

RUNNING HEAD: Assessing climate assessments

Assessing the Value of Climate Assessments: Progress and Future Directions

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Introduction

Examining the climate for diversity is an important part of campus-based assessment activity, especially as postsecondary institutions enter an era of “evidence-based” practice and aim to identify areas for improvement to achieve educational goals for an increasingly diverse student body. Early efforts to assess climate arose out of a need to attend to a myriad of campus diversity issues, most significant of which were recurring racial incidents that spark media attention. Over time, campuses began climate assessments as a proactive initiative rather than reactive attempt to deal with significant issues affecting women, minorities, disabled students, and LGBT students (Michigan Student Study, 2008). As a result of both institutionally-based and multi-campus surveys on a national level, a body of research emerged that began to link the campus climate with key educational outcomes.

The purpose of this paper is to synthesize existing climate research and introduce several frameworks that help us to better understand how institutions and scholars have begun to think about the climate and its assessment. We begin with a review of research that served to document climate as more than a part of the perception of marginalized individuals, but rather a multi-dimensional environmental factor with real effects on educational outcomes. That is, the campus climate is part of an intricate web of relations, socially constructed by individuals in an environment. Campus climate research has been synthesized by multiple authors (Harper & Hurtado, 2007; Hurtado, Carter, & Kardia, 1998; Hurtado, Milem, Clayton-Pederson, & Allen, 1999; Milem, Chang & Antonio, 2005), and while we communicate similar themes in this review, we focus on the implications of this research for assessment. In the process of this review, we not only identified results from published articles; we also gathered and evaluated over 70 survey instruments dating back to 1985, which have been administered on campuses or

appear in the literature. Among these, we reviewed student surveys, including 15 multi-campus and 26 single-institution surveys administered to each institution's respective general student body. Another 11 were institutional-specific and administered to specific target groups (e.g. Latino, African American, LGBT students). An additional five surveys were classroom-based assessments, with limited administration to specific courses or fields of study. We also reviewed six instruments that were focused on assessing multicultural competencies. To the best of our knowledge, the majority of the institutionally-devised and classroom-based surveys were administered only once on a campus. We also reviewed eight faculty surveys, half of which were instruments used on multiple campuses.

The incorporation of diversity-related questions in these surveys varies widely, depending on whether issues of diversity are the main focus or considered one of many areas to assess. We identified key concepts addressed in these instruments, including: the conceptualization of the climate; how diversity practices were captured; and whether there is a focus on educational outcomes related to diversity. In doing so, we employ a broad conceptualization of climate research and its implications for practice. This approach was chosen based on the recent push for outcomes assessment, which neglects to identify aspects of the educational environment that may account for varied educational outcomes which have much to do with diversity issues and the reinforcement of inequity in academia. Our review of the instruments used to produce a large body of research reveals that climate assessments will be of limited use if they are not tied to practice (interventions) or educational outcomes. We conclude by identifying gaps and important areas for the advancement of climate assessment that have direct implications for the practice of educating citizens prepared to engage a pluralistic society.

Broadening Conceptions of the Campus Climate

First, it is important to acknowledge that while researchers have studied aspects of the climate for various groups (e.g. race/ethnicity, gender, sexual orientation and disability), much of the research in higher education has been conducted on the racial climate. It is beyond the scope of this paper to address climate research specific to all of these groups, but it is an issue we will return to at the end of this article, especially considering similar issues are relevant in understanding the experiences of different social identity groups (Hurtado, Carter, & Kardia, 1998). We focus here on advances in research on the campus racial climate, yet will also occasionally reference studies and survey instruments that incorporate other groups on a diverse campus.

To offer a working definition, the campus racial climate is a part of the institutional context which includes community members' attitudes, perceptions, behaviors, and expectations around issues of race, ethnicity, and diversity (Hurtado et al., 1999). A framework for understanding the campus racial climate describes it as a multidimensional construct (Hurtado, et al., 1998; 1999), subject to and shaped by the policies, practices, and behaviors of those within and external to colleges and universities. This brings attention to the potential of external forces in the larger society to impact institutions, and individuals within them, when it comes to the climate. Specifically, government policy and socio-historical context are acknowledged as two external forces influencing the institutional context for diversity. However, attention both here and in the research, is focused on the four climate-related factors internal to and within the control of individual colleges and universities: compositional or structural diversity, the psychological dimension of the climate, the behavioral dimension of the climate, and an institution's history and legacy of inclusion or exclusion (Hurtado et al., 1998, 1999).

This original framework was derived from existing qualitative and quantitative research on a variety of racial/ethnic groups. More recently, a modification of the framework was introduced that acknowledges the influence of specific institutional structures including curriculum, policies, and resources (Milem, Chang & Antonio, 2005); however, with the exception of research focused on the influence of a diverse curriculum, there is very little research to establish an empirical link between structural differences at the institutional level and a variety of dimensions of the climate. The value placed on actual campus practice is not lost in the original model used in this review, however. We currently include it under the behavioral dimension, as campuses become more strategic in creating less hostile conditions for historically underrepresented groups and educating the campus about diversity.

Although it is rare that all dimensions are assessed, some campuses have attempted a comprehensive, multi-dimensional approach to examine existing structures and norms (Hurtado, Maestas, Hill, Inkelas, Wathington, & Waterson, 1998) or to measure the impact of changing policies (Michigan Student Study, 2008). The influence of an institution's legacy of inclusion or exclusion, for example, is largely unaddressed in campus racial climate survey research because it involves more in-depth study of norms that may be embedded in campus culture, traditions, policies, and historical mission. The closest we have come to assessing this dimension within national surveys are in measures which include student and faculty ratings of diversity related institutional priorities (e.g. priorities to recruit more students or faculty of color), administered by the Higher Education Research Institute (HERI) as part of the Faculty Survey and the Cooperative Institutional Research Program (CIRP). In another survey of Chief Academic Officers, researchers attempted to assess how diversity was integrated into the mission and embedded in the rewards system of an institution (Hurtado, 2003). Others have summarized

aspects of this legacy of inclusion or exclusion in qualitative studies of the climate (Harper & Hurtado, 2007; Hurtado, Maestas, et al., 1998). This review, however, addresses research on the structural, psychological, and behavioral dimensions most often assessed using quantitative methods. These dimensions are often captured on survey instruments through questions which reveal how campus constituents perceive and experience various aspects of climate, as well as subsequent influence on outcomes.

Structural Diversity

Frequently described as the first step that must be taken in developing an environment that fosters a positive climate and intergroup relations, structural diversity refers to the physical presence of previously underrepresented groups at a particular institution (Hurtado et al., 1999). This dimension is often considered when institutional leaders initiate diversity-related programs and policies on their campuses, and involves efforts to increase the diversity of students, staff, and faculty. Structural diversity is an important component of the campus racial climate framework, and scholars have found it is related to minority students' perceptions of tension on campus and experiences with racism, as well as their academic adjustment to college (Hurtado, 1994; Hurtado, Carter, & Spuler, 1996).

Despite its importance, multiple scholars have noted and revealed that the singular act of increasing the number of people of color on a campus will not create a more positive racial climate (Cabrera, Nora, Terenzini, Pascarella, & Hagerdorn, 1999; Chang, 2002b; Hurtado, 1992; Hurtado et al., 1999; Milem, Chang & Antonio, 2005). Structural diversity is perceived as a catalyst for promoting a more hospitable campus racial climate; it is a necessary, but not sufficient, factor in creating a more comfortable and less hostile environment for all (Hurtado et

al., 1999; Gurin, Dey, Hurtado & Gurin, 2002). For example, several researchers found that the number of students of color on a campus is linked with students' interactions across race (Chang, 1999; Chang, Astin, & Kim, 2004; Chang, Denson, Sáenz, & Misa, 2006; Pike & Kuh, 2006), and this is particularly true for white students (Chang et al., 2004; Sáenz, Ngai, & Hurtado, 2007). Thus, the influence of structural diversity can be understood as directly enhancing the opportunity for intergroup contact, which in turn affects educational outcomes over time (Chang, 1999; Chang et al., 2004; Gurin et al., 2002; Engberg, 2004; Pike & Kuh, 2006; Jayakumar, 2007). In other words, the presence of diverse peers works indirectly through students' experiences and interactions with people of different racial and ethnic backgrounds to affect a host of educational outcomes identified later in this review.

Because structural diversity must be present for changes in perceptions and behaviors to occur, one way to understand the campus climate is to assess the structural diversity throughout the institution. Many institutional reports have focused on the representation of women and minorities on campus. For the longest time, this was the primary way that campuses kept benchmarks on progress toward diversity goals. However, the changing composition of college students in terms of race, ethnicity, and gender has allowed some campuses to claim progress when, in fact, little has been done to transform the culture and climate of the institution. Moreover, the tallies of diverse individuals on a campus alone have not served as a strong enough motivating force to change practices, such as better incorporation of diversity in the curriculum or facilitating opportunities for intergroup dialogue and interaction.

One promising development is the use of equity indicators to examine aspects of a campus' structural diversity, such as the "equity scorecard" (Bensimon, 2004), which encourages campuses to review disaggregated data by race and gender. Campuses can begin to examine how

equity is addressed in several areas, including: 1) *access* to an institution's programs and resources; 2) *retention* rates by academic program, completion of basic skill courses, and degree attainments; 3) *institutional receptivity* in the form of representation at all levels of the campus; and 4) *excellence* in terms of the racial/ethnic representation of students in courses or majors that lead to advanced study, high levels of student achievement, and the pool of students eligible for graduate study. Although this is not typically viewed as climate research, the continued neglect of equity for women and minorities in various fields and in access to institutional resources stands as a significant barrier in the progress of these groups. Further, the underrepresentation of groups or "solo status" in any area reinforces stereotypes and determines expectations for success (Thompson & Sekaquaptewa, 2002).

We encourage campuses to continue to assess structural diversity using actual numbers to determine equity (e.g. salary equity studies) as well as representation of various groups (e.g. the equity score card) because it frames other dimensions of the overall climate. The sheer exercise of examining disaggregated data, and reflecting on implications for improving practice, has brought about greater awareness of the key equity dilemmas campuses must confront (Bensimon, 2004). We must acknowledge that increases in the numbers of previously underrepresented groups may not always significantly change perceptions, behaviors, or outcomes within the community. In response, diverse campuses have had to delve further into equity issues using institutional data, as well as focus on the psychological climate and intergroup relations aspects of their environments.

In addition to numerical assessments of structural diversity and equity, we also saw evidence of campus attempts to assess perceptions of priorities or commitment of their attempts to recruit more women and minorities in our review of diversity assessments (e.g. HERI Faculty

Survey). Because perceptions differ substantially by race, ethnicity and gender groups, these types of survey measures focused on structural diversity begin to tap into the psychological dimension of support and awareness prevalent on a campus. These perceptions can be compared with actual structural changes campus-wide or in schools/colleges, and departmental units. Therefore, they provide important insight into how diverse a campus *feels* and the emphasis placed on its importance, as compared to how structurally diverse a campus is according to numbers.

The Psychological Dimension of the Climate

In addition to attending to structural diversity, institutions must also monitor and aim to improve the psychological climate on campus. This dimension of the framework is meant to capture the extent to which individuals perceive racial conflict and discrimination on campus (Hurtado, 1992), feel somehow singled-out because of their background (Nora & Cabrera, 1996), or perceive institutional support/commitment related to diversity (Hurtado et al., 1999). The body of research on intergroup anxiety can also be classified as addressing aspects of the psychological climate (Stephan & Stephan, 1989; 1996).

The majority of articles on campus racial climate focus on the psychological dimension, assessing students', and to a limited extent professors', encounters with and perceptions of discrimination on campus. In many studies, overall measures of the campus racial climate are described in ways that suggest it is nearly synonymous with the psychological climate. However, Hurtado (1994) highlighted the psychological dimension as a specific aspect of the climate, distinct from overall assessments, in her study of talented Latino students. Perceiving a hostile campus climate was not necessarily equivalent to measures of behaviors that reflect actual experiences of discrimination in terms of outcomes. While often related, experiencing racism and

perceiving hostility or tension on campus were, in fact, separate constructs to be assessed. Further, recent research shows perceptions of a hostile climate can be somewhat influenced by the quality of cross-racial interactions, but that perceptions of a hostile climate are more likely a function of intergroup anxiety and predisposition to become engaged in diversity while in college (Locks, Hurtado, Bowman, & Oseguera, 2008). That is, individual students can report having frequent personal positive cross-racial interactions and still perceive a hostile climate. Moreover, white students who expect to be engaged in diversity activities upon college entry also tended to perceive a more hostile racial climate during college, perhaps because the environment did not meet their expectations.

Overall, two sets of findings emerge from work exploring the psychological climate and its influence. First, scholars have determined individuals experience campuses very differently, reporting varying experiences with discrimination and perceptions of its prevalence on a given campus depending on their positionality, which includes both representation and power (Harper & Hurtado, 2007; Hurtado, 1992; Hurtado et al., 1999). Most often, it has been found that students from different racial and ethnic backgrounds experience their environments in distinct ways. Students of color have more observed and direct encounters with racism than their white peers, and therefore perceive their campuses as more hostile and discriminatory (Ancis, Sedlacek, & Mohr, 2000; Cabrera & Nora, 1994; D'Augelli & Hershberger, 1993; Eimers & Pike, 1997; Pewewardy & Frey, 2002; Rankin & Reason, 2005; Suarez-Balcazar, Orellana-Damacela, Portillo, Rowan & Andrews-Guillen, 2003; Whitmire, 2004). For example, while over 85% of white students in Pewewardy and Frey's (2002) campus racial climate study reported never being treated badly on campus because of their ethnicity, only 57% of students of

color could make the same assertion. In their 10 campus study, Rankin & Reason (2005) also found that students of color reported experiencing more harassment than white students.

Several studies indicate Black students are especially likely to experience the psychological climate at their campus as hostile. In comparing students from various racial and ethnic backgrounds, Suarez-Balcazar et al. (2003) and Ancis et al. (2000) found Black students perceived more racial conflict, discrimination, and reported experiences with differential treatment than white, Hispanic, and Asian students. Further, when asked how often Black students encounter racism, white students participating in D'Augelli and Hershberger's (1993) study thought Black students were less likely to experience discrimination than the Black students themselves actually reported.

These findings highlight the fact that the underrepresentation of students of color in climate assessments will result in very different findings for a campus. This will be evident not only in an underreporting of the differences in perceptions, but also actual experiences and behaviors in an academic environment—the more marginalized students feel, the less likely they will respond to assessments. It is also important to note that the percentage of students who actually report instances of discrimination to a college official may be extremely low, but many more underrepresented students (and faculty) will indicate their perceptions of more subtle forms of hostility (Hurtado et al., 1998). For this reason specific climate assessments have often focused on soliciting the perceptions, views, and experiences of target groups (e.g. National Study of Black College Students, 1985; University of Massachusetts, Amherst-ALANA Project Pulse Student Survey, 1997).

The second overall finding is that perceptions of a hostile climate can negatively influence student outcomes, particularly for students of color (Cabrera et al., 1999; Cress &

Ikeda, 2003; Cureton, 2003; Eimers & Pike, 1997; Hurtado & Carter, 1997; Hurtado, Carter, & Spuler, 1996; Lopez, 2005; Nora & Cabrera, 1996; Perrucci & Hu, 1995; Smedley, Myers, & Harrell, 1993). This was demonstrated across multiple studies by Hurtado and her colleagues (i.e. Hurtado, Carter, & Spuler, 1996; Hurtado & Ponjuan, 2005), who have documented that Latino students who perceive a hostile climate have a lower sense of belonging than those Latinos who feel they are in more hospitable institutions. In fact, subtle perceptions of a hostile climate had more of an impact on all areas of adjustment to college (social, academic, personal-emotional, and attachment to the institution) than actual behaviors (detailed in the next section). Minority status stresses, including discrimination and doubts about one's academic abilities, have also been shown to add to students' psychological distress and achievement (Smedley, Myers, & Harrell, 1993). Cress and Ikeda (2003) found a connection between perceptions of a hostile and discriminatory climate and students' reports of depression after four years of college.

Research has also revealed students from all racial and ethnic backgrounds are negatively influenced by hostile climates, although sometimes affected differently. This was especially evident in the work of Eimers and Pike (1997). Their analyses reveal that perceived discrimination have the potential to affect all students, with those who see their campus as more discriminatory reporting lower levels of academic integration. Nora and Cabrera (1996) as well as Cabrera and colleagues (1999) found experiences in a hostile psychological climate had significant effects on the social integration and institutional commitment of students from all backgrounds, negatively influencing the social experiences and academic development of Black students and the goal commitments of white students. Additionally, recent work confirms that all students on a diverse campus (white and students of color) who perceive a hostile climate are likely to feel a lower sense of belonging to the campus community (Locks et al., 2008) and that it

lowers a sense of academic success in the first, particularly for underrepresented students in the sciences (Hurtado, Han, Sáenz, Espinosa, Cabrera, & Cerna, 2007).

The Behavioral Dimension of the Climate

The behavioral dimension of the climate generally has been assessed using reports of interactions or contact experiences between and among different groups, participation (or lack thereof) in campus programs and diversity activities, and enrollment in diversity courses. In most cases, measures of the behavioral dimension are an attempt to assess intergroup relations on a campus or level of engagement with diversity. Since the first review of the literature on the behavioral dimension of the climate (Hurtado et al., 1999), several advancements in this research have occurred. First, studies are beginning to distinguish informal interactions (inside and outside of the classroom) from engagement with diversity that is *campus-facilitated* (specific diversity coursework, events, programs, interventions) (Gurin et al., 2002; Hurtado, 2005). The types of behaviors that reflect engagement in *campus-facilitated* interactions with diversity, or institutional diversity practices, are addressed in the next section on institutional practice. This section of the paper addresses informal interactions between peers. Second, studies have moved from examining measures of the frequency of interactions with diverse peers (Chang, 1999; Pascarella, Edison, Nora, Hagedorn, & Terenzini, 1996), toward assessing the quality of interactions (both positive and negative) in a variety of contexts (Gurin et al., 2002; Sáenz, 2005; Sáenz, Ngai & Hurtado, 2007).

Third, as noted previously, most studies are finding that more interactions across race/ethnicity take place in increasingly diverse environments (Chang, 1999; Chang, Astin, & Kim, 2004; Pike & Kuh, 2006); however, the quality of those cross-racial interactions during

college is often determined by whether students had informal interactions with various groups prior to college (Sáenz, 2005; Sáenz et al., 2007). These findings about the quality of contact experiences and “perpetuation effects” in college were only made possible when researchers began to work longitudinally, assessing initial predispositions and behaviors in high school or at college entry, intergroup behaviors during college, and behaviors and beliefs after college (Sáenz, 2005; Jayakumar, 2007). This highlights the value of longitudinal assessments, and has enhanced modeling of how student intergroup behaviors are reinforced or disrupted during college. Interventions that facilitate interactions with diversity must be assessed along with controls for behaviors at college entry, or it is likely that a cross-sectional survey of college students’ interactions with diverse peers will reveal a portrait of students’ diversity habits and behaviors acquired prior to college.

A fourth development in the literature is that those studies employing separate group analyses have found unique cross-racial interaction patterns for specific groups (Chang et al., 2004; Sáenz et al., 2007). This research closely parallels much of the work on group differences in perceptions of psychological climate referenced earlier. As the composition of a college begins to change, intergroup relations and interactions with diverse peers on campus is certainly an area that calls for increased assessment efforts. Finally, the inclusion of behavioral measures on surveys, which tap into student interactions with diversity while in college, has allowed researchers to establish that cross-racial interaction is important to facilitating a wide range of educational outcomes (Gurin et al., 2002; Gurin, Lehman, & Lewis, 2004; Hurtado, 2005; Chang et al., 2006; Whitt, Edison, Pascarella, Terenzini, & Nora, 2001; Pike & Kuh, 2006; Antonio, 2001; Antonio, Chang, Hakuta, Kenny, Levin & Milem, 2004; Pascarella, Palmer, Moye, & Pierson, 2001). The research assembled as part of the University of Michigan affirmative action

cases (*Gratz et al. v. Bollinger et al.*; *Grutter et al., v. Bollinger et al.*, 2003), and subsequent research has consistently confirmed the value of informal interactions with diverse peers during college.

Although the National Study of Student Learning (Pascarella et al., 1996; Whitt et al., 2001) included some questions regarding campus climate (with a limited national sample), the only large-scale, multi-campus survey at the outset of those affirmative action cases which had significant questions regarding issues of the psychological and behavioral climate were those administered by the Cooperative Institutional Research Program (CIRP), beginning in 1989. The University of Michigan also began its own comprehensive institutional assessment in 1990. The Michigan Student Study highlighted the value of climate assessments for institutional use, not only in assessing a strategic initiative (the Michigan Mandate for Diversity), but also in subsequent legal challenges. While the focus on psychological climate in both of these surveys helped identify issues faced by underrepresented students on diverse college campuses (Hurtado, 1992; see the initial Michigan Study report), these surveys were also used in the University of Michigan Supreme Court cases to show how cross-racial interaction is associated with educational benefits because of their longitudinal design (including four and nine year follow-ups of alumni) and the incorporation of distinct educational outcomes (e.g. academic motivation, skills, and civic engagement) (See Gurin, 1999). Without question, a stronger link has been made with cross-racial interactions (the behavioral dimension of the climate) and student outcomes, enhancing our ability to understand the value of diverse peers in academic environments. Moreover, the comprehensiveness of these surveys and their use to study student outcomes raised the bar in terms of how climate assessments could be valuable and might be utilized in the future.

Campus-Facilitated Interactions and Diversity Practice in Climate Surveys

Most of the literature reviewed up to this point, particularly in relation to behavioral climate, has focused on students' informal interactions with diverse peers. It seems a valuable use of climate assessments would be to also understand the impact of campus-facilitated experiences intended to improve student engagement with diversity, disrupt stereotypical attitudes and behaviors, and enhance student learning. We used a framework for the review of diversity practices which originated from a national research project titled, *Preparing Students for a Diverse Democracy* (Hurtado, 2003). Ten participating public institutions were asked to produce a full accounting of campus programs, courses, and events that promote diversity as a learning tool. The contributions of the collaborating institutions were classified into both broad categories and sub-categories based on the goals of the diversity initiatives, then summarized in a comprehensive inventory of campus practices. The broad categories of the typology include: institutional strategic initiatives, community outreach initiatives, academic support initiatives, curricular initiatives, co-curricular initiatives, "safe space" initiatives (identity and awareness programs for target groups), and integrative learning initiatives.

To inform the validity of this framework in relation to current diversity practices, websites for national conference presentations committed to diversity and learning were reviewed to understand the ongoing conversations related to practice. Overall, conference workshops and presentations related to campus diversity practices for the last three years were classifiable into at least one of the broad categories of the typology. Very few fell outside of the framework, lending further credence to its classification of actual campus practices and interventions related to diversity. The typology thus provided a conceptual framework from which practices related to diversity were reviewed in the literature and in surveys.

We reviewed the literature and more than 70 surveys to understand the extent to which assessments of these diversity practices were evident. While reviewing the literature in each area of practice is beyond the scope of this article, suffice it to say evidence on specific diversity-related practices is inconsistent. The three most consistent areas captured in the literature based on student surveys to date are: diversity in the curriculum (Maruyama, Moreno, Gudeman & Marin, 2000; Chang, 2002a; Gurin et al., 2002; Hurtado, 2005; Mayhew & DeLuca Fernandez, 2007; Mayhew & Grunwald, 2006; Nelson Laird, 2005; Terenzini, Cabrera, Colbeck, Bjorklund, & Parente, 2001); co-curricular programs, such as intergroup dialogue (Nagda, 2006; Nagda, Kim, & Truelove, 2004; Nagda & Zúñiga, 2003) or involvement in other student activities (Aberson, 2007; Cheng and Zhao, 2006; Sáenz, Ngai & Hurtado, 2007; Whitt et al., 2001; Zúñiga, Williams & Berger, 2005); and integrative initiatives in the form of service-learning or living learning programs (Astin & Sax, 1998; Astin, Sax & Avalos, 1999; Inkelas, Vogt, Longerbeam, Owen, Johnson, 2006; Longerbeam & Sedlacek, 2006; Muthuswamy, Levine & Gazel, 2006; Pike, 2002). Survey items capturing elements of diversity practices were represented in 43 (61 percent) of the 70 surveys we reviewed, the rest neglected to ask any questions about diversity-related practices. Within these 43 surveys, 75 percent addressed practice in a minimal manner, typically focusing mainly on participation in diversity-related courses. The other 25 percent of surveys incorporated at least more than one practice-related item set that tapped into a variety of campus-facilitated initiatives. Unless a climate survey was specifically designed with the evaluation of program participation and educational activities in mind (e.g. University of Massachusetts Gay, Lesbian, Bisexual, and Transgender Issues Survey), many surveys tended to overlook the opportunity to obtain more information about campus-facilitated interventions and practice. Only two multi-campus surveys (Preparing College

Students for a Diverse Democracy, administered at 10 campuses and The Campus Life in America Survey, administered on six campuses) were specifically focused on diversity and systematically investigated specific campus diversity practices. However, these were administered only once longitudinally, as part of externally funded projects. Our knowledge base about specific diversity initiatives is at a nascent stage, and institutional investment in diversity initiatives is significant. If we hope to create the conditions that improve the climate for diversity on campus, we will need to capture more information in assessments about specific interventions that provide contact and enlightenment experiences (Dovidio, Gaertner, Stewart, Esses, Ten Vergert, & Hodson, 2004).

Assessing the Campus Climate, Educational Outcomes, or Both?

In our overview of instruments, we found that outcomes were not typically the focus of climate surveys. Only about 25 percent of the surveys we reviewed assess outcomes extensively. Another 35 percent touch on outcomes minimally, and the remaining do not evaluate outcomes at all. Most climate assessments attempted to take the “pulse” of the institution or student body to determine the level of tension or intergroup conflict (e.g. Penn State Pulse Survey on Diversity Climate, 1998; Indiana State University – A Survey of the Racial Climate, 1995; CSU San Bernardino – Campus Diversity Issues Questionnaire, 1994). The value of these surveys is to provide immediate information to understand the level of tension or intergroup relations dynamics on a campus, but offer little insight into the ways climate is influencing student outcomes. As one college president put it, a climate assessment is needed to find out if racial incidents and intergroup conflicts are isolated experiences or are “just the tip of the iceberg” in terms of the diversity issues on a campus (personal communication).

However, perhaps one of the greatest contributions of climate research to date has been its link with educational outcomes to understand the impact of both subtle forms of discrimination (the psychological climate) and the value of interaction with diverse peers or contact experiences during college (the behavioral climate and intergroup relations). For many campuses, it is not simply a matter of whether groups differ in terms of perceptions and behavior, but rather, whether these differences affect learning, achievement, aspirations, and multicultural citizenship competencies over the long and short term. The most recent work in this area ties both psychological and behavioral dimensions of the climate with progress in scientific disciplines to explore how underrepresentation is experienced in those fields and how it affects their successful transition to college and retention in the major (Hurtado et al, 2007; Chang, Cerna, Han & Saenz, in press), using the Your First College Year survey (HERI), which now regularly taps into a range of diversity questions. The work attempting to employ survey measures of stereotype threat is also relevant for understanding transition outcomes in racially-isolating contexts (Massey, Charles, Lundy, & Fischer, 2003). Although the Massey et al. study is one of the few attempts at using survey data to study the impact of stereotype threat, the survey used was administered only once as part of a funded research project.

Several national surveys intended to help assess student outcomes were designed to measure the student experience broadly (e.g. National Study of Student Engagement, ACT College Outcomes Survey, ACT Student Opinions Survey). While offering opportunities for comparing institutions, the surveys used in these studies do not investigate the quality of the campus racial climate in great depth. These surveys have been designed to measure the student experience broadly, including questions about a wide variety of topics on study habits, engagement in campus activities, academic interests, and interactions with faculty. These are

important areas of interest but items assessing campus racial climate are often more general overall assessments measured in less than a handful of items, rather than attending to multiple dimensions of climate through the development of constructs based on multiple survey items. Moreover, these surveys tend to focus on a traditional set of outcomes, rather than the competencies required for engagement in a multicultural society.

The only multi-campus assessment instrument that extensively taps into experiences and attitudes about a variety of social identity groups (based on race, gender, sexual orientation and disability) is that administered by EBI (Climate Survey V.8), but the survey employs a weak approach to the study of outcomes—asking students to assess the impact of diversity. Many students are not likely to have reflected extensively on how they benefit from diversity, and these responses vary by social identity group.

A few instruments have developed a hybrid model—extensively assessing multiple dimensions of the climate as well as outcomes necessary for participating in a diverse and global society. Following the example set by the social science evidence presented in the Michigan cases, these surveys include the Preparing College Students for a Diverse Democracy Survey 2002 (aka the Diverse Democracy Project) and the Campus Life in American Survey, and recent modifications to the College Senior Survey and Your First College Year (HERI). Only the latter two surveys are available to all college campuses on an annual basis. Building on previous research, these “hybrid” surveys attempt to capture a new set of outcomes framed to address critical issues in multicultural society. For example, the development of a pluralistic orientation scale (Engberg, 2007; Engberg, Hurtado & Smith, 2007; Jayakumar, 2007) is now on the national surveys, although its origin was the Diverse Democracy project (a ten campus study). Yet, even in the case of the HERI surveys, space limitations prevent a more in-depth assessment

of a variety of diversity-related outcomes along with outcomes typically assessed longitudinally (e.g. aspirations, changing values, self-concept).

Table 1 introduces a new framework for the variety of outcome constructs captured in these “hybrid” surveys and previous literature on outcomes associated with preparation for a diverse and global society. The framework originated from studying the concept maps of several surveys, and also the literature linking diversity with a wide variety of outcomes in studies of college students. The thinking behind this framework of outcomes is to illustrate how scholars and institutional researchers are beginning to capture *cognitive* skills (students’ thinking skills), *socio-cognitive* outcomes or dispositions that incorporate social/political awareness, skills and dispositions for multicultural *citizenship*, and *values* and *attitudes* (tolerance and beliefs about diversity issues and topics). Recent work in student development theory suggests that development occurs along cognitive, intrapersonal (e.g. identity), and interpersonal (e.g. ability to consider others and manage difference) domains for individuals who are interculturally mature (King & Baxter Magolda, 2005). Although this model of student development has not yet been linked with actual measures of outcomes, it is important in that it highlights the fact that developmental scholars, college impact researchers, and practitioners are beginning to converge on the value of assessing a set of outcomes associated with diversity. Moreover, it is important to note the interrelated nature of these outcomes. As King and Baxter Magolda (2005) emphasize, each area tends to build on the other. For example, the formation of attitudes has much to do with students’ cognitive development and interpersonal skills in contact with a variety of communities.

Insert Table 1 about here

Table 1 provides a framework that differs from previous frameworks used to categorize college outcomes (Astin, 1993; Pascarella & Terenzini, 2005), and expands the most recent framework of Essential Learning Outcomes to guide college practice that was introduced by AAC&U (Clayton-Pedersen, Parker, Smith, Moreno, & Terguchi, 2007). It is intended to give more focus to the skills, competencies and knowledge that frame personal and social responsibility in a multicultural society. It should be acknowledged that these outcomes are articulated as key aspects of preparing students for the social complexities of diversity and decision-making in a pluralistic society marked by continuing issues of conflict and inequality. Institutions may wish to identify several of these outcomes for assessment in addition to the full range of outcomes of student and institutional performance.

However, it is important to note that many climate surveys did not have a broad range of outcomes, but were more likely to assess respondent attitudes on a variety of diversity topics (e.g.; Loyola Marymount University – Building an Intercultural Campus Climate Survey, 2000; Michigan Student Study; University of Minnesota – Students’ Perspectives on Their Experiences and Changes at the University of Minnesota and Changes Since 1997, 2000). The study of attitudes, and racial attitudes in particular, has a long history dating back to the landmark work of Gordon Allport (1954). This body of literature includes many instruments, concepts, and measures developed since that time (Pettigrew, 1998). Instruments developed for use on college campuses to study racial attitudes or attitudes about diversity issues have borrowed heavily from this rich tradition of social science research. If campuses desire to examine attitudes as part of their climate assessment, it may be considered one aspect of the psychological dimension of the climate that explains the level of group conflict and influences contact experiences on a campus.

Or, the study of attitudes can be rationalized as among the important outcomes the campus hopes to achieve.

It can be argued that changing racial attitudes is a key rationale for introducing educational activities that increase student knowledge about various social identity groups, inequality in American society, and develop tolerance for a living in a pluralistic society. For example, initial attitudes at college entry about LGBT peers significantly influenced interactions with LGBT peers during college (Engberg et al., 2007), and contact experiences during college influence changes in subsequent attitudes (Engberg, et al., 2007; Kardia, 1996). Moreover, improving faculty attitudes may be critical to improving the climate for student learning. An important area of development for research on college campuses would be to extend the examination of attitudes among faculty and students about race, gender, ethnicity, and sexual orientation to link with other important educational outcomes. Understanding attitudes and beliefs are the first step in not only understanding conflict and resistance on campus, but also in preparing students to acquire the essential skills for interacting in a diverse and global world (Hurtado, 2007; Clayton-Pedersen et al., 2007).

Several diversity-related surveys are now designed to go beyond assessing values and attitudes to examine students' thinking or cognitive skills, with researchers investigating these issues using measures of dispositions for critical or complex thinking (e.g. Student Thinking and Interacting Classroom Survey). Researchers have linked aspects of the psychological and behavioral dimensions with such cognitive outcomes as analytical problem-solving (Terenzini et al., 2001; Hurtado, 2005), critical thinking (Hurtado, 2001; Pascarella et al, 2001; Hurtado, 2005), openness to diversity and challenge of their own beliefs (Pascarella et al., 1996; Whitt et al, 2001; Summers, Svinicki, Gorin & Sullivan, 2002), attributional complexity or more complex

explanations of other people's behavior (Hurtado, 2005), and integrative complexity (antonio et al, 2004). Researchers are using surveys to investigate how diversity is related to differences in students thinking and reasoning skills.

Socio-cognitive outcomes are those skills and dispositions that imply more awareness of interpersonal relations across groups that involve both cognitive abilities and social awareness, or an individual and social component. These include changes in cultural awareness, leadership skills, perspective-taking skills (antonio, 2001; Astin, 1993; Hurtado, 2005; Hurtado, Engberg, Ponjuan & Landreman, 2002), and reduction of intergroup anxiety (Stephan & Stephan, 1989). Several surveys have begun to tap into social identity awareness and group-based identities (the Michigan Study and Diverse Democracy Project surveys), or an understanding of self in relation to others. These types of measures also involve assessments of interpersonal skill development.

Another domain, which we term citizenship in a multicultural society, can be understood as a set of skills and abilities to interact with a variety of social identity groups and to make decisions in a society marked by difference. Survey research on college students has begun to tap into students' development of a pluralistic orientation—skills and abilities to participate in diverse workplaces (Hurtado, 2005; Engberg, 2007), interest in equity issues, and civic commitments and behaviors. It implies a level of commitment evidenced in behavior in a diverse democracy. Additionally, aspects of this outcome dimension include social action engagement (Hurtado, 2002; Nelson Laird, Engberg & Hurtado, 2005), and conceptions of a democracy (Hurtado et al., 2002).

It is important to note the interrelated nature of these outcomes, as King and Baxter Magolda (2005) emphasize, and it makes it very difficult to categorize outcomes into any one domain. For example, the formation of attitudes has much to do with students' cognitive

development and interpersonal skills in contact with a variety of communities. Advanced levels of cognitive development are necessary for greater social awareness and commitments. Further examination of these outcomes measures is likely in the near future as institutions and scholars attempt to understand how their educational programs and interventions prepare students for a diverse society.

The Future of Diversity and Climate Research

We have introduced three frameworks to summarize the features and trends in research designed to assess the dynamic aspects of diversity on college campuses. Our analysis integrating an examination of the literature on diversity on college campuses and over 70 surveys using the climate, practice, and outcomes frameworks suggest a great deal about the current state of diversity research and assessment. In addition to reminding us of what we now consider empirical knowledge about campus diversity, our review also highlights several gaps in our understanding, suggesting that efforts to more holistically assess climate, practices, and outcomes across multiple campuses are required to further our knowledge base and improve practice.

First, while there is a well-developed literature base, there is much that remains unknown about the nature and influence of campus racial climate. For example, as noted above, few studies and surveys have assessed the climate as a multidimensional construct. We are just beginning to understand how the dimensions identified within the campus racial climate framework interact with one another to create an environment that fosters or stifles student growth. Additionally, most campus racial climate research has been conducted with students as the unit of analysis, comparing the perspectives and outcomes of white students and either Black students specifically or students of color broadly. The impact of campus climate on specific

communities of color must be explored in greater depth. For example, among the target-specific instruments, none were specifically focused on Asian American or Native American student communities. Therefore, in addition to expanding our understanding of the experiences of Black and white students, the continued plight of Native Americans, and the specific problems faced by Asian American and Hispanic students in American higher education are worthy of additional emphasis.

Multi-institutional surveys that provide a normative comparison group are important for campuses to evaluate how they are progressing on diversity goals. However, comparing and assessing multiple groups on a single campus is also important for a deeper examination of their multicultural learning environment. The majority of the climate studies and surveys focus on students, with only a handful of single-institution staff surveys identified. Greater attention to the development of multi-institutional and national surveys which add to our understanding of the climate for other community members such as faculty, administrators, and staff is certainly warranted and needed. Campuses that can comprehensively assess their communities will get a better notion of how staff, faculty and students experience the campus environment, their degree of marginalization, and levels of interaction between these different groups.

Importantly, today's campuses are more committed to investigating a wider spectrum of diversity issues that involve multiple communities and the intersectionality of social identities. As noted previously, "diversity" is used almost exclusively to refer to race and/or ethnicity . Today's social discourse requires an expansion of how we study diversity on a campus to include differences in gender, age, socioeconomic status, physical ability, sexual orientation, religion, and geographic or cultural origins which can be found on our nation's campuses. Future efforts

to assess diversity, equity, and climate must be more inclusive of difference which extends beyond race and ethnicity.

This review also speaks to the state of research and assessment of institutional initiatives designed to facilitate intergroup interactions, relationships, and learning. The practice-focused framework developed based on the *Diverse Democracy Project* research, and our evaluation of diversity surveys provided a means to structure the various kinds of diversity-related practices that colleges and universities are providing for their student populations. However, this framework also exposed gaps in the literature between actual practices and the amount of research available on these diversity initiatives. Which interventions improve the climate on campus? Which initiatives have the same effect on a variety of student outcomes? While some research exists on aspects of each major diversity category (Hurtado, 2005), there is a need for a more comprehensive understanding of how these initiatives work and their impacts, developed through careful evaluation and assessment. Institutions have an opportunity to incorporate elements of their practices in survey research that fit the unique needs of their campus community, which in turn, supports their efforts and strategies to improve campus climate and student outcomes.

Our recommendations around improving the assessment of practice naturally turn our attention to the evaluation of student outcomes. The development of longitudinal measures which determine the impact of the educational environment and institutional practices provide crucial information for facilitating important student outcomes. We proposed a new framework of student outcomes, integrating a set of skills necessary for personal and professional success in an increasingly diverse nation. Colleges and universities produce a host of educational outcomes that are well-documented (Pascarella & Terenzini, 2005), and advancing social progress is one of

higher education's most important outcomes (Bowen, 1997). The new framework of diversity outcomes offers a list of student competencies, values, skills and dispositions which will allow us to determine how and whether institutions are meeting these community-related goals. Colleges should move towards a more comprehensive set of outcomes including not only the traditional ones we typically monitor, but also the skills and abilities to become a citizen in a multicultural society. One approach may be the use of multiple instruments and sources of outcome data, as there is no single instrument ideally suited to capture a wide range of college outcomes currently.

Finally, our review speaks to challenges in the instruments utilized to assess climate. While we were able to collect a fairly comprehensive set of surveys used in diversity studies across the nation, it is difficult to determine whether and when particular instruments were used in the campus racial climate literature because specific institutions (or survey instruments) are rarely identified in order to maintain institutional anonymity. Institutionally-devised surveys help determine how the climate is perceived within a particular context; yet, they are so institution-specific that they may not be easily generalized beyond that campus. Instruments used in these studies are seldom validated, and when they are, they are validated only using individuals at the campus under study. This leaves us able to determine how different groups on one campus perceive and are affected by climate, but limits our ability to compare perceptions of climate across campuses. The development of an instrument which can be used at individual campuses nationwide can provide a micro as well as a macro level of understanding diversity at American colleges and universities. The most extensive "hybrid model" instruments that capture a wide range of climate, practice, and outcome constructs are useful examples of such surveys; yet, their use is currently limited to a handful of campuses. In order to see the "big picture" and thoroughly understand the campus environment in its entirety, student outcomes, campus climate, and

institutional practices must be examined and assessed in comprehensive ways, integrating evaluations of these three components of diversity into one survey. Only then will a campus be able to identify how the dynamics of diversity shapes their work and learning environment, and subsequently impacts outcomes for members of their community. Developing a comprehensive national survey that encompasses these various components of campus diversity will truly prove to be beneficial in addressing the lingering questions about diversity and climate as we strive to prepare a new generation of leaders.

Campuses that wish to make progress in becoming functional multicultural learning environments now have a vast amount of empirical information to guide practice but nothing can replace critical self-assessment to deepen the commitment to diversity on a campus. At one time, climate assessments were used as one-shot portraits---the solution to a “problem” with diversity instead of the catalyst for change. Their empirical value has risen as a result of systematic study, and campuses committed to “inclusive excellence” have now determined that a good understanding of the climate should be the first step in campus-wide planning as well as intentional educational activity inside and outside of the classroom. Campus administrators must find new and better ways to convert the vast amount of information we collect on campus diversity into institutional action, as we are now more aware of the consequences of institutional neglect. Advancing student skills to become competent, multicultural citizens will also advance higher education’s mission to advance social progress in the next generation.

Table 1.

Framework of Student Outcomes from Survey-Based Climate Assessments

Cognitive	Socio-Cognitive	Citizenship in a Multicultural Society	Values and Attitudes
Analytical problem-solving	Leadership skills	Pluralistic orientation	Civic values
Critical thinking	Cultural awareness	Civic contributions	Commonality of values with different groups
Openness to diversity and challenge	Social identity awareness	Interest in equity and social justice issues	Tolerance of differences
Attributional complexity	Self-efficacy for social change	Voting behavior	Attitudes towards different identity groups
Socio-historical thinking	Perspective-taking skills	Political involvement/interest	
Knowledge about different racial/ethnic groups	Reduction of intergroup anxiety	Social action engagement	
	Social awareness	Conceptions of a democracy	
	Intellectual and Social self-confidence		

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