

Virginia Tech Graduate School

Graduate Student Climate Survey Report

Fall 2014

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2009

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Purpose of the Report

In 2009, a group of graduate student leaders created and administered a graduate student questionnaire to gather information about graduate student climate for an assignment in a course. The last time graduate students were asked to formally respond to questions about their experience was in 1998. That survey was mailed to 1,000 on-campus graduate students and asked questions about their perceptions of students from underrepresented populations and campus experiences. The report includes information about undergraduates, but a separate survey was sent to graduate students. The full report and findings from that survey are in Appendix E.

The 2009 questionnaire resulted in a report that included a literature review on the scholarship in the following areas: student retention, diversity and inclusion at higher education institutions. The key areas of the study included: perceptions of diversity on campus, diverse programs available, and the departmental climate. There were 324 respondents out of a possible 4,763 students on the Blacksburg campus. The results were overwhelmingly positive and showed that students perceived that there was support for them on campus. That full report and findings are in <u>Appendix D</u>.

In 2012, an ad-hoc group of graduate students sought support to administer another climate survey for graduate students. From that effort, the Graduate School, the Division of Student Affairs, the Office of the Vice President for Diversity and Inclusion, and the Board of Visitors Graduate Student representative worked together to craft and administer a new survey.

During Fall 2012 and Spring 2013 semesters, the working groups from these units developed a survey using many of the elements from a recent undergraduate climate survey and existing entry and exit surveys offered by the Graduate School. The intent of the Graduate Student Climate Survey was to capture the experiences of the Blacksburg campus students in the areas of campus support and resources, campus safety, faculty advising, academic department climate, financial support, and campus diversity.

The results of the survey are to remain internal to the units involved and later will be published in a report to be posted to the Graduate School website.

Introduction and Overview

Virginia Polytechnic Institute and State University, known as Virginia Tech, is a public land-grant university. It enrolls approximately 30,000 students, of which 7,000 are graduate students with a focus on teaching and learning, research and discovery, and outreach and engagement. The majority of graduate students are enrolled on the Blacksburg campus, but more than 2,000 are at extended campuses o enrolled in virtually based programs and classes. Virginia Tech has more than 150 graduate programs awarding doctorates, master's degrees, and certificates.

According to enrollment in fall 2013, the graduate student population was made up of 55% White, 27% Non-residents, 4.5% Asian, 5.3% Black/African American, 3.1% Hispanic, and 1.7% two or more races. At the Blacksburg campus, about 60% of students are male.

The administration at Virginia Tech is dedicated to an inclusive learning environment and adopts the institutional commitment explained in The Principles of Community¹ to increase access and inclusion and create a community that nurtures learning and growth to all of its members. The campus is informed by the concepts of inclusive Excellence (IE) created by the Association of American Colleges and Universities. ²

Survey Methods

In March 2013, students were invited by email to participate in the survey. The email contained a link to the survey that was not associated with the email address. Students were asked to consent to the survey in the first screen of the online survey. Beyond the consent section,

¹ The Virginia Tech Principles of Community, http://www.diversity.vt.edu/principles-of-community/principles.html

² Toward a Model of Inclusive Excellence and Change in Postsecondary Institutions,

² http://www.aacu.org/Inclusive excellence/documents/williams et al.pdf

students were not required to answer any other questions and were able to skip to questions. The graduate student representative to the Board of Visitors sent the survey email invitation (See Appendix B). The intent was that the survey taker will benefit from the survey results to improve the campus climate for graduate students. Data were stored on the Campus Labs system licensed agreement with Virginia Tech.

The targeted group was graduate students enrolled and located at the Blacksburg campus. Graduate student enrollment at that campus was 3,799. Graduate students were sent an email invitation of participation and a call for survey participants was also advertised on the Graduate School weekly listserv. Of the 3,799 graduate students enrolled, 825 students consented to take the survey and 11 did not consent. The first question was answered by 635 participants. That was the highest response rate to any of the questions. Only 255 students completed the survey, which led the working group to conclude that the survey was too long.

Survey participants were anonymous, however, confidentiality can never be guaranteed as students could potentially be identified based upon demographics (i.e., being the sole African American woman in a particular degree program). Students had the option to disclose their identity when opting to participate in future focus groups.

Data collection began March 9 and closed April 26, 2013. Unfortunately, the call for participants was announced the Friday before the campus spring break and closed the week after students returned, which may have affected the response rate.

When asked about identity, over 60% of the respondents identified as American. As shown in Table 1, among domestic students, more than 50% identified as White, with almost 3% identifying as Asian/Pacific Islander, and more than 52% as male. Students could also share their relationship status, and more than 41% identified themselves as single (See Table 2³). Of the students who opted to shared their academic department on the survey, more than half (182 out of 501 respondents) were from the College of Engineering. The College of Liberal Arts and Human Sciences and the College of Science had the next highest turnouts of respondents, with 83 and 55 respectively. Over 60% of the respondents were pursuing a Ph.D. and 39% were pursuing a Master's degree (See Table 2). The demographic composition of survey respondents was compared to overall on-campus graduate school enrollment, and showed some differences (noted in Table 1). However, the discrepancies are not significant. We believe this survey sample is a representative of the Virginia Tech graduate student population.

Quantitative Analysis Methods

The working group conducted quantitative analysis to determine whether there were any significant differences among groups participating in the survey. Key variables included gender, race/ethnicity, age, citizenship status (international vs. domestic), and relationship status as compared to the

³ All tables are in Appendix C

general graduate student population at Virginia Tech (See <u>Table 1</u>). The working group began by analyzing differences by gender and race/ethnicity. The number of respondents of certain races/ethnicities was small, and we recoded the data for race/ethnicity into more simplified categories. Race (only for domestic students) was recoded into a binary variable with two categories: white (296 respondents) and non-white (64). The non-white category included Asian American/Pacific Islander, Black/African American, Latino(a)/Hispanic and American Native and Alaska Native. Students who identified as multiracial (selecting more than one race/ethnicity) were also coded as non-white. International students (154) were analyzed as a separate category. Those who did not identify their race/ethnicity were not included in further analyses.

Based on the open-ended comments from the survey, family concerns emerged as an area for further inquiry. One of the foci of this climate report is to understand whether and how non-traditional graduate students, e.g., those who are older than 30, with family and children, experience the graduate climate differently from traditional students (as discussed further below under focus groups). As there were no questions relating to family status, we examined age and relationship status as a loose proxy of this population. Age and relationship status were recoded into three-category variables due to incomparable counts in original categories. Ages 18-22 and 23-26 were regrouped as 18-26 (257 respondents); 27-30 remained the same (133); and 31-35, 36-40, 41-45, 46-50, and over 50 were regrouped as 31 and older (158). Respondents who reported they were single, separated, divorced, or widowed were regrouped as uncoupled (235); committed partnership (115) remained the same; and married and in a civil union were regrouped as married (163). Those who did not respond were excluded from later analyses. More detailed information about the iteration of coding is shown in Table 3.

We examined the survey to test for correlation among the individual questions under each heading. We also described the variability among the correlated questions in terms of a lower number of variables. Using factor analysis, we reduced 44 questions to 10 factors measuring 10 aspects of the climate. Factor analysis reinforced the divisions of questions suggested by the survey, with two exceptions - campus support and campus diversity. In the case of campus support, there was a distinct difference between general campus support and support from the Graduate Life Center. In the case of campus diversity, questions fell out on the lines of general diversity and a new category labeled "campus diversity and me" (personal or individual experiences with diversity). The factors and related individual questions are presented in <u>Table 4.</u>

Next, we used three statistical methods to examine the variations among graduate students' perceptions of the university climate: student's t-test, analysis of variance (ANOVA), and multiple linear regression. Student's t-test is used to determine if two groups are significantly different from each other. The differences between women and men, white and non-white, international and domestic students, Ph.D. and non-Ph.D. students (including master's, non- degree, and certificate students, see <u>Table 3</u>) were tested using student's t-test. T-test results for climate factors are presented in <u>Table 5</u>, 9, 13, 16, 19, 22, and 26, for gender, race/ethnicity,

citizenship status, and degree program. T-test results for individual climate items are presented in <u>Table 6, 10, 14, 17, 20, 23, and 27,</u> for gender, race/ethnicity, citizenship status, and degree program. Results are discussed further below by factor/section.

We used ANOVA to determine whether or not the averages of several groups, usually more than two, are equal. The differences between three age groups and three relationship status groups were tested using ANOVA. ANOVA results for age and relationship status group comparisons are presented along with t-test results in the tables mentioned above, with results discussed below.

Last, we used multiple linear regression (MLR) to model the relationship between a dependent variable and one or multiple explanatory variables. Each MLR model tested a relationship between one factor representing one aspect of the university climate, and multiple explanatory variables. The relationships between the climate factors and the major demographic factors, gender, race/ethnicity, age, citizenship status, relationship status, and degree program are the focus of the MLR analysis. Several control variables—enrollment status (full-time vs. part-time), academic program (engineering vs. non-engineering), living on campus (vs. living off-campus), GA/Tuition waiver (vs. no GA/Tuition waiver), and frequency of feeling stress⁴—were also introduced to control for other possible variations among VT graduate students. MLR analysis on each climate factor have three sequential MLR models. First model would only test this factor's relationships with major demographic factors. We added the control variables, except the stress variable, in the second model to test whether they would moderate the demographic effects shown in the first model. The stress variable was added into the third model in order to see how graduate students' stress would mediate their perceptions about the university climate. Adjusted R-squares are also included at the end of each MLR model. They measure the ability of each MLR model of explaining the variation in the respective university climate factor. A higher adjusted R-square indicates a more powerful MLR model. MLR results are presented in Table 7, 8, 11, 12, 15, 16, 18, 21, 24, 25, and 28, with discussions below.

Throughout this report, *p* values for significant results are assumed to be less than 0.05, unless otherwise noted.

Section One: Campus Support and Resources

The Campus Support and Resources section began the survey with questions regarding campus resources and support for social, mental, academic, emotional wellbeing. T-test results in <u>Table</u> 5 show that student perceptions do not differ on the basis of gender, relationship status, and

⁴ Coding for this variable: 0 = never, 1 = rarely, 2 = occasionally, 3 = often, and 4 = always.

degree program⁵. However, race/ethnicity, citizenship status and age do account for some discrepancies⁶. Non-white students' perceptions of campus support were significantly lower than white students (noted with one asterisk). Thus non-white domestic students have less positive perceptions than white domestic students of the availability of resources for graduate students on campus. Age also influenced perceptions. The oldest cohort of students (31 years or older) tended to have less favorable perceptions of campus support than the youngest cohort (noted with one asterisk). International students' scores on campus resources were significantly higher than those of domestic students (noted with two asterisks). After controlling for the frequency of feeling stressed (a negative predictor) in regression analysis (see <u>Table 7</u>), the effects of being an international student and living on campus remain positive towards campus support systems whereas being older student is associated with a less positive perception.

Student t-tests showed that GLC services represented a distinct kind of campus support (see <u>Table 5</u>). Looking at students' perception about GLC services, international students had a much more favorable perception than non-international students (p<0.001). International students overall had more positive perceptions than non-international white and non-white students toward campus resources than non-international students.

From the 145 comments shared in this section, some findings include:

- Students were not aware of the resources available
- University personnel are not familiar with the graduate student development
- University resources are not well advertised
- Support efforts focused on traditional aged graduate students
- Underrepresented students (HBCU alumni in particular) do not feel supported

Section Two: Campus Safety

The Campus Safety section included questions regarding physical safety in and around the Blacksburg campus area. Responses regarding feelings of campus safety differed sharply between women and men, with women reporting they felt less safe on almost every question relating to individual safety (with the exception of in the Blacksburg community during the day). In terms of authority (campus police and university administration) responses to campus safety issues, international

⁵ P-value of a mean comparison test measures the degree of certainty to what we know about the general population based on the information from a representative sample. The lower the p-value, the greater probability of obtaining a sample statistic result based on which we can draw inferences for the general population. A greater number of asterisks indicates a lower *p*-value, as reported at the bottom of the tables.

⁶ Despite some discrepancies observed between groups in other demographic factors, we do not have sufficient statistical evidence (with a less than 0.05 p-value) to infer that the same discrepancies hold true for the general population.

students and non-Ph.D., students were more satisfied than non-international students and Ph.D. students (p<0.05 and p<0.01, respectively), while no gender difference was found.

T-tests did not find any difference between international students and non-international students or between Ph.D. students and non-Ph.D. students at the factor level of feeling of campus safety. However, the two demographics are important explanatory factors in the regression analysis (see Table 12) and groups' differences were revealed in the t-tests on individual items (see Table 10). Regression results show that international students and Non-Ph.D. students felt safer in general. In terms of individual items, international students felt less safe in Blacksburg community during day and night, but did not feel less safe than noninternational students on campus (p<0.01), and they were more confident that campus administrators took safety seriously (p<0.01). Ph.D. students felt less safe than non-Ph.D. students in Blacksburg community at night and on campus overall, and they were less confident about campus police/security's response to campus safety issues. Non-white students also felt less safe than white students on campus overall. Students' perceptions of safety also differed based on age and marital status. Older students felt less safe working late at night on campus. Unmarried students felt safer walking on campus after dark. Stress frequency moderated whether respondents felt confident about campus authority responses to safety concerns, according regression analysis (See Table 12).

This section did not solicit comments; however, safety was mentioned in comments about advisor relationship and unrealistic expectations of students to work hours that are not safe when alone in a lab.

Section Three: Faculty Advising

The Faculty Advising section addresses relationships and advising services offered by faculty members in a student's department or committee. Regression analysis showed no significant differences among groups. On individual items, t-tests revealed differences for several demographic groups. Students aged 27-30 years old felt more encouraged to publish while students over 30 felt far less encouraged. Married women agreed far less with the statement "My department has provided me opportunities to serve the department or university in various capacities outside of teaching or research." International students were more satisfied with the quality of their advising than domestic counterparts.

Regression analysis showed that among control variables, only stress frequency had a significant impact on perceptions of faculty advising. The more often they feel stressed, the less positive perception students have regarding faculty members and advising issues. The stress frequency

is a rather strong predictor because the adjusted R-square⁷ increases from 0 to 0.11 as soon as this predictor is introduced in the model. In other words, about 11% of the variance in the factor of faculty advising can be solely explained by the stress factor when other variables are held constant.

The 97 comments given by respondents in this section include the following concerns:

- Lack of mentorship
- Incorrect advising that cost the student resources (such as time and money) to correct
- Inability to connect with advisor
- Less support given to students who do not want to pursue academic or research careers
- Lack of training for faculty to effectively advise non-white or international students

These comments also included praise for departments that have offered sound advising and mentorship to their students through the faculty members.

Section Four: Academic Department Climate

The Faculty Advising section of the survey addressed academic, social, and professional offerings within the academic unit. Factor t-test and regression analysis results both show that Ph.D. students had a more favorable perception about academic department climate than non-Ph.D. students (See <u>Table 16-18</u>). Age is another important demographic factor according to t-tests (See <u>Table 16 and 17</u>). Younger students (18-26 years old) had a more favorable perception about academic department climate than the oldest cohort (31 years and older). However, the effect of age is not significant according to the regression analysis when other explanatory and control variables are held constant.

On individual items, men were more likely to feel that their department was free from discrimination. This finding was particularly pronounced when looking at non-white women (the analysis results are not shown in the appendix), who agreed far less that their department was free from discrimination (p<0.01). These women also felt less positive that they were treated fairly, and that their department provides a supportive learning environment. They were also less satisfied with department facilities and resources. Older students were also less satisfied with department facilities and resources than younger students. They also agreed less that their departments provide a collaborative environment among students and with faculty. Unmarried students were more satisfied with the collaborative environment among students. International

⁷ It indicates the explanatory power of the respective regression model. The value of an adjusted R-square ranges from 0-1. The higher an adjusted R-square is, the better the regression model fits the data.

students agreed more strongly that their department was free from discrimination. Non-Ph.D. students were more satisfied with their departmental environment than Ph.D. students (several items in Table 17).

Regression analysis also revealed that among all explanatory variables and control variables, the frequency of stress had the most significant effect on predicting students' perceptions toward department or program climate. The more often they feel stressed, the less positive perception they have regarding their department or program climate.

This section had 77 comments. Because there are more than 100 academic departments, many of the comments are specific to the academic unit. Some of the overarching concerns expressed in this section were the following:

- No work-life balance
- An expectation to produce research even if you are not on a research assistantship
- Inadequate facilities
- Faculty biases between domestic and international students
- Lack of communication with and amongst students
- Unrealistic expectations

Section Five: Financial Support

The Financial Support section asked students to disclose their financial situation, including the types of sources they use to fund their time at Virginia Tech. Regression analysis showed no significant differences among groups. However, stress is a mediating factor (See <u>Table 21</u>). It shows that students who feel stressed more frequently tend to have less positive perception about the financial support. As expected, having a graduate assistantship and/or tuition waiver tends to improve graduate students' perception about financial support (See Table 21).

On individual items, international students felt more informed about their financial support, more in agreement that their department provides assistance in finding financial support, and more comfortable approaching their department for financial support (p<0.01) (See <u>Table 20</u>). Additional analysis (not shown in the appendix) showed non-international white students were less comfortable approaching their department about financial support than international students (p<0.01). White men worried less about their financial situation in graduate school. Older students felt less informed about financial support, and more worried about their financial situation in graduate school.

This section had the most comments with 109 responses. The following concerns seemed to surface in this section:

Fees are unreasonably high.

- Funding through an assistantship is barely covering the cost of living.
- For those not on an assistantship, the student loans are enormous.

This section also had the most positive comments of all the sections, with students expressing their gratitude and comfort in having funding from the institution.

Section Six: Campus Diversity

The Campus Diversity section included questions about a student's perception on whether the campus is inclusive of populations that are historically marginalized (i.e., women.) This section also included a number of significant findings. According to regression analysis (See <u>Table 24</u>), four demographic factors had significant impacts on graduate students' perceptions about the general campus diversity when control variables were held constant. Compared to white domestic students, non-white domestic students and international students had a less positive perception of campus diversity. Older graduate students had a less positive perception about campus diversity than younger students. Ph.D. students had a less positive perception than non-Ph.D. students, but this effect disappears once control variables were introduced into the model. The effects of race/ethnicity, citizenship status and age remained significant in the final model. None of the control variables were a significant predictor.

In terms of individual item differences (See <u>Table 23</u>), t-tests showed that women, non-white students, non-white women, and older students were less likely to agree that Virginia Tech is diverse. However, international students were more likely to agree with this statement than non- international white or non-white students (p<0.001).

A prominent finding was that male and white students were less likely to agree that they added to the diversity of Virginia Tech's campus (p<0.001). The same holds true of non-international students (p<0.001). These findings suggest that the concept of campus diversity had limited relevance beyond women, non-white and international students. We discussed this further in our recommendations below. Uncoupled students were also more likely to believe that they contribute to campus diversity than students in a committed relationship. Consistent with the findings above, men, white male students, non-white male students, domestic students, and domestic white students were less likely to take advantage of opportunities to learn about diversity related issues.

Age was also a determinant of perceptions of Virginia Tech's support for diversity. Students aged 18-26 years old were more likely than students over age 30 to feel that Virginia Tech is supportive of students with disabilities, LGBTQ students, and students from diverse racial/ethnic backgrounds. These younger students were also more likely than students aged 27 years and older to feel that Virginia Tech is supportive of international students.

International students had more positive perceptions for Virginia Tech's support for students with disabilities, LGBTQ students, and students from diverse racial/ethnic backgrounds (p<0.001). There was no difference in their perceptions of support for international students compared to white domestic students. Unmarried and non-Ph.D. students were more likely to agree that Virginia Tech is supportive of international students. Men agreed more that VT is supportive of people with physical disabilities; non-white students, particularly non-white men, were more likely to agree that Virginia Tech is supportive of students with non-physical disabilities; and non-white students were more likely to agree that VT is supportive of transgender individuals.

On the factor "Campus Diversity and Me," which is about personal relatedness with campus diversity, regression analysis (See <u>Table 24</u>) showed that male graduate students perceive that they were less related to campus diversity than female students; compared to white domestic students, non-white students and international students perceived that they are more related to campus diversity (p<0.001). These demographic factors remain significant after control variables are introduced. Among control variables, students who are living on campus perceived that they were more related to campus diversity than those who are not living on campus.

On individual item differences (See <u>Table 23</u>), t-tests show that non-white students, and non-white women more than non-white men, were less likely to agree that they are treated fairly as students on VT's campus.

A question about witnessing discriminatory behavior solicited comments, of which 40 respondents shared details. The reports included incidents involving sexism, bias toward international students, and microaggressions. Three tables (See <u>Tables 26-28</u>) of quantitative findings are included in Appendix C.

Focus Group Methods

There were 92 participants who self- identified and volunteered to participate in a focus group. The focus group volunteers were contacted and thanked shortly after the survey closed and were notified that the groups would commence in Fall 2013 because the Spring 2013 term was ending.

The focus groups took place in Spring 2014. A group comprised of four master's students from the Higher Education program advertised and conducted the focus groups. The focus group themes reflected issues that emerged from the climate survey. These themes included the following topics: Services for Graduate Students with Disabilities, Services for Students who were over 30 years old, and Students with Children. Since many of those who volunteered did not identify in these areas, a general call for participants for the focus groups went out on the Graduate Student listsery. A flyer with focus group meeting times was also posted in the Graduate Life Center and in other academic buildings. From the invitation, the Higher Education program students secured fewer than five participants for each themed group. The focus group

participants were asked standard questions about each theme, and the responses were audio recorded and summarized for this report. All focus groups met in the Graduate Life Center and were led by a student from the Higher Education program. The groups were conducted in March 2013.

Focus Group Findings

The focus groups were formed around the themes of students with children, students with disabilities, and students over 30 years old. The participants elaborated on the survey questions that dealt with campus resources, work-life balance, financial support, and academic advising. These groups did not make any comments regarding campus safety.

Students with Children

Many of the comments offered within the survey mentioned services for students with children and child care services. There was not a question in the survey that asked specifically if the student had dependents, so there was no point of reference for how many students truly need services. However, the comments repeatedly included concerns about child care. These focus groups were particularly challenging to host, because graduate students with dependents often do not have the time or child care to participate in non-academic events. Of those that expressed interest in this group, only three respondents were able to participate and all three were men. Some concerns were the following:

- Events that are currently offered are not always child friendly
- There is a lack of support for helping students with families find adequate and affordable housing
- There exists no on-campus housing for students with families
- There are no orientation sessions specifically for students with families
- There is no listserv, social media group, or communication specifically for students with families
- Department faculty may need assistance on how to work with students who are expecting or who have children

As a result of this focus group, the Graduate School hosted an informational session on the work-life grant opportunity that yielded 8 student participants. The work-life grant gives expecting or adopting parents a paid maternity or paternity leave from their assistantship duties. The students at the meeting shared many of the above mentioned concerns, but expressed relief in knowing that such a grant can help.

Students with Disabilities

The survey asked if a respondent was registered with the Office of Services for Students with Disabilities and 13 students answered "yes." According to the Office for Students with Disabilities, only 2% of graduate students are registered, which is the same percentage of

respondents who identified as being registered. These students, and probably others who are not registered but identify as a person with a disability, commented in the survey about a lack of services for these students.

Some concerns that arose were the following:

- Advisor and committee members not accommodating student needs
- Being singled out for a disability
- Difficulty with wheelchair accessibility

The focus group became an interview because only one student participated. The feedback received from the student was the following:

- Involve the Office of Services for Students with Disabilities in Graduate School orientation and in the Graduate Life Center building
- Improve accessibility on campus particularly in areas where there is construction
- Provide more direct outreach to students with disabilities and services offered.

Students over 30 years old

The survey asked respondents to disclose their age within a range of years. Over 65% identified as 23-30 years old, which would be considered a traditional student. The targeted demographic for this focus group was students who were 30 years old and older, which was 27% of the respondents. Many of the comments showed a concern for services and events that cater to this group. Some concerns were the following:

- The campus places too much emphasis on undergraduates and traditional age students
- There are no networking events geared toward older students
- There are not enough organizations geared toward older students.

The focus group brought together 4 students. These participants echoed much of what was expressed in the survey regarding social events that cater to older students and housing options for older students, especially those with partners.

Discussion and Recommendations

The Graduate School Climate Survey and its implementation were well intentioned, but certainly had room for improvement. The survey questions were gathered by the committee from several sources. Questions were taken from a recent undergraduate climate survey that had basic questions about the campus that were relevant for graduate students. Survey features were also adopted from past surveys administered by the Graduate School for incoming and returning students. Senior executive administrators were given the opportunity to edit and add questions as desired. This approach may be improved in future iterations of the survey to

shorten the survey and make it more concise. The survey was designed to take 15 minutes, but participants commented that it was too long, and completion rates dropped significantly after each of the sections.

Issues with the survey distribution may have affected the results. The survey email was sent originally with a non-working link. The link was fixed within a day, but many students who saw the initial email and who intended to participate may not have seen the corrected email with the working link. The second issues with administering the survey was timing. The survey was distributed around the week of the campus spring break. This caused the committee to extend the deadline. The email invitation for the survey was sent the Thursday before spring break, when students were preparing for travel or already on travel off campus. In the future, it would be best to administer the survey at the beginning of a semester.

The manner in which the survey asked about international student status created an issue in interpreting quantitative results. On the survey, students were able to identify as both a particular race/ethnicity and international. That is, a student could identify as both "Asian" and "International." This meant that these demographic categories were not exclusive of each other, which made it more difficult to analyze the needs of international students as separate from domestic students.

The university uses the category "non-resident alien" to identify students with residency outside the United States. Although this language is awkward, Virginia Tech uses it in order to be consistent with National Science Foundation categories. This results in a discrete separation of non-domestic students from domestic students. The preferred designation for these students is "international students." We recommend for future surveys that the category "international" be used instead of "non-resident/foreign/alien."

Although the survey included questions about veteran status (#75), disability status (#85), sexual orientation (#94), and gender identity (#93), very few students identified as veterans (3.10%), LGBTQ (4.44%), transgender (0.56%), or that they were registered with Virginia Tech's Services for Students with Disabilities (2.38%). While these are important categories, a large scale survey may not be the best way to identify the needs of these students. We recommend sending a separate survey to these student populations or conducting focus groups.

The survey also included a question (#98) that inquired about participants' country of origin. The question offered 19 Asian countries. The data gathered in this question can be used for future study based on ethnic identity. For purposes of this study, these data were not used. We agree that the category "Asian" should be examined for further diversification, as 60% of the world's population lives in this region.

Questions about campus and community safety diverge sharply along gender lines. It is clear that female students feel less comfortable and safe on campus than male students. We recommend that an office, such as the Women's Center and other administrative units, undertake a more nuanced survey approach to this area, to include resources that would address women's safety concerns.

Campus diversity was a survey area that had significant findings. Broadly, international students feel more positive about campus diversity than do domestic students. White and male students identify less with the concept of diversity than do non-white and female students. These responses show that diverse identities and campus diversity events appeal to particular students, and chiefly along lines of racial and ethnic identity. Students may not participate in events or activities that do not correspond to their particular race, ethnicity, or country of origin. Such divides are a matter of concern on a campus that emphasizes inclusion and diversity. Of particular note, white students, particularly white males, do not identify with the concept of diversity; that is, they do not see themselves in the concept of diversity. We feel this is a problem with how diversity is defined. If a majority of students (54.01% are domestic white and 52.78% are men) feel that diversity is not of concern to them, then this category will remain of marginal interest. We recommend that more focused activities, such as discussion groups, events, and further surveys, be utilized to explore this racial/ethnic and gender divide further.

The focus groups were marginally successful. The student researchers who led the groups found that they did not have the best approach in advertising and targeting participants. As a result, the groups had low participation rates. The researchers agreed that there should have been more effort around campus to identify students to participate. Also, the timing of the focus groups was not ideal. Students should have been notified within six months of the survey to participate in the groups. Unfortunately, students were notified approximately 12 months after they completed the survey.

The data gathered from this survey will be used to help administrators improve the processes and services for graduate students. We welcome researchers who are interested in this information to contact the Graduate School for the data for future research. The plan is to administer a climate survey every five years, with the possibility of shorter, more topic-based surveys in between. Some of these topics may include affinity groups, e.g., students with dependents, partnered students, LGBTQ students, etc.