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# The Impacts of Identity on Perceptions of Safety on a Predominately White Campus

by

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**Honors Thesis** 

Submitted to:

Department of Sociology and Anthropology

University of Richmond

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#### **Literature Review**

#### I. Introduction

Despite efforts to combat discrimination that persists at many colleges and universities, the subtle yet pervasive experiences of underrepresented student populations remain a pressing concern for higher education institutions. While some colleges have implemented initiatives that contend with this fact and begin during orientation, these measures alone may prove insufficient in creating a truly inclusive campus environment for black and Latinx students (Ellis et al., 2019; Marx et al., 2022). The attempts of universities to create a more welcoming space is still a work in progress, as black students remain underrepresented at predominantly white institutions (PWIs) and face persistent challenges related to enrollment, retention, climate, and completion (Guiffrida & Douthit, 2010; Strayhorn, 2016). There are a myriad of issues related to campus racial climate, hostile interpersonal relationships, lack of community, mental health struggles, and barriers to academic success and completion which have been noted to shape experiences for minority groups, though this research often focuses on singular aspects of identity (Apugo, 2019; Frazier, 2012; Chavous 2005; Campbell-Whatley, 2021; Samek, 2024). Very often, this aspect is race and is examined through the effects of microaggressions, yet other identities, such as income levels, have not been studied in depth in relation to microaggressions and the psychological and physical impacts of them (Ellis et al., 2019).

At the same time, there has also been increased scholarship that investigates broader issues of discrimination, violence, psycho-emotional well-being, identity threat, and belonging that is tied to campus safety perceptions among college students (Wooten & Mitchell, 2016; Ofoegbu, 2023; Mills, 2020; Ellis et al., 2019; Campbell-Whatley, 2021; Sue et al., 2007). For example, research has explored how microaggressions, brief indignities communicating insults

toward minority groups, can negatively impact mental health and the therapeutic alliance for clients of color (Sue et al., 2007). However, there remains limited literature intersecting these realms to examine if and how the identity-related challenges that have been noted frequently by scholars might shape students' perceptions of safety on campus.

Safety is conceived broadly to encompass physical security, psycho-emotional wellbeing, identity threat/harm, and sense of belonging, linking these ideas in crucial ways (Wooten & Mitchell, 2016; Vaccaro, 2016; Mills, 2020; Volpe & Jones, 2023). The concept of safety is closely tied to the experiences of marginalized groups, particularly students of color, on college campuses, as many privileged groups focus on notions of belonging rather than safety on college campuses (Vacarro, 2016). Racial microaggressions are an example of one reason certain students frame belonging differently, and they can create an environment that feels both hostile and unwelcoming (Sue et al., 2007). This can negatively impact mental health, physical health, and stress levels for the students experiencing them (Ellis et al., 2019). Furthermore, perceptions of an unwelcoming campus climate have been linked to increased depressive and anxiety symptoms, as well as problematic substance use among students of color (Samek et al., 2024). Conversely, microaffirmations can foster a sense of belonging and self-belief that work to quell the questions of safety that students may harbor (Ellis et al., 2019). In analyzing one's notion of their own safety, it is important to consider how experiences of microaggressions and perceptions of campus climate can shape an individual's sense of security and well-being within their environment.

This literature review synthesizes the existing scholarship regarding demographic identities to lived experiences at PWIs as well as work more broadly on campus safety issues among student groups. The review encompasses quantitative, qualitative, and mixed-methods

studies that trace broad patterns over time as well as lived experiences. By integrating insights across methods and sources, it provides a holistic perspective on status and progress, ongoing barriers confronting students, and potential solutions requiring commitment across institutional leadership. The goal is to highlight critical gaps at this point and to recognize the importance of how the research conducted for this paper will employ an intersectional lens to explore if and how race, gender, sexual orientation, and other marginalized identities shape students' perceptions of safety at PWIs. Ultimately, by illuminating connections between identity-challenges frequently noted in PWI literature and safety outcomes, this literature review sets the stage for research that can inform support services and policy to foster inclusion.

#### II. Student Enrollment, Retention and Degree Completion

Regardless of increasing diversity at colleges, black students at predominantly white institutions (PWIs) continue to face racial microaggressions such as low intellect expectations and invalidated experiences. This negatively impacts their academic performance through disrupted opportunities and ability to achieve, leading to lower college retention, persistence, and degree attainment rates than their white counterparts (Mills, 2020; Guiffrida & Douthit, 2010; Turner & Zepeda, 2021). Analysis of national data reveals a disparity in educational attainment between black and white students, as black students have been found to be ten percent less likely than white students to graduate from their college program in the same timeframe (Turner & Zepeda, 2021). Guiffrida and Douthit (2010) highlight higher attrition rates among black college students relative to white students at PWIs. Statistics further indicate that black students enrolled in PWIs, which are often more accessible than historically black colleges and universities due to their greater number, have a lower graduation rate compared to white students, with only forty percent of black students who begin college ultimately graduating, in contrast to more than sixty-

one percent of white students (Guiffrida & Douthit, 2010). Similarly, von Robertson et al. (2016) found that Latinx students frequently report racism, discrimination, and isolation while attending PWIs, which hinder their academic success and degree completion.

These outcomes suggest that the challenges faced by black students on white-majority campuses go beyond academic preparation and ability. An investigation by Strayhorn (2016) into the factors that influence success among black male college students found that supportive relationships, institutional policies and practices, and a positive sense of belonging played a key role in persistence decisions and outcomes. The study highlighted the need for targeted academic and social support programs to improve retention and completion rates. Analyzing survey data, Mills (2020) built upon this information by identifying six types of racial microaggressions creating environmental stressors and negatively impacting mental health and academic success of black students: segregation, lack of representation, campus response to criminality, cultural bias in courses, tokenism, and pressure to conform. Overall, this literature highlights the importance of examining multidimensional factors that shape the experiences of black students at PWIs to gain a deeper understanding and develop effective policy solutions.

#### III. Campus Racial Climate and Intergroup Interactions

The literature highlights the significant role of campus racial climate in shaping intergroup relations and sense of belonging among black students at predominantly white institutions (PWIs). Studies have found that black students frequently report feeling isolated, marginalized, stereotyped, and subjected to racial microaggressions in their interactions with white peers and faculty (Apugo, 2019; Griffin et al., 2022). Research has also highlighted how greater experiences of racial microaggressions and poorer perceived campus climate were associated with higher rates of depression, anxiety, and alcohol use disorder symptoms among

first-year students of color at a PWI, including Latinx students, emphasizing why a focus on campus climate is so important (Samek et al., 2024; Marx et al., 2022). As Guiffrida & Douthit (2010) observe, relationships with faculty, peers, and racial/ethnic student organizations can provide important sources of community and support to counteract feelings of otherness that are induced by the campus climate. However, a persisting sense of marginality can negatively impact academic performance, degree progress, and retention among black students (Strayhorn, 2016).

Employing a spatial approach, Chavous (2005) developed a revised racial climate scale to assess students' perceptions of diversity, fairness, discrimination, racial tension, and intergroup interactions at personal and institutional levels. Significant differences were found between black students and white students across subscales as well as in relationships between perceived outcomes. The findings highlight the need for multifaceted initiatives to address interpersonal and systemic dimensions of climate in order to promote more positive social integration outcomes among minority students at PWIs. In addition to the challenges faced by monoracial black students, research by Clayton (2020) highlights how multiracial students experience a heightened sense of racial otherness, leading to social exclusion from white campus spaces. As Turner & Zepeda (2021) contend, merely extending a welcome to students of color is insufficient for fostering an environment where they feel valued, validated, and visible on campus. A sense of belonging is much more impactful than a sense of welcoming, as students are still on the outskirts in this scenario.

# IV. Support Systems and Coping Strategies

Research also highlights the vital role that is played by support systems and coping strategies for black students to be able to navigate challenges at predominantly white institutions.

Studies found that relationships with faculty, family, and same-race peers can provide invaluable emotional, social, spiritual, and financial support to cope with marginality (Guiffrida & Douthit, 2010). Sources have also specifically investigated the impacts of internalized stereotypes and everyday discrimination on Latinx students, and note the reliance on cultural traditions, family support systems, and ethnic student organizations as coping methods (Apugo, 2019; Marx et al., 2022). On-campus groups, including racial and ethnic student organizations, offer critical counterspaces for black students to find community, validate their experiences, and access valuable resources and networks (Guiffrida & Douthit, 2010; Volpe & Jones, 2023). At the same time, sources have found that black students employ numerous strategies to mitigate the cumulative effects of racial microaggressions and discrimination, ranging from seeking counseling to becoming actively involved in cultural groups to maintain resilience (Griffin et al., 2022). Sources have also specifically looked into the impacts of internalized stereotypes and everyday discrimination on black women and note the reliance on black feminist traditions as coping methods (Apugo, 2019).

However, the literature also observes that support systems available to black students at PWIs are often inadequate, under-resourced, or difficult to access consistently, necessitating self-driven efforts by students themselves. As Smith (2019) notes, many black parents go to great lengths to provide cultural, emotional, and spiritual support to their college-going children in the face of ongoing racism, but intergenerational differences in experiencing discrimination can complicate dynamics. Moreover, literature has stated the historical and persisting barriers facing black academics who are seeking leadership roles, which limits their availability as mentors and support systems (Thacker & Freeman, 2021). This impact is further seen for professors of other minority races as well, as Wang (2021) provides an autoethnographic account of racial

microaggressions endured as an Asian American professor leading classroom dialogue on structural racism. Moreover, while racial and ethnic student organizations can provide potential counterspaces for monoracial black students, Clayton (2020) found that only one-third of biracial students at a PWI were involved in black student groups, as some felt socially distant from their monoracial black peers. Ultimately, the literature notes that students' reliance on informal networks and personal coping mechanisms to succeed academically emphasizes institutional deficiencies in providing formal systems of support at PWIs.

### V. Gender Differences and Intersectionality

While much of the literature focuses on the experiences of black students, some studies reveal significant differences along gender lines in how men and women navigate predominantly white environments. An analysis by Chavous et al. (2004) found that black women at white-majority institutions faced higher pressures to conform to race- and gender-based stereotypes compared to women at historically black colleges and universities. This research is compounded by the fact that female and LGBTQ+ students had lower ratings of belonging at HBCUs and PWIs (Campbell-Whatley et al., 2021). Ofoegbu's (2023) findings add to this by demonstrating how black women student-athletes faced additional racial and gender stereotyping and discrimination in sports programs at PWIs, heightening the impacts to even more specific groups. However, black undergraduate men reported greater experiences of social stigma on campus regardless of institutional type (Chavous et al., 2004). These studies highlight the importance of considering the intersection of race and gender in shaping academic experiences at different types of universities.

Along similar lines, Strayhorn (2016) emphasized the need to study the intersection of race and masculinity to understand the factors influencing the success of black male college

students. On the other hand, Domingue (2015) exclusively focused on black women student leaders and their struggles in negotiating oppression related to their intersecting race, gender, and leadership identities at PWIs. More specific research on college athletics and their variations based on gender and racial lines by Wooten and Mitchell (2016) critique inadequate policy commitments and prevention programs to address endemic sexual violence issues in college athletic departments. More general research on sexual violence has touched upon the intersection of race and gender and has noted that participants were more likely to blame African American and Latina sexual assault survivors, view them as more promiscuous and less traumatized, and minimize their need for social support compared to a hypothetical white survivor (Lewis et al., 2019). Overall, the literature indicates that an intersectionality perspective accounting for the interplay of multiple identities is critical for a deeper and more inclusive understanding of marginalized students' experiences at white-majority institutions.

#### VI. Institutional Policies, Practices and Commitment

While a substantial portion of the literature focuses on the challenges and barriers faced by black students at PWIs, some studies emphasize the significant role institutional actors play in shaping experiences and outcomes. Strayhorn (2016) highlights the importance of targeted policies and programs, such as summer bridge initiatives, tailored academic advising, and financial assistance, to improve persistence and completion rates among black men. Similarly, Guiffrida & Douthit (2010) recommend increased recruitment and retention efforts of black faculty and staff to provide students with adequate same-race mentors and support networks. However, Frazier (2012) notes that merely hiring diverse staff without a genuine commitment to inclusion is insufficient and problematic. PWIs must recognize and address the challenges faced by all students, and an ethic of care is an essential path towards creating a supportive

environment (Apugo, 2019). Von Robertson et al. (2016) argue that, to achieve an optimal campus racial setting, there must be representation of students, faculty, and administrators of color, a curriculum emphasizing diverse experiences, support programs for underrepresented groups, and an institutional mission reinforcing commitment to diversity and pluralism.

Beyond formal policies, positive initiatives that enhance students' sense of belonging and mattering, such as living-learning communities, cultural celebrations, and diversity education, can positively impact integration for minority students (Strayhorn, 2023; Turner & Zepeda, 2021). At the same time, the literature points to the need for institutions to move beyond symbolic efforts and seriously commit resources, funding, and support for sustaining such programming over the long-term. Positive impacts have been noted from black affinity housing on a PWI, yet students still feel a lack of support from their institution and believe more of a commitment is required (Volpe & Jones, 2023). Clayton (2020) also recommends that PWIs alter their academic cultures to address topics of race, racism, and social justice more thoroughly through the curriculum to aid racial minorities in general but to also specifically target biracial students to process experiences with discrimination and develop positive racial identities.

### VII. Limitations of Existing Literature and Future Research Needs

While the body of literature on college students' experiences at PWIs offers important insights, researchers identify several limitations and directions for further inquiry. Some studies have adopted an intersectional approach examining first-generation college students' multifaceted identities and experiences or (Havlik et al., 2020; Ellis et al., 2019), but the literature focused on students at predominantly white institutions remains limited in applying an intentional intersectional framework. For instance, Vaccaro and Newman (2016) utilized multiple lenses related to race, gender, sexual orientation, and disability status to explore first-

year students' sense of belonging yet did not connect belonging directly to perceptions of safety on campus. Even sources acknowledging the value of intersectionality for understanding variances across black students' experiences have not deeply investigated the interconnections between race, gender, socioeconomic status, sexual orientation, and perceptions of psychological, physical, and identity safety risks (Ofoegbu, 2023; Frazier, 2012). Though identity-related challenges at the convergence of systemic racism and sexism facing black women are noted (Apugo, 2019), explicit assessment of potential compounded impacts on safety perceptions is lacking. Ultimately, while calls exist for further research adopting intersectional approaches, significant gaps persist in scholarship intersecting multidimensional black student identities with perceptions of campus climate, discrimination, and safety at predominantly white institutions.

Another limitation of the current literature is its main focus on the experiences of black students at PWIs, with fewer sources exploring the marginalization and safety concerns faced by students of other racial/ethnic backgrounds. While providing invaluable insights, this emphasis risks overlooking the distinct challenges confronting other races and multiracial students navigating predominantly white campus environments. Even when considering intersectional identities, the existing research tends to center analyses through a black/white binary lens. By employing a truly intersectional approach not predicated on black/white comparisons, the research can shed light on whether and how diverse underrepresented groups encounter overlapping threats and microaggressions that impact their sense of safety at PWIs.

Additionally, scholars highlight significant research gaps in applying an intersectional framework to explicitly explore potential connections between the identity-related challenges frequently noted among students from marginalized racial, ethnic, gender, and cultural groups at

PWIs and their perceptions of safety in relation to physical security, psycho-emotional well-being, discrimination, and identity threat on campus (Chavous et al., 2004; Domingue 2015). This research addresses this gap by investigating how race, gender, sexual orientation, and other marginalized identities shape students' perceptions of safety at PWIs. Findings can inform multifaceted, inclusive approaches across academic affairs, student life and diversity/inclusion units to foster campus environments where all students feel secure physically, psychoemotionally and in their identities to thrive.

The literature review highlights significant insights as well as limitations in the current state of research on student experiences at predominantly white institutions. Synthesis of findings reveals persistent gaps over time related to enrollment, retention, degree completion, and academic achievement between black and white college students across the U.S. (Mills, 2020; Guiffrida & Douthit, 2010; Turner & Zepeda, 2021). Qualitative investigations further illustrate complex challenges for black students within white-majority campus climates including feelings of isolation, experiences of racial microaggressions, and needs to create counter spaces to preserve identity and resilience (Apugo, 2019; Griffin et al., 2022).

However, scholars emphasize limitations in generalizability due to overreliance on case studies and single institutions as well as the need for further research adopting longitudinal lens and comparative approaches to better track outcomes (Strayhorn, 2016; Chavous, 2005). Additionally, more investigations explicitly employing an intersectionality framework are vital to capture diverse experiences based on gender, sexuality, socioeconomic status, and other identities (Chavous et al., 2004; Domingue 2015). Finally, lack of policy analysis and inclusion of institutional perspectives signify important gaps. Targeting these areas can significantly advance the literature and translation to practice. Ultimately, while progress has occurred over

recent decades, the review makes it apparent that predominantly white institutions still have substantial work to undertake in order to dismantle barriers to inclusion and equity facing black students in higher education. This research will employ a quantitative survey methodology to examine how diverse identities intersect to shape students' perceptions of safety on a predominantly white college campus. By surveying a sample of undergraduate students at a small liberal arts institution, the study will collect data on participants' demographic characteristics, identities, and their feelings of safety across various campus situations. By addressing these crucial gaps in the existing literature, the findings can inform the development of more equitable and inclusive institutional policies, practices, and support systems to foster a secure environment where all students can thrive.

#### **Theoretical Framework**

The guiding theory behind this research is the minority stress theory (Meyer, 2003). The main premise of minority stress theory is that individuals from minority groups experience unique and chronic forms of stress due to their marginalized status in society. These stressors can be external, such as experiences of discrimination and microaggressions, or internal, such as the concealment of one's identity and internalized stigma. Thus, the concept of microaggressions as developed by Sue et al. (2007) is also a framework which this paper is built around. Minority stress theory posits that the cumulative effects of stress can have detrimental consequences on the mental and physical well-being of individuals from minority groups. This study aims to extend the application of minority stress theory to the context of a predominantly white college campus, where students from diverse backgrounds, including racial, gender, and sexual minorities, may experience minority stress in the form of microaggressions and unwelcoming campus climate.

This study also draws upon the concept of campus climate and its impact on students' sense of belonging (Hurtado, 1992; Timmerman & Volpe, 2023). Campus climate refers to the extent to which the college environment is perceived as welcoming or hostile by students from diverse backgrounds. Previous research has shown that a positive campus climate, characterized by inclusivity and the appreciation of diversity, fosters and sense of belonging among students and in turn contributes to their academic success, mental health, and overall well-being (Leath et al., 2021). By combining the minority stress theory and the concept of campus climate, this study seeks to explore how the experiences of microaggressions and perceptions of an unwelcoming campus climate may contribute to minority stress among students from diverse backgrounds.

This study has the potential to contribute to the development of minority stress theory by extending its application to the college campus context and examining its intersections with campus climate. While previous research has explored minority stress in various settings, fewer studies have focused specifically on the experiences of students from diverse backgrounds within the college environment. Furthermore, this study aims to provide a more nuanced understanding of the complexities of minority stress and its manifestations in different subgroups of students by utilizing an intersectional approach and the combined effects of multiple identities.

#### <u>Methodology</u>

This study investigates how diverse identities, including race, gender, sexuality, and religion, shape students' perceptions of safety on a predominantly white college campus. The campus that is being examined is a small, suburban liberal arts college. It has around 4,000 students, an 8:1 student to faculty ratio, high national rankings, and a large endowment. The research methodology employs a quantitative approach through an online survey to collect data from participants on the college campus. The study adopts a cross-sectional survey design to

gather data on students' demographic characteristics, identities, and their perceptions of safety in various campus situations. The survey instrument includes items assessing participants' demographic information, such as race, gender, sexuality, and religion, as well as their feelings of safety measured using Likert-type scales.

The mode of observation for this study is a self-administered online survey. The target population for the study was undergraduate students enrolled at the university described above. The research aimed to include a diverse sample of approximately 500 participants within the age range of eighteen to twenty-two years old. Participants were recruited through multiple channels, including the college's email announcements and relevant student organizations and their networks. Organizations that shared the link include various student groups and organizations such as cultural clubs, gender and sexuality alliances, and community engagement organizations. The recruitment message emphasized the importance of the study, its potential contribution to understanding how to foster a more inclusive campus environment, and the voluntary nature of participation. The sampling technique employed in this research was a combination of convenience sampling and snowball sampling. Participants were initially recruited through the email lists as a form of convenience sampling. Then, participants were encouraged to share the survey link and it was passed through organizations on campus as a form of snowball sampling.

While this non-probability sampling approach may limit the generalizability of the findings, it represents the most practical and efficient method for reaching a diverse sample of students within the target population. The implications of this sampling procedure are that the sample may not be entirely representative of the broader student population, as certain groups or identities may be over or underrepresented. This potential sampling bias may affect the results, so caution was exercised when interpreting the findings.

The data for this survey was collected through an anonymous online survey hosted on Qualtrics, a secure web-based platform for conducting research. This quantitative method is ideal for answering the research question since it allows for the collection of numerical data that can be statistically analyzed to identify patterns and relationships between variables. The survey consists of three main sections:

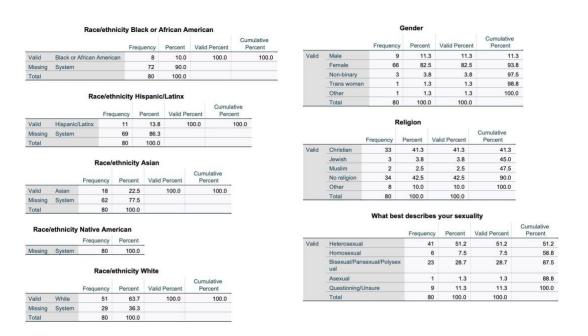
- 1. Demographic information: Participants were asked to provide their demographic details, including race, gender, sexual orientation, and religious affiliation.
- 2. Identity-related questions: This section gathered information about participants' identities and their experiences related to those identities on campus.
- 3. Perceptions of safety: This section assessed participants' feelings of safety in various campus situations, such as walking on campus at night, participating in campus events, and interacting with peers. Likert-type scales were used to measure the participants' perceptions of safety, with response options ranging from "strongly agree" to "strongly disagree."

Before completing the survey, participants were presented with an informed consent form that outlined the purpose of the study, potential risks and benefits, measures taken to protect their privacy and confidentiality, and contact information in case of questions or concerns.

To minimize selective observations and subjectivity, the survey items were carefully designed to ensure clarity and minimize potential biases. Additionally, the anonymous nature of the survey may have helped reduce social desirability bias, as participants may feel more comfortable providing honest responses without fear of identification.

#### **Results**

Due to the limitations of the study, a total of 101 responses were obtained, of which only 80 were deemed complete and suitable for analysis. Given the sample size and the need to ensure data integrity, responses that were incomplete or otherwise unusable were excluded from the analysis. By recoding the variables into binary categories, the data was restructured to highlight the differences between minority and majority groups. This approach facilitated the analysis of potential disparities or differences in perceptions, experiences, or other variables of interest between these groups within the constraints of the available data. The independent variable of religion was not analyzed because it did not have normalized or minoritized results through which to analyze it. The initial recorded statistics are shown below.



After viewing this data, the independent variables of race, sexuality, and gender were selected to be recoded.

Race: The race variable was recoded into two categories: "White" and "Nonwhite." The frequency table shows that 63.7% of the participants were white, while 36.3% belonged to non-

white racial/ethnic groups, including Black or African American, Hispanic/Latinx, Asian, and Native American.

Gender: The gender variable was recoded into "Male" and "Non-male" categories. The results indicate that 11.3% of the participants identified as male, while the majority (88.8%) identified as non-male, which includes females, non-binary individuals, trans women, and other gender identities.

Sexuality: The sexuality variable was recoded into "Heterosexual" and "Non-heterosexual" categories. The frequency table reveals that 51.2% of the participants identified as heterosexual, while 48.8% identified as non-heterosexual, which encompasses homosexual, bisexual/pansexual/polysexual, asexual, and questioning/unsure individuals.

By recoding the variables into binary categories, the data was restructured to highlight the differences between minority and majority groups. This approach facilitated the analysis of potential disparities or differences in perceptions, experiences, or other variables of interest between these groups. Below are the new, recoded variables.

|        |            |                | Race    |           |                 |        |                       |
|--------|------------|----------------|---------|-----------|-----------------|--------|-----------------------|
|        |            | Frequency      | Percent | t Valid F | Percent         | Cumu   |                       |
| Valid  | White      | 51             | 63.     | 7         | 63.7            |        | 63.7                  |
|        | Nonwhite   | 29             | 36.     | 3         | 36.3            |        | 100.0                 |
|        | Total      | 80             | 100.0   | 0         | 100.0           |        |                       |
| Valid  | Male       | Frequency<br>9 | Percen  |           | Percent<br>11.3 | Per    | 11.3                  |
|        |            |                |         |           |                 | Cumu   | lative                |
| \/alid | Male       | 9              | 11      | 3         | 11.3            |        | 11 3                  |
|        | Non-male   | 71             | 88      |           | 88.8            |        | 100.0                 |
|        | Total      | 80             | 100.    | 0         | 100.0           |        |                       |
|        |            | Free           | Sexu    | Percent   | Valid P         | ercent | Cumulative<br>Percent |
| Valid  | Heterosexu | ıal            | 41      | 51.2      |                 | 51.2   | 51                    |
|        | Non-hetero | sexual         | 39      | 48.8      |                 | 48.8   | 100.                  |
|        |            |                |         |           |                 |        |                       |

#### Chi-square and lambda tests:

To begin the analysis of the relationship between the independent variables of race, gender, and sexuality and the Likert scale dependent variables, the chi-square test was used. Since the independent variables have been recoded into binaries of white/nonwhite, male/nonmale, and heterosexual/nonheterosexual and the Likert questions are categorical, the chi-square test is useful for assessing this relationship. The chi-square test determined whether there is a statistically significant relationship between the demographic characteristics and the questions about students' perceptions of safety on campus. The variables that do not have a statistically significant relationship are not discussed in this section, while the crosstabulations, chi-square results, and lambda test results are provided for those that do. Then, for the variables that were confirmed as having statistically significant relationships, a lambda test was performed. Lambda was chosen because of the larger layout of the likert scale variables that would not fit into a gamma analysis. The lambda results will demonstrate to what extent the variation in the dependent variable is based on the categories of the independent variable. This will then depict the significance of the relationship between each independent and dependent variable. But, the statistical power of a lambda test decreases with smaller sample sizes, meaning that there is a chance of the test not accurately depicting the relationship between the variables.

1. "I do not feel that I can be my authentic self on campus without fear of judgment or discrimination." A chi square test gives a value of p=0.003, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between race and the dependent variable. Then, we perform a lambda test and get  $\lambda=0.089$  and p=0.369 which is a weak relationship between race and feeling authentic on campus. The p-value suggests that this relationship is not statistically significant.

Race \* I do not feel that I can be my authentic self on campus without fear of judgment or discrimination

|            |          |               | l do not feel that I can be my authentic self on campus without fear of judgment or<br>discrimination |                      |                               |                   |                |        |   |
|------------|----------|---------------|---|----------------------|-------------------------------|-------------------|----------------|--------|---|
|            |          |               | Strongly<br>disagree  | Somewhat<br>disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |   |
| Race White | Count    | 9             | 27  | 3                    | 10                            | 2                 | 51             | Ī      |   |
|            |          | % within Race | 17.6%   | 52.9%                | 5.9%                          | 19.6%             | 3.9%           | 100.0% |   |
|            | Nonwhite | Count         | 0   | 8                    | 6                             | 12                | 3              | 29     |   |
|            |          | % within Race | 0.0%  | 27.6%                | 20.7%                         | 41.4%             | 10.3%          | 100.0% |   |
| Total      | Count    | 9             | 35  | 9                    | 22                            | 5                 | 80             | į,     |   |
|            |          | % within Race | 11.3%   | 43.8%                | 11.3%                         | 27.5%             | 6.3%           | 100.0% | Ĺ |

|                                 | Value   | df | Asymptotic<br>Significance<br>(2-sided) |
|---------------------------------|---------|----|---|
| Pearson Chi-Square              | 15.844ª | 4  | .003                                    |
| Likelihood Ratio                | 18.643  | 4  | <.001                                   |
| Linear-by-Linear<br>Association | 12.332  | 1  | <.001                                   |
| N of Valid Cases                | 80      |    |   |

#### **Directional Measures**

| Nominal by Nominal |        |  | Value | Asymptotic<br>Standard Error<br>a | Approximate T <sup>b</sup> | Approximate<br>Significance |
|--------------------|--------|--|-------|-----------------------------------|----------------------------|-----------------------------|
| Nominal by Nominal | Lambda | Symmetric  | .135  | .113                              | 1.127                      | .260                        |
|                    |        | Race Dependent   | .207  | .184                              | 1.006                      | .314                        |
|                    |        | I do not feel that I can be<br>my authentic self on<br>campus without fear of<br>judgment or discrimination<br>Dependent | .089  | .095                              | .899                       | .369                        |

2. "I hide aspects of my identity from new people until I feel closer to them." A chi square test gives a value of p = 0.004, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between race and the dependent variable. Then, we perform a lambda test and get  $\lambda = 0.000$ . The lambda value of 0 suggests no relationship between race and hiding aspects of identity. This contradicts the chi-square result and indicates a limitation or issue with the lambda test in this context.

|       |            |               | I hide as            | pects of my identi        | ty from new people            | e until I feel closer | to them        |                  |   | 0h: 0     |
|-------|------------|---------------|----------------------|---------------------------|-------------------------------|-----------------------|----------------|------------------|---|-----------|
|       |            |               | Strongly<br>disagree | Somewhat<br>disagree      | Neither agree<br>nor disagree | Somewhat<br>agree     | Strongly agree | Total            |   | Chi-Squar |
| Race  | Race White | Count         | 8                    | 13                        | 5                             | 19                    | 6              | 51               |   | Value     |
|       |            | % within Race | 15.7%                | 25.5%                     | 9.8%                          | 37.3%                 | 11.8%          | 100.0%           | Pearson Chi-Square                              | 15.25     |
|       | Nonwhite   | Count         | n                    | 15.7% 25.5% 9.8%<br>0 2 8 | 10                            | 9                     | 29             | Likelihood Ratio | 18.1  |           |
|       |            | % within Race | 0.0%                 | 6.9%                      | 27.6%                         | 34.5%                 | 31.0%          | 100.0%           | - Linear-by-Linear<br>Association               | 8.5       |
| Total | Count      | 8             | 15                   | 13                        | 29                            | 15                    | 80             | N of Valid Cases |   |           |
|       |            | % within Race | 10.0%                | 18.8%                     | 16.3%                         | 36.3%                 | 18.8%          | 100.0%           | a. 2 cells (20.0%) have<br>expected count is 2. |           |

| Directional | Measures |
|-------------|----------|

|                    | ninal by Nominal Lambda        |   | Value | Asymptotic<br>Standard Error<br>a | Approximate T <sup>b</sup> | Approximate<br>Significance |
|--------------------|--------------------------------|---|-------|-----------------------------------|----------------------------|-----------------------------|
| Nominal by Nominal | Race D<br>I hide ar<br>from ne | Symmetric   | .075  | .063                              | 1.143                      | .253                        |
|                    |                                | Race Dependent  | .207  | .162                              | 1.143                      | .253                        |
|                    |                                | I hide aspects of my identity<br>from new people until I feel<br>closer to them Dependent | .000  | .000                              | .c                         | .c                          |

3. "I worry about my safety on campus because of my identity." A chi square test gives a value of p < 0.001, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between race and the dependent variable. Then, we

perform a lambda test and get  $\lambda=0.277$  and p=0.002. A moderate relationship between race and safety concerns. The p-value indicates statistical significance.

#### Crosstab

|            |       |               | I worry about r | ny safety on ca | of my identity |       |                                     |  |
|------------|-------|---------------|-----------------|-----------------|----------------|-------|-------------------------------------|--|
|            |       |               | Never           | Rarely          | Sometimes      | Often | Total                               |  |
| Race White | Count | 30            | 12              | 9               | 0              | 51    |                                     |  |
|            |       | % within Race | 58.8%           | 23.5%           | 17.6%          | 0.0%  | 100.0%                              |  |
| Nonwhite   | Count | 3             | 16              | 9               | 1              | 29    | Pearson Chi-Square Likelihood Ratio |  |
|            |       | % within Race | 10.3%           | 55.2%           | 31.0%          | 3.4%  | 100.0%                              | Linear-by-Linear                           |
| Total      |       | Count         | 33              | 28              | 18             | 1     | 80                                  | Association N of Valid Cases               |
|            |       | % within Race | 41.3%           | 35.0%           | 22.5%          | 1.3%  | 100.0%                              | a. 2 cells (25.0%) ha<br>expected count is |

| hi-Square Tes | sts  |   |
|---------------|--|---|
| Value         | df   | Asymptotic<br>Significance<br>(2-sided)       |
| 19.053ª       | 3  | <.001   |
| 21.473        | 3  | <.001   |
| 13.057        | 1  | <.001   |
| 80            |  |   |
|               | Value<br>19.053 <sup>a</sup><br>21.473<br>13.057 | 19.053 <sup>a</sup> 3<br>21.473 3<br>13.057 1 |

#### **Directional Measures**

|                    | iominal Lambda          |  | Value | Asymptotic<br>Standard Error<br>a | Approximate T <sup>b</sup> | Approximate<br>Significance |
|--------------------|-------------------------|--|-------|-----------------------------------|----------------------------|-----------------------------|
| Nominal by Nominal | Lambda                  | Symmetric  | .237  | .104                              | 2.065                      | .039                        |
|                    | minal by Nominal Lambda | Race Dependent   | .172  | .169                              | .934                       | .351                        |
|                    |                         | I worry about my safety on<br>campus because of my<br>identity Dependent | .277  | .079                              | 3.163                      | .002                        |

4. "I avoid going to the library or other places to study at night so I don't have to walk home in the dark." A chi square test gives a value of p < 0.001, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between gender and the dependent variable. Then, we perform a lambda test and get  $\lambda = 0.130$  and p = 0.016. A weak relationship between gender and avoiding night study. The p-value suggests statistical significance.

#### Gender \* I avoid going to the library or other places to study at night so I don't have to walk home in the dark Crosstabulation

|                      |                 |                 | I avoid going to th  | ne library or other | places to study at r<br>in the dark | night so I don't ha | e to walk home |        |  |
|----------------------|-----------------|-----------------|----------------------|---------------------|-------------------------------------|---------------------|----------------|--------|--|
|                      |                 |                 | Strongly<br>disagree | Somewhat disagree   | Neither agree<br>nor disagree       | Somewhat<br>agree   | Strongly agree | Total  |  |
| Gender Male Non-male | Count           | 8               | 1                    | 0                   | 0                                   | 0                   | 9              | Ī      |  |
|                      | % within Gender | 88.9%           | 11.1%                | 0.0%                | 0.0%                                | 0.0%                | 100.0%         |        |  |
|                      | Count           | 14              | 24                   | 6                   | 19                                  | 7                   | 70             |        |  |
|                      | % within Gender | 20.0%           | 34.3%                | 8.6%                | 27.1%                               | 10.0%               | 100.0%         |        |  |
| Total                | Count           | 22              | 25                   | 6                   | 19                                  | 7                   | 79             | Ī      |  |
|                      |                 | % within Gender | 27.8%                | 31.6%               | 7.6%                                | 24.1%               | 8.9%           | 100.0% |  |

|                                 | Value   | df | Asymptotic<br>Significance<br>(2-sided) |
|---------------------------------|---------|----|---|
| Pearson Chi-Square              | 19.058ª | 4  | <.00                                    |
| Likelihood Ratio                | 18.795  | 4  | <.00                                    |
| Linear-by-Linear<br>Association | 11.333  | 1  | <.00                                    |
| N of Valid Cases                | 79      |    |   |

#### Directional Measures

|                           |   | Value | Asymptotic<br>Standard Error | Approximate T <sup>b</sup> | Approximate<br>Significance |
|---------------------------|---|-------|------------------------------|----------------------------|-----------------------------|
| Nominal by Nominal Lambda | Symmetric   | .111  | .041                         | 2.418                      | .016                        |
|                           | Gender Dependent  | .000  | .000                         | , c                        | .0                          |
|                           | I avoid going to the library<br>or other places to study at<br>night so I don't have to walk<br>home in the dark<br>Dependent | .130  | .052                         | 2.418                      | .016                        |

5. "I do not feel comfortable going into the city of Richmond alone at night." A chi square test gives a value of p < 0.001, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between gender and the dependent variable. Then, we perform a lambda test and get  $\lambda = 0.067$  and p = 0.412. A very weak relationship between gender and discomfort in the city. The p-value suggests no statistical significance.

Gender \* I do not feel comfortable going into the city of Richmond alone at night Crosstabulation

I do not feel comfortable going into the city of Richmond alone at night

Nominal by Nominal Lambda

|        |          | I do not feel comfortable going into the city of Richmond alone at night |                      |                   |                               | Chi-Square Tests  |                |         |   |          |              |                            |
|--------|----------|--|----------------------|-------------------|-------------------------------|-------------------|----------------|---------|---|----------|--------------|----------------------------|
|        |          |  | Strongly<br>disagree | Somewhat disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total   |   |          |              | Asymptotic<br>Significance |
| Gender | Male     | Count  | 0                    | 4                 | 2                             | 1                 | 2              | 9       |   | Value    | df           | (2-sided)                  |
|        |          | % within Gender  | 0.00/                | 44.40             | 22.20/                        | 44.400            | 22.20/         | 400.000 | Pearson Chi-Square                              | 22.661 a | 4            | <.001                      |
|        |          | % Within Gender  | 0.0%                 | 44.4%             | 22.2%                         | 11.1%             | 22.2%          | 100.0%  | Likelihood Ratio                                | 16.127   | 4            | .003                       |
|        | Non-male | Count  | 2                    | 3                 | 2                             | 16                | 44             | 67      | Linear-by-Linear                                | 11.861   | 1            | <.001                      |
|        |          | % within Gender  | 3.0%                 | 4.5%              | 3.0%                          | 23.9%             | 65.7%          | 100.0%  | Association                                     | 11.001   |              | 4.001                      |
| Total  |          | Count  | 2                    | 7                 | 4                             | 17                | 46             | 76      | N of Valid Cases                                | 76       |              |                            |
|        |          | % within Gender  | 2.6%                 | 9.2%              | 5.3%                          | 22.4%             | 60.5%          | 100.0%  | a. 6 cells (60.0%) have<br>expected count is .2 |          | less than 5. | The minimum                |

| Directional Meas          | ures  |                                   |                            |                             |
|---------------------------|-------|-----------------------------------|----------------------------|-----------------------------|
|                           | Value | Asymptotic<br>Standard Error<br>a | Approximate T <sup>b</sup> | Approximate<br>Significance |
| Symmetric                 | .077  | .124                              | .601                       | .548                        |
| Gender Dependent          | .111  | .347                              | .302                       | .763                        |
| I do not feel comfortable | .067  | .079                              | .820                       | .412                        |

6. "I do not feel comfortable going into the city of Richmond with friends at night." A chi square test gives a value of p = 0.046, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between gender and the dependent variable. Then, we perform a lambda test and get  $\lambda = 0.073$  and p = 0.314. A very weak relationship between gender and discomfort in the city with friends. The p-value suggests no statistical significance.

|        |          |                 | I do not feel comfortable going into the city of Richmond with friends at night |                      |                               |                   |                |        |                     |
|--------|----------|-----------------|---|----------------------|-------------------------------|-------------------|----------------|--------|---------------------|
|        |          |                 | Strongly<br>disagree  | Somewhat<br>disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |                     |
| Gender | Male     | Count           | 6   | 3                    | 0                             | 0                 | 0              | 9      |                     |
|        |          | % within Gender | 66.7%   | 33.3%                | 0.0%                          | 0.0%              | 0.0%           | 100.0% | Pearso              |
|        | Non-male | Count           | 14  | 33                   | 11                            | 9                 | 1              | 68     | Likeliho<br>Linear- |
|        |          | % within Gender | 20.6%   | 48.5%                | 16.2%                         | 13.2%             | 1.5%           | 100.0% | Associa             |
| Total  |          | Count           | 20  | 36                   | 11                            | 9                 | 1              | 77     | N of Val            |
|        |          | % within Gender | 26.0%   | 46.8%                | 14.3%                         | 11.7%             | 1.3%           | 100.0% | a. 6 c              |

| •                               | om-oquare rests |    |   |  |  |  |
|---------------------------------|-----------------|----|---|--|--|--|
|                                 | Value           | df | Asymptotic<br>Significance<br>(2-sided) |  |  |  |
| Pearson Chi-Square              | 9.669ª          | 4  | .046                                    |  |  |  |
| Likelihood Ratio                | 10.456          | 4  | .033                                    |  |  |  |
| Linear-by-Linear<br>Association | 7.069           | 1  | .008                                    |  |  |  |
| N of Valid Cases                | 77              |    |   |  |  |  |

| Directional | Meacurec |
|-------------|----------|
|             |          |

|                    |        |  | Value | Asymptotic<br>Standard Error | Approximate T <sup>b</sup> | Approximate<br>Significance |
|--------------------|--------|--|-------|------------------------------|----------------------------|-----------------------------|
| Nominal by Nominal | Lambda | Symmetric  | .060  | .057                         | 1.007                      | .314                        |
|                    |        | Gender Dependent   | .000  | .000                         | ,c                         | , c                         |
|                    |        | I do not feel comfortable<br>going into the city of<br>Richmond with friends at<br>night Dependent | .073  | .070                         | 1.007                      | .314                        |

7. "I would not feel comfortable going on a date with someone on campus I have never met before." A chi square test gives a value of p = 0.035, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between gender and the dependent variable. Then, we perform a lambda test and get  $\lambda = 0.038$  and p = 0.412. A very weak relationship between gender and discomfort in dating. The p-value suggests no statistical significance.

Gender \* I would not feel comfortable going on a date with someone on campus I have never met before Crosstabulation

|        |          |                 | I would not feel comfortable going on a date with someone on campus I have never met before |                   |                               |                   |                |        |
|--------|----------|-----------------|---|-------------------|-------------------------------|-------------------|----------------|--------|
|        |          |                 | Strongly<br>disagree  | Somewhat disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |
| Gender | Male     | Count           | 4   | 2                 | 1                             | 2                 | 0              | 9      |
|        |          | % within Gender | 44.4%   | 22.2%             | 11.1%                         | 22.2%             | 0.0%           | 100.0% |
|        | Non-male | Count           | 6   | 26                | 9                             | 18                | 12             | 71     |
|        |          | % within Gender | 8.5%  | 36.6%             | 12.7%                         | 25.4%             | 16.9%          | 100.0% |
| Total  |          | Count           | 10  | 28                | 10                            | 20                | 12             | 80     |
|        |          | % within Gender | 12.5%   | 35.0%             | 12.5%                         | 25.0%             | 15.0%          | 100.0% |

|                                 | Value               | df | Asymptotic<br>Significance<br>(2-sided) |
|---------------------------------|---------------------|----|---|
| Pearson Chi-Square              | 10.320 <sup>a</sup> | 4  | .035                                    |
| Likelihood Ratio                | 8.899               | 4  | .064                                    |
| Linear-by-Linear<br>Association | 4.152               | 1  | .042                                    |
| N of Valid Cases                | 80                  |    |   |

|                           |   | Value | Asymptotic<br>Standard Error | Approximate T <sup>b</sup> | Approximate<br>Significance |
|---------------------------|---|-------|------------------------------|----------------------------|-----------------------------|
| Nominal by Nominal Lambda | Symmetric   | .033  | .039                         | .820                       | .412                        |
|                           | Gender Dependent  | .000  | .000                         | ,c                         | , c                         |
|                           | I would not feel comfortable<br>going on a date with<br>someone on campus I<br>have never met before<br>Dependent | .038  | .046                         | .820                       | .412                        |

8. "I would not feel comfortable going to a new person's dorm room by myself." A chi square test gives a value of p < 0.001, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between gender and the dependent

variable. Then, we perform a lambda test and get  $\lambda = 0.021$  and p = 0.705. A very weak relationship between gender and discomfort in going to a dorm room alone. The p-value suggests no statistical significance.

| Candar | * I would not fee | al comfortable | anina to | a new | narson's dorm | room by n | nyself Crosstabulation  |
|--------|-------------------|----------------|----------|-------|---------------|-----------|-------------------------|
| Gender | I Would not let   | i commontable  | goingto  | a new | person s aorm |           | iyacıı orosatabalatları |

|         |          |                 | I would not feel comfortable going to a new person's dorm room by myself |                   |                               |                   |                |        |   | Chi-Square Te | sts         |                            |
|---------|----------|-----------------|--|-------------------|-------------------------------|-------------------|----------------|--------|---|---------------|-------------|----------------------------|
|         |          |                 | Strongly<br>disagree   | Somewhat disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |   |               |             | Asymptotic<br>Significance |
| Gender  | Male     | Count           | 4  | 3                 | 1                             | 1                 | 0              | 9      |   | Value         | df          | (2-sided)                  |
| Contact | maio     |                 | 44.4%  | 33.3%             | 11.1%                         | 11.1%             | 0.0%           | 100.0% | Pearson Chi-Square                              | 26.062ª       | 4           | <.001                      |
|         |          | % within Gender | 44.470   | 33.370            | 11.170                        | 11.170            | 0.0%           | 100.0% | Likelihood Ratio                                | 16.533        | A .         | .002                       |
|         | Non-male | Count           | 1  | 29                | 11                            | 19                | 11             | 71     |   |               | -           |                            |
|         | Mon-male | Count           | '  | 20                | - 11                          | 10                | - 11           |        | Linear-by-Linear                                | 8.526         | 1           | .004                       |
|         |          | % within Gender | 1.4%   | 40.8%             | 15.5%                         | 26.8%             | 15.5%          | 100.0% | Association                                     |               |             |                            |
| Total   |          | Count           | 5  | 32                | 12                            | 20                | 11             | 80     | N of Valid Cases                                | 80            |             |                            |
|         |          | % within Gender | 6.3%   | 40.0%             | 15.0%                         | 25.0%             | 13.8%          | 100.0% | a. 6 cells (60.0%) have<br>expected count is .5 |               | ess than 5. | The minimum                |

Directional Measures

|                    |        |   | Value | Asymptotic<br>Standard Error<br>a | Approximate T <sup>b</sup> | Approximate<br>Significance |
|--------------------|--------|---|-------|-----------------------------------|----------------------------|-----------------------------|
| Nominal by Nominal | Lambda | Symmetric   | .070  | .076                              | .899                       | .369                        |
|                    |        | Gender Dependent  | .333  | .203                              | 1.357                      | .175                        |
|                    |        | I would not feel comfortable<br>going to a new person's<br>dorm room by myself<br>Dependent | .021  | .055                              | .378                       | .705                        |

9. "I feel comfortable sharing my sexuality with new people on campus." A chi square test gives a value of p < 0.001, meaning we can reject the null hypothesis and say that there is a statistically significant relationship between sexuality and the dependent variable. Then, we perform a lambda test and get  $\lambda = 0.232$  and p = 0.002. A moderate relationship between sexuality and comfort in sharing. The p-value suggests statistical significance.

Sexuality  $^{\star}$  I feel comfortable sharing my sexuality with new people on campus Crosstabulation

|           |                  |                    | l feel comfortabl    | e sharing my sexu             | iality with new ped | ple on campus  |        |   |               |              |                            |
|-----------|------------------|--------------------|----------------------|-------------------------------|---------------------|----------------|--------|---|---------------|--------------|----------------------------|
|           |                  |                    | Somewhat<br>disagree | Neither agree<br>nor disagree | Somewhat agree      | Strongly agree | Total  |   | Chi-Square To | ests         | Asymptotic<br>Significance |
| Sexuality | Heterosexual     | Count              | 1                    | 13                            | 6                   | 21             | 41     |   | Value         | df           | (2-sided)                  |
|           |                  | % within Sexuality | 2.4%                 | 31.7%                         | 14.6%               | 51.2%          | 100.0% | Pearson Chi-Square                                | 28.511ª       | 3            | <.001                      |
|           | Non-heterosexual | Count              | 12                   | 8                             | 16                  | 3              | 39     | Likelihood Ratio                                  | 32.026        | 3            | <.001                      |
|           |                  | % within Sexuality | 30.8%                | 20.5%                         | 41.0%               | 7.7%           | 100.0% | Linear-by-Linear<br>Association                   | 13.835        | 1            | <.001                      |
| Total     |                  | Count              | 13                   | 21                            | 22                  | 24             | 80     | N of Valid Cases                                  | 80            |              |                            |
|           |                  | % within Sexuality | 16.3%                | 26.3%                         | 27.5%               | 30.0%          | 100.0% | a. 0 cells (.0%) have ex<br>expected count is 6.3 |               | s than 5. Th | e minimum                  |

Directional Measures

|                    |        |  | Value | Standard Error | Approximate T <sup>b</sup> | Approximate<br>Significance |
|--------------------|--------|--|-------|----------------|----------------------------|-----------------------------|
| Nominal by Nominal | Lambda | Symmetric  | .358  | .076           | 4.020                      | <.001                       |
|                    |        | Sexuality Dependent  | .538  | .103           | 3.867                      | <.001                       |
|                    |        | I feel comfortable sharing<br>my sexuality with new<br>people on campus<br>Dependent | .232  | .068           | 3.163                      | .002                        |

10. "I do not believe that the campus environment is welcoming and inclusive for individuals of all backgrounds." A chi square test gives a value of p = 0.023, meaning we can reject

the null hypothesis and say that there is a statistically significant relationship between sexuality and the dependent variable. Then, we perform a lambda test and get  $\lambda = 0.115$  and p = 0.285. A weak relationship between sexuality and perception of campus inclusivity. The p-value suggests no statistical significance.

| Sexualit  | y * I do not belie | ve that the camp   |                      | ent is welcomi<br>osstabulation |                               | ve for individu | ials of all back   | grounds |   |                 |               |   |
|-----------|--------------------|--------------------|----------------------|---------------------------------|-------------------------------|-----------------|--------------------|---------|---|-----------------|---------------|---|
|           |                    |                    | I do not believe th  |                                 | vironment is welco            |                 | ve for individuals |         | Ch  | i-Square Te     | sts           |   |
|           |                    |                    | Strongly<br>disagree | Somewhat<br>disagree            | Neither agree<br>nor disagree | Somewhat agree  | Strongly agree     | Total   |   | Value           | df            | Asymptotic<br>Significance<br>(2-sided) |
| Sexuality | Heterosexual       | Count              | 1                    | 19                              | 7                             | 13              | 1                  | 41      | Pearson Chi-Square  | 11.320ª         | 4             | .023                                    |
|           |                    | % within Sexuality | 2.4%                 | 46.3%                           | 17.1%                         | 31.7%           | 2.4%               | 100.0%  | Likelihood Ratio  | 12.055          | 4             | .017                                    |
|           | Non-heterosexual   | Count              | 1                    | 6                               | 11                            | 15              | 6                  | 39      | Linear-by-Linear  | 7.294           | 1             | .007                                    |
|           |                    | % within Sexuality | 2.6%                 | 15.4%                           | 28.2%                         | 38.5%           | 15.4%              | 100.0%  | Association   |                 |               |   |
| Total     |                    | Count              | 2                    | 25                              | 18                            | 28              | 7                  | 80      | N of Valid Cases  | 80              |               |   |
|           |                    | % within Sexuality | 2.5%                 | 31.3%                           | 22.5%                         | 35.0%           | 8.8%               | 100.0%  | <ul> <li>a. 4 cells (40.0%) have ex<br/>expected count is .98.</li> </ul> | pected count le | ess than 5. 1 | The minimum                             |

|                    |        | Directional Meas   | ures  |                                   |                            |                             |
|--------------------|--------|--|-------|-----------------------------------|----------------------------|-----------------------------|
|                    |        |  | Value | Asymptotic<br>Standard Error<br>a | Approximate T <sup>b</sup> | Approximate<br>Significance |
| Nominal by Nominal | Lambda | Symmetric  | .187  | .106                              | 1.640                      | .101                        |
|                    |        | Sexuality Dependent  | .282  | .158                              | 1.533                      | .125                        |
|                    |        | I do not believe that the<br>campus environment is<br>welcoming and inclusive<br>for individuals of all<br>backgrounds Dependent | .115  | .102                              | 1.068                      | .285                        |

#### Kruskal-Wallis test:

To analyze the data further, a nonparametric method was chosen. Independent t-tests would not work for this data because of the assumptions that are necessary for it. The data set of only 80 viable responses is too small and does not have normal distribution of the dependent variable, which means the test cannot be used. Thus, the Kruskal-Wallis test is performed since it does not require normal distribution of the data. This means Kruskal-Wallis is suitable for smaller data sets, so performing this test allows the integrity of the statistical analysis to remain. The results with statistical significance for the Kruskal-Wallis test are included, as are their crosstabulations if they were not above.

Race:

"I feel comfortable sharing my sexuality with new people on campus" (p = 0.037, H = 4.373): This test is statistically significant and demonstrates that non-white students tend to feel less comfortable sharing their sexuality with new people on campus compared to white students.

Race \* I feel comfortable sharing my sexuality with new people on campus Crosstabulation

|            |          |                     | l feel comfortabl    | e sharing my sexu             | iality with new peo | ple on campus  |        |
|------------|----------|---------------------|----------------------|-------------------------------|---------------------|----------------|--------|
|            |          |                     | Somewhat<br>disagree | Neither agree<br>nor disagree | Somewhat agree      | Strongly agree | Total  |
| Nonwhite_1 | White    | Count               | 6                    | 11                            | 16                  | 18             | 51     |
|            |          | % within Nonwhite_1 | 11.8%                | 21.6%                         | 31.4%               | 35.3%          | 100.0% |
|            | Nonwhite | Count               | 7                    | 10                            | 6                   | 6              | 29     |
|            |          | % within Nonwhite_1 | 24.1%                | 34.5%                         | 20.7%               | 20.7%          | 100.0% |
| Total      |          | Count               | 13                   | 21                            | 22                  | 24             | 80     |
|            |          | % within Nonwhite_1 | 16.3%                | 26.3%                         | 27.5%               | 30.0%          | 100.0% |

2. "I do not walk around by myself at night" (p = 0.019, H = 5.460): This test is statistically significant and demonstrates that non-white students are more likely to agree with this statement, indicating that they feel less safe walking alone at night on campus compared to white students.

Race \* I do not walk around by myself at night Crosstabulation

|       |          |               |                      | l do not wa          | alk around by myse            | lf at night       |                |        |
|-------|----------|---------------|----------------------|----------------------|-------------------------------|-------------------|----------------|--------|
|       |          |               | Strongly<br>disagree | Somewhat<br>disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |
| Race  | White    | Count         | 11                   | 23                   | 3                             | 7                 | 7              | 51     |
|       |          | % within Race | 21.6%                | 45.1%                | 5.9%                          | 13.7%             | 13.7%          | 100.0% |
|       | Nonwhite | Count         | 14                   | 10                   | 0                             | 3                 | 2              | 29     |
|       |          | % within Race | 48.3%                | 34.5%                | 0.0%                          | 10.3%             | 6.9%           | 100.0% |
| Total |          | Count         | 25                   | 33                   | 3                             | 10                | 9              | 80     |
|       |          | % within Race | 31.3%                | 41.3%                | 3.8%                          | 12.5%             | 11.3%          | 100.0% |

3. "I do not feel comfortable going to fraternity lodges" (p = 0.029, H=4.756): This test is statistically significant and demonstrates that non-white students tend to feel less comfortable going to fraternity lodges compared to white students.

|       |          |               |                      | I do not feel com    | nfortable going to fr         | aternity lodges   |                |        |
|-------|----------|---------------|----------------------|----------------------|-------------------------------|-------------------|----------------|--------|
|       |          |               | Strongly<br>disagree | Somewhat<br>disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |
| Race  | White    | Count         | 11                   | 11                   | 3                             | 9                 | 9              | 43     |
|       |          | % within Race | 25.6%                | 25.6%                | 7.0%                          | 20.9%             | 20.9%          | 100.0% |
|       | Nonwhite | Count         | 1                    | 8                    | 1                             | 8                 | 10             | 28     |
|       |          | % within Race | 3.6%                 | 28.6%                | 3.6%                          | 28.6%             | 35.7%          | 100.0% |
| Total |          | Count         | 12                   | 19                   | 4                             | 17                | 19             | 71     |
|       |          | % within Race | 16.9%                | 26.8%                | 5.6%                          | 23.9%             | 26.8%          | 100.0% |

4. "I do not believe that the campus environment is welcoming and inclusive for individuals of all backgrounds" (p = 0.023, H=5.181): This test is statistically significant and demonstrates that non-white students are more likely to agree with this statement, suggesting that they perceive the campus environment as less welcoming and inclusive compared to white students.

Race \* I do not believe that the campus environment is welcoming and inclusive for individuals of all backgrounds Crosstabulation

|       |          |               | l do not believe th  | do not believe that the campus environment is welcoming and inclusive for individuals of all backgrounds |                               |                   |                |        |  |  |
|-------|----------|---------------|----------------------|--|-------------------------------|-------------------|----------------|--------|--|--|
|       |          |               | Strongly<br>disagree | Somewhat<br>disagree   | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |  |  |
| Race  | White    | Count         | 2                    | 18   | 14                            | 14                | 3              | 51     |  |  |
|       |          | % within Race | 3.9%                 | 35.3%  | 27.5%                         | 27.5%             | 5.9%           | 100.0% |  |  |
|       | Nonwhite | Count         | 0                    | 7  | 4                             | 14                | 4              | 29     |  |  |
|       |          | % within Race | 0.0%                 | 24.1%  | 13.8%                         | 48.3%             | 13.8%          | 100.0% |  |  |
| Total |          | Count         | 2                    | 25   | 18                            | 28                | 7              | 80     |  |  |
|       |          | % within Race | 2.5%                 | 31.3%  | 22.5%                         | 35.0%             | 8.8%           | 100.0% |  |  |

- 5. "I do not feel that I can be my authentic self on campus without fear of judgment or discrimination" (p < 0.001, H=13.242): This test is statistically significant and demonstrates that non-white students are more likely to agree with this statement, indicating that they feel less able to be their authentic selves on campus without fear of judgment or discrimination compared to white students.
- 6. "I have hesitated to participate in campus events or activities due to concerns about my safety or acceptance" (p = 0.042, H=4.117): This test is statistically significant and demonstrates that non-white students are more likely to report hesitating to participate in

campus events or activities due to concerns about their safety or acceptance compared to white students.

Race \* I have hesitated to participate in campus events or activities due to concerns about my safety or acceptance Crosstabulation

|       |          |               | I have hesitated<br>co |        |           |       |        |
|-------|----------|---------------|------------------------|--------|-----------|-------|--------|
|       |          |               | Never                  | Rarely | Sometimes | Often | Total  |
| Race  | White    | Count         | 28                     | 14     | 7         | 2     | 51     |
|       |          | % within Race | 54.9%                  | 27.5%  | 13.7%     | 3.9%  | 100.0% |
|       | Nonwhite | Count         | 10                     | 9      | 6         | 4     | 29     |
|       |          | % within Race | 34.5%                  | 31.0%  | 20.7%     | 13.8% | 100.0% |
| Total |          | Count         | 38                     | 23     | 13        | 6     | 80     |
|       |          | % within Race | 47.5%                  | 28.7%  | 16.3%     | 7.5%  | 100.0% |

7. "I hide aspects of my identity from new people until I feel closer to them" (p = 0.006, H=7.503): This test is statistically significant and demonstrates that non-white students are more likely to agree with this statement, suggesting that they are more likely to hide aspects of their identity from new people until they feel closer to them compared to white students.

#### Gender:

"I do not feel comfortable walking around campus late at night" (p = 0.018, H = 5.645):
 This test is statistically significant and demonstrates that non-male students are more likely to feel uncomfortable walking around campus late at night compared to male students.

Gender \* I do not feel comfortable walking around campus late at night Crosstabulation

|        |          |                 | I do                 | I do not feel comfortable walking around campus late at night |                               |                |                |        |  |  |
|--------|----------|-----------------|----------------------|---|-------------------------------|----------------|----------------|--------|--|--|
|        |          |                 | Strongly<br>disagree | Somewhat<br>disagree  | Neither agree<br>nor disagree | Somewhat agree | Strongly agree | Total  |  |  |
| Gender | Male     | Count           | 5                    | 3   | 0                             | 1              | 0              | 9      |  |  |
|        |          | % within Gender | 55.6%                | 33.3%   | 0.0%                          | 11.1%          | 0.0%           | 100.0% |  |  |
|        | Non-male | Count           | 12                   | 31  | 7                             | 18             | 3              | 71     |  |  |
|        |          | % within Gender | 16.9%                | 43.7%   | 9.9%                          | 25.4%          | 4.2%           | 100.0% |  |  |
| Total  |          | Count           | 17                   | 34  | 7                             | 19             | 3              | 80     |  |  |
|        |          | % within Gender | 21.3%                | 42.5%   | 8.8%                          | 23.8%          | 3.8%           | 100.0% |  |  |

- 2. "I avoid going to the library or other places to study at night so I don't have to walk home in the dark" (p < 0.001, H = 13.872): This test is statistically significant and demonstrates that non-male students are significantly more likely to avoid going to the library or other study places at night to avoid walking home in the dark, compared to male students.
- 3. "I do not walk around by myself at night" (p = 0.010, H = 6.666): This test is statistically significant and demonstrates that non-male students are more likely to agree with this statement, indicating they feel less safe walking alone at night on campus compared to male students.

Gender \* I do not walk around by myself at night Crosstabulation

|        |          |                 |                      | I do not walk around by myself at night |                               |                   |                |        |  |
|--------|----------|-----------------|----------------------|---|-------------------------------|-------------------|----------------|--------|--|
|        |          |                 | Strongly<br>disagree | Somewhat<br>disagree                    | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |  |
| Gender | Male     | Count           | 6                    | 3                                       | 0                             | 0                 | 0              | 9      |  |
|        |          | % within Gender | 66.7%                | 33.3%                                   | 0.0%                          | 0.0%              | 0.0%           | 100.0% |  |
|        | Non-male | Count           | 19                   | 30                                      | 3                             | 10                | 9              | 71     |  |
|        |          | % within Gender | 26.8%                | 42.3%                                   | 4.2%                          | 14.1%             | 12.7%          | 100.0% |  |
| Total  |          | Count           | 25                   | 33                                      | 3                             | 10                | 9              | 80     |  |
|        |          | % within Gender | 31.3%                | 41.3%                                   | 3.8%                          | 12.5%             | 11.3%          | 100.0% |  |

- 4. "I do not feel comfortable going into the city of Richmond alone at night" (p = 0.002, H = 9.805): This test is statistically significant and demonstrates that non-male students are more likely to feel uncomfortable going into the city of Richmond alone at night compared to male students.
- 5. "I do not feel comfortable going into the city of Richmond with friends at night" (p = 0.003, H = 8.540): This test is statistically significant and demonstrates that non-male students are more likely to feel uncomfortable going into the city of Richmond with friends at night compared to male students.
- 6. "I would not feel comfortable going on a date with someone on campus I have never met before" (p = 0.036, H = 4.389): This test is statistically significant and demonstrates that

- non-male students are more likely to feel uncomfortable going on a date with someone they have never met before on campus compared to male students.
- 7. "I do not feel comfortable engaging in hookup culture on campus" (p = 0.037, H = 4.373): This test is statistically significant and demonstrates that non-male students are more likely to feel uncomfortable engaging in hookup culture on campus compared to male students.

Gender \* I do not feel comfortable engaging in hookup culture on campus Crosstabulation

|        |          |                 | l do no              | l do not feel comfortable engaging in hookup culture on campus |                               |                   |                |        |  |
|--------|----------|-----------------|----------------------|--|-------------------------------|-------------------|----------------|--------|--|
|        |          |                 | Strongly<br>disagree | Somewhat<br>disagree   | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |  |
| Gender | Male     | Count           | 2                    | 1  | 2                             | 2                 | 2              | 9      |  |
|        |          | % within Gender | 22.2%                | 11.1%  | 22.2%                         | 22.2%             | 22.2%          | 100.0% |  |
|        | Non-male | Count           | 3                    | 6  | 6                             | 21                | 35             | 71     |  |
|        |          | % within Gender | 4.2%                 | 8.5%   | 8.5%                          | 29.6%             | 49.3%          | 100.0% |  |
| Total  |          | Count           | 5                    | 7  | 8                             | 23                | 37             | 80     |  |
|        |          | % within Gender | 6.3%                 | 8.8%   | 10.0%                         | 28.7%             | 46.3%          | 100.0% |  |

- 8. "I would not feel comfortable going to a new person's dorm room by myself" (p = 0.003, H = 8.679): This test is statistically significant and demonstrates that non-male students are more likely to feel uncomfortable going to a new person's dorm room by themselves compared to male students.
- 9. "I generally do not feel safe on this campus" (p = 0.029, H = 4.752): This test is statistically significant and demonstrates that non-male students are more likely to agree with this statement, indicating they generally feel less safe on campus compared to male students.

Gender \* I generally do not feel safe on this campus Crosstabulation

|        |          |                 |                      | I generally do not feel safe on this campus |                               |                |                |        |  |
|--------|----------|-----------------|----------------------|---|-------------------------------|----------------|----------------|--------|--|
|        |          |                 | Strongly<br>disagree | Somewhat<br>disagree                        | Neither agree<br>nor disagree | Somewhat agree | Strongly agree | Total  |  |
| Gender | Male     | Count           | 6                    | 3   | 0                             | 0              | 0              | 9      |  |
|        |          | % within Gender | 66.7%                | 33.3%                                       | 0.0%                          | 0.0%           | 0.0%           | 100.0% |  |
|        | Non-male | Count           | 22                   | 36  | 9                             | 2              | 1              | 70     |  |
|        |          | % within Gender | 31.4%                | 51.4%                                       | 12.9%                         | 2.9%           | 1.4%           | 100.0% |  |
| Total  |          | Count           | 28                   | 39  | 9                             | 2              | 1              | 79     |  |
|        |          | % within Gender | 35.4%                | 49.4%                                       | 11.4%                         | 2.5%           | 1.3%           | 100.0% |  |

#### Sexuality:

- 1. "I feel comfortable sharing my sexuality with new people on campus" (p < 0.001, H = 13.639): Non-heterosexual students tend to feel significantly less comfortable sharing their sexuality with new people on campus compared to heterosexual students.
- 2. "I do not believe that the campus environment is welcoming and inclusive for individuals of all backgrounds" (p = 0.007, H = 7.275): Non-heterosexual students are more likely to disagree with this statement, indicating that they perceive the campus environment as less welcoming and inclusive compared to heterosexual students.
- 3. "I have hesitated to participate in campus events or activities due to concerns about my safety or acceptance" (p = 0.036, H = 4.416): Non-heterosexual students are more likely to report hesitating to participate in campus events or activities due to concerns about their safety or acceptance compared to heterosexual students.

Sexuality \* I have hesitated to participate in campus events or activities due to concerns about my safety or acceptance Crosstabulation

|           |                  |                    | I have hesitated to participate in campus events or activities due to concerns about my safety or acceptance |        |           |       |        |  |  |
|-----------|------------------|--------------------|--|--------|-----------|-------|--------|--|--|
|           |                  |                    | Never  | Rarely | Sometimes | Often | Total  |  |  |
| Sexuality | Heterosexual     | Count              | 17   | 14     | 8         | 2     | 41     |  |  |
|           |                  | % within Sexuality | 41.5%  | 34.1%  | 19.5%     | 4.9%  | 100.0% |  |  |
|           | Non-heterosexual | Count              | 21   | 9      | 5         | 4     | 39     |  |  |
|           |                  | % within Sexuality | 53.8%  | 23.1%  | 12.8%     | 10.3% | 100.0% |  |  |
| Total     |                  | Count              | 38   | 23     | 13        | 6     | 80     |  |  |
|           |                  | % within Sexuality | 47.5%  | 28.7%  | 16.3%     | 7.5%  | 100.0% |  |  |

4. "I hide aspects of my identity from new people until I feel closer to them" (p = 0.036, H = 4.416): Non-heterosexual students are more likely to agree with this statement, suggesting that they are more likely to hide aspects of their identity from new people until they feel closer to them compared to heterosexual students.

Sexuality \* I hide aspects of my identity from new people until I feel closer to them Crosstabulation

|           |                  |                    | I hide aspects of my identity from new people until I feel closer to them |                      |                               |                   |                |        |  |  |
|-----------|------------------|--------------------|---|----------------------|-------------------------------|-------------------|----------------|--------|--|--|
|           |                  |                    | Strongly<br>disagree  | Somewhat<br>disagree | Neither agree<br>nor disagree | Somewhat<br>agree | Strongly agree | Total  |  |  |
| Sexuality | Heterosexual     | Count              | 5   | 10                   | 7                             | 15                | 4              | 41     |  |  |
|           |                  | % within Sexuality | 12.2%   | 24.4%                | 17.1%                         | 36.6%             | 9.8%           | 100.0% |  |  |
|           | Non-heterosexual | Count              | 3   | 5                    | 6                             | 14                | 11             | 39     |  |  |
|           |                  | % within Sexuality | 7.7%  | 12.8%                | 15.4%                         | 35.9%             | 28.2%          | 100.0% |  |  |
| Total     |                  | Count              | 8   | 15                   | 13                            | 29                | 15             | 80     |  |  |
|           |                  | % within Sexuality | 10.0%   | 18.8%                | 16.3%                         | 36.3%             | 18.8%          | 100.0% |  |  |

It is also worth noting that, for some variables, such as "I have felt targeted or discriminated against based on my race, gender, religion, or sexual orientation on this campus" (p = 0.093, H = 2.825) and "I do not feel that I can be my authentic self on campus without fear of judgment or discrimination" (p = 0.124, H = 2.367), the p-values are relatively close to the 0.05 significance level, suggesting a potential trend or tendency for non-heterosexual students to report higher levels of discrimination and feeling less able to be their authentic selves on campus.

# **Discussion**

This data provides insights into the relationships between students' demographic characteristics of race, gender, and sexuality and their perceptions of safety at a PWI. Notably, several variables showed statistical significance in the chi-square test but not in the lambda test. This discrepancy suggests that, while the chi-square test detected an association between the variables, the lambda test found the strength of the relationship to be weak or not significant. For example, the variable "I hide aspects of my identity from new people until I feel closer to them" had a statistically significant chi-square value when measured against race, but had a lambda value of 0. This demonstrates that the data did not definitively find a relationship between race

and hiding aspects of identity. Such contradictions may have arisen due to the limitations of the lambda test, particularly with smaller sample sizes, where it may fail to accurately capture the relationship between variables.

Furthermore, some variables were significant in the chi-square test but not in the Kruskal-Wallis test, or vice versa. Variables like "I do not feel comfortable going into the city of Richmond alone at night" and "I do not feel comfortable going into the city of Richmond with friends at night" were statistically significant for the chi-square test on the independent variable of gender, but were not in the Kruskal-Wallis test. Conversely, the variable "I do not feel comfortable engaging in hookup culture on campus" was statistically significant when compared to gender for the Kruskal-Wallis test but was not in the chi-square test. These discrepancies highlight the differences in the underlying assumptions and sensitivity of the tests, emphasizing the importance of employing multiple statistical methods to gain a comprehensive understanding of the relationship between variables.

For the variables that had statistically significant lambda values, there was variation in the strength of the relationships between the independent and dependent variables. Specifically, "I worry about my safety on campus because of my identity" has a moderate lambda value of 0.277 when compared against the independent variable of race, which demonstrates a substantial relationship between these variables. On the other hand, variables like "I avoid going to the library or other places to study at night so I don't have to walk home in the dark" have a weaker lambda value of 0.130 when compared against the independent variable of gender, which suggests a relatively weaker association between these two variables.

Additionally, the Kruskal-Wallis test provides insights into the strength of the relationships between the independent and dependent variables based on the H-values. Variables

with higher H-values, such as "I do not feel that I can be my authentic self on campus without fear of judgment or discrimination" which has an H-value of 13.242 when compared to race and "I avoid going to the library or other places to study at night so I don't have to walk home in the dark" which has an H-value of 13.872 when compared to gender, indicate strong relationships between the independent and dependent variables.

Interestingly, the data revealed that gender had the most number of statistically significant relationships across both the chi-square and Kruskal-Wallis tests. Specifically, gender had statistically significant relationships with 5 dependent variables in the chi-square test, 1 dependent variable in the lambda test, and 9 dependent variables in the Kruskal-Wallis test. In comparison, race had significant relationships with 3 dependent variables in the chi-square test, 1 dependent variable in the lambda test, and 7 dependent variables in the Kruskal-Wallis test, which sexuality had significant relationships with 2 dependent variables in the chi-square test, 1 dependent variable in the lambda test, and 4 dependent variables in the Kruskal-Wallis test. This pattern implies that gender may be a more prominent factor that influences students' perceptions of safety on a PWI as compared to race and sexuality.

The data also demonstrates that certain dependent variables demonstrate more statistical significance with the independent variables of race, gender, and sexuality, which suggests that these experiences may be particularly relevant. The dependent variable "I do not feel that I can be my authentic self on campus without fear of judgment or discrimination" has one of the strongest relationships with race and is statistically significant in both the chi-square and the Kruskal-Wallis tests. The high H-value in the Kruskal-Wallis test indicates a substantial difference in the distributions of responses based on racial identity. This finding suggests that a student's race plays a significant role in their ability to freely express their authentic identity on

campus without fear. Similarly, the variable "I avoid going to the library or other places to study at night so I don't have to walk home in the dark" has highly statistically significant relationships with gender in both the chi-square and Kruskal-Wallis tests. In the same manner, the high H-value points to a pronounced difference based on gender identity, as non-male students are more likely to avoid studying at night due to safety concerns.

There are also dependent variables that exhibit a statistically significant relationship with multiple independent variables, demonstrating the concerns affect multiple minority groups. The dependent variable "I feel comfortable sharing my sexuality with new people on campus" is statistically significant to both race and sexuality through chi-square and Kruskal-Wallis tests. The convergence of results across tests and independent variables demonstrates that race is related to a students' comfort levels in disclosing their sexuality, but sexuality is more crucial to this dependent variable.

From examining the results, it is evident that non-white students tend to experience greater feelings of discomfort, insecurity, and discrimination on campus compared to their white counterparts. These disparities are manifested in several aspects, including discomfort in social interactions, hesitance to participate in campus events, and a heightened sense of vulnerability, particularly at night or in certain environments. The findings of the study align with themes from Guiffrida and Douthit (2010) and Strayhorn (2016), as non-white students tend to report feeling less safe, less comfortable, and less accepted on campus compared to their white counterparts.

Similarly, the analysis of gender-related differences highlights significant disparities in feelings of safety and comfort between male and non-male students. Non-male students, including female students, non-binary individuals, and others, consistently reported feeling less safe and comfortable in various campus settings, particularly during nighttime activities or when

venturing into external environments. These findings highlight the importance of addressing gender-specific concerns and ensuring equitable access to campus resources and support systems.

The examination of sexuality-related differences further demonstrates the challenges faced by non-heterosexual students in navigating campus environments. Non-heterosexual students tend to experience greater discomfort in disclosing their sexuality, perceive the campus climate as less inclusive, and exhibit hesitance in participating in campus activities due to concerns about safety and acceptance.

#### Limitations

While the findings provide insights into the experiences of minority groups on campus, it is essential to interpret them within the context of the study's limitations. The relatively small sample size is the most evident limitation of this study, especially in terms of generalizations. Only eighty responses were completed all the way through and able to be analyzed out of the 101 obtained responses, meaning generalization is not possible. The limited number of responses also led to recoding the independent variables into binary categories of race, gender, and sexuality. This was a more solid baseline through which to analyze the perceptions and experiences between minority and majority groups in the sample, yet this approach may have oversimplified the complex intersections of identity.

Moreover, the study may have resulted in self-selection bias because of the recruitment methods. Distributing the survey to specific organizations where the members were more likely to participate in the research is not a random sample, though the email announcements were. Self-reported data may also lead to response bias, or not entirely correct responses.

#### **Conclusion**

The present research contributes to the existing literature by providing quantitative insights into the relationship between marginalized identities and perceptions of safety on a PWI. Utilizing statistical analysis to observe the connections between race, gender, and sexuality and perceptions of safety across various campus situations, the study addresses a crucial gap in the literature. One of the strengths of the provided research is its intersectional approach, which aligns with calls from scholars such as Chavous et al. (2004) and Domingue (2015). They call for investigations that explicitly examine the multidimensional relationships between combinations of identities on student experiences. By considering the extent of the impacts of race, gender, and sexuality on the dependent variables, the study illuminates the ways in which each identity factor may impact students (Apugo, 2019; Ofoegbu, 2023).

Moreover, the quantitative research methodology in this study complements the qualitative insights provided by existing literature. While previous research highlights the feelings of isolation, experiences of microaggressions, and the need for counterspaces through interviews and case studies, this research provides statistical evidence to corroborate and quantify these experiences (Griffin et al., 2022; Volpe & Jones, 2023). The findings of this study demonstrate significant relationships between marginalized identities and an individuals' perception of safety, aligning with the literature's emphasis on the persistent barriers to inclusion that are faced by students at PWIs (Mills, 2020; Guiffrida & Douthit, 2010; Turner & Zepeda, 2021).

Since this project was limited in scope, future research could benefit from a larger and more diverse sample size that can enhance generalizability of the findings. Completing longitudinal studies or comparative approaches across multiple institutions could also provide a

more comprehensive understanding of how perceptions of safety may evolve over time or vary across different campuses (Strayhorn, 2016; Chavous, 2005). These studies may explore the institutional practices, policies, and support systems and how they foster inclusive and secure environments for marginalized students (Frazier, 2012; Von Robertson et al., 2016).

As a whole, this research contributes to the existing literature by providing quantitative evidence of the relationship between marginalized identities and perceptions of safety on a predominantly white college campus. By utilizing an intersectional approach to explore diverse racial backgrounds, genders, and sexualities, the study addresses some key gaps in the existing literature. While acknowledging the limitations of this research, it lays a foundation for further inquiry into the large scale, longitudinal, mixed-methods studies to inform the development of comprehensive institutional practices on PWIs.

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