

A CAMPUS CLIMATE SURVEY ON DIVERSITY AND INCLUSION:

A FACTOR ANALYSIS

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The undersigned, appointed by the dean of the Graduate School, have examined the thesis entitled

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A FACTOR ANALYSIS

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TABLE OF CONTENTS

| | |
|--------------------------------|----|
| ACKNOWLEDGEMENTS..... | ii |
| ABSTRACT..... | iv |
| Chapter | |
| 1. INTRODUCTION..... | 1 |
| 2. METHOD..... | 5 |
| 3. RESULTS..... | 9 |
| 4. DISCUSSION..... | 14 |
| REFERENCES..... | 20 |
| APPENDIX | |
| A. SURVEY..... | 23 |
| B. DESCRIPTIVE STATISTICS..... | 24 |
| C. FACTOR LOADINGS..... | 25 |

ABSTRACT

In the fall of 2015, racial tensions on the University of Missouri - Columbia (MU) campus led to the high-profile protest movement Concerned Student 1950, which culminated in the resignations of the university system president and the chancellor of the university (Hoffman & Mitchell, 2016). In the weeks before the resignations, the present researcher and his former classmate, both students at MU, had been constructing a survey to measure the prevailing campus climate perceptions among MU students, faculty and staff as part of a project for an educational and psychological measurement course. The completed survey was approved by the course instructor, reviewed by class members and subsequently administered to 229 individuals, primarily students, in the university student center on December 3, 2015. Preliminary results from the survey were shared in class and were also distributed to two administrators in the inclusion, diversity and equity office and the dean of the university's College of Education.

This study examines the psychometric properties of the campus climate survey on diversity and inclusion by conducting a factor analysis on its 16 Likert-scale items and analyzing the factor scores as they relate to participant demographics. Sample data from undergraduate students ($n = 215$) was utilized in an effort to identify underlying factor structures. Two primary factors emerged from the data: *Factor 1, desire for diversity and inclusion initiatives*, for which six items were retained, and *Factor 2, sense of comfort and belonging*, for which three items were retained. *Desire for diversity and inclusion initiatives (Factor 1)* measures a respondent's desire for a more diverse campus population as well as initiatives to increase cross-cultural experiences and understanding, while *sense of comfort and belonging (Factor 2)* measures whether an individual enjoys

being a student and feels a sense of inclusion and comfort on campus. Internal consistency for the subscale scores was .92 and .73 for *Factor 1* and *Factor 2*, respectively. Internal consistency for the whole scale was .68. *Desire for diversity and inclusion initiatives (Factor 1)* was higher for students of color than for White students, and it correlated positively with frequency of discrimination or harassment experiences. *Sense of comfort and belonging (Factor 2)* was lower for students of color than for White students, and it correlated negatively with frequency of discrimination or harassment experiences.

Chapter 1

Introduction

Campus climate research plays a vital role as institutions of higher learning seek to maximize their teaching efficacy and meet the needs of more diverse student populations (Hurtado, Griffin, Arellano, & Cuellar, 2008). Recent student protests in universities across the United States, most notably during the fall of 2015, have helped highlight the need for an informed and responsive administrative staff, allowing students the opportunity to engage in productive, collaborative dialogue and work toward the change they need and desire (Hoffman & Mitchell, 2016). Campus climate research can help students feel heard for the first time on significant cross-cultural issues and provide administrators and faculty with meaningful information to be used in fostering a more inclusive, healthy and effective learning environment for their entire student population (Harper & Hurtado, 2007).

To assess the campus climate, we must first define the term “campus climate” itself. Existing campus climate research elucidates the necessity of a standard definition. In an analysis of 118 campus climate studies, Hart and Fellabaum (2008) found that a single definition of “campus climate” did not exist across the reviewed studies, nor was a standardized design or instrumentation utilized. The present survey employs the definition of “campus climate” put forth by Rankin and Reason (2008) as “the current attitudes, behaviors, and standards and practices of employees and students of an institution,” specifically “those attitudes, behaviors, and standards/practices that concern

the access for, inclusion of, and level of respect for individual and group needs, abilities, and potential.”

Perceptions of campus climate can play an important role for racial/ethnic minority students at predominately White institutions (PWIs). A study by Rankin and Reason (2005) found that students of color perceive campus climate as more racist and less accepting than White students. Being a member of a racial/ethnic minority at a PWI can result in minority status stress. This stress, separate from general stress, is associated with a decrease in persistence beliefs, which can, however, be mediated by a more positive perception of campus climate (Wei, Ku, & Liao, 2011).

Negative campus climates can hinder student outcomes and have deleterious effects on student well-being. Students of color report experiences of harassment at higher rates than their White counterparts (Rankin & Reason, 2005). When confronted with prejudicial and discriminatory beliefs and behaviors, racial/ethnic minority students may feel they do not belong or lose confidence in their academic abilities (Harper & Hurtado, 2007). Perception of racial/ethnic hostilities in campus climate can lead to a decrease in sense of belonging for Latino students by their junior years, as can personal experiences of discrimination (Hurtado & Carter, 1997). The same research shows, however, that membership in a racial/ethnic student organization can help mediate a negative climate’s effect on sense of belonging.

Positive campus climates have been shown to benefit students in a number of ways. Perception of campus climate can have a mediating role on well-being in its correlation with coping abilities and self-esteem, i.e., when accounting for a positive

perception of campus climate, students report higher levels of well-being than we would expect when considering lower levels of coping abilities and self-esteem (Herrera, Gloria, & Castellanos, 2017). Students who engage academically with individuals from racial/ethnic backgrounds different from their own have been shown to benefit cognitively, psychosocially and interpersonally in ways that persist beyond their college years (Harper & Hurtado, 2007). The same research indicates that such exposure can help combat persistent segregation trends in society and decrease bias and anxiety toward different racial or ethnic groups. Additionally, class exercises meant to encourage cross-cultural exchange can increase students' awareness of the level of diversity within their social group as well as students' understanding of individuals of different racial or ethnic identities (Echols, Hwang, & Nobles, 2002).

Two university-sponsored campus climate studies at the University of Missouri (MU) conducted within the past 15 years indicate problematic experiences for racial/ethnic minorities on the MU campus. Worthington and Rankin (2002) found that 17.3 percent of undergraduate students experienced harassment on campus that had interfered with their ability to work or learn. The harassment was primarily due to gender and race/ethnicity, with Middle Eastern and Black/African Americans respondents experiencing the highest rates of harassment based on race/ethnicity. A study by the University of Missouri-Columbia Division of Inclusion, Diversity and Equity (2009) found a similar figure in that 15.7 percent of undergraduate, graduate and professional students had experienced harassment on campus, with roughly a quarter of respondents of color reporting experiences of harassment.

Given the many positive outcomes from a diverse, inclusive campus climate, the negative outcomes from a discriminatory or even hostile campus climate, the relatively high incidence of harassment for students of color on the MU campus, and the lack of standardization within campus climate research, the current factor analysis seeks to identify common, empirically supported factors to be used in the development of future campus climate studies. It is the hope of the researcher that this may assist college and university administrators in their efforts to assess student perception of campus climate and use the resultant findings to foster more diverse and inclusive campus climates.

Research Questions. The present study is an attempt to answer the following questions:

- 1) What underlying factors exist within a newly developed scale to assess campus climate?
- 2) Are the items on the campus climate scale reliable?
- 3) Do students' factor scores differ significantly based on racial/ethnic group? (For example, are there differences in scores between White students and students of color?)
- 4) Do factor scores differ significantly between males and females?
- 5) Is there a correlation between factor scores and the number of times students have experienced discrimination or harassment on campus due to sex, gender identity, race, ethnicity, nationality, ability status, religion or sexual orientation?

Chapter 2

Method

Participants. Visitors at the MU Student Center were asked to fill out a survey regarding the campus climate on matters of diversity and inclusion (Appendix A). The total sample consisted of 229 participants. Due to low response rates for graduate students ($n = 6$, 2.8% of the total sample), staff ($n = 5$, 2.2% of the total sample), faculty ($n = 1$, 0.4% of the total sample) and respondents who did not report university affiliation ($n = 2$, 0.9% of the total sample), these groups were eliminated from further analyses, leaving 215 undergraduate students in the current study.

Within the undergraduate sample of 215 individuals, the gender breakdown was as follows: 138 female (64.2%), 74 male (34.4%), 1 “other” (0.5%), and 2 who did not indicate gender (0.9%). Participants varied in age from 18 to 31 years ($M = 20.21$, $SD = 1.78$). Participants varied in their racial/ethnic identity: 139 White (64.7%), 32 Black/African American (14.9%), 28 Asian (13.0%), 1 Hispanic/Latina/o (0.5%), 14 multiracial (6.5%) and 1 who did not indicate race/ethnicity (0.5%). In terms of nationality, there were 193 domestic (89.8%), 19 international (8.8%), and 4 who did not report nationality status (1.4%). The sample included 203 heterosexual (94.4%), 6 gay/lesbian (2.8%), 1 bisexual (0.5%), 2 queer (0.9%), 1 “questioning” (0.5%), 1 “other” (0.5%), and 1 who did not report sexual orientation (0.5%).

Measures. The survey polled participants regarding their assessment of the campus climate using 16 Likert-scale items. Response options for each item consisted of a 5-point Likert-scale ranging from *strongly agree* to *strongly disagree*. These items were

divided into three general groups: personal feelings of inclusion, general perception of campus diversity and inclusion, and desire for diversity and inclusion initiatives. A final survey item questioned participants regarding the number of times they experienced discrimination or harassment on campus due to their sex, gender identity, race, ethnicity, nationality, ability status, religion or sexual orientation. Lastly the survey asked for non-identifying demographic information, i.e., year in school or school affiliation, domestic versus international student status, race/ethnicity, age, sex and sexual orientation.

Survey items were designed to assess an individual's experience, perceptions and desires on a college campus as they relate to diversity and inclusion. Special attention was given to student protest groups' statements of dissatisfaction with their respective campus climates and their desired initiatives to improve the climates, most significantly from the "Concerned Student 1950" group at the University of Missouri - Columbia (MU) (Concerned Student 1950, 2015). Following the initial drafting of the survey items, the instrument was administered to and reviewed by the instructor and students in an educational and psychological measurement class. Class members examined the items for face validity and offered suggestions regarding which items to revise, eliminate or retain.

Procedure. Researchers asked visitors at the university student center if they would be willing to complete a brief survey on the campus climate, which took roughly five minutes to complete. Once individuals consented to taking the survey, they were immediately instructed to skip any items which they were not comfortable answering or which they could not answer. Researchers allowed participants to complete the surveys in relative privacy while staying within the same general area of the student center. Upon completing the surveys, participants either placed the surveys on the edge of their tables

or delivered the surveys to the researchers. Some participants inquired how the data would be used, and researchers stated it would be compiled and shared with appropriate university administrators.

Data Analysis. Responses were loaded into a spreadsheet, and the 16 Likert-scale items were coded on a scale ranging from 1 (*strongly disagree*) to 5 (*strongly agree*). Items 2, 6 and 10 were reverse coded due to negative phrasing of the questions. Researchers conducted a one-way ANOVA on the data to determine whether statistically significant differences existed between the mean responses for various demographic groups within each of the three major categories of survey items, i.e., personal feelings of inclusion, general perception of campus diversity and inclusion, and desire for diversity and inclusion initiatives. The demographic identifiers of race/ethnicity, gender, sexual orientation and international student status were included in the analyses. A final descriptive analysis was run to report frequencies of discrimination or harassment along the dimensions of gender, race/ethnicity and sexual orientation. Results were shared with campus administrators and excluded from further study.

Preliminary analysis in the current study included descriptive statistics on the number of valid responses, the mean and standard deviation for each survey item. An exploratory factor analysis (EFA) was conducted on the 16 Likert-scale survey items to determine the number of factors measured by the items as well as the relative loadings of each factor for each item. All statistical procedures were conducted on SPSS. Principal axis factoring analysis was employed using promax rotation. Principle axis factoring was chosen, as it does not result in intermittent problems as with maximum likelihood extractions (Gorsuch, 1997). Promax rotation was selected in order to better analyze the

oblique factors loadings of the survey items (Worthington and Whittaker, 2006).

Eigenvalues were used to determine the number of factors to retain based on a cut-off value of 1.0. A second principal axis factoring analysis was conducted while forcing the identification of only one measured factor. A third principle axis factoring analysis was conducted only on retained items. Upon identifying a survey item which no longer met established cut-off criteria, a fourth principle axis factoring analysis was conducted.

Chapter 3

Results

Preliminary Analysis. Descriptive statistics were conducted on all 16 Likert-scale survey items to identify each item's sample size, mean and standard deviation (Table B1).

Main Analysis. Principal axis factoring EFA of the 16 Likert-scale survey items resulted in the identification of two primary factors with eigenvalues greater than 1.0. *Factor 1* had an Eigenvalue of 7.60 and explained 47.5% of the total variance. *Factor 2* had an Eigenvalue of 2.11 and explained 13.2% of the variance. Combined, *Factor 1* and *Factor 2* explained 60.7% of the total variance. The two factors were significantly correlated ($r = -.60$).

The loadings for *Factor 1* and *Factor 2* were then examined within each of the 16 survey items in an effort to select the survey items which most strongly demonstrate simple structure (i.e., they measure one factor exclusively or to a much greater degree than other factors). All items with cross-loadings with absolute values greater than .32 on each factor were eliminated, congruent with recommendations by Worthington and Whittaker (2006). Additionally, items with a single factor loading less than .60 were deleted, exceeding Worthington's and Whittaker's suggested cutoff of .32 for individual factor loadings. Based on these inclusion criteria, six items remained for *Factor 1* (i.e., items 11-16), and four items remained for *Factor 2* (i.e., items 1, 2, 4 and 5) (Table C1). A single-factor analysis was forced after the two-factor analysis. However, only the two-

factor analysis was retained for further analysis due to its strong simple structure loadings on multiple items for each factor.

Following the initial EFA, another principal axis factoring analysis with promax rotation was run on the 10 items retained on their relative simple structure. A reexamination of the factor loadings revealed that inclusion criteria were no longer met for item 4. *Factor 2* loading for item 4 dropped to .55, below the established minimum cut-off of .60 (Table C2). Item 4 was therefore excluded from further analysis.

A final principal axis factoring analysis with promax rotation was conducted on the remaining nine items. Factor loadings fell within established inclusion criteria for each of the nine items (Table C3, Table C4). Two primary factors once again emerged with eigenvalues greater than 1.0. *Factor 1* had an eigenvalue of 4.65 and explained 51.7% of the total variance. *Factor 2* had an eigenvalue of 1.75 and explained 17.9% of the total variance. Combined, *Factor 1* and *Factor 2* explained 69.6% of the total variance. The factors were significantly correlated with each other ($r = -.42$).

Factor 1 items address specific ways in which the campus faculty, staff and administrators can work to make the campus climate more diverse and inclusive. The overarching theme of these items is a desire for a more diverse campus population as well as initiatives to increase cross-cultural experiences and understanding. *Factor 1* is therefore defined as *desire for diversity and inclusion initiatives*. The six survey items which approached simple structure for *Factor 1* were:

11) I would like to see more diversity within the student body at MU.

12) I would like to see more diversity within the MU faculty.

13) I would like MU administration to do more to create a culture of inclusion and acceptance on campus.

14) I would like to see more activities at MU that encourage students of various walks of life to meet and interact with each other.

15) I would like to see more multicultural material incorporated into class curriculums.

16) I think diversity and sensitivity training for professors and staff is needed at MU.

Factor 2 items address how students feel about their experience on campus, specifically whether they enjoy being a student and whether they feel a sense of inclusion and comfort on campus. *Factor 2* is therefore defined as *sense of comfort and belonging*.

The three survey items which approached simple structure for *Factor 2* were:

- 1) I feel comfortable on the MU campus.
- 2) I don't feel welcomed at MU.
- 5) I like being a student at MU.

An examination of internal consistency was conducted across all retained items. Cronbach's α was high for *desire for diversity and inclusion initiatives (Factor 1)* with a value of .92. Cronbach's α was moderate for *sense of comfort and belonging (Factor 2)* with a value of .73. Cronbach's α for the full scale was acceptable, with a value of .68.

Independent-samples t-tests were conducted to determine whether statistically significant differences existed between students based on race/ethnicity and gender. For *desire for diversity and inclusion initiatives (Factor 1)*, there was a significant difference on the total six-item subscale score between White students ($M = 3.38$, $SD = .82$) and students of color ($M = 4.27$, $SD = .66$); $t(181) = -8.50$, $p < .001$. White students scored

significantly lower on *desire for diversity and inclusion initiatives (Factor 1)* than students of color.

White students and students of color were also compared on their responses to *sense of comfort and belonging (Factor 2)* by running t-tests. There was a significant difference on the total three-item subscale score between White students ($M = 4.36$, $SD = .58$) and students of color ($M = 3.48$, $SD = .83$); $t(114) = 8.10$, $p < .001$. White students scored significantly higher on *sense of comfort and belonging (Factor 2)* than students of color.

Next, t-tests were conducted to determine whether statistically significant differences existed between male and female undergraduate students on each of the two factors. For *desire for diversity and inclusion initiatives (Factor 1)*, there was no significant difference on the total six-item subscale score between female students ($M = 3.75$, $SD = .89$) and male students ($M = 3.56$, $SD = .87$); $t(208) = 1.49$, $p = .138$. For *sense of comfort and belonging (Factor 2)*, there was no significant difference on the total three-item score between female students ($M = 3.98$, $SD = .80$) and male students ($M = 4.13$, $SD = .78$); $t(210) = -1.32$, $p = .188$. Female and male students did not differ on *desire for diversity and inclusion initiatives (Factor 1)* or *sense of comfort and belonging (Factor 2)* scores.

A bivariate correlation was conducted to assess the relationship of undergraduate students' reported frequencies of discrimination or harassment due to given identity statuses with their responses on *desire for diversity and inclusion initiatives (Factor 1)* and *sense of comfort and belonging (Factor 2)*. *Desire for diversity and inclusion*

initiatives (Factor 1) scores correlated positively with frequency of discrimination or harassment, $r = .292$, $n = 208$, $p < .001$. Increases in experiences of discrimination or harassment were correlated with increases in *desire for diversity and inclusivity initiatives (Factor 1)* responses. *Sense of comfort and belonging, (Factor 2)* correlated negatively with frequency of discrimination or harassment, $r = -.385$, $n = 211$, $p < .001$. Increases in experiences of discrimination or harassment were correlated with decreases in *sense of comfort and belonging (Factor 2)* responses.

Chapter 4

Discussion

The present study sought to identify possible underlying factors of a newly developed scale to assess campus climate. An exploratory factor analysis conducted on data obtained from an undergraduate student sample revealed the presence of two primary factors: *desire for diversity and inclusion initiatives (Factor 1)* and *sense of comfort and belonging (Factor 2)*. The final factors resulted in six items which measured *desire for diversity and inclusion initiatives (Factor 1)* and three items which measured *sense of comfort and belonging (Factor 2)*. Item reliability was also analyzed and internal consistency was good for both factors, and adequate for the full scale. Lastly, select demographic groups were analyzed based on their *desire for diversity and inclusion initiatives (Factor 1)* and *sense of comfort and belonging (Factor 2)* ratings. Students of color endorsed a greater *desire for diversity and inclusion initiatives (Factor 1)* and lower *sense of comfort and belonging (Factor 2)* than White students. Male and female respondents did not differ in their *desire for diversity and inclusion initiatives (Factor 1)* nor their *sense of comfort and belonging (Factor 2)*. Frequency of harassment and discrimination correlated positively with *desire for diversity and inclusion initiatives (Factor 1)* while correlating negatively with *sense of comfort and belonging (Factor 2)*.

Students of color in the present analysis scored lower than White students on *sense of comfort and belonging (Factor 2)*, supporting previous research conducted with racial/ethnic minority student populations (Harper & Hurtado, 2007; Hurtado & Carter, 1997). This finding is also in congruence with previous research on the MU campus

climate which found lower reported satisfaction rates with the overall campus climate when comparing students of color with White students (University of Missouri – Columbia, Division of Inclusion, Diversity and Equity, 2009). Students of color in the present analysis scored higher than White students on *desire for diversity and inclusion initiatives (Factor 1)*, supporting previous research on the MU campus in which students of color endorsed lower rates of satisfaction than White students toward the representation of diversity within the student, faculty and staff populations (University of Missouri – Columbia, Division of Inclusion, Diversity and Equity, 2009).

The current study identified a negative correlation between frequency of experiences of discrimination or harassment and *sense of comfort and belonging (Factor 2)*, in congruence with the research of Harper and Hurtado (2007) and Hurtado and Carter (1997). The latter study did, however, find that student membership in a racial/ethnic student organization can help mediate a negative climate's effect on sense of belonging. Given the contemporary climate of student protest around matters of racial and ethnic discrimination (Hoffman & Mitchell, 2016), it may be beneficial to examine whether participation in student protests has a mediating effect on sense of belonging as it relates to campus climate in a manner similar to the mediating effect of membership in a racial/ethnic student organization.

Implications for university administration. Given the divergent experiences of *sense of comfort and belonging (Factor 2)* of White students versus students of color (Harper & Hurtado, 2007; Hurtado & Carter, 1997), campus administrators will do well to continue assessing the way campus climate is experienced by racial and ethnic minority students. Additionally, given the increased *desire for diversity and inclusion*

(*Factor 1*) among students of color (Harper & Hurtado, 2007; Hurtado & Carter, 1997), campus administrators are also encouraged to facilitate cross-cultural activities and assess the level to which diversity-related material is included in class curriculums. In light of the way campus climate is perceived in relation to experiences of discrimination and harassment (Hurtado & Carter, 1997), it will also be important for campus administrators to work on decreasing future occurrences of discrimination and harassment while examining ways in which affected students can be supported and validated after the incidents.

Multiple studies (Hurtado, Carter, & Kardia, 1998; Harper & Hurtado, 2007) stress the necessity for university administrators not just to assess campus climate periodically but to use the acquired results and conclusions to further the colleges' stated goal of respecting diversity and inclusion on campus. This necessity is made all the more clear in times of student protests, when a common complaint is that university officials talk about issues of diversity and inclusion but fail to take action (Hoffman & Mitchell, 2016).

Limitations and implications for future research. Given our chosen method of data collection, in a busy student center during the middle of the day, it was important for us to design and administer a single questionnaire form that could be used for all members of the university community (i.e., students, faculty and staff). Three of our questions were exclusively addressing student respondents. While we instructed participants to skip any questions they did not want to answer or could not answer, we could have tailored our form much more effectively to students had we only been seeking student participants. As we were only able to gather responses from an overall proportion

of 3.8% graduate students, 2.2% staff members and 0.4% faculty members, future surveys administered at campus gathering places will likely be most effective when they exclusively address the undergraduate student population.

Additional shortcomings lay in our chosen time of data collection. The survey was administered on Thursday, December 3rd, 2015, during the week after Thanksgiving break, one week before the last day of classes for the semester, and 24 days after the resignations of both the UM System president and MU chancellor. As students were completing their first week of classes after a week-long Thanksgiving break, it is possible their perception of the campus climate was affected by the opinions of family and/or friends with whom they conversed during the break as well as possible fatigue from adjusting to the continuation of classes after an extended period of repose. There is perhaps an even greater possibility of respondent fatigue affecting our data, as participants were completing the fourteenth, penultimate week of classes. Lastly, in light of the extremely atypical events of the high-profile resignations of both the UM System president and MU chancellor, many students' responses may have been heightened, i.e., they may have perceived the campus climate to be more unwelcoming and in greater need of diversity and inclusion initiatives than they would have during periods of relative normalcy. It is also possible that students who had the most negative perceptions of campus climate during this time simply chose not to visit the student center out of concern for their well-being or a desire to stay away from possible protest activity and difficult discussions. The present survey data may therefore be more negative in light of the administrative resignations, while also having failed to capture responses from students who stayed home due to strong negative assessments.

The generalizability of our findings is also limited in light of our choice to employ a form of convenience sampling, i.e., approaching as many visitors as possible at the student center between the times of 1:00 p.m. and 2:30 p.m. Consequently, only visitors to the center during this small window of time were included in the sample. Many of these individuals may have been more outgoing in nature, choosing to study and socialize in the large, open environment of the student center, one of the central gathering and dining locations on campus. It is also worth noting that, on the day of data collection, the researcher observed that Black/African American students were sitting mostly in one area of the student center, separate from the other visitors who were mostly White. It is therefore worth considering whether student center visitors may, from this somewhat segregated seating structure, perceive campus to be less welcoming and inclusive of people from different racial/ethnic backgrounds than other undergraduate students.

A final shortcoming of the present survey involved our decision to include a single category attempting to measure gender identity and transgender versus cisgender status. We approached the category and its options from the intent to streamline and condense the form. While we named the category “sex,” we were more accurately assessing for gender identity, as the options we provided were “male,” “female,” “transgender,” and “other.” Our error became apparent as we coded our data, as one respondent wrote next to the item, “I’m not sure if this question wants biological sex or gender identity? A trans man is still a man, I’m not sure why ‘transgender’ is its own other option.”

Conclusion. The current study adds to existing literature in its identification of six items measuring *desire for diversity and inclusion (Factor 1)* and three items

measuring *feelings of comfort and belonging* (Factor 2). Including these items in future research and creating additional items through which to measure the factors can add to the utility and comprehensiveness of future campus climate studies. This addition of items is perhaps most important in the case of *feelings of comfort and belonging* (Factor 2), as only three items measure the factor. As campus climate researchers utilize, adapt and expand upon existing frameworks, we must keep in mind that the central goal of our efforts is to aid campus administrators in their efforts to create more diverse, inclusive and ultimately effective educational environments.

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Appendix A

Survey

Campus Climate Questionnaire

Please rate each question according to how strongly you agree or disagree.

SA = Strongly Agree; A = Agree; N = Neutral; D = Disagree; SD = Strongly Disagree

- | | | | | | |
|--|----|---|---|---|----|
| 1. I feel comfortable on the MU campus. | SA | A | N | D | SD |
| 2. I <i>don't</i> feel welcomed at MU. | SA | A | N | D | SD |
| 3. My opinion is valued in class. | SA | A | N | D | SD |
| 4. MU administration understands my needs as a student. | SA | A | N | D | SD |
| 5. I like being a student at MU. | SA | A | N | D | SD |
| 6. There is a lack of diversity at MU. | SA | A | N | D | SD |
| 7. The atmosphere at MU is very accepting and inclusive. | SA | A | N | D | SD |
| 8. MU values diversity. | SA | A | N | D | SD |
| 9. The campus is very welcoming to students from all backgrounds. | SA | A | N | D | SD |
| 10. Multicultural material has <i>not</i> been adequately included in my class curriculums. | SA | A | N | D | SD |
| 11. I would like to see more diversity within the student body at MU. | SA | A | N | D | SD |
| 12. I would like to see more diversity within the MU faculty. | SA | A | N | D | SD |
| 13. I would like MU administration to do more to create a culture of inclusion and acceptance on campus. | SA | A | N | D | SD |
| 14. I would like to see more activities at MU that encourage students of various walks of life to meet and interact with each other. | SA | A | N | D | SD |
| 15. I would like to see more multicultural material incorporated into class curriculums. | SA | A | N | D | SD |
| 16. I think diversity and sensitivity training for professors and staff is needed at MU. | SA | A | N | D | SD |

17. I have personally been discriminated against or harassed on campus due to my sex, gender identity, race, ethnicity, nationality, ability status, religion, or sexual orientation. Yes No

If yes, how many times has this occurred? 1 2 3 4 5 or more

Year in school or school affiliation:

freshman sophomore junior senior graduate student faculty staff

Are you an international student? yes no

Race/ethnicity (select all that apply) –

American Indian/Alaska Native Asian Black/African American Hispanic/Latina/o
Native Hawaiian or Other Pacific Islander White

Age - _____

Sex - male female transgender other

Sexual orientation - straight gay/lesbian bisexual queer questioning other

Appendix B

Descriptive Statistics

Table 1. Sample size, mean and standard deviation for all 16 Likert-scale survey items.

| Item | N | Mean | SD |
|-------------|----------|-------------|-----------|
| 1 | 215 | 3.97 | 1.01 |
| 2 | 214 | 3.96 | 1.13 |
| 3 | 214 | 3.68 | .89 |
| 4 | 214 | 3.34 | 1.06 |
| 5 | 215 | 4.18 | .84 |
| 6 | 215 | 3.21 | 1.25 |
| 7 | 214 | 3.38 | 1.09 |
| 8 | 213 | 3.64 | .97 |
| 9 | 214 | 3.54 | 1.06 |
| 10 | 207 | 3.19 | 1.13 |
| 11 | 215 | 3.68 | .93 |
| 12 | 215 | 3.62 | 1.03 |
| 13 | 214 | 3.75 | 1.03 |
| 14 | 214 | 3.94 | .97 |
| 15 | 214 | 3.57 | 1.12 |
| 16 | 215 | 3.53 | 1.26 |

Appendix C

Factor Loadings

Table 1. Factor loadings for all 16 Likert-scale survey items.

| Item | Factor 1 | Factor 2 |
|-------------|-----------------|-----------------|
| 1 | .14 | .68 |
| 2 | -.06 | .61 |
| 3 | .22 | .56 |
| 4 | -.04 | .70 |
| 5 | .20 | .80 |
| 6 | -.53 | .31 |
| 7 | -.32 | .57 |
| 8 | -.33 | .56 |
| 9 | -.39 | .54 |
| 10 | -.44 | .18 |
| 11 | .94 | .13 |
| 12 | .90 | .08 |
| 13 | .85 | .09 |
| 14 | .80 | .15 |
| 15 | .93 | .14 |
| 16 | .75 | .01 |

Table 2. Factor loadings for 10 Likert-scale survey items retained after initial EFA.

| Item | Factor 1 | Factor 2 |
|-------------|-----------------|-----------------|
| 1 | .05 | .65 |
| 2 | -.08 | .67 |
| 4 | -.18 | .55 |
| 5 | .12 | .80 |
| 11 | .88 | .08 |
| 12 | .87 | .01 |
| 13 | .80 | -.04 |
| 14 | .75 | .05 |
| 15 | .84 | -.02 |
| 16 | .69 | -.09 |

Table 3. Factor loadings for final set of nine retained Likert-scale survey items.

| Item | Factor 1 | Factor 2 |
|-------------|-----------------|-----------------|
| 1 | .01 | .60 |
| 2 | -.08 | .75 |
| 5 | .07 | .76 |
| 11 | .89 | .11 |
| 12 | .87 | .03 |
| 13 | .79 | -.05 |
| 14 | .75 | .05 |
| 15 | .83 | -.05 |
| 16 | .69 | -.11 |

Table 4. Two-factor solution factor loadings.

| Item | Factor 1 | Factor 2 |
|--|-----------------|-----------------|
| I would like to see more diversity within the student body at MU | .89 | .11 |
| I would like to see more diversity within the MU faculty | .87 | .03 |
| I would like MU administration to do more to create a culture of inclusion and acceptance on campus | .79 | -.05 |
| I would like to see more activities at MU that encourage students of various walks of life to meet and interact with each other | .75 | .05 |
| I would like to see more multicultural material incorporated into class curriculums | .83 | -.05 |
| I think diversity and sensitivity training for professors and staff is needed at MU | .69 | -.11 |
| I feel comfortable on the MU campus | .01 | .60 |
| I don't feel welcomed at MU | -.08 | .75 |
| I like being a student at MU | .07 | .76 |