Admitting Bias: A Review of the Test-Optional Admission Policy at George Mason University

by

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GPA..... Grade-Point Average
GMU .....George Mason University
ETS ..... Educational Testing Service
NACAC.....National Association of College Admission Counseling

ABSTRACT

ADMITTING BIAS: A REVIEW OF THE TEST-OPTIONAL ADMISSION POLICY AT GEORGE MASON UNIVERSITY

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George Mason University, 2014

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This thesis describes anational trend of test-optional admission policies within Undergraduate colleges and universities. The research evaluates the test-optional enrollement process specifically at George Mason University. George Mason University implemented a test-optional admission policy during the 2007 admission cycle and has seen significant growth in the total application numbers and demographics of their students. In the process of researching and writing this thesis, the author conducted a literature review and evaluated non-identifying students data related to application types, grade-point average and demographics. This thesis is slated to be a resource for George Mason University and other institutions considering the implementation of a test-optional admission policy.

INTRODUCTION

Michael and David grew up in the same suburban town just outside of Washington, DC, but they were born into very different family circumstances, which dramatically affected their lives.

Michael is a white student who comes from a privileged background. He attended a private school starting in the first grade and continuing through high school. Michael's parents owned a large home in an upscale neighborhood and they spent their summers in Eastern Shore, Maryland. Michael lived with both of his parents, and his mother stayed home to care for him and his two younger sisters. While he was a strong "B" student, there were certainly times that Michael struggled academically, but he had the opportunity to meet with teachers and private tutors on a regular basis in order to better understand the material.

When applying for college, Michael had the privilege of working directly with a college counselor in his high school. While Michael averaged a 3.7 GPA, his SAT score of 1050 was 200 points less than the school average. Because a majority of colleges and universities place a significant emphasis on standardized test scores, Michael's counselor recommended that he meet with a specialized SAT tutor who would help him recognize specific types of questions and improve his score. Michael's mother also hired an independent college counselor who was well respected in the area. The independent

counselor made sure that Michael understood the difference in application types and edited any required essays. The counselor selected schools for Michael to apply to based on historical data related to his grade-point-average (GPA), test scores, and institutional selectivity. After working with his tutor, Michael was able to increase his SAT scores by over 200 points, making him extremely competitive at most of the institutions that he was interested in.

David, an African-American student, lived only eight miles from Michael but the two never crossed paths. David never met his father, and his mother passed away when he was four years old. His grandmother cared for him and his three younger siblings despite earning a minimal salary working at a local grocery store. In high school, David attended the local public school, which hosted approximately two thousand students. He worked extremely hard throughout high school, maintaining a strong 3.3 (B) GPA and dreamed of attending Georgetown University upon his graduation. To help his family, David worked nearly thirty hours a week earning minimum wage at a fast food restaurant. This schedule minimized David's ability to participate in extra-curricular activities. In September of his senior year, David met with his school guidance counselor, who worked with about five hundred other students. His counselor recommended that David take the SAT. While David had heard of the SAT exam, he was unclear as to how to even register to take the test. After registering, David took the SAT test but had never experienced anything quite like it. He finished with a disappointing score. His combined Critical

Reading and Math score was 900, which ranked him in the bottom 25 percent of students who took the test nationally.

David met with his school counselor again in December to inquire about the college application process. David was unaware that most application deadlines were on January 15th, which was rapidly approaching. Since it was late in the process, and because David's SAT scores were so low, his counselor recommended that he apply to the local state school. David elected not to apply to Georgetown, or any of the other more prestigious institutions that he once considered, because even applying to schools was a significant financial burden, due to the required application fees.

In April, David found out that he was not admitted to the state institution. Despite having a GPA in the top half of his extremely large high school, David's low SAT scores left him without a four-year institution to attend in the fall.

The fictional stories depicted here are not unusual, as students from low socio-economic, or traditionally non-white backgrounds are placed at a significant disadvantage throughout the college application process. Although race and socio-economic status are not one in the same, there is an intersecting relationship between race and class which cannot be ignored. Non-White students are proportionally significantly more likely to be born into poverty than White students.

The literature illustrates a cultural partiality toward non-diverse students in standardized testing. An unbalanced dependence on SAT scores in the admission process has created an increasing number of criticisms of valuation procedures (Syverson, 2007). Arguments have been made for and against standardized testing in the admission process,

but mounting evidence indicates that this reliance upon standardized test scores produces an admitted student profile with significant race and class bias (Atkinson & Geiser, 2009).

LITERATURE REVIEW

The SAT was originally intended to promote access to colleges and universities across the country, but it has actually alienated students based on cultural biases and socio-economic class. The SAT was originally created by the combined work of Harvard president James Conant and the Educational Testing Services (ETS) and was designed to create equity while evaluating individual applicants from across the country (Lemann, 1999).The perceived value of the SAT, from the perspective of college admissions professionals, is that the test results allow colleges to compare, and better assess, the academic potential of students from different parts of the county, school systems, and academic institutions. In actuality, the test has become an indicator of socio-economic status and has had a limiting effect on college access for underrepresented populations[1].

The evaluation process of required college admissions materials varies by institution; however, the supplementary application materials, which students are required to provide to support the application, are generally similar. A student must submit an application that includes personal and family information. They must submit their high school transcript, which includes the courses they have taken throughout their time in high school and the grades that they received in each of those courses. Most

[1] Underrepresented populations are groups of people identified by racial, ethnic and socio-economic status who represent a minority within a campus setting.

schools also require a letter of recommendation and possibly an essay. The final component to complete the college application is the submission of standardized test scores. The most common way students have submitted test scores has been through the SAT.

The SAT has been, and remains today, a cornerstone in the college admission process. The test was introduced in 1926, and by 1970 it was used by virtually all major public and private four-year institutions. The test is taken by most college-bound high school students in both their junior and senior years, and is often included (and required) as a component of a student's college application. In its original form (which this paper explores) the test was broken into two sections: "Math" and "Verbal." Each section awards students between 200 and 800 points, and these scores are combined to provide the student with a final test score on a 1600 point scale. The test is made up of multiple choice questions related to sentence completion, passage-based reading, algebra, geometry and data analysis (College Board, 2012).

Proponents of standardized testing have consistently argued that the SAT offers an objective, common yardstick that helps colleges and universities to identify capable students from various backgrounds and grading systems (College Board, 1983; College Board, 2009). As competition within higher education—both among students and institutions—accelerated, students began to travel outside of their local areas to attend colleges and universities. The increasingly competitive landscape of college admissions made it common practice for institutions to use the SAT in order to evaluate the curriculum and success levels of students at high schools across the country.

Critics of the test argue that the SAT is not the best indication of what a students' success level will be once they get to college, and that it does not effectively place students on a fair and equal playing field. Critics have cited SAT test questions, which they believe are biased against low-income students, particularly those who speak English as a second language (Pringle, 2003). These concerns, coupled with the opportunities for students (often white, middle- and upper-class students) to be "coached" through the SAT exam, are perceived as unfair advantages for certain students who take the test. The validity of intelligence testing must be questioned when evaluating students with different life experiences. Topics and terms which are familiar to students in one culture may not be similar to students in another. Barnett and Williams (2011) speak to the validity of testing:

> Even if an intelligence test is capable of making meaningful distinctions between individuals who have similar life experiences it may not have the same meaning when comparing individuals with different life experiences. (p. 669)

In many cases, the SAT can act as an impartial measure of a student's ability, but the problem has always been that the foundation of the SAT is unjust to select groups of people because of their upbringing and/or socio-economic background. According to Avery and Hoxby (2012), just 17 percent of high-achieving students (top 10% of SAT scorers) are from families estimated to be in the bottom quartile of the income distribution (p.33). For those people who are concerned with racial and socio-economic equity and access to higher education, there is a fear that the emphasis on standardized

testing in the admission process creates opportunity for students who are disproportionately from higher-classes and primarily white or Asian (Shanley, 2007).

HISTORY

The original idea behind the SAT was to enhance the abilities of colleges and universities to assess, evaluate and compare the academic achievements of students from differing educational backgrounds and experiences. The "SAT movement" was spearheaded by James Conant, former president of both Harvard University and the Educational Testing Service (ETS). Conant believed that if he could replace the privileged and entitled student bodies of the 1930's by creating a society that would select its leaders based on achievement, therefore promoting the idea of a "meritocracy," it would replace the current student body with more intellectually gifted students. The new "meritocracy" would be based on the SAT exam which Harvard initially utilized as a means of awarding merit-based academic scholarships to applicants who completed and excelled on the exam (Lemann, 1999).

Conant was extremely innovative in the practices he put into place during the 1930's, as he created what he called "Jefferson's ideal," admitting students based strictly on merit. Harvard was the first of the elite schools to make a true effort to diversify (regionally and socio-economically) their campus culture based on the student merit, not economic status. Conant created a scholarship program for students who took the initial version of the SAT and scored the highest. Previously, scholarships had been viewed as a "badge of poverty," but Conant's new merit-based scholarships were a sign of

intelligence and prestige. After three years of awarding scholarships, the programs saw an increase in geographic diversity and the educational quality of Harvard's students. This allowed Conant to convince the other Ivy League schools to follow his lead and institute the testing policy.

Over the next several decades, Henry Chauncey, who was the founder of the Educational Testing Service, evolved Conant's SAT-based scholarship program and convinced colleges and universities to use the SAT as an admissions criterion. While Conant and Chauncey changed the pool of applicants who were eligible for admission to schools and made a more democratic nation, Lemann (1999) believes it inevitably gave students the same mindset as had been created previously, which was to gain more power and create separation within socio-economic class, not help the rest of the country (p. 64).

Due to the implementation of the GI Bill[2], the increased population due to the "baby boomers," and the women's rights movement, the nation saw a massive increase in interest and attendance at institutes of higher learning throughout the 1950s and 1960s. As interest in higher education grew, so did the influence of the SAT upon academic selections by admissions committees. The SAT provided a way for colleges and universities to efficiently review the increasing number of applicants from diverse geographic territories. However there were differing opinions about the costs and benefits of such an approach. In the eyes of its supporters, the exam provided an "equal playing field" that allowed colleges and universities to better evaluate and compare their

[2] The GI Bill was enacted to provide funds for college educations, home-buying loans, and other benefits for armed-services veterans. The implementation of the GI Bill provided a significant increase in veterans who attended colleges after World War II

applicants. By 1970, the SAT had solidified itself as one of the primary evaluative measurements of intellectual ability in college admissions.

As application pools began to see significant increases in overall numbers, the reliance on the SAT became more prominent. The number of institutions who indicated that they placed "considerable importance" on admission test scores rose from 46% in 1993 to 60% in 2006 (National Association for College Admission Counseling, 2008). Institutions who enroll ten thousand students or more, which are primarily public institutions, were the most likely to place considerable emphasis on standardize testing (81%). The relationship between SAT scores and socio-economic status means the state institutions, which are cost effective options for low-income families, may not be a possibility because of the emphasis placed on standardized testing.

There are a significant number of institutions which require standardized test results but place little emphasis on the results. A survey of over 450 senior-level admission officers found that 88% of schools required admission of test scores (Hoover, 2008). However, half of the respondents said they placed "little" or "no" influence on the results.

In the mid-1960s, the average scores on the verbal portion of the SATs began to drastically decline. Within roughly twenty years, on the traditional range of 200 to 800 points, the average verbal score dropped 54 points, going from 478 in 1964 to 424 in 1980. At the beginning of the 1980's, the scores began to level off, and have remained within that range since. In 1977, in the midst of the 54 point drop, the College Board conducted studies which confirmed that a major factor for the lower scores was the

greater diversity of students taking the test. There were significantly more minority students taking the exam, some of them not native speakers of English, who were now striving to get into college (College Board, 1977).

The growth of minorities who took the SAT continued to grow into the year 2000. Numerous groups complained about cultural bias within the test and pointed to issues related to semantics in questioning, and availability of the test while the CollegeBoard continued to see substantial growth in revenue.

BIAS WITHIN TESTING

While the SAT was originally created to increase diversity and review applicants fairly, Table 1 shows that there is a direct relationship between family income and average SAT scores. As shown in the chart, students who come from families with an income of 40,000 dollars or less average less than 480 points on all three sections of the SAT. Meanwhile students who come from families which make more than 200,000 dollars per year, average nearly 560 points or higher in all three sections of the SAT. This discrepancy is a clear indicator of the socio-economic biases within the SAT exam. In order to evaluate the intelligence of students from different cultures, intelligence must be measured using the same level of difficulty for everyone. Intelligence testing—like the SAT, which has a direct relationship to socio-economic status and utilizes questions that are culturally biased—is not an equal measure of intelligence for all students (Barnett, 2011).

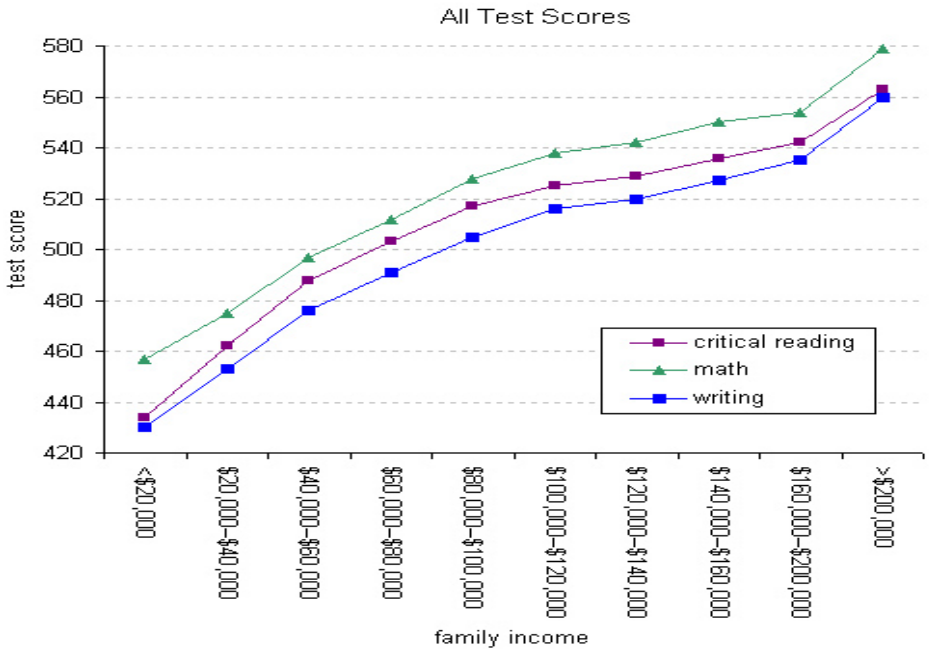


Figure 1- This figure illustrates the average student SAT score and its relationship to family income.

Part of the reason why minority students struggle with the SAT exam is because its questions have, and continue to be, inherently lenient to, and focused upon, the life experiences of middle and upper class students (who tend to be traditionally white), as opposed to the life and academic experiences of lower-income students (including those for whom English may be a second language). Robert Schaeffer, the Director of Center of Public Education, cited several analogy questions from over the years which can be considered culturally biased, including this former SAT question:

RUNNER: MARATHON:

A) envoy: embassy

B) martyr: massacre

C) oarsman: regatta

D) referee: tournament

E) horse: stable

The answer is C, which Schaeffer describes as “incredibly culturally centered. You don’t see a regatta in center-city L.A., you don’t see it in Appalachia, you don’t see it in New Mexico” (as cited in Pringle, 2003, p. 2). This is one example of how the SAT uses vocabulary and experiences which a low-income minority student from an inner-city school would not likely encounter. Critics have asserted, and much of the public still believes, that the SAT is mainly a test of upper-middle-class socialization (Grissmer, 2000).

The SAT exam is only analyzing selected areas of intelligence based on three individual sections of the exam: critical reading, math and writing. While society has evolved and new areas of intelligence have become more prevalent, the SAT has maintained a similar style and analysis. For example, in an increasingly diverse society, one would assume that an emphasis might be placed on cultural intelligence. Cultural intelligence “suggests that cognitive capabilities such as questioning assumptions, adjusting mental models and having rich cultural knowledge schemas are especially important for making accurate judgments and decisions when situations involve cultural diversity” (Ang, Dyne, &Tan, 2011). This indicates that having a wide array of cultures involved in the evaluation process and the campus environment would enhance the overall cultural intelligence of the students.

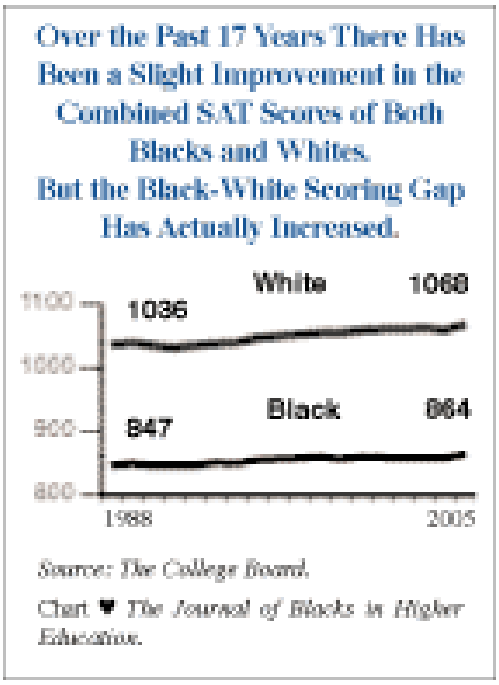
The SAT can also act as a hindrance to even apply to the more prestigious institutions across the country. High income students apply to institutions in which the median test score is similar to their own test score. Low-income students apply to

significantly fewer schools. Fifty-three percent of low-income students do not apply to any schools whose median SAT or ACT score is reflective of their own, and only eight percent of low-income high-achieving students have similar tendencies to their high-income peers (Avery et al., 2012).

With the growth of interest in college from non-white and international students, intelligence testing becomes increasingly more difficult. In order to evaluate the intelligence of students from different cultures, intelligence must be measured using the same difficulty for everyone. Intelligence testing, like the SAT, which has a direct relationship to socio-economic status and utilizes questions that are culturally biased, is not an equal measure of intelligence for all students. The validity of intelligence testing must be questioned when evaluating students with different life experiences**.**

THE GAPS

In 1976, The College Board published an analysis of the racial differences in scores on the SAT. At that time, the average score of a black student was about 240 points, or 20 percent, below the average white student's score. The College Board next examined the racial scoring gap in the early 1980s, and at that time, the gap had shrunk to 200 points. The scores of black students then were 17 percent lower than those of white students. By 1988, the black-white SAT test scoring gap was down to 189 points.



This was an encouraging trend and many experts believed it would be only a matter of time before the racial gap within the SAT would evaporate all together. However in 1989, that progress actually regressed. In the period between 1988 and 2005, the gap in test scores between white and black students increased to over 200 points—nearly the same gap as that of the early 1980s (Journal of Blacks in Higher Education, 2005).While these results are not disaggregated by class, they do indicate a potential cultural bias

when evaluating intelligence through standardized testing due to the strong correlation between socio-economic status and race.

During the same period, between 1989 to present day, colleges and universities began to make conscious efforts to diversify their overall student populations by race and ethnicity. University leaders across the country emphasized that creating a racially diverse student body was a necessity for students as they prepared to become valued members of an evolving multicultural society (Rudenstine, 1996). Studies regarding race relations and interactions indicated that students who engaged with racially diverse peers were consistently more culturally aware and demonstrated better leadership abilities (Smart, 2003).

Table 2 depicts the growth in interest from minority students to attend a college or university and the importance that university leaders placed on creating a diverse student body. In 1976, just fewer than 83 percent of the self-identified college students were white, and in 1990, that percentage had dropped only slightly to 77 percent. However, the period from 1990 to 2009 saw a dramatic increase in minority students attending degree-granting institutions over 34 percent of the national population.

Table 1 Percentage distribution of students enrolled in degree-granting institutions, by race/ethnicity: Selected years, fall 1976 through fall 2009

	Institutions of higher education			Degree-granting institutions							
Race/ethnicity	1976	1980	1990	2000	2003	2004	2005	2006	2007	2008	2009
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**
White	82.6	81.4	77.6	68.3	66.7	66.1	65.7	65.2	64.4	63.3	62.3
Total, selected races/ethnicities	15.4	16.1	19.6	28.2	29.8	30.4	30.9	31.5	32.2	33.3	34.3
Black	9.4	9.2	9.0	11.3	12.2	12.5	12.7	12.8	13.1	13.5	14.3
Hispanic	3.5	3.9	5.7	9.5	10.1	10.5	10.8	11.1	11.4	11.9	12.5
Asian/Pacific Islander	1.8	2.4	4.1	6.4	6.4	6.4	6.5	6.6	6.7	6.8	6.5
American Indian/Alaska Native	0.7	0.7	0.7	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Nonresident alien	2.0	2.5	2.8	3.5	3.5	3.4	3.3	3.4	3.4	3.5	3.4

At the turn of the century, colleges and universities gained substantial growth in interest from minority groups. At the same time institutions began emphasizing the expansion of student diversity on campus. However the increasing gap between black and white students' average SAT scores constrained admission offices to validate many admission decisions for minority groups. Universities recognized that there were hundreds of qualified students who could be successful within higher education, but they were unable to be admitted to universities strictly because of their SAT scores.

While colleges and universities claimed to be dedicated to equity, the structure and practices of the college admission process did not reflect the same initiative. While several universities across the country started placing more emphasis on an increased

level of diversity within their student body, the standardized test scores for economically and racially underrepresented populations were well below the institutional average. This created an imbalance between the university's goals and messages in the upper administration and the reality of the university's actions throughout the structure of the admission process.

Institutions have begun recruiting students of color from higher-income families in order to increase their "diverse" student populations. Many institutions offer "multicultural" scholarships which are based on the students' self-reported race or ethnicity. White students, from privileged backgrounds, may also be considered for such scholarships. If students have a distant relationship to American Indian or other race/ethnicity they can indicate that on their application and be considered for monies without actually identifying as a multi-cultural race or ethnicity.

International students have also become a major focus of enrollment offices. In the 2012-13 academic year a record, 819,644 foreign students studied in the United States. This is a 7.2% increase from the previous year, according to an annual report released by the Institute of International Education, a nonprofit organization (2013). These students are often required to submit bank statements in order to be considered for admission. These statements are included in their application material to demonstrate the capabilities to afford tuition, room and board at United States institutions. These students certainly bring a level of diversity to college campuses but in no way is that diversity related in socio economic status.

Upper- and middle-class students, often have immense resources at their disposal, such as college counselors, SAT test preparation programs and independent counselors or tutors within their high schools and available for hire outside of school. With this in mind, colleges and universities looked toward new and innovative ways to assess college applicants without taking into consideration a student's SAT score.

In 2008, the National Association of College Admission Counseling's Commission (NACAC) encouraged colleges and universities to:

> Consider dropping the admission test requirements if it is determined that the predictive utility of the test or the admission policies of the institution…support that decision and if the institution believes that standardized test results would not be necessary for other reasons such as course placement, advising, or research. (p.7)

TEST-OPTIONAL ADMISSION POLICIES

"Test-optional" (also referred to as score-optional) admission was originally pioneered by Bowdoin College in 1969 and Bates College in 1984. The policy allows students to apply and be admitted to the university without the inclusion of standardized test scores. Once enrolled, statistics show nearly identical Grade Point Averages (GPAs) and graduation rates from students who did submit their test scores as students who did not submit test scores (Epstein, 2009). Encouraged by the successes of pioneering schools of the test-optional policy, many highly selective institutions across the country began instituting their own variations of the policy (Epstein, 2009). There are currently hundreds of colleges and universities across the country that offer a test-optional admission policy, more than 30 of which are ranked by *US News and World Report* as top the 100 Liberal Arts Colleges within the United States. Some of test-optional schools include Wake Forest University, Middlebury College, Brandeis University, New York University, University of Texas at Austin and College of the Holy Cross, to name a few.

The increased national growth of the test-optional policy is a relatively new enrollment practice. Over the past decade, higher education has seen a significant increase in interest of diverse constituents. Originally, Bates College adopted the test-optional policy in hopes of increasing their total application numbers, and it worked. Applications rose from 2,500 in 1984 to just fewer than 3,500 in 1989. William Hiss,

who was the dean of admission during that period, said, “If I had had to choose making tests optional and losing 1,000 applications it would have been tough. But when you gain 1,000 applications? There's no downside.” Minority applications also increased as nearly half of Bates’s Black and Hispanic applicants applied without submitting test scores. Once enrolled, statistics showed nearly identical GPA and graduation rates from students who did submit their test scores as students who did not submit test scores (Epstein, 2009).

Espenshade and Chung (2005) have used predictive modeling to explore the racial and socio-economic diversity that SAT optional policies would have on college campuses. Their studies have found “unambiguously that increased racial and socioeconomic diversity can be achieved by switching to test-optional admission policies” (p. 20). Research shows that schools who implement test-optional admission policies see an average of 6.6% increase in overall applications, with black and Hispanic student applications growing by 30% (p.189). While the SAT theoretically should be the middle ground for all college-bound applicants, it has actually acted as a hindrance for thousands of prospective college students.

While test-option admission policies have been proven to increase enrollment for underrepresented populations, there is a continued need for increased equity in policy and process. This study concentrates on college accessibility for diverse constituents under test optional admission policies. Specifically the focus of the study is on two aspects of

diversity. The study not only addresses the relationship of socio-economic status to testing, but also the relationship of race to testing at George Mason University.

It is important to note, that race and socio-economic status cannot be used interchangeably. In fact, the majority of low income Americans are White. The research will refer to both aspects of diversity with the understanding that race has a direct relationship to socio-economic status, African American students are three times more likely to live in poverty than White students. In addition, American Indian and/or Alaska Native, Hispanic, Pacific Islander, and Native Hawaiian families are all more likely than White Americans to live in poverty (National Center for Education Statistics, 2007).

Socio-economic realities may deprive students of valuable resources. High-achieving students who attend high school in a low-class area may be exposed to less rigorous curriculums, attend schools with fewer resources, and have teachers who expect less of them academically than that of high-income students (Azzam, 2008).

This study will be a two-step process and will analyze the demographics of specific application types at George Mason University. First, the research will explore the effects of a test-optional admission policy and its relationship to the increased racial and socio-economic diversity of the applicant pool and subsequent yield at GMU. The test-optional policy at GMU has been in place since the 2007 admission cycle, which provides substantial data related to test-optional demographics.

This study will then analyze the demographics of students who applied under the standard admission policy—in which they submit their test scores. The research will

analyze the applicants' GPAs and predict the students' admissibility if they had not submitted standardized test scores.

There is significant literature related to the relationship between a test-optional policy and an increase in overall applications and the diversity of those applicants. The gap in research, which this study will pursue, relates to the students who apply to test-optional institutions, include their test scores and are deemed inadmissible. These students, who have included standardized test scores, may actually be punished for taking and including standardized test scores with their application. This population is important to investigate because while the test-optional policy provides college access for students who may have otherwise not had the opportunity, there are still students who are not taking advantage of the policy.

Institutions who have implemented test-optional admission policies have validated the idea that the standardized testing is not the best indication of a student's collegiate success. This research seeks to understand if and who George Mason University may be penalizing for including test scores in their application.

In order to explore this inequity, this study intends to explore three major questions:

1. How does the test optional admission policy at George Mason University affect specific demographics based on socio-economic status and race?
2. To what extent does the inclusion of standardized test scores affect admissibility in the evaluation process for students who applied under the standard admission policy?

3. To what extent is revenue a factor in both the creation of the test optional applicant pool as well as the assessment of the applicants within that pool?

METHODOLOGY

In order to demonstrate the complex realities of college admissions, this study examined the characteristics of students who applied under various application types. The data for this research came from various sources. The sample for this study was collected through the George Mason University Office of Admissions and used unidentifiable student descriptors. The sample included all students who completed an application at GMU from 2007-2013. GMU provided data for over 15,000 applicants to assess. The student analytical sample consisted of all students who have completed a GMU application, and differentiates between students who applied by utilizing the test-optional admission policy and the traditional application (which includes the standardized test scores). The first sample analyzed all first-time undergraduate applicants who applied under the test optional policy starting in 2007 (the first year the policy was instituted) through the incoming freshman class of 2013. The second sample represented the High Achieving Denied group of students, who applied under the traditional admission process. The analysis of the samples detailed the frequency of students who were admitted, waitlisted and denied under each policy.

Within the sample, there were three main groups of students which were evaluated: Test- Optional Applicants, Test- Optional Admitted students and a group of students who are referred to as High Achieving Denied students. The High Achieving

Denied group were students who applied under the traditional application policy (included their standardized test scores), had a GPA of 3.4 or higher and were denied.

Student race was represented by what was self-reported on the students' application. This study illustrated the relationship between race and class during the college admission process. Socio-economic status was represented by the residential status of applicants within in George Mason University's test optional and traditional applicant pools. The High Achieving Denied group was generated through a separate pool of applicants. The research evaluated the reported GPA's, residential status and racial/ethnic background of this population.

The data was recorded and aggregated into a spreadsheet. For each measure, graphs were created to facilitate responses to each research question. The research was conducted in two parts- analyzing students who applied to GMU under the test-optional policy and analyzing students who were not admitted to GMU but included their standardized test scores. The information provided included the students' reported high school GPA, state residency, standardized test score (if available), self-reported race and/or ethnicity, application type and the admission decision assigned to each applicant.

First, baseline measures of GPA were collected to evaluate the predictive validity for undergraduate admission criteria. Once the baseline GPA was identified, a predictive model was projected upon the data to indicate the number of students who would have been deemed admissible under the test-optional policy, and at what rate.

Then, the frequencies related to self-reported race, residential status and reported grade-point average (GPA) were detailed within each pool. The frequency related to race and socio-economic status in both pools was the primary focus of the study. This focused data was then graphed and compared against the controlled, Test-Optional group.

In response to the data collected, further assessment of residential status was deemed necessary. In order to complete that goal, data was gathered and divided to identify students based on in-state and out-of-state applicants. The data was graphed to illustrate the growth of out-of-state applicants (within all three pools)from 2007-2013. The residential status of test-optional applicants provided insight into the types of students the test-optional policy is attracting from a geographical perspective. State residency also indicates a level of socio-economic status. Tuition for out-of-state students is substantially higher than that of in-state students meaning students who apply to out-of-state institutions generally come from a higher income background. Residential status also gave some indication of how well students understand and utilize the test optional policy both locally and nationally. The GPA of the sample was analyzed to determine the median GPA of admitted, waitlisted and denied students who applied under the test-optional policy.

After a preliminary analysis of the research was conducted, an additional sample was used to evaluate students who were denied from GMU under the traditional application policy, in which students submitted their standardized test scores. The purpose for the additional sample was to assess students whose submission of

standardized test scores may have actually acted as a hindrance to their admissibility. The analysis of students who were denied from GMU provided insight into how many students may have benefited from applying as a test-optional student. The analysis was conducted after evaluating the GPA of those admitted under the test-optional policy. Once the GPA and demographics of those who were admitted as test-optional students was assessed, the research indicated the likelihood of admissibility, for students who were denied under the regular admission policy, had they applied as test-optional candidates. This analysis indicated if the inclusion of standardized test scores may have actually penalized those students and at what frequency. The sample was evaluated based on self-reported race, residential status and GPA.

LIMITATIONS

While the analysis of student GPA provides a strong indication of a student's likelihood to be admitted or not, it is not the only factor in deciding admission for test-optional students. GMU suggests that students who apply under the test-optional admission policy have a "minimum cumulative GPA of a 3.50 on a 4.0 scale" (gmu.edu). For the purposes of this study, we will represent the frequency of students who *could* have been admitted had they not submitted their test scores by selecting students who were denied but maintained a cumulative GPA of 3.55 or higher.

Limitations related to retention are also considered. The analysis of students who are admitted under a test-optional policy and enroll in classes during their second year is not strictly based on GPA. Students may have transferred to another institution despite a positive academic trend at GMU, they may have personal issues to deal with and many other factors may play a role in the retention rate. However, for these purposes the retention rates of test-optional applicants will give some degree of data related to the capabilities of students who are admitted as test-optional students.

RESULTS

Residential status of students played a substantial role in the research. The growth of out-of-state applicants within the test-optional applicant pool was too substantial to ignore. The research appraised the value of a dramatic increase of out-of-state student applicants within test-optional applicants from a University and financial perspective.

The preliminary description of the analysis will provide a basic understanding of the demographics of students who apply, are admitted and enroll at GMU under the test-optional policy. These demographics will illustrate both race and residential status (in-state or out-of-state student). The frequencies which are determined can then are compared to the rates of students, who apply, are admitted and enroll under the traditional application—which includes test scores. Retention rates will provide an indication if the test-optional admission policy not only provides access to the institution but also puts students in position to succeed academically.

The secondary research will illustrate racial/ethnic and residential demographics of students who apply to GMU under the traditional application process, which requires inclusion of their standardized test scores. The research will further explore the frequency and demographics of students who could have potentially been admitted to GMU through the test-optional policy. This frequency will highlight the potential growth

of access to GMU for students analyzed by race and residential status. The variables for this analysis will also include the composite score of the students standardized test scores.

Test-Optional Applicant Pool

In order to truly asses the demographics of the test-optional application pool, we must first understand how the general test-optional pool has changed since its inception and what effect the test-optional policy has had on the students who have been admitted and eventually enroll. Table3 illustrates the number of test-optional applications that were received by George Mason University from 2007, when it began accepting test-optional applications, to the most recent applicant pool of 2013.

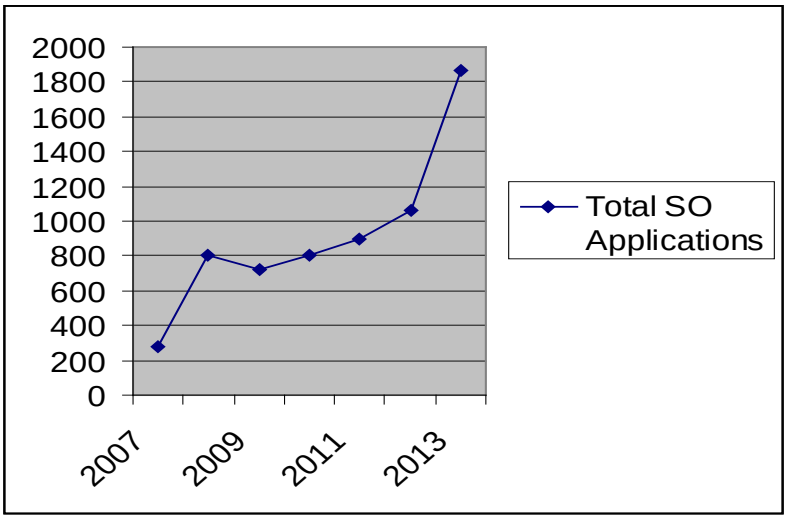


Figure 2- This figure illustrates the growth of score-optional applicants at George Mason University since its inception.

Test-optional applications rose from 278 in its original year to an astounding 1863 in 2013. The largest increase in test-optional applicants happened between 2012 and 2013, as this number rose from 1,062 to 1,863. While a yearly increase is expected,

Director of Admissions, Sarah Gallagher Dvorak, attributes the jump to "a substantial change in our recruitment and marketing strategies. I am surprised to see how dramatic the increase is, but realistically, it is reflective in the overall growth of our application pool during that period." According to the Institute of Education Science, George Mason's 2012 reported applicant pool was 17,621. George Mason's office of Admission estimates its 2013 overall applicant pool was closer to 22,000, an increase that is represented within the test-optional applicant pool.[3] Regardless of the increase, it is clear that there is a large population of students who have applied to George Mason University under the test-optional policy.

While test-optional applications certainly increased between 2007 and 2013, so too did both the number of students who were accepted to the university and the matriculation of those students. Table4 illustrates the trends of both the students who were admitted to George Mason University and those students who deposited to the school.[4]

[3] The total number of applications does not necessarily illustrate the total number of applications that were completed and reviewed for a decision. Schools can report total application numbers in various ways, such as; completed, submitted or started. All applications that were reviewed were completed with an admission decision.

[4] Students deposit to George Mason University in order to confirm their intent to enroll. This does not always mean they necessarily indicate that they will register for courses though the vast majority of students do.

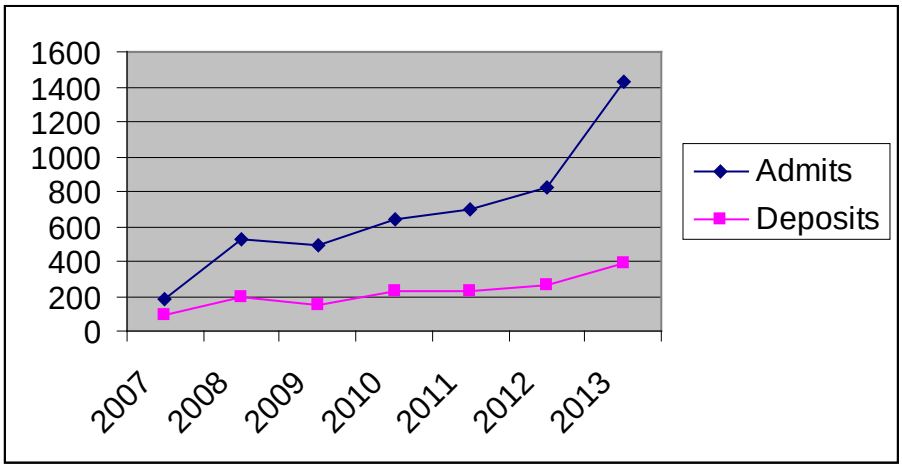


Figure 3- This figure shows the total number of students who were admitted and deposited under the score optional policy

What is worrisome from an enrollment standpoint is the growing gap between admitted students and students who have deposited. In 2007 George Mason yielded[5] an impressive 49% of the students that were admitted as test-optional students. By 2012, that rate had lowered to 32% and in 2013 it took another dramatic dip to just 27%. The change in yield demonstrates a growing number of students becoming more comfortable applying as test-optional applicants and illustrates that students are using it as a way to gain admissibility without the intention of enrolling.

The most intriguing aspect of the test-optional applicants is the clear "cut point"[6] in their GPA. From 2007-2013 4,604 students applied as test-optional applicants with a reported grade point average (GPA) of 3.4 or higher. Of those 4,604 applicants, 4,469 were admitted. That means students who applied to George Mason University as test-

[5] Yield is a term given to a student who was admitted and then deposited to the University.

[6] "Cut point" is an enrollment term which identifies a certain GPA or standardized test score which applicants are either admitted or deferred.

optional applicants and had a GPA of 3.4 or higher were admitted more than 97% of the time. George Mason University requests that test-optional applicants have a cumulative GPA of 3.5 or higher (gmu.edu). What they are actually saying is that if a student has a 3.5 or higher and applies as a test-optional applicant, they are virtually guaranteed admission to the University.

While the increase in test-optional applications, the admission rates of those applicants and the matriculation of test-optional students is promising, one has to wonder about students who may not understand the test-optional policy or even know that it is an option. Students who may be first-generation applicants[7] or who come from a low socio-economic culture, often do not have the same understanding of the college application process and do not have the same resources at their disposal as middle or high socio-economic students.

It is impossible to predict levels of student socio-economic privilege without having to access financial records. However, there are factors that help to predict privileged status. This study identifies race and ethnicity and state residency as two factors which were accessible and could help to illustrate the landscape of the test-optional applicant pool. The test-optional policy is designed to promote access for students from a low socio-economic background. White and Asian students have historically performed better on standardized tests and come from higher socio-economic backgrounds (Logel, Walton, Peach, Spencer & Zanna, 2012).

[7] A first-generation college student is an undergraduate applicant whose parents did not enroll in postsecondary education (National Center for Education Statistics, 1998).

From 2007 to 2012[8] just over 40% of the students who were admitted as test-optional applicants self-reported as white. Although that number is not staggering, only about 30% of test-optional applicants reported a race or ethnicity. This means that the number of White students who applied and were admitted under the test-optional policy could actually be anywhere between 40% and 70%. By comparison, in 2012 the Institute of Education Science reported that 47% of George Mason University students identified as White and only 9% of students elected not to identify.

Tuition and fees at George Mason University during the 2012- 2013 academic year were 27,764 dollars. This does not include the nearly 6,000 dollar charge for on-campus housing and additional charges for a meal plan. The total cost for a year of studies at George Mason University as an out-of-state student could have been as high as 40,000 dollars during the 2012-2013 academic year. Out-of-state students who are applying to George Mason do not necessarily have the financial support to completely fund each year at the institution, but the application numbers represent a population for whom a higher tuition cost is an option. Table 3 illustrates the continuous increase of out-of-state applicants who have elected to apply as test-optional applicants.

[8] George Mason University did not release the race or ethnicity of their 2013 applicant pool.

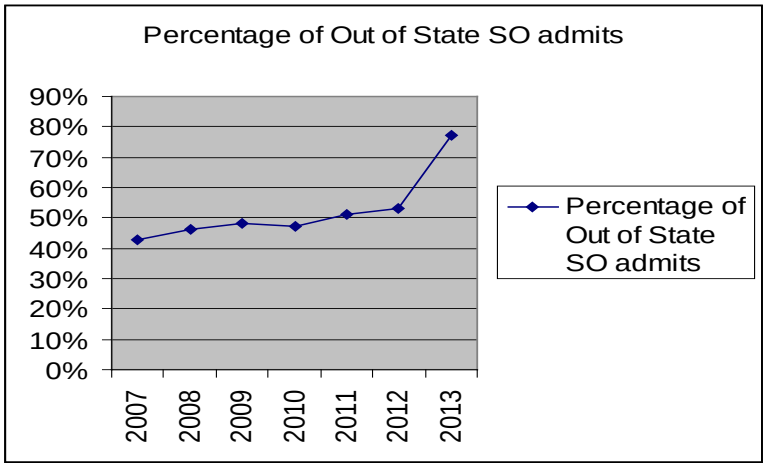


Figure 4- This figure identifies the percentage growth of out-of state students who were admitted under the score optional policy

In 2013, the out-of-state population of George Mason University's incoming class represented only 20% of the freshman class. In contrast, the test-optional applicant pool grew incrementally from 2007 to 2012. By 2012, out-of-state students represented more than 50% of the test-optional applicants. In 2013 that number skyrocketed to over 75% of the pool.

According to the Institute of Education Sciences, from 2007 to 2013, the out-of-state population at George Mason has increased from less than 15% to 20% of the incoming freshman class. This is during the same period that state institutions have seen a significant reduction in-state funding (Baum & Ma, 2013).The ratio of George Mason University's General Fund as a percentage of the Educational & General budget that funds the core activities of the University has decreased significantly since the turn of the century. In 2001, the General Fund accounted for 60.7% of the budget at George Mason University. By 2012 that number had decreased to only 25.4% of the budget.

Because of the reduced funding, money needed to be found in areas other than the General Fund. Tuition and fees[9] have emerged as one of the most viable "alternative" revenue sources for many public four-year institutions, as this source accounts for 30 percent of their total operating revenues (Derochers, Lenihan, & Wellman, 2010).One of the biggest financial resources for an institution is tuition and for state institutions specifically out-of-state tuition[10]. At George Mason University, out-of-state tuition is more than double that of what an in-state student pays. During the 2006-07 academic year tuition accounted for 161.8 million dollars or 26% of the University's budget. By 2012-13 tuition made up 306.2 million dollars or 34% of George Mason University's budget.

The relationships between decreased funding, increased number of out-of-state students and the creation of the test-optional policy are not a coincidence. Test-optional policies have been proven to create access for underrepresented students. However, the policy also creates and avenue for out-of state students, who are able to pay higher tuition rates to be deemed admissible.

The test-optional policy, while designed to create access for underrepresented students, actually has a direct relationship with tuition revenue. With the understanding that students from high-income backgrounds typically have more knowledge and

[9] Tuition is the sum of money charged for teaching instruction at a college or University. The fees are additional costs that are accrued by students for student groups, campus events and any number of additional expenses .

[10] At state institutions, tuition differs for residents within the state of that institution and for students who reside outside of that institution.

resources towards the college search process, further investigation is needed. There are potentially students who apply to George Mason University whose choice to submit their test scores acts as a detriment to them during the admission process. Since 97% of test-optional applicants who maintained a 3.4 GPA or higher were admitted, it is necessary to evaluate students who applied as traditional applicants, had a 3.4 GPA or higher and were denied.

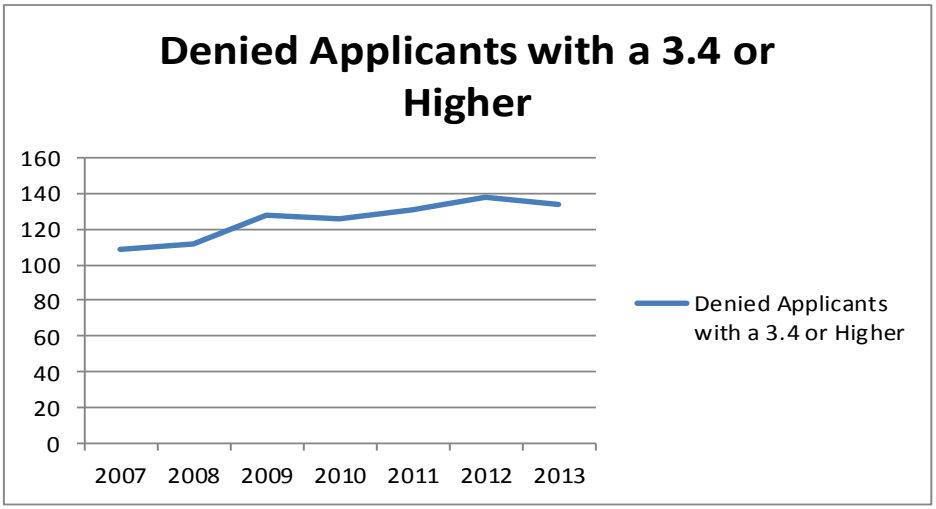


Figure 5- This figure identifies the students who applied under the traditional policy and were denied with 3.4 or higher GPA's

George Mason University has seen significant increases in its test-optional applicant pool and traditional applicant pool from 2007 to 2013. However, the numbers of students who have been denied from George Mason University, with a 3.4 GPA or higher, has not seen nearly the same rate of increase. For the purposes of this study, students who were denied during the traditional application process with a 3.4 GPA or higher will be referred to as High Achieving Denied Applicants. Table 6 shows the

growth of the overall number of High Achieving Denied Applicants from 2007-2013. Applications from High Achieving Denied Applicants increased from 109 students in 2007 to 134 in 2013. While these numbers have increased slightly, the rate of increase is not representative of the increase seen within the test-optional applicant pool or the overall increase in applications at George Mason. The lack of increase within the High Achieving Denied Applicant pool could represent students from similar socio-economic backgrounds who are applying to the University. Due to the minimal growth in this population, an assumption can be made that these are students who may not have the same level of resources or counseling related to the college application process.

There were 878 total students who qualified as High Achieving Traditional Applicants from 2007 to 2013. Considering that George Mason University admitted 97% of students who had a 3.4 GPA and applied as test-optional applicants, hundreds of students were negatively affected by the inclusion of their test scores in the application process. Had each of these students applied as test-optional applicants, and if the University continued to admit these students at a 97% rate, 851 students could have received a different and much more positive admission decision.

While 851 students is a small percentage of the overall applicant pool, these are students who theoretically are not granted the same means and would benefit from additional support throughout the college application process. Instead of assisting these students and providing transparency about the application process, and specifically the test-optional policy, George Mason University has denied college access to 851 students

over the past seven admission cycles[11]. These are students who would have had an extremely high prospect of admission if they had included *less* information (test scores) with their application. George Mason University's Office of Admission claims that "Mason takes a holistic approach in the admissions process, and the Office of Admissions considers a number of factors when reviewing applications" (gmu.edu). Students who include test scores, in hopes of enhancing the "holistic approach" of the admission process, are more likely to be penalized than students who fail to include test results.

There are opportunities for George Mason University to increase the awareness of the test optional policy, therefore helping to close these socio-economic and racial gaps in college enrollment. The test-optional policy has been proven to provide access to college for students who would not otherwise be admissible. However, if the policy is available, students should not be penalized for not understanding the policy or including additional information. George Mason University does not even mention the test-optional policy as an option on their "Freshman Admission Requirements" website. The page identifies a student's GPA, rigor of curriculum, standardized test results, secondary school report and a recommended personal statement as components to completing the application process.

In order to understand the types of students who are failing to utilize the test-optional policy, an examination of student demographics and residency is needed. Racial and ethnic demographics of this pool differ from the applicants who took advantage of the test-optional policy. Only about 25% of the High Achieving Denied Applicants self-

[11] An admission cycle represents the recruitment period of students who enroll as first time freshman during the fall semester.

reported their race as Caucasian from 2007-2012. In contrast, test-optional applicants were self-reported as Caucasian nearly 40% of the time, during the same period. The increased number of non-Caucasian students potentially represents an applicant pool that is not as familiar with application types and policies as those applying under the test-optional policy.

The in-state versus out-of-state ratio is also flipped when evaluating the High Achieving Denied Applicant pool. In-state students are represented significantly more in the High Achieving Denied Applicant pool than in the test-optional pool of students. Table 9 illustrates the growth of in-state applicants who have been affected by not utilizing the test-optional policy. In-state students have failed to use the test-optional application at an increasing rate, while out-of-state students have remained stagnant. This is another indicator that the students who are not utilizing the test-optional policy may not have the same level of college counseling or understanding about the college application process.

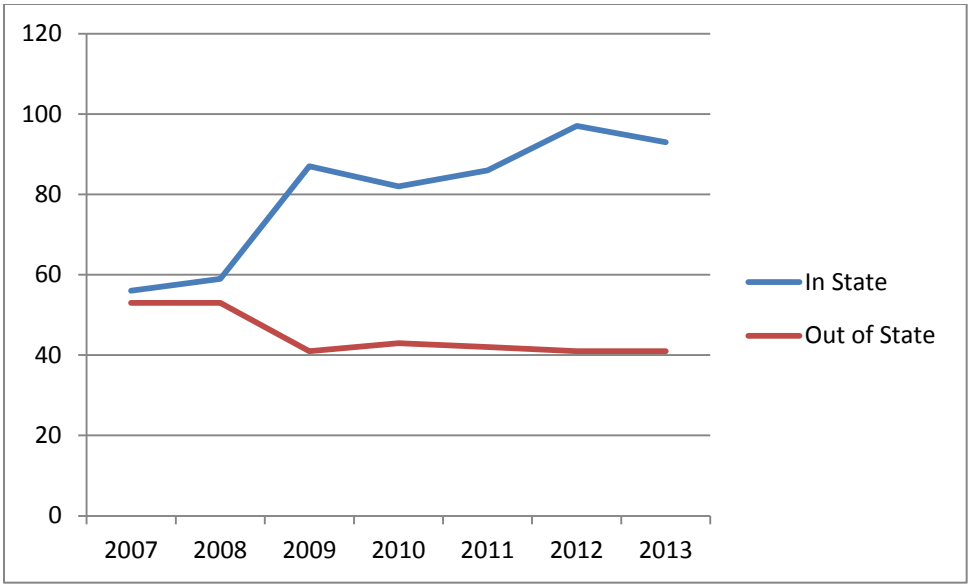


Figure 6- Illustrates the expanding gap between in and out of state students who are applying as test-optional applicants.

DISCUSSION

Colleges and Universities have promoted the idea of diversity within their institutions but are reluctant to make any substantial changes to their evaluation measures or the cultures of enrollment at each institution. By encouraging cultural diversity, schools will naturally accrue students from diverse backgrounds. As the diversity of applicants increases, it is the responsibility of each institution to evaluate the intelligence of students individually. In order to uniquely evaluate each student, schools must take into account new areas of intelligence. The promotion of diversity would indicate that cultural intelligence may be a significant area of assessment for students. Schools must understand that each student is different and successful intelligence cannot be assumed the same for each student. While the SAT provides an efficient way to evaluate students, it is clearly evaluating isolated areas of intelligence that do not reflect the goals of cultural diversity for an evolving educational system.

Test-optional admission practices have proven to increase application and matriculation numbers of underrepresented students and students from low socio-economic backgrounds. The students who are admissible under the test-optional policy are capable of thriving within a collegiate setting.

The test-optional policy at George Mason University provides increased college access for students who may otherwise not be admissible. These applicants are from out-

of-state and more possibly higher-income backgrounds, have increased dramatically since the policy was implemented. If GMU is searching for increased racial and ethnic diversity, the University may have to try different methods. As Alan Krueger, now head of President Obama's Council of Economic Advisers wrote in 2006, "The correlation between race and family income, while strong, is not strong enough to permit the latter to function as a useful proxy for race in the pursuit of diversity."

Most test-optional research focuses its attention on the opportunity it provides to under privileged applicants. While that is certainly a factor at George Mason University, the University also greatly benefits from the policy. George Mason University has seen enormous increases in the overall applicant pool and out-of-state applications. The test-optional admission policy allows George Mason University to validate admission decisions for applicants who may not have been admissible had they submitted standardized test scores with their application. This allows the University to target specific demographics, such as out-of-state students, who can provide the school with additional revenue sources.

As public funding has decreased George Mason University has clearly placed an emphasis on admitting and yielding out-of-state students. The test-optional admission policy allows George Mason the opportunity to admit and enroll students without impacting their average standardized testing numbers. The students who are admitted under this policy have maintained a high GPA, which without the inclusion of test scores, is the only required information to report each year.

The test-optional policy certainly provides college access to students who are knowledgeable about and take advantage of the program. However, because it is not a universal admission practice, many students are unaware or do not understand that is a viable option for them as applicants. George Mason University should be credited with the implementation of the test-optional option but they too benefit significantly from the policy. This study illustrates that students who have access to high-income resources related to the college admission, are increasingly more likely to take advantage of the test-optional policy.

The SAT was originally created to promote equity and access to institutions for students from various geographic areas. The test has evolved into a business which has controlled the college admission process for several decades. Over the past decade, increasingly more institutions have emphasized diversity on campuses. These schools have attempted to evaluate applicants based on things other than standardized testing. However, as that option has become more prevalent, the test-optional policy has evolved from a college access tool, into a revenue based money maker for institutions. At George Mason University, out-of-state applicants dominate the test-optional pool. A similar isolated number of students are being denied yearly because they have included standardized testing results in their application. George Mason University has a responsibility to counsel these students toward which policy may be best for them individually. Instead, the University has placed its attention on the revenue building, out-of-state applicants, who make up the vast majority of test-optional applications.

It is impossible to predict the future of admission practices and the relationship with standardized testing. However, the trend at George Mason University certainly appears to emphasize revenue- even if that means decreasing access for underrepresented students. With a gained awareness and understanding of this inequity, attention can now be shifted to provide access for increased diversity within the enrollment process.

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BIOGRAPHY

James Moynihan grew up in North Attleboro, Massachusetts and attended both North Attleboro High School and Suffield Academy. He graduated with a Bachelor of Arts in Music Performance from the University of Mary Washington in May of 2008. Since receiving his undergraduate degree James has worked as a college admission counselor at the University of Mary Washington, Loyola University Maryland and George Mason University. He currently serves as the Assistant Director of College Counseling at Gonzaga College High School in Washington, D.C.