Graduate Campus Climate at Virginia Polytechnic Institute & State University, 2009

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Introduction

The very fabric of an institution is its students — the educational, social, and philosophical advancement and transformation of students into professionals with enhanced employability through their experiences in college. In essence, the ultimate objective of the collegiate culture is to prepare and graduate professionals with the knowledge, skill, ability, and understanding to excel in their chosen discipline. Charles Steger, President of Virginia Tech, explains the responsibility of higher education further:

> "[P]art of the great joy of being associated with any institution of higher education is the sense of perpetual renewal that permeates our enterprise. Every fall a new group of students flocks to campus, bringing with them the promise of untapped potential. And every spring, we send graduates out into the world -- scholars and citizens who are determined to make their world -- our world -- a better place," stated Virginia Tech President Charles Steger in his educational address in the April 13, 2008 issue of the Richmond Times-Dispatch.

While institutions are overjoyed at the sight of eager graduates ready and willing to create change, each year there is another feeling that can counteract such successes— the demise associated with students who departure before achieving the pinnacle of graduation and the graduation of professionals who do not have a just understanding and appreciation for diversity. The retention of students is necessary to continue to graduate professionals; thus this is an important factor that necessitates attention and action by the entire campus community. Graduating professionals with an understanding of diversity is at the heart of these professionals being able to exceed once they enter the workforce; thus another important factor that requires institutions to continually develop their curriculum and their own environment to make sure that they foster an appreciation of diversity.

Many students leave college with having had experiences that have encouraged an early dropout decision (Tinto, 1993); this can be impacted by one's failure to meet the academic, financial, and social challenges of college. One reason for this dropout decision is often overlooked, and often addressed with the assumption that the collegiate culture is welcoming and inclusive to all students who enter the door of academe—the climate of the college campus. Prior research has assessed the paradigm shift of the college campus being more accessible to all citizens as they look to pursue a higher education. And while many barriers to student access have been dissolved, the existence of subtle social and personal barriers are still prevalent in affecting faculty, student, and staff perceptions of and performance in the campus climate; this continues to eat at retention and graduation numbers and achievement of graduates.

Knowing this, in recent years, the research focus has transferred from student access to the relationship of success at college campuses, including the exploration of variables such as student achievement, faculty performance, campus morale, and campus climate, among other variables; the relationship that can exist amongst these variables; and the effect that relationship has on student perceptions of their campus climate and experiences in college (Milem, 2002; Waldo, 1998; Malaney, 2007; Rankin, 2003; Sandler & Hall, 1986; Reid & Radhakrishnan, 2003).

This research highlights the importance of understanding collegiate campus climate. College campus climate is a "multifaceted reflection and manifestation of diversity. It refers to the experience of individuals and groups on a campus— and the quality and extent of the interaction between those various groups and individuals. Campus climate is about moving beyond the numbers" (Hurtado, 2007). It transgresses beyond the individual characteristics that distinguish us from others in a group and

centers on the relationship and interdependence among the community to celebrate and understand those differences and work in an inclusive environment; or lack thereof.

The Kellogg Commission on the Future of State and Land Grant Universities sums the initiative of diversity and inclusion best, saying this: "America's strength is rooted in its diversity. As the United States embarks on a new century, our diversity remains our greatest strength. But it can sustain us only if we bring our entire society together, creating one from the many" (NASULGC, 1998, p.34). University's have received the same charge—develop campuses that foster an inclusive environment that celebrates and commemorates our diversity, as well as, to bring our society together as we seek change.

The study of college campus includes the assessment of campus diversity, inclusion, and the interaction of social identity markers that exists between the human aspects of campus environment. However, little is known about the perceptions of graduate students about their campus environment and how that can affect their transition, adjustment, performance, and attitudes. The body of campus climate research has centered on the relationships of the perception of campus climate on factors such as undergraduate student transition and performance, faculty development and performance, or on more specific identity markers such as race, sex, class, sexual orientation, and disability categories.

In the Fall of 1998, a survey assessment was conducted to gather the Virginia Tech community's perceptions of campus climate as a "part of the university's commitment to improve the working and learning climate at Virginia Tech as outlined in the *Update of the University Plan 1996-2001*" (Hutchison & Hyer, 2000, pp. v). The results of this assessment was used as foundation for the development of the Virginia

Tech Strategic Plan, which acted as a formal, concentrated effort to increase diversity awareness and foster diversity initiatives on campus. In the eleven years since this assessment was completed, there have been several improvements made by the Virginia Tech community to address diversity, inclusion, and interaction on campus.

The purpose of this study was to use a survey assessment to explore graduate student perceptions of the campus climate of Virginia Tech. It is the intent of the researchers to gather this information to assess current graduate student attitudes concerning diversity in light of the many improvements that has occurred on campus. The University is again seeking to reaffirm an active commitment to the understanding and celebration of both diversity and inclusion at Virginia Tech. Through this assessment, it is the intent of the researchers to evaluate the current perception of campus climate based on these improvements, and to be able to compare if these perceptions were different from the conclusions of the 1998 survey.

Literature Review

The social creation, classification and counting of "racial" and ethnic groups in the United States has proliferated in the decades since the first widely upheld civil rights legislation in the United States. As changes prompted by that counting have made their way through social institutions, including those of higher education, the counting has never stopped. Predating the Civil Rights Act of 1964, the Higher Education Facilities Act of 1963 addressed issues of social access to previously exclusionary educational resources. The first "affirmative action" programs in the nation were part of the Reconstruction response in the geographies of the post-Civil War South, and the first "quota-based" affirmative action was executively instituted in 1934 to enforce the hiring of Black workers in Roosevelt's depression-era Public Works Administration (PWA)

projects in the North (Witt and Shin 2003). By 1950, the U.S. Supreme Court, in *Sweatt v. Painter*, was making the case that admission to selective institutions was beneficial for minorities (Witt and Shin 2003). This trend continued, with liberalized application of affirmative justice through affirmative action (Fraser 2008), until the 1980's and the ascendancy of the political right wing as embodied in the election of Ronald Reagan. At this point, policies began their swing back from affirmative action toward individual merit arguments. Each systemic social program, policy and procedure has been designed, whether adequately or not, to attempt to address an inherent recognition of historical injustice and an ongoing perception of interlocking disadvantage. Yet, time after time, and even during the proliferation of affirmative action programs, mere empirical and numerical "variety" has been used as a measure of our collective and organizational measure of diversity. This purely quantitative proxy for diversity has supplanted the qualitative experience of inclusiveness within the cultural climate of organizations. But neither the counting nor the policy it has produced has translated into guaranteed organizational success in benefitting from diversity, and institutions still attempt to increase their diversity by number and then to create a climate of culture that keeps those new members (Brown 2004).

Institutions continue to create and fund programs, initiatives, task forces and other such projects so that they can better understand both the empirical and the experiential elements of the social and cultural climate of their organizations (DePauw and Dixon 2004; Milem 2003; Milem, Chang, and Antonio 2005). And there is good reason to do so as we learn more about the whole range of organizational and economic benefits that accrue from a diverse cultural and ethnic constituency. College and university campuses in the U.S. — important social locations for innovation and the

construction of new knowledge — are among those institutions that stand to gain the most from the benefits of diversity (Chang, Witt, Jones, and Hakuta 2003; Page 2007; Reid and Radhakrishnan 2003).

Colleges and universities maintain a special role in society and in the culture of the United States. As Jeffrey Milem (2003) points out "[f]ew would disagree with the assertion that institutions of higher education have a unique responsibility to develop [...] active members of society" (2003:126), and in an increasingly globalized world that responsibility must extend to the task of preparing students to engage productively with diverse cultures, processes and world views. Institutions have responded to these needs in numerous ways, including the "dramatic transformation" of their mission statements in order to "affirm the role of diversity in enhancing teaching and learning" (Milem 2003:126-127). Despite transformation and affirmation, the declared goal and social imperative of increased diversity remains, at many institutions, and elusive goal. Whether or not diversity is achieved may, indeed, be in the eye of the beholder. Not only is diversity seen and experienced from a variety of social positions (by students of different ethnic backgrounds as well as by faculty, staff, administration and other members of the wider academic community), its benefits are felt at multiple levels: individual, institutional, economic and societal (Milem 2003).

Diversity & Cultural Climate in Higher Education

Educational institutions are complex social ecosystems that present different community members with challenges at multiple levels. Students participate at once in the multiple and concentrically large institutional contexts and bureaucracies of their department, their college, their university; they are involved in overlapping social milieus through student and academic organizations and their related educational

activities. In order to analyze and assess perceptions of cultural climate and diversity, it is necessary to first examine our understanding of diversity in an institutional context, and then to look specifically at how campus climate and departmental climate are situated within that broader context. Further, such analysis must acknowledge that ethnic and gender identities intersect these structural elements, creating different views of "diversity" from these varied institutional and personal positional ties. That is, non-White students do not view "diversity" in the same way as their White peers. Further, Black students view "diversity" in quite a different manner than Asian and Hispanic/Latino students (Longerbeam, Sedlacek, and Alatorre 2004).

Diversity

Within an organizational and institutional framework, "diversity" is generally defined as, and we use it here to mean, the general condition and effect that emerges in response to a variety of perspectives, customs and ways of negotiating and creating meaning in our social world (Chang, Witt, Jones, and Hakuta 2003). Whether or not we choose to strive toward the manifestation of those effects because we value social justice, because we value the increased profitability that correlates with diversity (Page 2007), or because we are merely interested in abating externalized socio-legal pressures (Wagner and Bhatia 2009), those goals will only be organizationally compatible when there is a shared conception of diversity. This implies, therefore, a need to observe and measure this 'general condition' of diversity, or the individual and collective perceptions of the same. A further implication is that such observation and measurement, in addition to meeting a variety of (sometimes conflicting) institutional needs, must take place from a variety of positional ties inside those institutions. It is not enough for a

Board of Trustees to define diversity by committee, when those whom they believe the diversity applies do not hold this same definition.

Attending a college or university with a blended student body, and a diverse faculty and staff implies the opportunity to learn and interact with people from varied cultural backgrounds. Campuses that wish to create a comfortable, diverse learning environment are very interested in the lives and activities of their students. According to Hurtado et al. (1998), Reid & Radhakrishnan (2003; Woodward and Sims 2000) argues that contemporary students of all races have reasons to perceive their university climates unfavorably. Reid & Radhakrishnan (2003) further claim that the poor academic performance of racial minority students is a result of university climate and environment that does not exhibit diversity.

Campus Cultural Climate

Many campuses have engaged in self-studies to understand the environmental climate of their diverse body of students. A review of recent literature defines campus climate as students' perception of their experiences both in and out of the classroom (Reid and Radhakrishnan 2003; Woodward and Sims 2000). Among current trends in the study of climate on university campuses Naylor, Pritchard, & Iligen's (1980) defines climate as a perception of whether the environment is "hostile" or "friendly" (Reid and Radhakrishnan 2003; Woodward and Sims 2000). The concept of climate explains how environmental variables (i.e., observations of the environment) can affect psychological ones (i.e., perceptions of climate).

A study of the climate on colleges and universities campus includes those issues that may affect racial and ethnic minorities, women, students with disabilities, lesbians, gays, bisexual, and transgendered (LGBT) students. Woodard and Sims (2000) research

imply the study of campus climate impact student progress and achievement, retention and student satisfaction with their university.

Assumptions can be extracted from the current research literature that student satisfaction with college life is drastically associated with the level of comfort a student feels. Turner (1988) describes this feeling as the main source that sets the tone for the pursuit of student's academic success. As noted by Hurtado & Dey (1997) campus climate is best accomplished when the campus is engaged in proactive activities that is part of the regular routine of the academic and social environment. Earlier research findings report tension increasing on campuses among diverse racial groups (Woodard and Simms, 2000). It has been noted when racism is the problem, the onus for change is often on the student of color (Turner 1988) and much is depended on how racial incidents are handled. Fewer problems are observed if cases of racism are handled as isolated events (Woodward and Sims 2000). It becomes incumbent upon the universities and colleges to address racism to encourage a hospitable environment for all students.

Climate and Ethnic Minorities

Findings of an earlier study done by the University of Michigan (1991) revealed there are differences in how racial and ethnic groups perceived diversity. For example African American students describe diversity in terms of the commitment displayed by the university that involves inclusion in curricular matters, interactions between teachers and student of color, and primarily how student concerns are taken seriously (Adelman 1997). According to Adelman (1997) Asian American and Latino student's perceived diversity in terms of cross-race social interaction and White students at the University seem to think that diversity is in direct proportioned to the number of

students. These different definitions of diversity suggest that questions dealing with racial and ethnic diversity must not only speak to the proportions or representations of different groups but they must include the multiple dimensions that constitute the climate (Clayton-Pedersen 2009; Hurtado, Carter, and Kardia 1998; Milem, Chang, and Antonio 2005), including how the university addresses these in curriculum and content as well as physical representation of various groups on campus.

Climate and Women

As reported by Astin (1990) and Martin (1997) due to the increasing numbers of successful women in pursuit of higher education researchers are prompted to call for a response explicit to the goals and needs of women. Astin (1990) further asserts that women are not a monolithic group—women, as other minority groups, experiences are different according to socioeconomic class, marital status, race and ethnicity and sexual orientation. Martin (1997) note a comparison of women in higher education to those European immigrants who enter male dominated spaces (like science lab) must learn how to negotiate those spaces. These women are viewed as pioneers in many ways, treading ground never traveled.

Climate and Sexual Identity

Institutions vary in how they report incidence that reflect the climate of lesbian women, gay men, bisexual and transgendered people (LGBT) but most campuses experience similar hostile and negative reactions to this group. Reports of incidence that reflect climate are namely the following problems: fear for physical safety, frequent remarks or jokes in public places, anti gay graffiti, stereotypes, lack of support services,

lack of free speech or involvement in class activities and lack of campus policies addressing awareness and tolerance (DeVries and LaSalle 1993).

Climate and Physical Access

As many other underrepresented groups, students with disabilities often face a problematic environment on college campuses. Problems are present in facets of classroom policies, the physical plant, and lack of necessary equipment that may deter full participation. In addition, experiences that further alienate this group are stereotypes, fear, ignorance of faculty and staff to provide adequate support academically, socially and emotionally. Responses to federal survey reveal that most students with disabilities, who can be served by campus programs and accommodations, may be difficult to identify (Shapiro 1994).

Departmental Climate

In addition to the larger institutional climate, graduate students operate within departmental units where they are taught by, interact with, and seek guidance directly from faculty, and where they engage with their peers as classmates, coworkers and professional colleagues. Pedagogical and professional experiences, and students' perceptions of those experiences, within this level of institutions of higher education are directly impacting on satisfaction, retention, time-to-completion, drop-out and stop-out rates, and on the overall well-being of graduate students (Anderson 2003; Cohen and Wills 1985; Golde 1994; Golde 2000; Jacobs 1996; Jacobs and Winslow 2004; Maher, Ford, and Thompson 2004; Moyer, Salovey, and Casey-Cannon 1999; Nettles and Millet 2006; Reilly 1976; Rothstein 1995; Solorzano, Ceja, and Yosso 2000; Ülkü-Steiner, Kurtz-Costes, and Kinlaw 2000; Wilcox, Winn, and Fyvie-Gauld 2005).

Previous Virginia Tech Campus Climate Survey

With initiatives to update the University Plan of 1996-2001, a survey instrument was distributed to the graduate students of Virginia Tech to assess the campus climate. The instrument was modeled after other major universities and developed collaboratively by Associate Provost Patricia Hyer, the Work Group on Campus Climate and then Provost Peggy Meszaros, chaired by Elyzabeth Holford and the Center for Survey Research. The four-page survey was pretested by graduate students to gauge students' perceptions of their departmental climate, the general Virginia Tech campus climate, attitudes and experiences regarding diversity issues, familiarity with particular services and campus programs, and lastly demographic information (Hutchinson, Hyer, & Collins, 2000).

Key Findings of Previous Survey

In the fall of 1998 the survey was mailed to 1,000 of 2,213 eligible graduate students. A 48.5 percent response rate was compiled and 463 (29 percent international respondents) were retained by the Office of Institutional Research for final data analysis. The highest response rate was from Asian American female and male students (62.5 percent and 57.9 percent) and the lowest overall response rates were from African American males (32.4 percent) and Hispanic Americans (38.9 percent) (Hutchinson, Hyer, & Collins, 2000).

Data analysis included descriptive statistics, z-tests of proportions, factor analysis, reliability analysis, c^2 tests of independence and analysis of variance (ANOVA). Results found that racial and ethnic discrepancies were highest among those belonging to the African American and international population. Graduate students with

disabilities related their disabilities with perceptions of the campus climate in general, including departmental climate and supportiveness of groups within the department as well as on campus. In addition, graduate students represented a higher number of non-heterosexuals (5 percent compared to 3 percent of the surveyed undergraduates) and 56 percent of Christian faith compared to 71 percent of the surveyed undergraduates. Overall, departmental experiences were rated more positively than the campus as a whole and perceptions based on gender were minimal (Hutchinson, Hyer, & Collins, 2000).

Methods

In the fall of 2009, a group of graduate students at Virginia Tech from the GRAD 5984 Topics on Diversity and Inclusion in a Global Society class out of the Transformative Graduate Education Program decided to re-assess a campus climate survey that was originally undertaken in 1998. The original study assessed Virginia Tech patrons but this re-assessment would only be looking at current graduate students at the Blacksburg, VA Virginia Tech campus. A questionnaire was administered to all graduate students on the Blacksburg, VA campus in the late 2009 fall term by an online survey tool called survey.vt.edu. There were a total of 324 participants out of approximately 4,000 eligible graduate students in Blacksburg, VA.

This survey is very similar to the survey that was conducted in 1998 but has been updated to include necessary changes since 1998. In conducting this analysis, we look to again gather student perceptions to highlight certain areas of concern, make recommendations for change and to compare these results to the 1998 results.

SPSS 16.0 was used to analyze data from the "Graduate Campus Climate at Virginia Tech" survey. An informed consent was administered at the beginning of the

survey for each participant indicating that each respondent was free to choose to take the survey or to terminate it, even if the survey was already underway, at any point in time. There were 324 total respondents. Of those, 2 selected "no" and 15 did not answer; as a result those 17 cases were excluded. Our final sample size was 300.

Data Description

The data comes from an online survey created from a 1998 campus climate survey from Virginia Tech as a re-assessment targeting graduate students at Virginia Tech in Blacksburg, VA. The survey is comprised of 126 questions with approximately: 31 regarding departmental climate; 29 regarding Virginia Tech climate in general; nine regarding personal feelings of treatment; four regarding freedom to voice true opinions in classrooms or other public settings; seven regarding frequency of read, heard, or seen insensitive or negative material/comments; 11 regarding frequency of engagement in specific behaviors centered around prejudice or hate; nine regarding programs and services offered at Virginia Tech; and 26 regarding general demographics.

Measures

Ordinary Least Squares regressions were used to examine various relationships. We looked at graduate student perceptions of departmental climate, and perceptions of university diversity with knowledge of various diverse programs on campus. We also deemed it appropriate to control for several key demographics including race, ethnicity, gender, and sexual orientation. Findings are further discussed in the analysis portion. Descriptive statistics on all variables can be found in Table 1.

Dependent Variables

There were 5 total dependent variables utilized separately in the analysis. To attempt to determine departmental climate, a factor analysis was performed on 25 Likert-type scale measures regarding graduate student departmental climate. Five variables (I feel that I receive adequate guidance from faculty in my dept, I can talk to faculty in my department when I have a concern or problem, faculty/administrators are academically supportive in my department, I am treated fairly by faculty in my department, and faculty in my department are sensitive to students' academic needs) loaded well (Cronbach alpha = 0.901). They were added together to create a scale variable (the first dependent variable) as a proxy of departmental climate. Each individual variable was measured in Likert-type scales with '1' indicating 'strongly disagree,' '2' indicating somewhat disagree, '3' indicating somewhat agree, and '4' indicating strongly agree. When combined the total scale ranged from values of 5 to 20.

The second dependent variable was also a scale variable. Eight variables on how familiar a graduate student was with some diversity programs on campus (women's center; project safe; multicultural center; black cultural center; services for students with disabilities; Cranwell International center; safeZONE; center for peace studies & violence prevention) also loaded well (Cronbach alpha = 0.885). Each individual variable was measured in Likert-type scales with '1' indicating 'not at all familiar,' '2' indicating 'somewhat unfamiliar,' '3' indicating 'somewhat familiar' and '4' indicating 'very familiar.' This scale ranged in values from 8-32. The third, fourth, and fifth dependent variables were each individual Likert-type scale variables coded such that a 1' indicated 'strongly disagree,' '2' indicated somewhat disagree, '3' indicated somewhat agree, and '4' indicated strongly agree. The third dependent variable asked whether the

University placed too much emphasis on diversity. The fourth dependent variable asked whether the University fostered a diverse climate. The fifth dependent variable asked whether diversity was good for the university (Virginia Tech).

Independent Variables

Race/ethnicity of student was the first independent variable measured. This variable was dummy coded such that white was the reference category with a value of ('0'). Whites were individually compared to American Indians, Asians, Blacks, and Hispanics ('1'). Sexual orientation of the student was also included as an independent variable. This variable was also dummy coded such that heterosexual was the reference category (value of '0'). Heterosexual students were compared to gay, lesbian, and bisexual categories respectively (all values of '1').

Control Variables

Sex of respondent was included as a control variable and was dummy coded such that males were assigned values of '0' and females were assigned values of '1.'

Data Analysis

For the purposes of this study, we focus on several key variables including: perceptions of diversity on campus, diverse programs available, and the departmental climate. Each respondent was presented with a section on departmental climate, university climate, diverse programs on campus, principles of community, and demographic information. Table 1 depicts descriptions and statistics of all dependent, independent, and control variables. After three weeks of advertisements on various graduate listserves, 324 respondents filled out our survey. A majority were utilized for data analysis (range 280-300).

Results

Sex/Gender

Of the responses not eliminated due to failing to give consent (approximately 300), 49 percent classified themselves as female, 47 percent male and 3.7 percent failed to answer the question. The fact that many refused to answer the question was interesting to us; we felt that instead of classifying them as missing it would be important to show that they were intentionally unmarked. Although we attempted to place a field for "other" these individuals did not answer. There were a few who did select other and indicated that they were uncomfortable identifying.

Ethnicity/Race

In the sample, 64.3% identified as White; 14.3% as Asian; 4.7% as Black or African American; 3% as Hispanic; and 0.3% as American Indian.

Sexual Orientation/Identity

A majority (87.3 percent) considered themselves heterosexual; 3.3 percent Bisexual; 2.7 percent Gay; 0.3 percent Lesbian and 5.3 percent did not answer the question. Similar to the question on an individual's gender, it is important to consider the options for orientation. A few respondents indicated other and specified they were transgender and did not wish to pick a specific category, or that they refused to adhere to a category/label.

Religious Beliefs

The religious affiliation was compiled of: 45.3 percent Christian; 28.7 percent none; 5.7 percent Hindu; 3.3 percent Muslim; 1.7 percent Buddhist; 0.7 percent Jewish.

Lastly in regards to demographics, 89.3 percent perceived themselves with no disability, while 5.7 percent did and 4.7 percent did not answer.

Other Variables of Interest

The Virginia Tech Principles of Community are emphasized by the university administration; however, the researchers questioned its' impact. Survey results indicated graduate students strongly agreed or somewhat agreed that departments upheld (84 percent) and reflected (85.4 percent) the Principles of Community. However, there was no statistically significant relationship in an earlier analysis of this study.

Regression Findings

For the first dependent variable, departmental climate scale, none of the findings were significant. As a result, the findings will not be reported. The second dependent variable was a diversity programs scale on the respondent's familiarity with eight programs on campus. Findings are statistically significant in the second model for both females and Asian students at the 0.01 p-value level. This means that women are more likely to be familiar with diversity programs on campus when compared to their male counterparts. Also, Asian students are more likely than their White counterparts to be familiar with diversity programs on campus. After controlling for sexual orientation these findings remain significant at the 0.01 level (See Table 2.1). The third, fourth, and fifth dependent variables were individual Likert-type scales asking about measures regarding perceptions on diversity at the University level. Diversity is good for Virginia Tech and should be actively promoted by students, staff, faculty and administrators, was the third dependent variable. When regressed on the independent and control variables findings indicated that Asian students, in Model 2, were more likely to agree with this

statement; this finding was statistically significant at the 0.001 p-value level (See Table 2.1). The findings remain significant even after controlling for sexual orientation in model 3. The fourth dependent variable, Virginia Tech has a climate that fosters diversity, produced some interesting results. In Model 2, Black students were less likely than their White counterparts to agree that the university has a climate that fosters diversity. This finding was statistically significant at the 0.01 p-value level. Additionally, American Indian students were less likely than their White counterparts to agree that the university fosters a climate of diversity; this finding too was statistically significant (0.05 p-value). In Model 3 when controlling for sexual orientation, Black students remained less likely than their White counterparts to agree that the university has a climate that fosters diversity and was statistically significant (.01 p-value). Interestingly, the effect for American Indians was rendered insignificant (See Table 2.2). Interesting to note, although barely insignificant (0.053) gay students were less likely than white students to support this statement. The last dependent variable, Virginia Tech is placing too much emphasis on diversity, indicated several significant relationships. Firstly, in Model 2, Black (0.01 p-value) and Asian (0.5 p-value) students were both statistically significantly less likely than their White peers to support the statement that VT is placing too much emphasis on diversity. In Model 3 these relationships remained statistically significant (0.001 and 0.05 p-values respectively).

Future Analysis and Directions

These results are currently just a preliminary analysis of the available data. The survey continues to remain open and will hopefully receive more responses in the coming weeks. Several points have however come to our attention thus far. Firstly, there does not appear to have been a specific set of dependent variables or research questions

in mind when the original survey took place 11 years prior. The fact seems to be that the survey was originally intended as an overall assessment of a variety of measures. More than a few of the measures have design and related problems, issues, etc. Furthermore, it is important to take into account what the qualitative responses we received will add to this analysis as well as any future ones.

These findings show minority students (especially Asian, American Indian, and Black) are less likely than their White peers to endorse statements that suggest Virginia Tech places too much emphasis on diversity or fosters a diverse climate. This is discouraging because it indicates that there have been little changes in perceptions by minority students compared to white students on the topics of diversity, inclusion, etc. Nonetheless, one has to wonder with the majority of the student body believing the climate is diverse and fostered at this university whether there will be any future changes. We need to also consider that although the researchers attempted to promote and disseminate the survey as equally/evenly among graduate students as possible, we received less than a 10% response rate; clearly we need more responses. We have no way to really compare our findings to the survey implemented eleven years ago and we clearly have an oversampling of white and Asian students. In addition we need to better define our variables and constructs. We believe that by improving the measures and re-assessing graduate students we may better be able to determine the climate at this university and how to go about fostering positive changes.

References

Adelman, C. 1997. "Diversity: Walk the Walk and Drop the Talk." *Change* 29:34-35.

Anderson, Haithe. 2003. "As If Gender Mattered: Feminism and Change in Higher Education." *The Journal of Higher Education* 74:321-336.

Astin, H. S. 1990. "Educating Women: A Promise and a Vision for the Future." *American Journal of Education* 98:479-493.

Brown, Lancelot I. 2004. "Diversity: The Challenge for Higher Education." *Race, Ethnicity and Education* 4:21-34.

Chang, Mitchell J., Daria Witt, James Jones, and Kenji Hakuta. 2003. "Compelling Interest: Examining the Evidence on Racial Dynamics in Colleges and Universities." Stanford, CA: Stanford University Press.

Clayton-Pedersen, Alma. 2009. "Rethinking Educational Practices to Make Excellence Inclusive." *Diversity & Democracy.*

Cohen, Sheldon and Thomas Ashby Wills. 1985. "Stress, Social Support, and the Buffering Hypothesis." *Psychological Bulletin* 98:310-357.

DePauw, Karen and Benjamin Dixon. 2004. "Diversity Matters!: Short Position Paper on the Benefits of Diversity and Inclusion." Virginia Polytechnic Institute & State University, Blacksburg, VA. Unpublished Position Paper.

DeVries, D.B. and L. LaSalle. 1993. "Research informing praxis addressing the campus climate for lesbians, gay men, and bisexual people." in *American Education Research Association Annual Meeting.* Atlanta, GA.

Fraser, Nancy. 2008. "From Redistribution to Recognition? Dilemmas of Justice in a 'Postsocialist' Age." in *The New Social Theory Reader*, edited by S. Seidman and J. C. Alexander. New York: Routledge.

Golde, Chris M. 1994. "Student Descriptions of the Doctoral Student Attrition Process." in *Annual Meeting of the Association for the Study of Higher Education.* Tucson, Arizona: ASHE.

—. 2000. "Should I Stay or Should I Go? Student Descriptions of the Doctoral Attrition Process." *Review of Higher Education* 23:199-227.

Hurtado, S., D. F. Carter, and D. Kardia. 1998. "The Climate for Diversity: Key Issues for Institutional Self-Study." *New Directions for Institutional Research* 98.

Hurtado, S. and E. L. Dey. 1997. "Achieving the goals of multiculturalism and diversity." in *Planning and management for a changing environment: A Handbook on Redesigning Postsecondary Institutions*, edited by M. W. Peterson. San Francisco, CA: Jossey-Bass.

Jacobs, Jerry A. 1996. "Gender Inequality and Higher Education." *Annual Review of Sociology* 22:153-153.

Jacobs, Jerry A. and Sarah E. Winslow. 2004. "The academic life course, time pressures, and gender inequality " *Community, Work & Family* 7:143-164.

Longerbeam, S. D., W. E. Sedlacek, and H. M. Alatorre. 2004. "In Their Own Voices: Latino Student Retention." *NASPA Journal* 41:538-550.

Maher, Michelle A., Martin E. Ford, and Candace M. Thompson. 2004. "Degree Progress of Women Doctoral Students: Factors that Constrain, Facilitate and Differentiate." *The Review of Higher Education* 27:385-408.

Martin, J. R. 1997. "Bound for the Promised Land: The Gendered Character of Higher Education." *Journal of Gender Law and Policy* 4.

Milem, Jeffrey F. 2003. "The Educational Benefits of Divesity: Evidence from Multiple Sectors." in *Compelling Interest: Examining the Evidence on Racial Dynamics in Colleges and Universities*, edited by M. J. Chang, D. Witt, J. Jones, and K. Hakuta. Stanford, CA: Stanford University Press.

Milem, Jeffrey F., Mitchell J. Chang, and Anthny L. Antonio. 2005. "Making Diversity Work on Campus: A Research-Based Perspective." Association of American Colleges and Universities.

Moyer, Ann, Peter Salovey, and Shannon Casey-Cannon. 1999. "Challenges Facing Female Doctoral Students and Recent Graduates." *Psychology of Women Quarterly* 23:607-630.

Naylor, J. C., R. D. Pritchard, and D. R. Ilgen. 1980. *A Theory of Behavior in Organizations*. New York, NY: Academic Press.

Nettles, Michael T. and Catherine M. Millet. 2006. *Three Magic Letters: Getting to Ph.D.* Baltimore, MD: Johns Hopkins University Press.

Page, Scott E. 2007. *The Difference: How the Power of Diversity Creates Better Groups, Firms, Schools and Societies*. Princeton, NJ: Princeton University Press.

Reid, Landon D. and Phanikiran Radhakrishnan. 2003. "Race Matters: The Relation Between Race and General Campus Climate." *Cultural Diversity and Ethnic Minority Psychology* 9:263-275.

Reilly, Richard R. 1976. "Factors in Graduate Student Performance." *American Educational Research Journal* 13:125-138.

Rothstein, D. S. 1995. "Do female faculty influence female students' educational and labor market attainments?" *Industrial and Labor Relations Review*.

Shapiro, J. P. 1994. *No Pity People with Disabilities: Forging a New Civil Rights Movement*. New York, NY: Times Books.

Solorzano, Daniel, Miguel Ceja, and Tara Yosso. 2000. "Critical Race Theory, Racial Microaggressions, and Campus Racial Climate: The Experiences of African American College Students." *The Journal of Negro Education* 69:60-73.

Turner, C. 1988. "The Black Student's Pursuit of College in the 1980's and Beyond: Will These Minds Thrive or Be Wasted?" in *College Student Mental Health*, edited by L. C. Whitaker. New York, NY: Haworth Press.

Ülkü-Steiner, Beril, Beth Kurtz-Costes, and C. Ryan Kinlaw. 2000. "Doctoral student experiences in gender-balanced and male-dominated graduate programs." *Journal of Educational Psychology* 92:296-307.

Univesity of Michigan. 1991. "From Invisibility to Inclusion: A Report on the Status of Gay Men and Lesbians at the University of Michigan." University of Michigan, Ann Arbor, MI.

Wagner, Anne and Vijay K. Bhatia. 2009. *Diversity and Tolerance in Socio-Legal Contexts: Explorations in the Semiotics of Law*. Burlington, VT: Ashgate Publishing Company.

Wilcox, Paula, Sandra Winn, and Marylynn Fyvie-Gauld. 2005. "'It was nothing to do with the university, it was just the people': The Role of Social Support in the First-year Experience of Higher Education." *Studies in Higher Education* 30:707-722.

Witt, Daria and Clara Shin. 2003. "Historical Summary of Affirmative Action." in *Compelling Interest: Examining the Evidence on Racial Dynamics in Colleges and Universities*, edited by M. J. Chang, D. Witt, J. Jones, and K. Hakuta. Stanford, CA: Stanford University Press.

Woodward, Virginia Spiegel and Johnnie M. Sims. 2000. "Programmatic Approach to Improving Campus Climate." *NASPA Journal* 37.

Appendix

Table 1 Descriptions, Means, and Standard Deviations of Variables

Variable	Description	Metric	Mean	SD	N
Dependent Variables					
Grad Dept Culture	Scale loading 5 variables (adequate guidance, concern or problem can get help, faculty are supportive, get treated fairly, faculty are sensitive to academic needs)	Ranges values 5-20 1=Strongly Disagree; 2=Somewhat Disagree, 3=Somewhat Agree, 4=Strongly Agree	1.6567E1	3.63	291
Diversity Programs Scale--Familiarity	Scale loading diversity programs (women's center; project safe; multicultural center; black cultural center; services for students with disabilities; Cranwell International center; safeZONE; center for peace studies & violence prevention)	Ranges values 8-32 1=Not at all Familiar, 2=Somewhat Unfamiliar, 3=Somewhat Familiar, 4=Very Familiar	1.5486E1	5.644	280
VT too much diversity emphasis	Likert scale: Virginia Tech is placing too much emphasis on Diversity	Strongly Disagree=1 to Strongly Agree=4	2.277	1.031	293
VT climate fosters diversity	Likert scale: Virginia Tech has a climate which fosters Diversity	Strongly Disagree=1 to Strongly Agree=4	2.952	0.905	293
Diversity is good for VT	Diversity is good for Virginia Tech and should be	Strongly Disagree=1 to Strongly	3.609	0.661	294

| | | actively promoted by students, staff, faculty and administrators | Agree=4 | | | |

Respondents' Characteristics

Female	Sex of respondent	0 = male 1 = female	0.5104	0.5008	288
American Indian	Race/ethnicity of respondent	0 = White 1 = American Indian	0.0033	0.0577	300
Asian	Race/ethnicity of respondent	0 = White 1= Asian	0.1433	0.3510	300
Black	Race/ethnicity of respondent	0 = White 1 = Black	0.0467	0.2113	300
Hispanic	Race/ethnicity of respondent	0 = White 1 = Hispanic	0.0300	0.1709	300
Bisexual	Sexual Orientation of respondent	0 = Heterosexual 1 = Bisexual	0.0333	0.1798	300
Gay	Sexual Orientation of respondent	0 = Heterosexual 1 = Gay	0.0267	0.1614	300
Lesbian	Sexual Orientation of respondent	0 = Heterosexual 1 = Lesbian	0.0033	0.0577	300
College	What college seeking degree in	Categorical variable (9 options)	4.9795	2.1485	293
Valid N (listwise)					244

Table 2.1 OLS Regressions

	Diversity Programs Scale--Familiarity			Diversity is good for VT		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Sex[a]	1.521*	1.871**	2.077**	--		
Asian[b]	--	2.473**	2.631**		0.418***	0.430***
Intercept	14.746***	13.967***	13.738***	3.571***	3.469***	3.453***
R^2	0.015	0.038	0.043	0.000	0.042	0.039
N	280			285		

* $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed test)
[a] Comparison category is male.
[b] Comparison category is white.

Table 2.2 OLS Regressions (continued)

	VT climate fosters Diversity			VT too much emphasis on Diversity		
	Model 1	Model 2	Model 3	Model 1	Model 2	Model 3
Sex[a]	--			--		
American Indian[b]		-2.029*	--			
Asian[b]		--	--		-0.381*	-0.399*
Black[b]		-0.700**	-0.685*		-0.903**	-0.921***
Intercept	3.014***	3.029***		2.283***		
R^2	0.004	0.063		0.000	2.432***	2.445***
N	284			284		

* $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed test)
[a] Comparison category is male.
[b] Comparison category is white.