, N. (2009). Do curricular and cocurricular diversity activities influence racial bias? A meta-analysis. *Review of Educational Research, 79*, 805–838.

- Denson, N., & Chang, M. J. (2009). Diversity matters: The impact of diversity-related student engagement and institutional context. *American Educational Research Journal*, 46, 322–353.
- Denson, N., & Zhang, S. (2010). The impact of student experiences with diversity on developing graduate attributes. *Studies in Higher Education*, 35, 529-543.
- Engberg, M. E., & Hurtado, S. (2011). Developing pluralistic skills and dispositions in college: Examining racial/ethnic group differences. *The Journal of Higher Education*, 82, 416–443.
- Fischer v University of Texas at Austin et al., No. 14-981 slip op. at https://www.supremecourt.gov/opinions/15pdf/14-981_4g15.pdf (June 23, 2016).
- Gottfredson, N. C., Panter, A. T., Daye, C. E., Allen, W. F., & Wightman, L. F. (2009). The effects of educational diversity in a national sample of law students: Fitting multilevel latent variable models in data with categorical indicators. *Multivariate Behavioral Research*, 44, 305–331.
- Granovetter, M. S. (1973). The strength of weak ties. *American Journal of Sociology*, 78, 1360–1380.
- Gurin, P. (1999). Expert report of Patricia Gurin, in the compelling need for diversity in higher education, presented in Gratz et al. v. Bollinger et al. and Grutter et al. v. Bollinger et al. Washington, DC: Wilmer, Cutler, Pickering.
- Gurin, P. Y., Dey, E. L., Gurin, G., & Hurtado, S. (2003). How does racial/ethnic diversity promote education? *Western Journal of Black Studies*, 27, 20–29.
- Gurin, P., Dey, E. L., Hurtado, S., & Gurin, G. (2002). Diversity and higher education: Theory and impact on educational outcomes. *Harvard Educational Review*, 72, 330–366.
- Gusa, D. L. (2010). White institutional presence: The impact of Whiteness on campus climate. *Harvard Educational Review*, 80, 464-586.
- Halgin, D., & DeJordy, R. (2008). Introduction to ego network analysis. Boston College and the Winston Center for Leadership and Ethics. Retrieved July 1, 2015 from <http://www.analytictech.com/e-net/pdwhandout.pdf>
- Hurtado, S., Arellano, L., Cuellar, M., & Guillermo-Wann, C. (2011). Diverse Learning Environments Survey Instrument: Introduction and Select Factors. Retrieved July 1, 2015 from <http://www.heri.ucla.edu/dleoverview.php>
- Hurtado, S., Dey, E. L., & Treviño, J. G. (1994, April). Exclusion or self-segregation? Interaction across racial/ethnic groups on college campuses. Paper presented at the annual meeting of the American Educational Research Association, New Orleans, LA.
- Hurtado, S., & Guillermo-Wann, C. (2013). Diverse Learning Environments: Assessing and Creating Conditions for Student Success – Final Report to the Ford Foundation. University of California, Los Angeles: Higher Education Research Institute.
- Integrated Postsecondary Education Data System (IPEDS). (2015). Data Center: Final Release Data. Report Retrieved July 7, 2015 from <http://nces.ed.gov/ipeds/datacenter/InstitutionProfile.aspx>
- Jayakumar, U. M. (2008). Can higher education meet the needs of an increasingly diverse and global society? Campus diversity and cross-cultural workforce competencies. *Harvard Educational Review*, 78, 615–651.

- Kenny, M. E., & Stryker, S. (1996). Social network characteristics and college adjustment among racially and ethnically diverse first-year students. *Journal of College Student Development, 37*, 649-658.
- Kogovsek, T., & Hlebec, V. (2008). Measuring ego-centered social networks: Do cheaper methods with low respondent burden provide good estimates of network composition? *Metodoloski zvezki, 5*, 127-143.
- Locks, A. M., Hurtado, S., Bowman, N. A., & Oseguera, L. (2008). Extending notions of campus climate and diversity to students' transition to college. *Review of Higher Education, 31*, 257-285.
- Luo, J., & Jamieson-Drake, D. (2009). A retrospective assessment of the educational benefits of interaction across racial boundaries. *Journal of College Student Development, 50*, 67-86.
- Manfreda, K. L., Vehovar, V., & Hlebec, V. (2004). Collecting ego-centered network data via the web. *Metodoloski zvezki, 1*, 295-321.
- Maxwell, L. A. (2014). U.S. school enrollment hits majority-minority milestone. *Education Week, 34*, 1, 12, 14-15. Retrieved September 28, 2016 from <http://www.edweek.org/ew/articles/2014/08/20/01demographics.h34.html>
- Nelson Laird, T. F. (2005). College students' experiences with diversity and their effects on academic self-confidence, social agency, and disposition toward critical thinking. *Research in Higher Education, 46*, 365-387.
- Nelson Laird, T. F., Engberg, M. E., & Hurtado, S. (2005). Modeling accentuation effects: Enrolling in a diversity course and the importance of social engagement. *Journal of Higher Education, 76*, 448-476.
- Pascarella, E., Edison, M., Nora, A., Hagedorn, L., & Terenzini, P. (1996). Influences on students' openness to diversity and challenge in the first year of college. *Journal of Higher Education, 67*, 174-195.
- Pettigrew, T. F., & Tropp, L. R. (2005). Allport's intergroup contact hypothesis: Its history and influence. In J. F. Dovidio, P. Glick, and L. Rudman (Eds.), *On the nature of prejudice: Fifty years after Allport* (pp. 262-277). Malden, MA: Blackwell Publishers.
- Pettigrew, T. F., & Tropp, L. R. (2006). A meta-analytic test of intergroup contact theory. *Journal of Personality and Social Psychology, 90*, 751-783.
- Saenz, V. B. (2010). Breaking the segregation cycle: Examining students' precollege racial environments and college diversity experiences. *Review of Higher Education, 34*, 1-37.
- Saenz, V. B., Ngai, H. N., & Hurtado, S. (2007). Factors influencing positive interactions across race for African American, Asian American, Latino, and White college students. *Research in Higher Education, 48*, 1-38.
- Tropp, L. R., & Pettigrew, T. F. (2005). Relationships between intergroup contact and prejudice among minority and majority status groups. *Psychological Science, 16*, 951-957.
- U.S. Census Bureau. (2015). New Census Bureau report analyzes U.S. population projections. Retrieved October 13, 2016 from <http://www.census.gov/newsroom/press-releases/2015/cb15-tps16.html>
- Ward, J. (2016, February). New Yahoo survey shows blacks, Hispanics, see tech as a more positive force in politics than whites do. *Latino Briefs Digest: A digest of*

News Reported by Mainstream News Media and Research Institutions. Retrieved October 11, 2016 from

<http://ucanr.edu/blogs/blogcore/postdetail.cfm?postnum=19989>

Wasserman, S., & Faust, K. (1994). *Social network analysis: Methods and applications.* New York, NY: Cambridge University Press.