

Analyzing Campus Climate Studies: Seeking to Define and Understand

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The term campus climate has become commonplace within higher education. However, there is little consensus on how best to define and measure it. Our study is a qualitative content analysis of 118 campus climate studies. Guided by the conceptual understanding of campus climate put forth by Peterson and Spencer (1990), we explore the nature of campus climate research based upon studies found in a clearinghouse database of faculty campus climate studies. We found that those conducting studies are most often institutional employees. There was no standardization of design or instrumentation in these studies. Studies did not rely on a single definition of campus climate or on any set of best practices for assessing campus climate. Additionally, studies explored various aspects and constituents of the campus—both in and out of the classroom, and for the working environment for faculty and students and occasionally staff and administrators. Implications and specific recommendations for conducting campus climate research based upon extant literature and on findings from the study are included.

Keywords: campus climate studies, campus culture, study design, experiences of climate

The extant literature defining campus climate is scant; yet the term is used on many campuses and in many contexts to understand diversity issues and quality of life issues. Yet, over the last 20 years, an increasing number of colleges and universities have engaged in campus climate studies in order to gauge the environment as it related to issues of diversity and multiculturalism (Hurtado, Milem, Clayton-Pederson, & Allen, 1998). As stated by Hurtado, Carter, and Kardia (1998), “Assessing the climate for diversity becomes key for institutions that wish to create comfortable, diverse learning environments” (p. 53), which often prompts institutions to commission such work. However, this lack of attention to defining the concept campuses are

so heavily engaged in assessing points to the need for studies similar to ours.

Moreover, just as there is a limited consensus in the definition of campus climate, there is also very little known about campus climate studies in the aggregate. For example, what are the foci of the studies? Are they interested in race/ethnicity, gender, social class, or other issues? Is it the student experience that is most central, or is it faculty or staff, or a combination? What method or methods are being used? Who is conducting them? Are they being conducted by a campus researcher or an external researcher or consultant?

Another concern is the accessibility of the findings. Harper and Hurtado (2007) stress that the purpose of conducting and reporting campus climate research should be to serve as a foundation for institutional change. And, if an institution is truly interested in change, the ease of accessing a study and its transparency, especially to members of the campus community being studied, symbolize its commitment to enhancing the climate. Related to the issue of accessibility, we note that the majority of campus climate studies are *not* shared beyond the campus; however, some have been distributed more widely. In fact, the National Academy of Sciences’ Committee on Women in Science and Engineering website, [---

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.nationalacademies.org/cwsem/gender_faculty_links.html, has compiled climate studies from a number of campuses (NAS, 2008). To our knowledge, the NAS website is the only known, expansive, and publicly accessible clearinghouse of campus climate studies. We investigated the campus climate studies available from the NAS website to better understand the nature of campus climate research. Specifically, the intent of our study is to contribute to the literature that defines campus climate by investigating the choices researchers and institutional leaders have made as they have conducted campus climate studies on their own campuses. Through our study, we hope to provide other scholars with information and analysis of the depth and breadth of existing studies and to inform academic leaders of some of the issues they may want to consider before commissioning or conducting this work.

Toward a Definition of Campus Climate

In the literature, campus climate is a very broad and often vague concept that is only germane to parts of a campus community (e.g., students or faculty). For example, Woodard and Sims (2000) defined campus climate as “students’ perceptions of their experiences both in and out of the classroom” (p. 540). This type of definition focuses solely on students and provides little direction in terms of what is meant by “experiences.”

“Within the higher education literature, the terms ‘campus climate’ and ‘campus culture’ are often used interchangeably” (Cress, 2002, p. 390). However, Cress’s (2002) definition of campus climate in *Women in Higher Education: An Encyclopedia* is an example of a case that does delineate the difference. Cress included explicit dimensions of climate such as “perceptions, attitudes, and expectations” (p. 390), and her definition goes on to distinguish climate from culture by stating, “. . . culture entails viewing the organization from a holistic perspective, but climate focuses on interpersonal interactions” (p. 390). Yet, like the Woodard and Sims (2000) definition above, this definition of campus climate fails to recognize the complexity of the concept by only focusing on interactions with others.

A more practical discussion of the differences between culture and climate is provided by

Peterson and Spencer (1990). Their definitions of climate and culture and the distinction between the two are based partially on work by Hellriegel and Slocum (1974). Hellriegel and Slocum have a management-oriented view of climate and defined it as, “a set of attributes which can be perceived about a particular organization and/or its subsystems, and that may be induced from the way the organization and/or its subsystems deal with their members and the environment” (p. 256). In applying this definition to higher education, Peterson and Spencer (1990) defined climate as “the current common patterns of important dimensions of organizational life or its members’ perceptions of and attitudes toward those dimensions” (p. 7). Thus, the main difference for Peterson and Spencer (with Hellriegel and Slocum in mind) is “climate, compared with culture, is more concerned with current perceptions and attitudes rather than deeply held meanings, beliefs, and values” (p. 7).

According to Peterson and Spencer (1990):

The major features of climate are (1) its primary emphasis on common participant views of a wide array of organizational phenomena that allow for comparison among groups or over time, (2) its focus on current patterns of beliefs and behaviors, and (3) its often ephemeral or malleable character. Climate is pervasive, potentially inclusive of a broad array of organizational phenomena, yet easily focused to fit the researcher’s or the administrator’s interest (pp. 8).

For these authors, the aforementioned characteristics are what distinguishes climate from culture and what should be the focus or foci for those conducting campus climate studies. Additionally, Hurtado, Milem, et al. (1998) provided even further detail of what may constitute a campus climate. These authors outlined four “dimensions” including institutional history, structural diversity, psychological climate, and behavioral climate (p. 282). In addition to arguing for the inclusion of an institution’s history when assessing campus climate, this definition also provides support for the characteristics outlined by Peterson and Spencer (1990).

Finally, Peterson and Spencer (1990) outlined three broad categories that “help to delineate the conceptual content of climate research” (p. 12). These three categories included the objective climate, the perceived climate, and the psychological or felt climate (pp. 12–13). The authors described the categories, including why

each category was useful to study in terms of climate. Thus, for the purpose of our study, we focus on the first two of the three features of climate as identified by Peterson and Spencer (1990). While we appreciate the nuances identified by Hurtado, Milem, Clayton-Pederson, and Allen (1998), their definition is primarily concerned with race and students, while Peterson and Spencer's (1990) definition is broader and thus captures perspectives on additional identities and from additional institutional members. We will use this definition to guide us in our analysis of existing campus assessments of climate and to frame part of our critique of these studies.

Studies About Campus Climate

The vast majority of studies of campus climate focus on race, ethnicity, and or gender. To date, little attention has been paid to how perceptions of and experiences with sexual orientation, religion, veteran status, social class, gender identity, and other identity characteristics also contribute to campus climate. Further, most extant studies are concerned with the experiences of students, although a smaller number did reflect upon the experiences and perceptions of faculty. What follows is a synthesis of the literature we found about campus climate studies in the broadest sense, including assessment and critique of campus climate research.

The Racial/Ethnic Climate

As previously described, Hurtado, Milem, et al. (1998) provided campus climate researchers with a framework of the "four dimensions of campus climate" (p. 281) in order to best assess racial and ethnic climate. This article provides overviews of various studies in support of each of the four dimensions. The authors suggested in their conclusion that there were two main issues to consider, "(a) How diverse does the campus look in its representation of different cultural groups? and (b) To what extent do campus operations demonstrate that racial and ethnic diversity is an essential value?" (p. 297). Similarly, Woodard and Sims (2000) identified the need to assess structural diversity and the value of the concept of diversity on campus. This single-institution, mixed method study sought to obtain information from White stu-

dents and students of color regarding their experiences in and out of the classroom over a 4-year period, during which the collected information was used to implement various programmatic changes across campus.

Rankin and Reason (2005) conducted a multicampus study looking at the differences between students of color and White students in their perceptions of the racial/ethnic campus climate. This quantitative study found clear differences with students of color reporting much less favorable perceptions of their campus climates than the White students on those same campuses (p. 57). Moreover, this study is one of the few examples of the use of a standardized instrument used to measure campus climate on many campuses. In addition, Rankin and Reason's findings consider both gender and race, reinforcing the importance of examining intersectionality of identities when studying issues of campus climate.

Assessment of Campus Climate Studies

Harper and Hurtado (2007) conducted an analysis of literature regarding campus racial climates from 1992–2007. The authors divided the findings from these studies into three categories: differences in perceptions by race, reports of prejudiced or racist climates, and benefits of encouraging interracial interactions. The majority of studies (71%) reviewed by Harper and Hurtado utilized only quantitative methods. Further, the authors articulated nine themes that developed from the analysis, using examples from specific racial/ethnic campus climate studies. Harper and Hurtado concluded that "despite 15 years of racial climate research on multiple campuses, the themes of exclusion, institutional rhetoric rather than action, and marginality continue to emerge from student voices" (p. 21). Finally, the authors advocated for information collected through campus climate studies to be used for intentional, institutional change.

The "Chilly" Climate for Women

Allan and Madden (2006) sought to tease out the methodological differences used to study the classroom climate for female students. These authors provided an overview of the various studies that have been conducted regarding the

chilly classroom climate for women starting from the hallmark 1982 study by Hall and Sandler through a much more recent study by Salter (2003). Allan and Madden stated that the chilly classroom climate studies have produced mixed results, some in support of the chilly classroom climate and some against the existence of such an environment. These mixed results were possibly due to the use of different research methods, qualitative versus quantitative. Allan and Madden cautioned readers of campus climate studies to consider method as a critical factor in truly understanding research findings.

Morris (2003) conducted an extensive review of the literature surrounding the chilly climate for women in higher education and concluded that the majority of the literature focuses on the classroom experience, a finding that is supported by the literature presented in Allan and Madden (2006). These findings demonstrate that climate tends to be a construct central to college classrooms and students. However, Woodard and Sims (2000) do focus on climate issues outside the classroom, as does early climate work by Hall and Sandler (1984), but again both studies focus on students. While the majority of chilly climate and racial climate literature tends to examine the experiences of female students, women faculty and staff are experiencing similar issues related to the campus climate.

Sandler (1986) examined the chilly climate for female faculty, administrators, and graduate students, based on earlier work done on female undergraduate students (see Hall & Sandler, 1982, 1984). Sandler discussed issues related to the number of women on campuses, collegiality, sexual harassment, and others. While Sandler's study is focused on gender not race/ethnicity, we did find three of the elements of campus climate research recommended by Hurtado, Milem, et al. (1998): structural diversity, psychological climate, and the behavioral climate. Because her work was not a single campus study, it would be difficult to study institutional legacy of sexism. However, her conclusion does capture the essence of the historical experiences of women in the United States. She stated:

The lack of awareness, knowledge, and interest about women and who and what they are, about their concerns, as well as the lack of scholarly attention paid to the study of women, communicates to all women that they are outsiders. And because they are outsiders, the

campus is a different and less supportive environment for them than for their male colleagues and peers (Sandler, 1986, p. 17).

Additionally, Somers et al. (1998) focused on the campus climate for faculty and staff and in doing so provided an overview of studies on topics, such as faculty workloads and faculty satisfaction. They reported that, "various studies have attempted to examine specific components of the campus climate, whereas others have addressed potential sources of change from a broader perspective" (p. 49). This is to say that some campus climate studies solely examine differences in aspects like salaries or teaching load for male and female faculty, while others attempt to measure a broader spectrum of issues including treatment and collegiality, and it is the broader studies that better assess climate overall. This reinforces Peterson and Spencer's (1990) recommendation to include multiple aspects of climate, rather than measure a singular, structural component.

Finally, there is a literature on faculty satisfaction and staff satisfaction (e.g., Johnsrud & Rosser, 2002). While not cast as climate studies, they may provide valuable data related to climate, although these studies are usually multi-institutional. Further, work-family studies (e.g., Wolf-Wendel & Ward, 2003) also capture some aspects of climate, just as faculty salary studies do, but again these types of studies were outside the scope of our analysis, as framed by Peterson and Spencer (1990).

Research Design

In order to better understand the nature of existing campus climate research, we conducted a qualitative content analysis of 155 studies available from the National Academies website, http://www7.nationalacademies.org/cwsem/gender_faculty_links.html. Although the title of the webpage is "Gender Faculty Studies at Research I Institutions," the studies linked to this site are much broader than those focused solely on gender and faculty at research universities. Due to the clearinghouse nature of the site and the expansiveness of the studies within, this site is a valuable source of data, particularly for an exploratory study of this nature.

While content analysis is primarily a deductive approach, simplifying a large amount of information, the method also "can identify in-

tentions” (Grbich, 2007, p. 122) and serve as a foundation for interpretation of a phenomenon; thus, the selected research design is appropriate for the kind and level of analysis necessary to respond to our research questions. Further, qualitative research is intended to be descriptive and discover meaning of a phenomenon; in this case, campus climate studies with a primary focus on gender. The research is not generalizable, but we hope that the analysis of the data will provide insight to those who have and will conduct campus climate studies.

Four major content areas were identified: investigators, research method(s), topical focus (e.g., gender, race, sexual orientation), and subject focus (e.g., faculty, students). In addition, we analyzed the accessibility of an institution’s report by counting the number of web links or web pages that had to be reviewed.

The first step in our content analysis was to find each study on the National Academies’ site and collect data for the following questions:

- 1) What is the institution?
- 2) Who were the investigators (external consultants or internal employees)?
- 3) What method was used (mixed method, qualitative, or quantitative)?
- 4) Was the focus on gender, race/ethnicity, sexual orientation, or other issues?
- 5) Was the focus on faculty, staff, students, or other groups?

In the process of collecting these data, additional findings were also noted such as the type of instrument used; if the study did not identify empirical results, did it list goals, initiatives, or recommendations; and the year the study was released and/or conducted. The amount of time spent analyzing each study differed based on the ease of locating the aforementioned data, with some studies reporting the relevant information in an executive summary and others incorporating the data throughout the entirety of the report.

After collecting the preliminary data, we identified issues related to the accessibility of studies. There were several studies listed on the National Academies’ site that were no longer accessible through the provided links and there were institutions listed on the site that never

provided study links. Two decision rules were used to gather additional data based on the lack of accessibility of these studies. First, for those studies that were no longer accessible through the site, institutional site searches were conducted. Second, for those institutions that had no studies listed and those instances where all of an institution’s studies were no longer available or accessible through the National Academies’ site, specific search parameters were developed to identify similar studies for inclusion in the project.

After reviewing the compiled information from the accessible studies, we developed additional search parameters to help us locate the initially inaccessible studies. We identified 10 search terms and limited our search temporally. The following search terms were based on the language used in the titles and text of the other studies: climate study, climate report, faculty survey, diversity survey, campus climate, equity study, climate assessment, quality of life, work-life, and gender equity. Of the studies included on the National Academies’ site, 92.7% were from 1991–2004, so only studies falling within this range were considered. Once these parameters were established, institutional site searches were conducted and in addition to reviewing the content, the ease of accessing the information was also noted, including what term or terms led to a relevant study and the ease of locating and accessing the study. Furthermore, when the institutional site searches were conducted, a decision rule was created to facilitate the data collection process so that only the first two pages of search results generated from the institution’s search engine (i.e., search results numbered 1–20) were examined to find relevant studies. A final step was to review the Carnegie classifications for all institutions included in this project.

After compiling the data, we relied on principles from enumerative inquiry to guide our analysis (Grbich, 2007). We developed categories based upon the questions listed above (i.e., institution, investigator, method, foci) and determined the frequencies of occurrences of categories and specific key words in context to analyze our data. Trustworthiness was enhanced by having us each code the data independently and then compare results and by each conducting the process twice to assure accuracy of the findings (Grbich, 2007). We also used our con-

ceptual framework based on Peterson and Spencer (1990) to interpret the data. For instance, according to Peterson and Spencer, one feature of campus climate studies is the exploration of perceptions of a variety of campus constituents concerning an assortment of campus characteristics. However, there were studies included in our sample that only looked at one characteristic from the perspective of only one group of constituents (e.g., faculty salary studies).

Findings

There were 92 institutions on the NAS website; however, only 78 had reports that were accessible according to our design parameters. In all, we found 127 reports, noting that several institutions provided more than one. Twenty-one of those reports were not studies as we conceive them. Rather, they were primarily listings of recommendations, goals, and accomplishments; limited empirical findings, or in some cases, no findings, were reported. As a result, 118 studies contained data germane to our conceptual framework and design. Another important note is that three of the studies contained data outside the specified year range of 1991–2004, but the data were included in our analysis because these three studies covered multiple years, including at least one year that overlapped with our timeframe.

Analysis by Content Area

We used the 118 accessible studies as our sample to gather additional data about the four content areas we identified for analysis. One hundred-fifteen of the studies included information on the type of investigator used. For our analysis, *type of investigator* refers to whether institutional employees were responsible for the study (i.e., internal) or whether outside consultants or researchers were hired to help develop and conduct the study and/or to interpret the findings (i.e., external). In some cases, both internal and external investigators were used (i.e., both used). We found that the majority of the studies (89.6%) were conducted by internal investigators.

We also recorded the research method or methods used. We found 104 of the studies included explicit information on the research method or methods used; the use of quantitative

methods and mixed methods were almost equal (47.1% v. 46.2%). Only a small percentage (6.7%) of the studies relied solely on qualitative methods. Some institutions based their results, either wholly or partially, on national surveys like the Rankin National Climate Study (Rankin & Associates Consulting, Inc., 2002–2006) and the Higher Education Research Institute (HERI) Faculty Survey (HERI, n.d.). However, the majority of studies used institutionally developed research tools, including surveys, interview questions, and focus group protocols. Further, many of the quantitative and mixed method studies included statistical analysis of preexisting data available through institutional research offices, including analyses of salary data and/or demographic information.

Next, we examined the primary characteristics under investigation (e.g., gender, race/ethnicity, sexual orientation). One hundred-fifteen studies included this information; the three most prevalent identity categories considered by the studies were gender, race/ethnicity, and sexual orientation. Of the studies, 47.8% included only one focus, with gender as the most studied and race/ethnicity the second most studied. The remaining studies combined multiple variables, with gender and race/ethnicity being the most often explored. All of the studies, except for three that looked exclusively at race/ethnicity, included at least gender as a focus. Other identity characteristics or variables presented in the studies included, but were not limited to age, class, disability, and religion (see Table 1 for more detail).

The last content area of analysis was subject or institutional role focus, and 116 of the studies included this information. We defined subject focus as the group of people who was studied (i.e., faculty, staff, and/or students). We recognize that staff as a category can represent a diverse group of employees; however, the majority of studies only referred to staff in general and did not specify the subsets of employees who were included (e.g., administrators, office staff, custodial staff). Of the studies, 53.4% included only one subject focus, with the vast majority focusing solely on faculty. The remainder of the studies (i.e., 54) included at least two or more subject foci but always included faculty. The most common combination of subject foci was faculty, staff, and students, followed closely by faculty and staff, and finally

Table 1
Campus Climate Study Characteristics: Identity Characteristics Assessed

Variable considered in investigation	Number of studies ¹
Age	4
Class/SES	3
Culture	1
Disability	8
Gender	112
Indigenous Status	1
Marital Status	1
Parental Status	1
Race/Ethnicity	58
Region/Geography	1
Religion	6
Reverse Discrimination	1
Sexual Orientation	21

Note. 115 studies contained usable data for this analysis.
¹ Many studies focused on more than one variable; thus, number of studies column equals more than 115.

faculty and students. Out of the 45 studies that included students, 19 studies did not specify the class year of students included in the analysis (e.g., graduate, undergraduate). However, 26 studies included 6 that focused on graduate students; 2 studies about undergraduate students; 13 on graduate and undergraduate students; and 5 studies included graduate and undergraduate students, as well as specifically mentioning doctoral students, professional students, or post-doctoral researchers. Finally, there were a small

number of studies that included administrators, as well as one study that included alumni and alumnae and two studies that included trustees.

Analysis by Institutional Type

We were interested in exploring the nature of the institutions that posted studies on the NAS website. For example, were the institutions public or private; what was the Carnegie classification for each institution? All but seven institutions were Research Universities/Very High (RU/VH). Nearly 63% of the institutions included in our study were public RU/VH institutions; 28.2% were private RU/VH institutions. The following table reports our institutional type findings. The percentages included in the table are based on the number of total studies.

Content Analysis by Institutional Type

As presented in Table 2, the private RU/VH institutions more often relied on internal investigators; only one of the 34 private institution studies contracted with an external investigator. Of the public institution studies, 10.3% used the support of an external researcher. The private RU/VH institutions included in our study relied more on mixed method, while the public RU/VH institutions relied more on quantitative methods. However, all seven of the qualitative studies came from the public RU/VH institutions.

Table 2
Campus Climate Study Characteristics: Public Versus Private RU/VH Institutions

	Public RU/VH institutions (49 institutions with 84 studies)	Private RU/VH institutions (22 institutions with 34 studies)
Investigator	Internal = 77.4% External & Internal = 8.3% External = 2%	Internal = 94.1% External & Internal = 2.9% Internal = 0%
Method	Quantitative = 41.7% Mixed method = 28.6% Qualitative = 8.3%	Mixed method = 64.7% Quantitative = 23.5% Qualitative = 0%
Topical Focus	Gender only = 33.3% Gender & Race/Ethnicity = 31% Race/Ethnicity only = 2.4%	Gender only = 55.9% Gender & Race/Ethnicity = 29.4% Race/Ethnicity only = 2.9%
Subject Focus	Faculty only = 35.7% Faculty, Staff, & Students = 19% Faculty & Staff = 14.3% Students only = 6% Faculty & Students = 3%	Faculty only = 50% Faculty & Students = 14.7% Faculty, Staff, & Students = 8.8% Students only = 8.8% Faculty & Staff = 2.9%

When analyzing the foci of the studies by institutional type, 61.9% of the studies that included data on sexual orientation issues were from public RU/VH institutions, whereas 14.3% were from the private RU/VH institutions. Two-thirds of the studies that included religion and class as a focus were conducted at public RU/VH institutions. Studies on faculty only were more likely to be conducted at private RU/VH institutions, while the public RU/VH institutions conducted more studies that included staff. The majority of studies that included administrators (77.8%) were found at the public RU/VH institutions. As we discussed with regard to staff as a category, administrators can also encompass a variety of persons on campus, including academic affairs and student affairs. However, based on the information we have from the studies, we were only able to consider administrators as a general category.

Analysis by Title and Ease of Accessibility

The final aspect of our analysis centers on the language used in naming or identifying these studies and the ease of locating these studies. A basic review of the studies' titles showed there was a variety of language used. As previously stated, we used 10 different search terms based on the titles of the studies included in our investigation that were then used to conduct institutional site searches for the initially inaccessible studies at 27 institutions. Of the 10 search terms, *campus climate* and *diversity survey* were the most useful in helping us locate an additional 18 studies to include in our analysis.

When conducting the institutional site searches for either the specific studies listed on the National Academies' site that did not directly link to a study from the NAS page or use our designated search parameters, the ease of locating the studies was noted. The majority of institutional site searches based on the 10 search parameters gave relevant links within the first page of search results. However, there were many instances where the link was not clearly titled and therefore may have caused difficulty for anyone who is not familiar with the variety of language used in the study of campus climate issues. In addition, once a relevant link was found, there were several instances where the viewer was required to read through one or more additional web pages and click on other links before getting to the actual study.

Discussion

From our data, we found that the majority of campus climate research is conducted by someone affiliated with the institution. While internal investigators may have some bias in terms of the campus, steps can be taken to mitigate bias. Moreover, internal researchers often seek out these studies either as a part of their job (e.g., Chief Diversity Officers) or because of a commitment to diversity and multiculturalism (e.g., campus committees on the status of women or grassroots activist groups; Glazer-Raymo, 1999; Hart, 2005). Also, an internal researcher will likely be less costly, have a richer sense of institutional context, and may know policies and procedures related to existing institutional data that can facilitate the research process. However, having an external investigator or consultant may provide additional legitimacy to a study, as an outsider is less likely to be perceived as "having an axe to grind," should the findings be critical of the institution's climate. Further, an external researcher or consultant may be able to focus exclusively on the study for a particular point in time without interference from other job responsibilities and may garner more candor from participants because they are not part of the institutional infrastructure. That said, most of the studies in our investigation were conducted at public institutions. Given dwindling state resources at public institutions, it may make fiscal sense for these studies to be conducted internally, despite concerns about bias.

Methodologically, nearly all studies had a quantitative component. Certainly if structural diversity is to be included as a part of any study (Hurtado, Milem, et al., 1998; Peterson & Spencer, 1990), we expect to see at least descriptive statistics as one aspect of the studies. Further, despite a growing understanding and appreciation for qualitative work, quantitative research is still preferred in the academy and is most often the currency of legislators, policymakers, and trustees. Thus, to get buy-in to any recommendations that may emerge from a study, including at least some quantitative measures is important. But, as Allan and Madden (2006) stress, climate is not always fully understood using only quantitative methods. Qualitative methods can provide thick, rich description and a deeper understanding of lived experiences of

members of an institution's community. For example, a survey may show faculty are satisfied with their jobs, but upon interviewing faculty, we may find that despite a level of satisfaction, there are patterns of subtle racism experienced by faculty of color. This is a climate issue that would have remained unnoticed if not for the addition of qualitative data.

Because our data source is a web page designed to focus on gender issues, it is not surprising that we found that the climate studies included gender as a salient characteristic in nearly every case. However, what was surprising is that nearly half of the studies concentrated on only one identity characteristic, either gender or race/ethnicity. These studies failed to take into account the interlocking nature of identity and how these mutually shaping identities may contribute to differing experiences and perceptions of campus climate (Hill Collins, 2000). For example, a Latina may experience campus climate quite differently than a White woman, who both have a different experiences from a White man. This example is not intended to be essentialist, assuming that all Latinas or White women or men have the same experiences, but it is to reinforce how gender and race/ethnicity can both have an influence on how individuals experience the world, and failing to take one or the other into account (or other characteristics like sexual orientation, religion, etc.) can eclipse part of the overall experience and perception of climate. Moreover, it is in these cases that the qualitative data are very powerful, as when experiences are more finely disaggregated based upon the intersectionality of identities generalizability of findings becomes nearly impossible.

Over half of the studies in our analysis examined the campus climate for one constituency and, given the nature of the data source, most focused on faculty. Institutions may choose to conduct separate studies for different groups on campus. The University of Arizona is one example where distinct studies were conducted to assess the climate for faculty, staff, and students. However, when examining the studies that included more than one constituency, less than 10 explored how staff and/or administrators perceived and experienced the campus climate. To have a complete understanding of the climate, it is ideal to understand the experiences and perceptions of as many of the campus constituencies as possible. This can be cost-prohibi-

tive. However, a specific focus on a particular group provides an incomplete assessment and omits important voices. Further, staff tends to be the category most apt to be excluded from inquiry. Given the large number of staff who are employed in lower paying jobs (e.g., food service, custodial, clerical, grounds keeping), to do so contributes to a classist campus climate.

Again, the nature of our data source, the NAS website, established a predictable sample where nearly all of the studies analyzed were conducted at research universities. Thus, we cannot critique studies outside the scope of this analysis. However, in this data set over half were public institutions, institutions whose demographics, including salary for faculty, staff, and administrators, are public, making it less "risky" to draw attention to campus climate study findings. For private institutions, deciding to make public campus climate studies in forums like the NAS website or even on the institution's website may be considered reckless, particularly if findings show that the institution is not as welcoming as it could be or is not meeting diversity and multicultural goals. Such publicity may be seen as making the institution vulnerable. Yet, we argue that all institutions should engage in campus climate research and that transparency of the findings is crucial in order to truly commit to values of diversity, social justice, and multiculturalism and to enhance campus climate in the future.

The issue of transparency also emerged for the studies that were not, or were no longer, linked to the NAS website. We commend all the institutions that identified their campus climate studies through the NAS website, as they were willing to publicize the assessment of climate on their campuses. However, we had to take additional steps to find 18 of the studies in our analysis; and for some institutions, we could not find any studies using our decision rules. This lack of visibility may be interpreted as a signal that the campus has something to hide. It can also signal a lack of honest commitment to issues of campus diversity.

By and large, the studies in our investigation were referred to as *campus climate* or *diversity* studies. As mentioned, these studies focused on the experiences and perceptions of faculty and primarily concentrated on the climate as it relates to gender. Just as Hurtado, Milem, et al. (1998) made recommendations for climate re-

search as it relates to race/ethnicity, our investigation provides empirical evidence to better understand climate research as it relates to gender. However, using the campus climate framework identified by Peterson and Spencer (1990), we found that most of the studies did fit their definition. Furthermore, most of the studies assessed objective or structural diversity, the perceived climate, and the psychological or experienced climate. A few studies that were considered campus climate studies by the researchers or institutions conducting the studies are outside the conceptual understanding of climate studies (Peterson & Spencer, 1990). For example, several institutions identified faculty salary studies under the guise of campus climate. Certainly, disparities based upon gender, rank, class, race/ethnicity, or any other reason contribute to how the campus climate is perceived and experienced, but salary studies in and of themselves are not climate studies from the Peterson and Spencer perspective. These studies begin to assess the objective aspects of diversity, but fall short in measuring perceptions and experiences of climate. Moreover, most of the studies, including the faculty salary studies, only consider the climate from one constituency's point of view. This, like studies that only focus on students' points of view, can be considered a subset of campus climate studies, but to truly understand the essence of a *campus* climate, studies must explore the structural diversity, perceptions, and experiences of all members of the campus.

Summary of Recommendations

Based upon what we have learned from our research, those engaged in campus climate assessment should consider:

- 1) The advantages and disadvantages of conducting a climate study using researchers affiliated with an institution. Issues of cost, bias, perceptions of researcher(s) by those participating and those implementing recommendations based upon the study, and methodological expertise should all be carefully reviewed before proceeding.
- 2) Utilizing a mixed-method approach to campus climate research which may provide a more holistic picture of how the climate is perceived and experienced. See Allen and Madden (2006) for powerful examples of how climate is more completely understood by others when qualitative and quantitative methods are used.
- 3) Issues of validity, reliability (for quantitative methods), trustworthiness, and credibility (for qualitative methods) must be carefully considered so that findings will be as robust as possible.
- 4) How intersecting and interlocking identities contribute to how individuals socially construct their environment. Thus, try to be as inclusive as possible in selecting demographic variables that may influence perceptions and experiences of climate. Campus climate is experienced and shaped by faculty, staff, administrators, and students. Alumnae and alumni may also contribute to the climate, particularly when considering the history of diversity and social justice issues at an institution. It is impossible to consider every identity characteristic that may influence campus climate, but at the very least, historically underrepresented categories and protected populations should be included as variables.
- 5) Making study methods and findings transparent for at least the campus community and any stakeholders who may be in a position to hold the institution accountable for change.
- 6) Utilizing frameworks, like Peterson and Spencer (1990) and Hurtado, Milem, et al. (1998), to inform the types of data to be collected and to provide a mechanism to compare between campuses. In fact, standardization through the use of these conceptual frameworks would empirically reinforce a definition of campus climate and provide common language for institutional leaders to come together to facilitate larger scale change initiatives throughout higher education.
- 7) Engaging in campus climate research as an iterative, ongoing, process-oriented effort.

Studies should be conducted in appropriate intervals to assess the changing nature of institutions, both due to changing populations and to improvement efforts.

- 8) Using campus climate research as a critical legal justification for race-conscious and gender-conscious decisions that are subject to the scrutiny of the courts. Campus climate studies can clearly demonstrate the compelling interest of diversity, maintaining race- and gender-conscious admission and hiring decisions in our public institutions in the majority of states in the U.S. (i.e., those able to implement Affirmative Action policies). Thus, findings from campus climate studies can justify increasing structural diversity, provide empirical evidence as to why diversity improves educational benefits, and create a basis upon which data-driven decisions can be made about climate concerns and social justice issues.

Limitations

Our study, like all research, has several limitations. First, our data source was the NAS website. Not all campuses or researchers would seek out this site to disseminate their findings to broader audiences. Further, as previously discussed, the website appears to focus on women faculty at research institutions; thus, the studies represent aspects of campus climate work that may not be inclusive of the multiple identities and populations who mutually shape campus climate. Second, 92.9% of the studies were conducted at RU/VH institutions and this is an additional limitation of using the NAS site as our data source. Third, one of the researchers of the current study has conducted two campus climate studies, which may result in assumptions about how campus climate studies are best conducted and reported. One way we addressed this was by having a second researcher who has not been involved in campus climate research to provide a check on the potential bias emerging from her experiences. Fourth, we used a limited number of search parameters in order to find unlinked or erroneously linked studies. It is possible that those institutional site searches that resulted in finding no studies would have different outcomes if the terms used and number

of results viewed were changed or expanded. However, considering the variety of ways institutions can title and discuss campus climate studies, it was necessary to create reasonable parameters for the institutional site searches. In addition, institutional site searches can be a two-way problem due to a process called tagging. When creating an HTML document that will be available through an institutional site search, the amount of information that is included in the HTML META tag (e.g., keywords) can affect the extent to which users can locate your document (University of Pennsylvania Information Systems & Computing, 2008). A fifth limitation was that collecting and analyzing data on the climate experiences that explored the intersectionality of identity characteristics (e.g., women of color, gay men, differently abled lesbian women) was outside the scope of this study. Thus, we do not have institution-level or NAS aggregate-level data to capture whether interlocking identities were meaningfully explored.

Implications and Conclusion

Those engaged in climate assessment have not yet reached consensus on best practices or a conceptual or theoretical framework. Moreover, there appears to be little agreement on what constitutes campus climate. In many cases, definitions are vague, methods are exclusive, and climate is confused with culture. Peterson and Spencer (1990) provided a definition we found useful in this analysis of academic/campus. Hurtado, Milem, et al.'s (1998) framework adds the consideration of the historical institutional context related to race/ethnicity, which we encourage campus climate researchers to expand to include other identity characteristics. Because of the focus on race/ethnicity and the student experience, we chose to use Peterson and Spencer's framework rather than modify Hurtado, Milem, et al., but recommend that future work on campus climate combine the inclusivity of Peterson and Spencer and the context of institutional history from Hurtado, Milem, et al. as guideposts for campus climate research. By integrating these two frameworks, we believe that a stronger model will emerge upon which all those engaged in campus climate research can build. Further, this new approach will be more inclusive and provide a foundation for standardizing the definition and make-up of

campus climate. In sum, the ideal model should include the historical legacy of diversity; the social structural or demographic diversity of the campus; the perceptions of campus climate by all campus constituencies; and the lived experiences and behaviors of the members of the campus community. Future work based on such a model will undoubtedly advance our understanding of campus climate and help higher education fulfill its commitment to diversity.

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Received April 15, 2008

Revision received July 24, 2008

Accepted July 24, 2008 ■

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