

PROBABILITY OF FIRST-TIME FRESHMAN ADMISSION BY RACE AND GENDER
AT A LARGE PREDOMINANTLY WHITE LAND GRANT RESEARCH UNIVERSITY IN
THE YEARS 1994-1998

By

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Thesis presented to the Faculty of the Virginia Polytechnic
Institute and State University in partial fulfillment of the
requirements for the degree of

MASTER OF ARTS IN EDUCATION

In

College Student Affairs Administration

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October 27, 1999

Blacksburg, Virginia

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ABSTRACT

The purpose of this study was to investigate the probability that race was a factor in the admissions process at Virginia Tech. The study was conducted in three parts. In the first part, logistic regression was used to develop a probability of admission model for eight demographically distinct groups for the years 1994-1998 using information that was presented to the university by all first-time freshman applicants considering grade point average (GPA), scholastic aptitude tests (SAT), high school rank (HSR), requested major (RM), gender and race. The eight demographic groups were: African American men (BM), African American women (BF), Asian American men (AM), Asian American women (AF), Hispanic American men (HM), Hispanic American women (HF), white American men (WM), and white American women (WF). The Bonferroni correction and the

Wald tests were carried out to determine significance in the observed differences.

Significant differences were found. The two African American groups and the white female group were found to have significantly higher probabilities of getting accepted than other groups while the two Asian groups were found to have the least probability of getting accepted. The null hypothesis that there was no difference between the groups with regard to probability of getting accepted was thus rejected. GPA was found to be the most important admission criteria followed by SAT scores. The admissions criteria were found to be important for all applicants regardless of group membership. Between group differences detected in the study was mainly the result of differences in cut-off points.

The second part of the study involved evaluating the reasons that were given for rejection of admission in 1998. A stratified sample of 400 was randomly selected. The chi-square test was used to determine if there were differences between the eight groups with regard to reasons given for rejection. The frequency with which the reasons were given was also examined. It was found that there were no differences between the groups and, therefore, the null hypothesis was confirmed. GPA related reasons were the most cited for rejection followed by SAT scores. This was consistent with the finding in the first part

of this study that GPA and SAT were the most important admission criteria

In the third part of the study, the director of admissions and the deputy director of admissions for freshman admissions were interviewed. It was determined from them that affirmative action did not influence the university's admissions decisions but that race was "one of the many factors considered during the admissions process."

Based upon the finding in the first part of this study that the two African American groups consistently had the highest probabilities of acceptance in the five years under study, it was concluded that the use of race was intended to benefit applicants from the two groups. This conclusion was further based on the information collected from the interview with the admissions officers which suggested that Affirmative action in the state of Virginia applied only to African Americans and also that there were targeted goals in the state intended to increase the number of African Americans in the state's public higher education institutions. The admissions officers could, however, not provide any references to support this information. Consultations with a professor at the university and the university's vice president for multicultural affairs suggested that there was no state mandate or requirement that public institutions in the state adopt targeted goals as a means of

increasing the number of African Americans in the state's public higher education institutions. They also doubted that affirmative action could be applied to one ethnic group only. It was concluded, however, that since the admissions officers made these assertions during the interview, these perceived state requirements may have led them to deliberately seek to increase the number of African American students accepted by the university and that these deliberate efforts may have been behind the high probabilities of the acceptance of students from the two African American groups.

The fact that the admissions officers may have deliberately sought to increase the number of African Americans on the campus to satisfy perceived state mandates or requirements and the finding in the first part of this study that the two African American groups consistently had the highest probabilities of getting accepted by the university in the five years under study suggested that admission to the university was not race blind. It was also concluded that since external pressure may have been the cause of the high probabilities for the African American groups, admission to the university was not entirely the prerogative of the university.

Acknowledgment

The writing of this thesis could never have been a success without the contribution, in different ways, of the members of my thesis committee and my professors in the College Student Affairs program. Don Creamer was just a great advisor. It was only through a combination of his patience, advice, confidence in me, and encouragement, that I was able to successfully write this thesis and, therefore, graduate.

Gerry McLaughlin's suggestion that I also examine reasons given for rejection of first-time freshman applicants and qualitative data that could explain how the admissions officers at Virginia Polytechnic Institute and State University decide on who to accept and who to reject turned out to be very helpful in explaining the reasons for the differences in probabilities of admission that were detected. His thorough comments and advice on the methodology and appropriate language use helped bring the document to its current form.

Delores Scott's questions, comments and suggestions contributed a great deal to the language used, and recommendations made in the study. Her review of the final draft was greatly appreciated. My professors Joan Hirt, Steve Janosik, Edward Spencer, and Don Creamer all in different ways emphasized through the courses they taught that higher education student populations were increasingly becoming diverse and that as

higher education professionals we would be expected to be agents of change that could bring about change from policies and practices that have traditionally favored homogeneous student populations to those that would accommodate heterogeneous student populations. This emphasis inspired my decision to select this topic. To you all I am very thankful!

Dedication

This thesis is dedicated to several people whose continued confidence, expressed or tacit, in my ability to succeed academically and professionally has been, and will always remain, my source of inspiration. They include my parents, Pitalis and Alice Nyajeri, who though of little education and low income, by choice sacrificed the little niceties of life that they could have otherwise afforded, for the sake of my and my brothers' primary and secondary education which turned out to be a good foundation for my pursuit of higher education years later.

My wife, Syvil, and children, Deborah, Thomas, and Lucy, all paid the price of my higher education when they gave up hours of sleep, play or relaxation which rightly belonged to them in order to participate with me in the work program which paid 95% of my undergraduate tuition and fees and had to endure several years of my absence when they remained in Kenya while I worked on my masters program in the United States.

My former staff mates in schools in Bungoma District, Mrs. Khisa, Mrs. Nasiuma, and Mr. Kaoga at Commonwealth Primary School and Mr. Benson Wekhanya Sitati of Nabuyole Primary School, who, together with others, all without knowing sustained my desire for higher education when they seized every opportunity they had to point out to me that I should never have

ended my formal education at middle high school level to go and train as one of the lowest ranked primary school teachers. Mrs. Khisa and Mrs. Nasiuma actually "angrily" paid the fees for my East African Certificate of Education examinations (EACE) which they encouraged me to sit for as a private candidate in 1979 as a first step towards the realization of my academic and professional potential.

My former local church pastor at Webuye Seventh Day Adventist Church (SDA), Pastor Peter Kesis, who helped me put aside my long time belief that I could never go to the University of Eastern Africa because of the high tuition and fees that the university charged when he very early one morning came to my house and demanded to know why I was "wasting time" seeking to take the Kenya Advanced Certificate of Education (KACE) for the second time. When I told him that my goal was to better my grades so I could get admitted to one of the Kenyan public universities which were very competitive because of the number of applications they received each year, he told me, "Go to The University of Eastern Africa, request application forms, complete them, return them and you will be accepted because you have the necessary admission qualifications." When I told him that I could not afford the tuition and fees charged by the university, he simply said, "Go! God will provide." I did and He provided!

Dr. Fonda Chaffee, former chair of the Department of Home Economics at the University of Eastern Africa, who encouraged me to come to Virginia Polytechnic Institute and State University for graduate studies and paid my tuition for two years. Her goal was to get me prepared to teach clothing and textiles at the University of Eastern Africa. Though I did not graduate in the Department of Clothing and Textiles, I gained substantial knowledge in the subject area which can enable me to teach at least the basic clothing and textiles courses.

My brother, Caleb Nyajery, and my cousins Perez Diang'a, Caleb Wanjawa, and John Diang'a who all supported me both financially and morally as an undergraduate student and/or as I prepared to come to the United States for my graduate studies.

The Department of Educational Leadership and Policy Studies which funded my tuition and living expenses for one year through a graduate assistantship when I switched to the department in the Fall of 1996.

To all of you I will for ever be grateful!

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