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2018

Opening the Gates to AP Equity: A Case Study of a Central Virginia High School's Practices, Policies, and Characteristics Toward Proportional Black Student Representation in Advanced Placement Enrollment

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Opening the Gates to AP Equity: A Case Study of a Central Virginia High School's Practices, Policies, and Characteristics Toward Proportional Black Student Representation in Advanced Placement Enrollment

A dissertation submitted in partial fulfillment of the requirements for the degree of Doctor of Philosophy at Virginia Commonwealth University

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November 28, 2018

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Abstract

OPENING THE GATES TO AP EQUITY: A CASE STUDY OF A CENTRAL VIRGINIA
HIGH SCHOOL'S PRACTICES, POLICIES, AND CHARACTERISTICS TOWARD
PROPORTIONAL BLACK STUDENT REPRESENTATION IN ADVANCED PLACEMENT
ENROLLMENT.

Andrew Ray Armstrong, Ph.D.

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Major Director: Dr. Jesse Senechal
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Advanced Placement (AP) courses engage high school students with college curriculum taught

by trained high school teachers, with an opportunity for students to earn college credit by passing

the end-of-course AP exam. AP has evolved into an indicator of school quality, instructional

rigor, and a consideration in the college admissions process. AP enrollment and exam

performance outcomes for White students disproportionately surpass those for Black students.

This study attempts to inform practice, policy, and programming toward more equitable

enrollment outcomes for Black students through a single case study. The selected case school was the only high school among 38 in central Virginia serving a significant proportion of both Black and White students demonstrating proportional AP enrollment between the Black and White student populations. Evidence gathered in the single case study through interviews and document review was analyzed to answer the research question: how do school-level practices and policies influence proportional AP enrollment for Black and White students at a central Virginia high school? Coding and narrative analysis were used to assess the case school's practices, policies, and characteristics in the context of the four categories of school-based factors associated with equitable AP enrollment established by prior literature: curriculum characteristics, teacher training and awareness, family engagement and outreach, and student identification and recommendation processes. Equity was defined using overlapping social, racial, and educational equity frameworks within education and public administration. Findings showed that course recommendation processes, teacher training, unique school-based programming, course scheduling, instructional techniques toward increased rigor, and parent outreach are among the most significant school-level factors distinguishing the case school in its achievement of equitable AP enrollment between Black and White students, but that those school-level factors must be administered, executed, and nurtured in a school characterized by positive and encouraging relationships among students, staff, and leadership. It is recommended that equitable outcomes become a clear feature and requirement of local, state, and federal policy to prompt school personnel to work toward equity between Black and White students in AP enrollment and in the various processes and outcomes within public education. It is further recommended that policies and practices place an explicit premium on the power of relationships among stakeholders in each school in achieving equitable outcomes.

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Problem Statement

The College Board's Advanced Placement (AP) program has grown both in purpose and popularity since its inception in the middle of the 20th century. AP has evolved from a program designed to provide high school students, mostly White students attending exclusive private or suburban schools in the pre-integration era, with the opportunity to earn college credit while still in high school into a program that is now implemented nationwide in schools serving students of all racial and socioeconomic identities for the purpose of not only earning college credit while in high school as was originally intended, but more recently for the unintended purpose of strengthening the student's college application to compete against applicants nationwide in an admissions process that explicitly values AP as a primary indicator of "strength of schedule".

As the College Board, school divisions, policymakers, and school-level administrators have supported this proliferation of AP and its value toward increasing rigor in high schools nationwide, equity in AP course enrollment and AP test performance for non-White students, particularly Black students, has emerged as a concern due to the consistently disproportionately low enrollment in AP courses for Black students compared to their White student counterparts. This phenomenon has been discussed and researched, with the College Board, school divisions, schools, and researchers providing recommendations through policy, school-level exemplars, and literature toward improving access, participation, and outcomes for Black students in AP enrollment. Literature suggests that school-based factors, to include school practice and policy, can improve equitable enrollment for Black students through improved curriculum in the form of greater quantity and variety of AP course offerings, enhanced teacher training with a focus on course content and better cultural awareness in instruction, improved student course

recommendation and identification practices to enroll in AP, and improved family outreach and engagement, especially those efforts directed toward families of students of color.

This study examines the research question: how do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school? The study utilizes a single case study to identify the school-based factors that have supported equitable AP enrollment between Black and White students in a central Virginia high school that achieved equitable proportional enrollment between its Black and White students in the 2015-2016 school year, a unique phenomenon among 38 regional high schools in central Virginia.

Chapter 1: Introduction

The intervening years in American K-12 public education since the 1954 *Brown v. BOE Topeka* decision have been distinguished by the consistent and often dramatic ebb and flow of efforts toward equity in public education, from local and state efforts to resist school integration in the 1960s and 1970s, to the *Nation at Risk*-inspired focus on public education as a driver of global competitiveness of the 1980s, to federal legislation mandating standardized testing through the No Child Left Behind Act of 2001. The ongoing shaping of the landscape of public education-its purposes, processes, and systemic structures-is influenced by a multitude of diverging interests, efforts which contribute to frequent fluctuations in equitable access and outcomes.

A significant thread in the larger, multifaceted dialogue on equity in education is the statistical gap between Black and White student outcomes in public schools across various dimensions of the student experience. According to the United States Department of Education's Civil Rights Data Collection (CRDC), educational outcomes for Black students, who comprise 15.9% of the public school K-12 population as of 2012, reflect existing inequities. These inequities exist between Black and White students at most significant milestones and achievement indicators of the K-12 experience. This includes discipline, in which Black students are suspended from school at a disproportionately higher rate than White students. In 2012, 38.2% of school suspensions were attributed to Black students, who comprised 15.9% of the total K-12 population. In the same year, 34.5% of school suspensions were attributed to White students, who comprised 51.7% of the public school K-12 population (CRDC, 2014). Black students are also identified eligible for exceptional education services at a disproportionately higher rate than White students while, conversely, are identified for gifted services at a disproportionately lower rate. For example, in 2006, Black students comprised only 3.6% of

children in gifted programs (NCES, 2011) despite representing 17% of the U.S. school population at the time (Winsler et al., 2013, p. 418). The field of public administration recognizes these inequities within public education as part of the larger study of policy and administration. Woolridge and Gooden (2009) write, "Whether the topic is education, housing, employment, health, transportation, or poverty, there are two clear and dominant trends: (a)racial minorities tend to fare worse than their white counterparts; (b) those who are in poverty fare worse than the middle class and the wealthy" (p. 227).

Consider the goal of preparing students for college, a primary aim of K-12 education. Almost 60% of students in their first year of college have to take remedial courses (SREB, 2010), and certain groups of students, mainly those of color, those living in poverty, those receiving special education services, and those who are learning English, "…are more likely to be among the underprepared, often a result of fundamental systemic structures that place students on different academic paths" (Roegman and Hatch, 2016, p. 21). School divisions, state legislatures, and even past presidents have initiated programming and policy to address trends of inequity that continue to impact students of color in schools across the country.

Student enrollment in the Advanced Placement (AP) program, administered by the College Board, reflects similar trends of inequity. In its most recent *AP Report to the Nation* (2014), the College Board highlights the fact that Black students were the "most underrepresented group in AP classrooms and in the population of successful AP test takers" with only 9.2% of AP exam takers being Black from among an overall population of 14.5% Black students in the 2013 graduating class nationwide. 55.3% of AP test takers in the class of 2013 were represented by White students, who comprised 58.3% of the 2013 graduating class nationwide (2014, p. 30). These trends, though disheartening, are not surprising in the context of

the much-publicized dynamics of White v. Black performance across many metrics within public education. The potential solutions to the patterns of inequities within public schools are as complex as the policies, practices, attitudes, history, experience, and institutional structures that contribute to the patterns of equity and social justice both in public education and in an American society that continues to negotiate resolution of the enigma that is race relations and tolerance, one that is as old as the country itself.

This study informs school and division level practice and policy using a single case study method. The case school is a central Virginia high school that achieved proportional AP enrollment between its Black and White students during the 2015-2016 school year, a unique characteristic among 38 Virginia Region 1 high schools which are spread among various divisions including a wide variety of geographic, socioeconomic, and demographic identities. Through the single case study, evidence will be collected toward answering the research question: how do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school?

The introduction frames the historical and current dimensions of the AP program. I will discuss the structure of the AP program and the practical benefits of AP participation, both in its potential for earning college credit and its more recent evolution into a key factor for college admissions. I will then discuss the history behind the current AP program, with specific attention to foundational aspects of the program that have contributed to many of its challenges in equitable outcomes, the emergence of equity concerns within AP, and the current landscape of AP, including its presence in public policy. The introduction will conclude with the goals and purposes of the study and the characteristics of regional AP programs in central Virginia Region 1 high schools, which will include the case school used in the present case study.

Why AP?

Mere enrollment and completion of college-level AP courses while in high school is considered by many students to be the ticket to admittance into the college of their choice, and those who not only successfully complete the AP course but also pass the rigorous AP exam for the respective course with an acceptable score can be rewarded with credit at the destination university, which equates to both time and money savings for the college student. Adelman's (1999) longitudinal research highlighted the "…benefits of passing AP exam scores relating to higher GPAs, credit hours earned, and higher 4-year graduation rates" (Hargrove, et al., 2008, from Burney, 2010, p. 116*)*. According to Moore and Slate, in addition to the incentive of college credit in exchange for passing course-ending AP exams, research has indicated that having a high school transcript with "…even just one AP course nearly doubled the likelihood of a student graduating from college" (2008, p. 56). Other studies have cited passing AP exam scores related to higher GPAs, credit hours earned, and higher graduation rates for students attending college having been part of the AP program. Klopfenstein (2004) discusses the varied benefits of AP participation: "AP experience is useful not just as a screening device for college admission; it also improves retention by serving as strong college preparation. When children whose parents did not attend college pursue a rigorous high school curriculum, their chances of attending college dramatically improve…The academic culture provided by the AP Program can be particularly beneficial to minority students who may not be exposed to a culture of learning in other places" (p. 115). For high school students nationwide, AP has evolved from a unique and separate curricular experience into an essential enrollment choice for any student considering application to college. Access to AP has become a basic offering within a quality public

education for all students and must be considered part of the larger dialogue on equitable education and quality schools.

Enrollment in and successful completion of AP courses and AP exams represent not only an opportunity to earn advanced placement and credit at destination universities but have also become a foremost indicator of "strength of schedule", a significant criteria in the college admissions process. "Taking AP or IB courses and earning passing scores on the AP/IB exams has become almost a prerequisite to gaining entry into highly selective universities" (Geiser and Santelices, 2004, p.1). In the wake of recent debate over the validity of popular standardized admissions tests being used for the purpose of college admissions, higher level coursework has gained momentum in admissions. "Growing concern over the validity of the commonly used SAT and ACT scores in college admissions decisions (Rothstein, 2004; Vigdor and Clotfelter, 2003) have culminated in a report by a national organization of college admissions officers that argues for putting more weight on the AP/IB exams than the SAT/ACT scores because the former are more closely linked to high school curriculum" (NACAC, 2008). Higher-level high school courses, such as AP and IB, have also been found to correlate with high school achievement (Gamoran, 1987; Gamora & Hannigan, 2000; Jones, 1987).

Students denied access to AP, regardless of rationale, experience a disadvantage in college admission and timely college graduation. The College Board's 2013 Research Report entitled "Are AP students more likely to graduate on time?", included in their 2015 AP District Leader Playbook, a publication intended to provide guidance to division and school leadership in facilitating AP, includes findings that emphasize the correlations between AP and postsecondary outcomes. Chajweski, Mattern, & Shaw (2011) found that AP examinees are more likely to enroll in a four-year institution compared with similar students who do not take any AP exams

(pp. 16-27), and Mattern, Shaw, and Xiong (2009) found that AP examinees are more likely to persist and graduate on-time from college than students of similar academic ability who did not take an AP exam (p. 4). AP, though conceived as a program intended for the gifted elite, has evolved into a proxy for high school curriculum rigor, distinguishing students from among their peers as significantly as traditional standardized tests, and in many cases grades, in the college admissions process. Considering the weight AP has for students from all public schools competing for college acceptance, failure to provide equitable access to AP places affected students at a clear disadvantage.

The Evolution of AP

The College Board's Advanced Placement Program was not created in a vacuum, and understanding of the history of AP up to the present day is essential to understanding many of the factors that have contributed to AP's current challenge to increase equity of access, participation, and outcomes. Advanced placement existed in a less structured form well before The College Board created the AP Program in the early 1950s, with individual college administrators providing advanced placement to students of exceptional talent. Lacy (2005) notes three periods of "systematic thinking about advanced placement" during the 80 years between the Civil War and The College Board's founding of the AP Program in which "some of the most prominent names in educational philosophy and practice put forward their thinking on the nature of what would become advanced placement" (p. 20). Educational philosophy and practice moved from the "flexible promotion" and "acceleration" focus of the first phase from the end of the Civil War until 1900 to the "enrichment" and "ability grouping" focus for the next twenty years until 1920, when the progressive education era took place in public education with its focus on the need for gifted students to " move through the grades with their peers but to

follow an enriched curriculum" (Lacy, p. 21), rather than the exclusive separation of gifted students advocated by flexible promotion and acceleration. Flexible promotion and acceleration prioritized efficiency in promotion over social and developmental needs, referring to the process by which gifted students were encouraged to move through grades as quickly as they were able without missing any content. Essentially, flexible promotion and acceleration created the stereotypical "prodigy": a significantly younger than average student graduating from high school and enrolling in college at an abnormally early age.

Enrollment in higher education proliferated significantly during the years following World War II and the Korean War, with students taking advantage of the 1944 G.I. Bill and 1952 Veterans' Readjustment Assistance Act, both of which provided financial assistance to the thousands of young veterans intent upon continuing their education. With this surge in the higher education population, the value of efficiency in the admissions process grew in order for universities to accommodate the demand in enrollment. The efficiency manifested itself in several ways, including the use of SAT scores in addition to grades to process more applications, creation of opportunities for talented students to advance more quickly, and the opportunity to "test out" of courses. In the midst of the emerging role of The College Board, the Soviets launched *Sputnik,* increasing the demand by educators and politicians to "keep American students motivated and to foster the talent of the already gifted" (Lacy, pp. 23-24).

The Cold War also brought about a heightened need for political and scientific leadership, casting a light on the needs of the gifted and talented through AP. "One major concern was challenging talented students, moving them to and through college as swiftly and as effectively as possible, and then on to graduate school or the workplace" (Schneider, p. 815). AP was originally conceived as a mechanism to allow talented students to bypass the structural

limitations of traditional curriculum and move quickly to make tangible contributions to a society in the midst of the Cold War. "It was crucial, reformers like James Conant believed, that this talented minority of students be well-served, not simply for their own benefit, but for national security purposes" (Schneider, 2009, p. 817). During this era, AP was valued for its function as part of establishing American competitiveness in a rapidly changing world of technological and economic development. "The Advanced Placement Program was designed for high-achieving students at high-status schools in the US as part of an effort to create an academic elite. In the era of the Cold War, administrators at high-status high schools supported AP as part of their duty to challenge the best and brightest and, in so doing, create better leaders" (Schneider, 2009, p. 827).

The Fund for the Advancement of Education

The College Board, in its "A Brief History of the Advanced Placement Program", describes the pilot programs that culminated in the 1955-1956 school year as the AP Program, noting that two separate studies funded by the Ford Foundation's "Fund for the Advancement of Education" recommended that "...secondary schools and colleges work together to avoid repetition in course work at the high school and college levels to allow motivated students to work at the height of their capabilities and advance as quickly as possible" (2003, The College Board). While the College Board makes mention of only two FAE studies in its "A Brief History of the AP Program", the FAE supported five studies and experiments related to advanced placement. Lesser known experiments included the Early Admissions group, which involved "eleven higher education institutions and 420 first year students who began college two years early" and The Portland Project, which featured the respective staffs of both Reed College and

Portland, Oregon Public Schools working together to enhance the curriculum for gifted children and included more than 2,000 students in twenty-one Portland elementary schools (Lacy, p. 25).

Ultimately, the AP Program was shaped primarily by two projects, each with different aims that informed the final product that evolved into AP as it is known today. The "School and College Study of Admission and Advanced Standing" (SCAAS), also known as the Kenyon Plan for Kenyon College President Gordon Keith Chalmers, operated under the premises that gifted students were able to complete college-level work while still in secondary school, that trained secondary teachers could instruct this college-level content, and that allowing students to remain in the physical confines of the high school while taking college-level courses was the best practice socially for adolescents (Lacy, p. 26). The Kenyon Plan established the practical structure that still undergirds AP today: high school teachers undergo specialized training to deliver college-level content at the high school location to advanced learners.

The second project that shaped AP guided the philosophy, more than the practical structure behind the modern AP Program. The final report, published in 1952, was entitled "General Education in School and College: A Committee Report by Members of the Faculties of Andover, Exeter, Lawrenceville, Harvard, Princeton, and Yale". The study advocated a balance between student choice and core requirements and asserted "progression in strength"-the idea that a student could progress as far as possible in one content area regardless of achievement in another area (Lacy, p. 28). That is, there was no requirement that a student be an exemplary language student in order to take advantage of an Advanced Placement mathematics course. The committee also recommended the establishment of subject area tests to be administered by ETS to determine credit to be awarded after college admission (Lacy, p. 28).

Schneider (2009) outlines many of the early assumptions of the architects of the study, noting some of the yet unforeseen uses of AP:

> Those who crafted the report had a number of assumptions. The study leaders wanted to 'offer an opportunity and a challenge to…the strongest and most ambitious boys and girls' (School and College Study 1952: 5). However, because they believed that such advanced levels of work could 'be done only in exceptional secondary schools, public and independent, the opportunity would only be provided to the strongest students in high-status schools' (School and College Study 1952: 5-6). They also assumed that students would study advanced material and take placement tests to push themselves harder, not anticipating the use of such a program to gain status or an advantage in college admissions. (Schneider, 2009, p. 816)

Much of the current criticism and praise for AP can still be traced back to the contributing studies during the founding years of AP. Both studies were accused of elitism due to the elite character of the schools involved and the expectation that only the very top students should be afforded the opportunity. David Dudley, second director of AP shortly after the publication of the FAE studies, wrote: "the basic philosophy of the Advanced Placement Program is simply that all students are not created equal" (Schneider, 2009, p. 6). The purpose of AP was to "give high-achieving students at 'top' high schools, where they already had the luxury of being bound for prestigious colleges and universities, room to excel and an inducement to continue to work hard" (Schneider, 2009, p, 817).

At the time of the studies and the inception of the AP Program, before the Civil Rights movement and court-ordered desegregation, the vast majority of *White* students were not considered worthy of participating in the program. Students of color were not even an afterthought, and although access was technically expanded to students of color as the years progressed, it is reasonable to suspect that a program whose structure has not fundamentally changed since its establishment during the pre-integration era would retain structural characteristics that have impeded progress toward equitable access for all students.

Emergence of Equity Concerns

As the civil rights movement took shape in the 1960s, public education became a flashpoint of conflict, dialogue, legislation, and advocacy across the nation. AP was not immune to the impact of the civil rights movement in public education, and with its elitist foundations faced initial criticisms that resonate in the present day:

> Already by the late 1960s…there was growing equity-based criticism of AP. Moves to increase rigor were leaving 'regular' and 'slow' students behind, providing them a second-class high school education and shutting doors to post-secondary education. Addressing this critique would lead to the program's dramatic expansion and, consequently, create a new problem for leaders at the College Board…in 1969, only 14% of high schools had students taking AP exams, and over half of the schools that had students taking the exams had fewer than 10 doing so. (Schneider, 2009, pp. 819-820)

The emerging issue of equity and access in AP was associated with larger concerns facing the nation's schools and American society in their efforts to negotiate the expansion of civil rights. By 1970 attention had shifted to "…other issues, like the quality of education in inner-city schools and the dehumanizing impersonality of vast educational institutions" (Hochman, 1970, p. 16). During the democratic and egalitarian transformation of public education occurring in the late 1960s and early 1970s, reformers from underserved communities long denied quality education began to advocate that "All students…particularly those in underserved communities… deserved a challenging high school education and an opportunity for a university degree" (Schneider, 2009, p. 819).

The civil rights movement placed public education at the center of the national effort to institutionalize equal opportunity for all citizens, moving away from the existing structure characterized by tiers of opportunity, with suburban White students in both public and private schools occupying the top tier and being provided the greatest opportunity for postsecondary education. "Top flight American education had always been elitist and the democratic trends of

the sixties called for 'better education for the many, rather than the best education for the few'" (Rothschild 1999, p. 185). Public education took on much of the national liberal agenda as school reformers pursued egalitarian reforms promising to "clarify, expand, and protect the claims of the disadvantaged" (Schneider, 2009, p. 820). Within the AP program, one that at the time served primarily White students from suburban or private schools, some "began to regard the program as touched with…institutional racism" (Hochman, 1970, p. 17) due to the nearly non-existent participation of Black children at the time, most of whom were "largely confined to less-affluent urban schools" (Schneider, 2009, p. 820).

Although AP had expanded from the original elite private and boarding schools that had participated in the original FAE studies that developed the architecture of AP in the 1960s, the expansion was limited. "At the beginning of the 1960s, despite the fact that schools other than those that had participated in its design were adopting AP, the program was still reserved for 'the wealthiest independent schools and the high schools in affluent suburbia'" (Bragdon, 1960, p. 20). However, as AP experienced tremendous growth between 1975 and 1999, moving from 3,498 participating schools in 1975 to 12,886 in 1999, AP student diversity experienced similar growth, promoted by the College Board (Lacy, p. 35). The 1980s represented a "substantial movement toward racial, ethnic, national, and age democratization among examinees" within more "urban and multiracial schools" (Lacy, p. 35). By 1988, 19.5% of U.S. examinees were from minority populations (Rothschild, 1999).

With AP expanding its reach to more students from increasingly diverse schools and communities, policymakers began to take notice. By the mid 1990s government and nongovernmental initiatives were established in several states to promote AP by mandating the

offering of AP courses in schools, reimbursing testing fees, and funding coursework for teacher training and professional development (Lacy, p. 36).

AP Today

The College Board's Advanced Placement program has expanded since its beginnings in the middle of the twentieth century as a "small nonprofit association of elite colleges seeking to help high school students make a successful transition" implemented in 104 secondary schools among 1,229 students, into a program that included 2,611,172 students in 21,953 secondary schools in 2016 who took 4,704,980 exams (College Board). Since its first year of formalized existence in 1956, over 35,000,000 students have taken over 60,000,000 AP exams, and as of 2008 "twenty-five percent of graduating high school seniors in the United States" had taken at least one AP exam (College Board, 2008, appendix C). The AP program today consists of 37 AP exams administered in 22 subject areas, including modern and classical languages, social studies, natural and physical sciences, mathematics, art, music, and economics. Berger (2006) refers to the expansion of AP courses as analogous to "cellphones, lattes and once-elite products" that have now become "ubiquitous" (Schneider, 2009, p. 814).

AP has grown into what many educators, policymakers, and university officials consider the foremost indicator of educational excellence, both on the individual student level and on the collective level of secondary schools and divisions. Sadler (2010) describes AP as an "incontrovertible indicator or educational excellence by educators and politicians alike" and the "…juggernaut of American high school education" (p. 3). Major mainstream media publications include AP data in their calculations for popular rankings of high schools. The number of AP courses offered in schools and districts is an explicit criterion used in determining these ratings, including Newsweek's annual *Top Public High Schools*. U.S. News and World Report includes

"college readiness performance" as a requirement for inclusion in their annual rankings of the Best High Schools (www.usnews.com/education/best-high-schools/articles/how-us-news-calculated-the-rankings), while Newsweek includes "AP, IB, and AICE participation and performance" data in its calculation of America's Top High Schools (www.newsweek.com/frequently-asked-questions-about-newsweeks-high-school-rankings-2016-487909).

Students have responded, enrolling at an annual growth rate of 9.3 percent in the last two decades, dwarfing the 1 percent yearly increase in the number of students graduating high school (Hussar and Bailey, 2009, table 24; College Board, 2009a). The College Board has profited tremendously from the popularity of the AP program. Among the College Board's marquee programs, including the Scholastic Aptitude Test (SAT), SAT subject tests, and the Preliminary SAT (PSAT), AP stands out as the greatest revenue generator for The College Board, earning $230 million in revenues from the $582.9 million total revenues reported in 2006 tax returns (Sadler, 2010, p. 18). In 2017, the fee for students taking an AP test was $93.00 per test, with The College Board offering fee reductions of $31.00 to students with "significant financial need" (www.apstudent.collegeboard.org/takingtheexam/exam-fees).

AP and Public Policy

AP courses have become a focal point for policymakers to bring attention to the strengthening of the nation's high school curriculum, a phenomena that has repeated itself at various intervals in the history of American public education, usually in response to global events or reports warning of a lack of American global competitiveness: Sputnik, *Nation at Risk,* and most recently rankings of educational systems and outcomes among competing nations have all prompted rhetoric, action, legislation, and public policy in various forms.

AP is a popular subject of policy and legislation at the federal, state, and local levels. In the 1998-1999 school year, the US federal government spent $2.7 million subsidizing the AP examination fees for low-income students and professional development for AP teachers from low-income districts (Schneider, 2009, p. 821). State legislatures frequently require AP courses to be offered in high schools and mandate their value as college credit in state universities. West Virginia and Arkansas legislated that all high schools offer a minimum number of AP courses, while California initiated grants to increase and support the AP Program in California and to make AP courses available online to students (Zarate and Pachon, 2006). Many states have increased the number and rigor of courses that students are required to take in order to receive a high school diploma, and President George W. Bush's proposed reauthorization of the 2001 NCLB Act called on schools to "offer more rigorous coursework that better prepares students for postsecondary education or the workforce" (USDOE, 2007, p. 4).   In 2006, Bush publicly called for a "near doubling of the number of AP teachers in mathematics and science" (Sadler, 2010, p. 3) in his remarks on the importance of AP courses included in his State of the Union Address. The U.S. Department of Education launched a coinciding competitive grant program that offered funding to states and localities seeking to expand access to the AP program (Bush, 2006; USDOE, 2006).

More recently, The Council of the Great City Schools, the College Board, and the White House-through the *My Brother's Keeper* initiative-partnered to "…dramatically increase the proportion of students of color with AP potential who enroll in AP classes…the effort is built on a simple but powerful idea: Every African American, Hispanic, and Native American student who is ready for AP should take AP" (District Leaders Playbook, p. 7). A key aim of this initiative was to train more teachers in college preparatory classes, namely Advanced Placement

(AP) and International Baccalaureate (IB) classes, and encourage them to work in schools that serve low-income, Black, and Hispanic students.

Diversity in AP

For much of its existence, the AP program served a small subset of students: those considered gifted. Compounded with its original establishment within a "handful of Northeastern schools", the original target population for AP consisted of students who were White and economically privileged. This original context of the AP program, privileged and homogenous elite before the nationwide movement toward expanding college accessibility, has lingered despite efforts to enhance AP equity and accessibility. The AP program has grown considerably since the 1950s, but "with major racial and economic inequalities persisting" ("The Road to Equity", 2013, p. 2). Only in recent years have the College Board and educational institutions placed a premium on opening up the opportunity for those traditionally not included in AP programming to participate. Efforts by the College Board to improve access have been prompted by the greater visibility of AP and associated scrutiny of outcomes and opportunity provided to traditionally underserved populations.

Overall enrollment in AP courses has nearly tripled since 2000, with 2 million students taking 4 million exams in 2012; more importantly, the "number of African-American, Hispanic, and Native American exam takers grew from 83,000 in the graduating class of 2002 to 263,000 in the class of 2012" (The Road to Equity, 2013, p. 2). Despite the overall growth and minority growth in student AP participation, according to the College Board's *9th Annual AP Report to the Nation,* "Black/African-American graduates were the most underrepresented group among AP exam takers" (2012, p. 20): 14.5% of AP students were African-American, and 58.5% of AP students were White in 2012. Only 9.2% of African-American students were administered the

AP examination, compared to 56.4% of the White student population. Though the AP program

has expanded to include 85 percent of students nationwide attending schools that offer AP, when

we look inside those schools, it becomes clear that there remains a tremendous gap in who

participates in AP. "African American, Hispanic, and low-income students are less likely to

participate, even when they come from schools in which they are in the majority. Indeed, these

patterns of unequal access are consistent across all categories of schools" (Access to Success:

Patterns of Advanced Placement Participation in U.S. High Schools, ETS, 2006). Previous

studies have also identified postsecondary achievement gaps in which Black and Hispanic

students perform lower than White students as measured by college GPA (Culpepper &

Davenport, 2009; Young, 1994) (Kettler and Hurst, 2017, p. 14).

As AP grew in popularity and transformed from an opportunity to earn college credit

into a vehicle to gain admittance into college, questions began to arise about the opportunities for

all students-especially those other than the traditional private and suburban AP students who had

traditionally been afforded the opportunity to take AP courses-to have a fair chance when

compared to their peers nationwide. The College Board, the non-profit organization that

administers the AP program, issued its *AP Equity Policy Statement* in 2002, which states:

> The College Board and the Advanced Placement Program encourage teachers, AP
> Coordinators, and school administrators to make equitable access a guiding principle for
> their AP programs. The College Board is committed to the principle that all students
> deserve an opportunity to participate in rigorous, academically challenging courses and
> programs. All students who are willing to accept the challenge of a rigorous academic
> curriculum should be considered for admission to AP courses. The Board encourages the
> elimination of barriers that restrict access for AP courses to students from ethnic, racial,
> and socioeconomic groups that have been traditionally underrepresented in the AP
> program. Schools should make every effort to ensure that their AP classes reflect the
> diversity of their student population. (College Board, 2002)

In his introduction and overview to *AP: A Critical Examination of the Advanced*

Placement Program, Sadler writes, "The disparity in educational attainment between students of

high and low economic status and among different racial and ethnic groups is a national

concern. Social equity is also a stated concern of the College Board…closing the achievement

gap by equalizing educational opportunity can allow students to fulfill their potential, thereby

loosening the bonds of intergenerational poverty and increasing productivity" (2010, p. 8).

To further encourage equity in AP administration, the College Board provides an annual

"AP Potential" report to all participating high schools and districts, classifying students

considered to have legitimate chances of success in the AP course and subsequent exams based

on student performance in specific sections of the Preliminary SAT/National Merit Scholarship

Qualifying test, which is administered to all 10th grade students annually. Earliest mention of

the use of PSAT scores to predict AP success is found in the unpublished 1983 College Entrance

Examination Board report by Haag, entitled "Using the PSAT/NMSQT to Help Identify

Advanced Placement Students". Camara and Millsap, in the 1998 College Board Report (98-4)

entitled "Using the PSAT/NMSQT and Course Grades in Predicting Success in the Advanced

Placement Program", conclude that "many factors should be considered in making course

placement decisions", including previous and prerequisite courses, grades, student interest,

motivation, and content interest. PSAT data should be used to "supplement" these data and

provide guidance to schools in expanding and offering AP courses (p. 23).

The College Board, in its February 20, 2013 press release entitled "Class of 2012

Advanced Placement Results Announced", noted that "more than 300,000 students identified as

having a high likelihood of success in AP did not take any recommended AP Exam…These data

revealed significant inequities in AP participation along racial/ethnic lines" (p. 1). In a 2012

article from *Inside Higher Ed*, Smith writes that "despite efforts to offer college-level courses to

more high schoolers, new data show 80 percent of Black graduates whose PSAT scores

suggested they could have succeeded in an Advanced Placement course never enrolled in the

classes. The rate drops to about 40 percent for Asians and 60 percent for Whites" (2012, p. 1).

Seen relative to the larger dynamic of inequities and race in the United States, the

underrepresentation of Black high school students in the AP program is a small but potentially

informative arena for research and analysis toward more equitable outcomes in AP enrollment

and improved equitable outcomes in public education. In its 2014 *AP Report to the Nation,* the

College Board dedicates attention to equity and the importance of expanding access and closing

the diversity gap that exists among racial and ethnic groups within the participating population of

AP students, citing the proportion of students who do not take AP courses despite being

"academically ready for the rigor of AP" based on the College Board-endorsed "AP Potential

Report" (2014, p. 28). The report states, "Currently, the strongest predictor of success in many

AP courses is a student's performance on particular Preliminary SAT/National Merit Scholarship

Qualifying Test (NMSQT) sections that are highly correlated to success in AP" (p. 28). The

report then provides statistics illustrating the proportion of *qualified* students based on AP

potential/PSAT results who then enroll in AP courses. Only 40% of students showing "high

potential" in an AP science course based on the AP potential report participate in a

recommended science course. For Black students, only 30% of students demonstrating AP

potential participated in an AP science course, compared to 40% of White students in 2013-2014

(AP Report to the Nation, p. 29). A 2012 Inside Higher Ed report notes that "despite efforts to

offer college-level courses to more high schoolers…80 percent of Black graduates whose PSAT

scores suggested they could have succeeded in Advanced Placement courses never enrolled in

the classes", compared to 40 percent for Asians and 60 percent for Whites (Smith, 2012, p.

1).   In its "District Leadership Playbook: Expanding Access to Advanced Placement for

Students of Color", the College Board writes, "Every year, thousands of Black, Hispanic, and Native American students miss out on an opportunity to realize their potential because they do not enroll in Advanced Placement (AP) courses in which they are likely to succeed. Among students of color in the Council of the Great City Schools (CGCS) class of 2014, those numbers ranged from nearly 5,000 in mathematics to over 12,00 in history/social studies" (p. 3).

The College Board's advice to schools and teachers is to utilize the AP Potential report to identify prepared students, add a new AP course or expand the sections of existing AP courses to meet demand, and host events to recruit students for and inform parents about AP (*2014 AP Report to the Nation,* p. 28). Utilization of the AP Potential report to engage more qualified students in AP, expansion of AP course offerings, and parental outreach about AP are three important action steps toward closing the equity gap in AP. Existing research supports inclusion of these action steps as outlined by the College Board within a more extensive list of actions steps.

Central Virginia High School AP Enrollment: Region 1

In December of 2016, I made initial contact with the Virginia Department of Education (VDOE) staff to inquire about the availability of AP enrollment information by Virginia high schools, by race. The VDOE staff requested a proposal and justification for the data request. A proposal was submitted requesting AP enrollment by race data for 2013-2016 for the 38 high schools of the VDOE Region 1. Region 1 is one of 8 VDOE regions, and includes a diversity of school division and school settings, including large county systems of 50,000 or more students, urban systems, small rural divisions, and midsize suburban divisions. (http://www.doe.virginia.gov/directories/schools/school_info_by_regions.shtml).

In the spring of 2017, after multiple follow-up communications to inquire about the status of the data request, the VDOE provided the 2015-2016 AP enrollments by high school, by race for each of the Region 1 high schools. Using the data provided, a table was created to compare the percent overall Black enrollment per school to the percent Black enrollment in AP courses (see Table 1). The difference between percent overall Black enrollment and percent Black enrollment in AP courses was used to determine the level of equitable enrollment by race.

Table 1: Overall Enrollment and AP Enrollment, Virginia Region 1 High Schools

(NA indicates that the n is too small to be reportable or data was not reported by the school)

(All division and school identities have been made anonymous by use of letters and pseudonyms)

AP Enrollment Data-Region 1

Division	School	Total Enrollment	White Enrollment	% White Enrollment	Black Enrollment	% Black Enrollment	Total AP Enrollment	% AP Enrollment of Total Enrollment	White AP Enrollment	% White AP Enrollment	Black AP Enrollment	% Black AP Enrollment	Variation
A	Acacia	216	57	26%	140	65%	NA	NA	NA	NA	NA	NA	NA
B	Almond	1886	1080	57%	471	25%	368	20%	271	74%	43	12%	-13%
B	Alder	2074	1513	73%	290	14%	629	30%	446	71%	83	13%	-1%
B	Anise	2159	1293	60%	342	16%	709	33%	576	81%	43	6%	-10%
B	Apple	1844	716	39%	707	38%	310	17%	166	54%	76	25%	-14%
B	Apricot	2028	1135	56%	576	28%	321	16%	217	68%	53	17%	-12%
B	Ash	1833	915	50%	732	40%	428	23%	272	64%	120	28%	-12%
B	**Aspen**	**1649**	**130**	**8%**	**911**	**55%**	**140**	**8%**	**15**	**11%**	**83**	**59%**	**4%**
B	Balsa	1563	1171	75%	151	10%	481	31%	367	76%	26	5%	-4%
B	Bayberry	1437	783	54%	439	31%	411	29%	268	65%	85	21%	-10%
B	Beech	2293	1167	51%	718	31%	432	19%	252	58%	92	21%	-10%
C	Birch	1352	723	53%	483	36%	80	6%	60	75%	20	25%	-11%
D	Bismarck	821	569	69%	165	20%	189	23%	171	90%	18	10%	-11%
E	Canary	1716	1471	86%	117	7%	518	30%	456	88%	22	4%	-3%
E	Cashew	1312	1103	84%	116	9%	329	25%	293	89%	26	8%	-1%
E	Cedar	1571	1278	81%	181	12%	123	8%	123	100%	NA	NA	NA
E	Cherry	1454	1132	78%	198	14%	360	25%	315	88%	35	10%	-4%
F	Chestnut	1726	1258	73%	90	5%	716	41%	532	74%	28	4%	-1%
F	Citron	1779	1173	66%	224	13%	572	32%	481	84%	19	3%	-9%
F	Coconut	1749	1087	62%	321	18%	612	35%	428	70%	66	11%	-8%
F	Cottonwood	1747	190	11%	1274	73%	217	12%	62	29%	125	58%	-15%
F	Cypress	1623	492	30%	785	48%	287	18%	129	45%	90	31%	-17%
F	Dogwood	1788	200	11%	1430	80%	306	17%	60	20%	220	72%	-8%
F	Elm	1681	589	35%	524	31%	397	24%	134	34%	129	32%	1%
F	Hickory	1831	1315	72%	151	8%	584	32%	426	73%	18	3%	-5%
F	**Juniper**	**1669**	**406**	**24%**	**1125**	**67%**	**204**	**12%**	**67**	**33%**	**137**	**67%**	**0%**
G	Laurel	939	720	77%	111	12%	62	7%	62	100%	NA	NA	NA
H	Mimosa	1456	1261	87%	94	6%	328	23%	328	100%	NA	NA	NA
I	Magnolia	1426	721	51%	480	34%	NA	NA	NA	NA	NA	NA	NA
J	Maple	274	100	36%	169	62%	NA	NA	NA	NA	NA	NA	NA
K	Mesquite	336	73	22%	250	74%	NA	NA	NA	NA	NA	NA	NA
L	Mulberry	899	629	70%	132	15%	65	7%	65	100%	NA	NA	NA
M	Myrtle	1145	377	33%	612	53%	77	7%	46	60%	31	40%	-13%
N	Nutmeg	795	27	3%	725	91%	14	2%	14	100%	NA	NA	NA
O	Oak	974	17	2%	939	96%	50	5%	NA	NA	50	100%	4%
O	Orchid	1513	83	5%	995	66%	55	4%	NA	NA	55	100%	34%
O	Palm	741	43	6%	682	92%	89	12%	NA	NA	89	100%	8%
O	Palmetto	875	45	5%	719	82%	38	4%	NA	NA	38	100%	18%

Analysis of this data revealed the following:

- Total enrollment of all Region 1 high schools included 18,569 Black students and 27, 042 White students in addition to 4,493 Hispanic students and 2,135 Asian students. Black students comprised 40.7% of the total Black and White student enrollment of Region 1

high school students, while White students comprised 59.2% of the total Black and White student population of Region 1 high schools.

- 15 of the 38 Region 1 high schools served student populations of 40% or more Black students from among the total student enrollment including all racial and ethnic groups.

- Of the 15 Region 1 high schools serving student populations of 40% or more Black students, 4 of the high schools reported no AP enrollments for 2015-2016.

- Of the 11 Region 1 high schools serving student populations of 40% or more Black students reporting AP enrollment among Black students, 6 high schools enrolled Black students at rates 8% lower or more than the AP enrollment among White students in the same schools.

- Of the 6 Region 1 high schools serving student populations of 40% or more Black students, reporting AP enrollment among Black students at rates within 8% or lower of the AP enrollment percentage among White students, 4 of the 6 high schools served non-Black populations of less than 10% of the total student population.

In summary, of the 38 Region 1 high schools, 15 served a proportion of Black students equal or greater to the aggregate proportion of Black students in Region 1 (40%). Of the 15 schools serving student populations of 40% or greater of Black students, only 2 enrolled significant populations of both Black and White students. Those 2 schools are Aspen High School, and Juniper High School, located in adjacent large, suburban divisions in central Virginia.

Aspen High School houses two specialty programs that require significant advanced coursework, including AP-the International Baccalaureate Program and an additional specialty program geared toward digital entrepreneurship. Aspen High School serves a student population

of nearly 1,700 students, of whom 50.5% are Black and 35.0% are Hispanic. Though only 8% of Aspen High School's students are White, White students represent 11% of the AP enrollment.

Juniper High School hosts one specialty program, which requires enrollment in AP courses in English only during the 11th and 12th grade years. Juniper High School serves a student population of nearly 1,700 students, of whom 67.0% are Black and 24.0% are White. 67% of the total AP enrollment at Juniper High School is represented by Black students.

Considering Juniper High School's clear and unique proportional AP enrollment among Black students in a school setting that is minimally distinguished by specialty programs that can potentially skew AP enrollment data-that is, students are more likely to *choose* an AP course than take an AP course based on a requirement of a specialty program-Juniper High School was selected as the case school upon approval by division and school personnel.

It is important to note the role of International Baccalaureate (IB) classes when choosing the case school from among the 38 Virginia Region 1 high schools. While IB courses are similar in purpose as AP courses-high school coursework designed to provide college-level rigor and strengthen post-secondary opportunities for college admission-AP is much more frequently encountered among U.S. high schools. As of 2014, 14,000 high schools offered AP courses while only about 450 offered IB courses. IB courses are offered as part of a larger IB program, a "high-level standard curriculum" that was developed by teachers of the International School of Geneva, intended for the children of diplomats and international business executives (Matthews, 2004). Among the Virginia Region 1 high schools from which the case school was selected, IB is offered in a handful of schools, but it is not offered exclusively-both AP and IB courses are offered at the IB schools. Students in the IB program, however, are prescribed a comprehensive curriculum that includes several mandated IB courses, while AP program participation does not

require the same concurrent courses or sequence of curricular requirements. The case school, Juniper High School, does not offer IB courses. Though IB programming at a school may limit AP coursework options through the logistics of scheduling, it would not completely prevent IB students from enrolling in AP courses. In several schools offering IB programs, students will take both AP and IB coursework.

The wide range of AP enrollment patterns and the overwhelming lack of proportional Black enrollment in AP among the central Virginia Region 1 high schools is a clear indication that regional high schools reflect national patterns of disproportionally low AP enrollment by Black students. To attempt to answer the research question and understand how one school has achieved equitable AP enrollment for its Black students, Juniper High School was chosen as the setting for the study based on its outcomes.

Description of the Case School: Juniper High School

The following table includes data from the Virginia Department of Education School Quality Profile for Juniper High School related to enrollment for the 2015-2016 school year. This table paints a clearer picture of the demographic makeup of the case school for analysis. As the table indicates, Juniper High School enrolled 1,669 students during the 2015-2016 school year, of whom 1,125 were Black students, slightly over 300 received exceptional education services, and over 900 were considered economically disadvantaged. The racial makeup of Juniper High School is predominantly Black and White; less than 100 students were Hispanic, Asian, or of another race.

According to the division's profile for Juniper High School, the school employs approximately 120 teachers and 6 counselors. 130 students are enrolled in Juniper High's specialty center, a thematic magnet program available for rising 9th graders division-wide to

apply to continue their thematic interest through the specialized curriculum offered at the center. 33% of graduation seniors are listed as destined for 4-year universities, while nearly 65% of graduating seniors intend to attend a 2-year college, the military, or work.

Juniper High School's history is unique. It is located in an inner suburban area of the City of Richmond that was, until the latter part of the 20th century, primarily an agricultural center on the extreme end of a large suburban county that currently enrolls over 50,000 students in 9 comprehensive high schools. During the course of the past twenty years, significant portions of what was once farmland have been developed, creating several affordable housing subdivisions being served by the reputable school division of Juniper High but also being geographically proximate to downtown Richmond. The proportion of Black students at Juniper High has gradually increased while the proportion of White students has gradually decreased since the turn of the 21st century, but significant populations of both Black and White students are still accounted for at Juniper High School.

This is important in the context of the school division that includes Juniper High among its 9 comprehensive high schools. The division, like many divisions in Region 1 and Virginia, tends to administer high schools that serve highly concentrated racial populations of Black and White students. Within its division, Juniper is joined by two other division high schools with student populations indicative of relative diversity.

Figure 1: Juniper High School Detailed Report for 2015-2016 school year-adapted from VDOE School Quality Profile (from www.doe.virginia.gov)-Enrollment

FALL MEMBERSHIP BY SUBGROUP

2016 Fall Membership By Subgroup: Racial and Ethnic Groups

Legend: Black | Hispanic | White | Asian | Two or more races | American Indian | Native Hawaiian
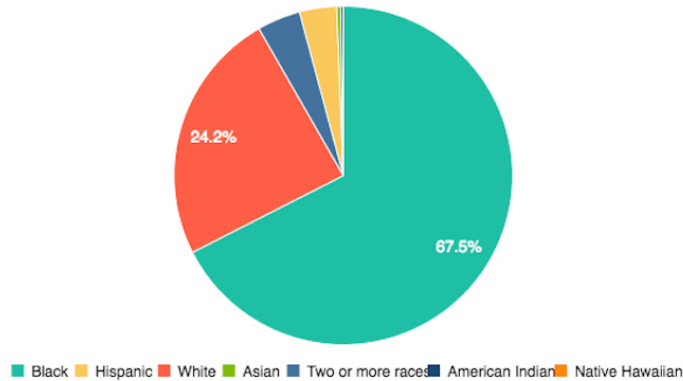
Fall Membership by Subgroup			
Subgroup	2014-2015	2015-2016	2016-2017
All Students	1706	1669	1603
Female	816	784	735
Male	890	885	868
American Indian	7	9	4
Asian	10	10	6
Black	1145	1125	1082
Hispanic	49	58	57
Native Hawaiian	1	1	
White	430	406	388
Two or more races	64	60	66
Students with Disabilities	273	303	306
Not Students with Disabilities	1433	1366	1297
Economically Disadvantaged	831	935	812
Not Economically Disadvantaged	875	734	791
English Learners	19	13	12
Not English Learners	1687	1656	1591
Homeless	24	13	18
LEGEND	< = A group below state definition for personally identifiable results - = No data for group * = Data not yet available Unduplicated = Students are able to be in two gap groups		

To develop the research design, the literature review sought to identify the school-based characteristics and practices cited in previous studies and research that will guide the case study protocol and data collection during the Juniper High School case study. Findings will potentially inform practice, policy, and programming at the classroom, school, and division level toward improving opportunities and outcomes for Black students.

Goals and Purpose of Study

To provide broad recommendations to school personnel in an effort to spur more equitable outcomes across dimensions of race in AP enrollment without a more nuanced and practical explanation is akin to advising an individual who wants a great dinner party to make a consommé without providing the recipe. The dynamics at play in any public high school are highly complex and unique to each of the over 26,000 high schools in urban, suburban, and rural communities across the school divisions of the nation. Creation of a school culture that not only values equity but additionally makes equity an explicit goal of daily practice requires thoughtful and intentional implementation, evaluation, and refinement of expectations, instructional practices, and purposeful programming that engages the entire school community-not just those who traditionally choose to engage themselves.

The focus on these "school-based" factors and their impact on equity in AP enrollment extends existing research that remains fixed for the most part in a primarily quantitative and descriptive framework, focused on statistical correlations between AP enrollment and demographic data. Despite significant research describing the correlations among race, AP access, and equity, research exploring individual practices taking place within schools is relatively rare. According to Kettler and Hurst (2017), "There is very little existing research on which school-level factors associate with variance in ethnicity gaps in advanced

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academics…mixed methods approaches with those schools may yield insights that were beyond the scope of this study" (p. 15). It is my hope that this study will provide a glimpse into the work taking place in a selected school that currently demonstrates success in providing a greater degree of equitable access to AP within a diverse school population. Within this work will hopefully be found school-level practices and characteristics with potential for universal implementation and replication in all high schools toward the ultimate goal of improving equity through a reduction in the enrollment gap between Black and White high school students in AP courses.

School-level practice and the experiences, opportunities, and interactions of the Black student in American high schools is where progress toward equity can be made. The macro-level perspective of inequity in schools is built from the innumerable daily experiences of each student that transpires among homes, communities, schools, offices, and classrooms each day. Walker and Pearsall state in their "Barriers to Advanced Placement for Latino Students at the High-School Level", "Race and socioeconomic status do not predict what a student can learn, but they are factors that have been shown to predict how educators and schools (through policy, procedure, and programming) will treat minority and economically disadvantaged students" (2010, p. 22).

As an educator and a citizen, I am certain that efforts toward equity will benefit our society as a whole, and as a researcher I hope to provide information and add to knowledge that can be applied to school-based efforts to adjust practice in order to progress toward more equitable outcomes. The research question that will drive this study is:

How do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school?

This research question will be answered in the setting of one central Virginia high school based on a review of overall enrollment patterns and AP enrollment by race in the 38 high schools that comprise the Region 1 high schools of central Virginia.

Chapter 2: Review of the Literature

This review of literature will begin with an exploration of a central concept within the study, that of *equity.* While the term equity is used often to describe the processes and functions of various institutions, including public education, it is essential to orient this study toward a clear framework of equity using not only existing theory on educational equity, but also the overlapping and informative theories related to social and racial equity in public administration. While school-based educational administrators may not easily fall into the category of public administrators in the traditional sense, a consideration of social equity and its definition in the field of public administration is of value to this study and will be explored within the theoretical considerations. As Gooden and Portillo (2011) write, "…current research in the field of public administration and policy points to continued evidence of substantial ethnic and gender-based disparities in areas such as housing, health care, employment, criminal justice, and education…Now, more than ever, is the time for a renewed focus on social equity both in practice and study public administration" (p. i63). Inclusion of both public administration and educational theory related to equity will frame school-based practice and policy in this study.

After the exploration of equity as the central concept of the study, I will then shift toward a review of prior research related to school-based factors impacting AP enrollment, beginning with an overview of literature citing the importance of school-based factors. Following this overview, the review of literature will be divided into several specific categories of school-based factors and characteristics, categories that emerged as the most significant based on the overall review of literature. A case study conducted at the division level in Arlington County, Virginia, public schools will then be reviewed, followed by a review of literature relating to unique programming implemented to improve equitable outcomes for Black and Latino students. The

review of literature will conclude with a conceptual framework based on the school-based factors identified in the review of literature, which will transition to the methodology proposed in chapter 3.

An essential distinction to be made in this study is the distinction between school-based factors and fixed contextual factors. School-based factors include those characteristics, practices, or policies that are within the control of the school in the support of equity, according to the research. These factors are driven by school staff, sometimes in spite of a lack of support or encouragement from the school division or broader entities, such as the College Board. A teacher's encouragement to a student through an individual conversation, an evening event inviting parents of students with potential to achieve in AP classes, a professional learning community comprised of a school's AP teachers with a focus on improving equitable enrollment, a counseling department's collective decision to schedule students using a holistic approach rather than simply assessing grades and test scores, or school training toward inclusive practice-these are all actions and practices that are considered as school-based factors. Fixed contextual variables are those that, though statistically associated with certain levels of achievement, are not necessarily indicative of an individual student's potential but are unfortunately considered by schools when denying opportunity to students, especially students of color and students of poverty. Fixed contextual variables include those such as family income, educational level of parents, discipline history, community demographics, race, or disability. A public school concerned with creating equity will implement school-based factors-practice, process, and policy-to counteract the fixed contextual variables that, in schools unconcerned with equity, are allowed to determine a student's educational destiny. In a post-*Brown v. BOE* American system of public education, schools that have refused or otherwise neglected to consider the significance

of equity and the implementation of innovative and explicit practice to improve equity in all dimensions of the student experience are now confronted with the highly public disparate achievement and treatment of students in a continually diversifying national public school population.

Theoretical Considerations: Equity

The concept of equity as a goal of practice and policy has been applied to varying fields of social science. Ostrom (2007), in her analysis of institutional rational choice, considers equity in the context of the institutional analysis and development framework (IAD), a public policy model of theory examining the interactions among incentives, institutions, and individuals, frames equity as an "evaluative criteria" applied to the outcomes of institutional arrangements (p. 33). Equity is assessed "on the basis of the equality between individuals' contributions to an effort and the benefits they derive and…the basis of differential abilities to pay." Equity goals temper efforts to distribute resources toward maximum efficiency, considering the neediest within a system (p. 34).

In Johnson and Svara's "Justice for All: Promoting Social Equity in Public Administration" (2011), Gooden and Woolridge cite the 2000 National Academy of Public Administration's Board of Trustees Standing Panel on Social Equity's definition of social equity: "[t]he fair, just, and equitable management of all institutions serving the public directly or by contract, and the fair and equitable distribution of public services, and implementation of public policy, and the commitment to promote fairness, justice, and equity in the formation of public policy" (p. 247). While the administration of the service of public education may fall outside the more frequently cited fields of public administration, this definition of social equity is still

applicable, and the management of AP, even at the school level, should be conducted in a "fair, just, and equitable" manner as indicated by the NAPA definition of social equity.

Social equity within public administration became an explicit emphasis of practice as a result of the dialogue engaged at the first conference at Minnowbrook in 1968, and has been revisited in subsequent Minnowbrook conferences as the role of social equity in public administration has been defined and refined (Gooden and Portillo, "Advancing Social Equity in the Minnowbrook Tradition", 2011, p. i62). The historical context of Minnowbrook is not without significance-Frederickson writes in the opening to his 1990 "Public Administration and Social Equity":

> It was 1968. Inequality and injustice, especially based on race, was pervasive. A government built on a Constitution claiming the equal protection of the laws had failed in that promise. Public administrators, those who daily operate the government, were not without responsibility. Both in theory and in practice public administration had, beginning in the 1940s, emphasized concepts of decision making, systems analysis, operations research or management science, and rationality. In running the government the administrator's job was to be efficient…or economical…it should be no surprise, therefore, that issues of inequity and injustice were not central to public servants or to public administration theorists (p. 228).

As noted in the prior section devoted to the history of AP, the same era of social unrest and racial conflict was generating similar discussions in American public education, questioning the value of a structure of American schooling that, in its segregated, "separate but equal" design was only disrupted with the reluctant responses of states and localities in response to the *Brown v. BOE* decision. While the Minnowbrook conference may not have been directly related to public education, the resulting inclusion of social equity within public administration theory and practice applies to educational policy and practice. The same balance that is constantly negotiated in public administration between efficiency and equity exists in public education, but as Gooden (2009) notes, equity is not necessarily a compromiser of efficiency (p. 147). A

Minnesota return-on-investment study of youth intervention programs found that the returns

significantly outweighed the investments through "…reductions in court costs, dropout rates,

adult crime prosecution, and expenditures on public assistance" (p. 147). It is reasonable to think

that though maintaining the processes, practices, and policies undergirding the status quo that

continue to produce inequitable access and outcomes for Black students in AP may be more

efficient in that it requires little thought, action, or funding past offering an AP program at the

school level, it would be well worth the investment of evaluating and adjusting school and

division practice and policy to enhance equitable outcomes for Blacks students in AP.

Frederickson references public education in his discussion of the "norms of equal shares

and equal procedures", stating that "In schools, equal or fair procedures are important to just

determination of grades. In schools, families tend to move somewhat away from strict individual

equality toward a differentiation based on investment, such as the handicapped child's needing

more, an example of Rawlsian justice" (p. 234). In a current landscape of public education

characterized by disproportionately negative outcomes for Black students, social equity theory

applies to public education and its administration toward greater social equity. Frederickson lays

the blame for race-based service inequity in public education on the unique nature of the school

bureaucracy, in that "School bureaucracies have virtually no control over interdistrict funding

levels" and the "…lack of a genuinely professional public service" in public education compared

to the more predictable and consistent areas of public service that operate with a greater

awareness of social equity (p. 235). Though Frederickson's focus in this observation is primarily

school funding inequity, the administration of equitable programming in schools and school

divisions, programming such as AP and all of the related school-based practices needed to

successfully manage it, including teacher training, outreach, and course availability, is significantly complicated without equitable funding.

Gooden, in her "Race and Social Equity: A Nervous Area of Government" (2014), distinguishes between public justice and social equity, highlighting the systemic characteristics of an organization toward social equity, a useful explanation in the context of the current study. While public schools and divisions, like any public organization, may concern themselves with public justice as a larger organizational value, social equity is "…more concerned with the actual delivery of public services" (p. 5). This "delivery of services" in public schools takes place primarily at the school level, and the school-based factors of concern in this study are what drive the "delivery of services": the interactions among processes, staff, students, and communities in the public school toward provision of opportunities to students.

In their July 20, 2012 AP Annual Conference presentation "Data-Based Decision Making: The Road to AP Equity", Edwards and Duggan define equity in education as "*All* students receiving the support they need to reach and exceed a common standard", and access as "an institution's ability to provide *all* students with academically challenging course work" (p. 10). The presentation includes a long list of College Board Equity and Access Initiatives available to those in the schools delivering AP:

- National AP Equity Colloquium
- AP Fellows
- AP Spotlight on Success Stories
- Organizational Strategies for Maximizing Equity & Access in K-12 Schools and A Self-Assessment for Maximizing Equity & Access in K-12 Schools
- Diversity Conferences
    - Dream Deferred (for Black students)
    - Prepárate (for Latino and Hispanic Students)

- o   Native American Student Achievement Initiative
- The College Keys Compact
   - o   Call to action to member-school districts, colleges and universities, state education agencies, and nonprofit organizations with the mission of making college access and success a reality for all students, including those from low-income backgrounds.
- National Office for School Counselor Advocacy (NOSCA)
   - o   Promoting the value of school counselors as leaders in advancing school reform and student achievement. (pp. 11-12)

Despite the dedicated programming available from The College Board, the 2010 AP Participation Survey reported that "the majority of public schools (60%) were not using data to identify inequities. "True equity is not achieved until the demographics both of AP classrooms and of the successful AP student mirror the demographics of the state and nation" (p. 16)

Another useful and appropriate framework for analysis of the impact of school-based factors toward equity in the current study is Brookover and Lezotte's "Educational Equity: A Democratic Principle at a Crossroads" (1981). The authors introduce their three criteria for "determining if equitable education occurs through desegregation and the effects of other educational programs" (p. 65): access, participation, and outcomes. These criteria have evolved from the first mention of equity in federal policy with the 1954 *Brown v. BOE Topeka* decision through an examination of past and current federal policies, suggesting that the three standards of access, participation, and outcomes "are now being used to judge whether educational programs at the local level are in fact advancing the principle of educational equity" (p. 65).

Access Standard: School desegregation is widely considered the major policy within federal efforts to advance equal education. Legislation and court cases related to desegregation "rest on the standard of equal access to educational facilities and services" (Brookover and Lezotte, p. 66). Although the removal of barriers to access is a necessary condition to equitable education,

removal of barriers alone is not sufficient to establish "fully operational" equitable education, although many do believe just that-that providing access through the removal of barriers creates an equitable educational experience. School policies and procedures traditionally implemented to improve equitable AP enrollment for Black students reflect this idea: that once barriers are removed, the division and school personnel have done the necessary work to create equitable opportunity, participation and outcomes notwithstanding.

For example, High School A undergoes a redistricting. Population shifts and the school now serves a significantly higher proportion of Black students than it served three years ago. Personnel have remained relatively constant. Data show that the school has significantly disproportional lower enrollment by Black students in AP courses compared to the proportion of White students enrolled in AP classes. School and division personnel decide to remove what they perceive to be barriers to access: the minimum overall GPA requirement and course prerequisites. No further programming, training or outreach is implemented. Barriers are removed, but the school finds no improvement in Black AP enrollment. School personnel, when questioned about continuing inequitable participation, are quick to note that they removed barriers, and essentially deflect responsibility back to the student: "we removed the barriers; if the students are not enrolling we cannot make them!". This is typical thinking about educational equity at the school level. With relatively few resources, both financial and human, little time to research and learn about the larger picture of educational equity, and pressure to "take action", schools make well-intentioned but ineffective gestures toward improving equity. Public education relies too heavily on the "access" dimension of educational equity, and too infrequently confronts the more labor-intensive "participation" and "outcomes" dimensions of educational equity.

While access, or removing the barriers to access, is necessary to advance educational

equity, removal of barriers to access alone is not enough to constitute educational equity. This

case study will look at what happens inside a school toward advancing educational equity in AP.

Brookover and Lezotte write, "For many, equal access is both the necessary and sufficient

condition. Those who hold to this standard are satisfied that the principle is fully operational

when barriers to access have been removed. Such individuals are reluctant to look inside

institutions and question whether the students, especially minority students, are receiving equal

treatment as they matriculate through the educational system" (p. 66). This case study intends to

"look inside" the institution of a public school to discover what creates the conditions that lead to

equitable treatment for Black students in AP enrollment.

Participation Standard: Brookover and Lezotte move from access to participation in the

continuum of criteria for equitable education. "The equity principle when viewed through the

standard of participation calls for local programs that promote and even guarantee equal

participation to all. Such practices as grouping and tracking, school suspensions, and

involvement in curricular and extracurricular activities become important evidence for the

participation standard" (p. 66). The importance of school-based factors is also noted by the

authors in their description of the participation standard:

> The sources of resistance associated with the participation standard tend to be located
> within the schools and among the professional educators. For example, many
> professional educators advocate ability grouping (even though it produces unequal
> minority/nonminority participation) because they believe it allows teachers to better meet
> the needs of individual students and presumably fit them for different stations in life.
> When confronted with the discriminatory nature and effect of such practices, educators
> cling to them because they believe that it is appropriate to provide the same education to
> persons who differ in 'abilities', interests, and future status in society. (p. 66)

Returning to the example of High School A, the school that had recently experienced a

shift in student population and was attempting to confront disproportional AP enrollment by

Black students, the mindset regarding participation in high schools is widely entrenched in favor of ability grouping over equitable participation. By maintaining a status quo of elite enrollment in AP-students who traditionally achieved at high levels with no behavior issues-the teacher could continue to fulfill their goal of preparing those elite students, all of whom were destined for four-year universities, without having to consider radical changes in instruction or student relationships. This mindset speaks to the very "resistance" to equitable participation described by Brookover and Lezotte, and is one of the most significant contributors to inequities in AP enrollment. Schools can remove barriers to access, but students will be reluctant to enroll in AP courses when personnel are not prepared or willing to entertain participation.

Outcomes Standard: Even in 1981 at the publication of their criteria toward equitable education, the outcomes standard of equity was the most controversial. Current events would indicate that it continues to be the most controversial dimension of educational equity, with national dialogues on inequitable outcomes in criminal justice, all levels of education, employment, income, and opportunity. While schools can remove barriers to access and work to improve participation to equitable levels, to satisfy the outcome criteria of equity requires not only the implementation of steps toward improving access and participation, but the constant maintenance of efforts toward equity based on outcomes. To fully realize educational equity, all three criteria must be satisfied, and without equitable outcomes, the satisfaction of the access and participation criteria are not sufficient. "The advocates of the outcome standard are not saying that all individual differences would disappear. Rather, they are saying that educational outcomes would not be correlated with sex, race, and socioeconomic circumstances. In practical terms this means that, in the aggregate, minority youngsters would be equal to their nonminority counterparts" (Brookover and Lezotte, p. 67).

Educational equity without equitable outcomes is not educational equity. While it is far less complex and labor-intensive for a school or school division to cite their efforts toward removing obstacles to access and statistical improvements in participation in AP, if the outcomes-equal aggregate achievement and enrollment by Black students relative to White students-is not evident, then work is left to be done in the school toward legitimate educational equity. This standard for educational equity, by requiring that all three standards of access, participation, and outcomes are met, is a high standard, and one that many educators may find impossible to achieve. "Those who resist the educational outcomes standard believe that observed differences associated with minorities, with women in some subject areas, and with socioeconomically disadvantaged students are the result of inherent differences over which the schools have no control and are powerless to overcome" (Brookover and Lezotte, p. 67). Examples exist of schools that have apparently met all three criteria, however.

This case study intends to discover how one school has met the three criteria of educational equity in the context of AP enrollment in an effort to inform practice toward educational equity in all schools. As Brookover and Lezotte suggest, "…the federal government has enacted legislation providing a number of educational programs intended to enhance the goals of educational equity. It is not evident, however, that the policies and the practices associated with them have accomplished the intended purposes. We suggest that these and other educational policies and practices be examined in the light of all three standards of equity of education: access, participation, and outcomes" (p. 69). Educational policy-federal, state, and local-is implemented at the school level each day, and AP enrollment by race is one of many indicators of the equity intended by policy that began with *Brown v. BOE* and has continued to the present day. The school-based factors that explain the success in one high school in

establishing equity in AP enrollment will be examined through the theoretical lens of Brookover and Lezotte's standard of equity: access, participation, and outcomes, and through the fair, just, and equitable management of the AP program as defined by social equity in public administration.

The Importance of School Programming and School Characteristics

Research and literature relating to racial disparities in AP enrollment include a variety of quantitative and qualitative studies, many of which examine the success of purposeful efforts by school divisions to address disparities and the statistical results of those efforts. The review of literature on the topic of AP enrollment among minority and underserved populations revealed repeating themes and concepts in the context of school-based characteristics and their impact on AP enrollment for African-American students. Research was found to consistently cite four repeating categories of school-based practices that influence African-American AP enrollment: teacher and staff training and awareness, including both AP content knowledge and inclusive instructional techniques; curriculum characteristics, including the rigor of pre-AP curriculum and the quantity and variety of available AP course offerings; school-based family outreach efforts targeted to Black students and families to promote awareness of benefits of AP and pre-AP course preparation, and student identification and recommendation processes for AP course enrollment.

Burney's 2010 study on school contextual factors and AP found that:

> Though a "large part of the variance in performance as measured by AP exams (63.1%) was explained by the arguably fixed factors relating to the high school sociocultural context, including the size of the senior class, the general ability level of the seniors, and the proportion of the students with the potential to perform well in AP classes. However, another sizable part of the variance (17%) was explained by factors over which high schools have some kind of influence, that is, the availability of advanced academics and the number of students seeking to be measured on more in-depth tests. A statistically significant, but small, additional part of the total variance (.7%) was attributable to

variables of percentage of the district identified as high ability and the number of academic extracurricular activities and competitions offered at the elementary level. (p. 121-122)

Burney's "factors over which high schools have some kind of influence" point to the foundation of the propositions to be presented within the research design. To increase equitable access to AP, high schools must consider more than content of AP courses and the antiquated stereotype of the AP student. "Although educators worked hard to provide the right kinds of curriculum and instruction to develop academic ability, it was the social support, increased motivation, and positive self-regulatory behaviors that resulted from appropriate educational experiences that were often more important and longer lasting than actual course content" (Burney, 2010, p. 117).

Prior research supports school-based factors and their impact in improving enrollment patterns for all students. "Students of all races are more likely to take an AP course if they attend a school that is smaller, in a large urban area, offers a variety of AP courses, and implements a program that incentivizes teachers to receive additional training and students to take more difficult courses" (Conger, Long, Iatorola, 2009, p. 558). Klopfenstein (2004) concludes that schools may be able to reduce demographic disparities by partnering with local businesses to create greater incentives for teachers and students to invest in the AP curriculum, hiring more AP teachers, reducing their size (in an effort to increase individual mentoring, which disproportionately benefits students from less-educated families), and eliminating their magnet programs (which appear not to benefit Black families)"(Conger, Long, Iatorola, 2009, p. 558).

While the focus of much of the research on equitable AP enrollment is from a descriptive and theoretical perspective, the daily activity in schools is being managed and executed by individual teachers, counselors, and leaders. "Researchers and theorists are not the ones who will execute

this important work of enhancing access to AP programs; it is, indeed, school-level leaders and teachers who can actually make the difference. Regrettably, this is unlikely to happen if most school leaders are persuaded to maintain the status quo by not encouraging as many African American and Latino students to enroll in AP classes as compared to their White and Asian counterparts" (Flores and Gomez, 2011, p. 66). The College Board supports this key role of personnel in promoting equity within AP. "Local education leaders are in the strongest position to make a difference in the academic opportunities offered to students of color, and many are already acting" (District Leader Playbook, 2015, p. 6).

Explicit policy by districts committed to achieving educational equity delivers a clear message to students and the community that equity is valued. "The first step toward eliminating opportunity gaps at the district level is adopting and implementing an equitable access policy for academically rigorous courses that prepare students for college-including AP. Districts can increase access by removing gate-keeping mechanisms" (*Equity Policy Statement, 2012, p. 2).* The AP Equity Policy Statement includes detailed and prescriptive information for divisions committed to equitable AP enrollment:

Ensuring that AP classes reflect the diversity of the overall student body often requires active recruitment of underrepresented AP students, including low-income and minority students. Districts and schools should actively work with students to place them in appropriate courses. AP enrollment policies should focus on identifying all academically prepared students, and not on excluding students based on a single, rigid criterion. All motivated and academically prepared students who want to take AP courses should be allowed to do so. Students eligibility for AP can be determined by multiple factors, including:

- AP Potential, a free College Board tool that identifies students likely to succeed in AP based on PSAT/NMSQT scores;
- Teacher identification and recommendation of potential AP students;
- Student academic preparation; and
- Student interest and motivation (*Equity Policy Statement,* 2012*, p. 2.)*

The College Board's "District Leader's Playbook: Expanding Access to Advanced

Placement for Students of Color", published in 2015, cites statistics from the Council of Great

City Schools class of 2014, a consortium of urban school divisions that describes itself as a

council that "brings together 68 of nation's largest urban public school systems in a coalition

dedicated to the improvement of education for children in the inner cities" (from www.cgcs.org).

The CGCS' 68 member districts include New York City, Chicago, Miami, Atlanta, Los Angeles,

Detroit, and Washington, D.C., and represent 7.3 million students, of whom over 70% are Black.

Of the CGCS class of 2014 graduates with the demonstrated potential to succeed in AP courses,

less than half took the AP exam from among those with potential in all content areas: English,

Mathematics, Science, and History/Social Studies (Playbook, p, 9).   The District Leaders'

Playbook then prescribes "areas for action" for superintendents to consider in their efforts to

"enroll more students of color with AP potential in AP courses matching their academic interests

and strengths" (p. 11). These steps include: 1) Examine data, 2) Set the priority and build buy in,

3) Empower school leaders, 4) Enlist students, and 5) Establish accountability and celebrate

successes. These steps must all be implemented at the school level.

Klopenstein writes, "…while individual student/family characteristics have the largest impact

on a student's AP participation, school characteristics are also significant predictors" (2004, p.

125). She identifies potentially important school characteristics as the "…likelihood of

individual mentoring, the diversity of AP offerings, magnet programs…and AP incentive

programs" (2004, p. 117). Using critical race theory as a framework, Solorzano and Ornelas

examined the role of school structures and processes in the maintenance of "discrimination in

access" to AP courses in their "Critical Race Analysis of AP Classes" (2002). Among their

recommendations to "remedy the unequal access and availability of AP classes" are student

participation in rigorous academic courses, student access to qualified teachers, student access to intensive academic supports, and a school's connection with "parents and community around advanced study" (2002, p. 226).

Burney (2010) distinguishes the "fixed contextual variables" of a school from the school-based factors that can overcome such obstacles. Fixed contextual variables include percentage of minority students, free and reduced lunch qualified students, and community educational level, common reasons given for explaining the lack of high achievement or lack of advanced opportunity for the high ability students in their schools. "Instead of working to find ways to offer AP classes and to nurture those with the potential to perform at high levels, educators and policy makers may accept these barriers as insurmountable...fixed contextual variables characteristics of a school do not limit the school from having a group of high performers among its students. This finding suggests that policy makers and educators need not consider those factors as automatic roadblocks and instead may focus on what academic services and opportunities they can provide for their high-ability students that will increase their academic preparation and therefore likelihood of graduating from college" (p. 122).

In his "Closing the Diversity Gap in Advanced Placement Course Enrollment", James VanSciver examines the Advanced Placement Incentive Program initiated in the Seaford, Delaware school district with a select group of minority 6th through 10th graders in order to "increase the number of advanced placement courses offered at the high school, to expand the number of students achieving success in those classes, and to increase the diversity of that expanded pool of students" (2006, p. 57). VanSciver writes, "Although the myth of public education as the 'great equalizer' is alive and well in the minds of many, the reality is that the notion of public schools as the savior of the less fortunate is fundamentally compromised when

institutional decision making does more to suppress low-income and minority students through low expectations demonstrated by the scheduling process than to advance their academic opportunities" (2006, p. 56). VanSciver's research on the AP "Diversity Gap" using the Seaford AP Incentive Program included individual interviews with 77 low-income and minority students between grades 6 and 10, before they enrolled in AP classes, in order to longitudinally assess the program impact of the AP Incentive initiative. Responses of students through the interview process revealed that school officials originally allowed students to "self-schedule" class choices, resulting in students with demonstrated AP potential enrolling in less rigorous courses in order to increase the likelihood of good grades in the absence of the rigor of the advanced AP preparatory curriculum (p. 57).   After conferring with parents of the selected students, all of whom were identified as "having academic potential by virtue of their having met or exceeded the Delaware English/Language Arts standards", the selected students were placed in more rigorous courses aligned with AP preparation and were provided with quarterly conferences with school officials to monitor their overall performance and to provide counseling (VanSciver, 2006, p. 58). Tutoring was provided to students based on their classroom performance, the number of AP course offerings at the high school was increased from four to seventeen, and thirteen teachers were provided with intensive staff development sponsored by the College Board. As a result of the school-based changes made for the students, many of whom would have never taken the initiative to enroll in AP courses, 180 low-income and minority students were successfully participating in the high school's AP program (VanSciver, p. 59).

Flores and Gomez' May 2011 article in the National Association of Secondary School Principals (NASSP) bulletin, entitled "Strategies for Increasing Advanced Placement Participation for Underrepresented Students: Barriers, Practices, and Positive Outcomes",

provides similar information related to the purposeful changes made at Fontana High School in California, a school that was characterized by a similar disparity in AP enrollment along racial and ethnic lines. Though Fontana High's student population was majority Latino, disparities were improved using similar processes. Flores and Gomez write, "The aim, of course, is not to characterize students as unmotivated but instead to inspire educational leaders to encourage students to engage in rigorous coursework by providing the groundwork for a series of pedagogical practices that could lessen academic inequality and optimize the performance of all students" (2011, p. 69). In the case of Fontana High, barriers to enhanced AP participation among minority students ranged from "…curricular to organizational to theoretical", and required "training a pool of motivated teachers and changing the school culture of encouraging all students to enroll in college-level classes" (Flores and Gomez, 2011, p. 70). High school staff began recruiting potential students at the middle school level, purposefully scheduling them into rigorous courses to prepare for the AP program, conducting parent information sessions to heighten awareness by families of the expectations of the pre-AP curriculum, moving away from a seniority-based teacher selection for AP classes to a process grounded in teacher motivation and credentials, and changing the traditional mentality that AP and advanced courses are reserved only for the "top students" (Flores and Gomez, 2011, p. 68). Though the percent passing in AP exams dropped by 18 percent between 2005 and 2010, the number of students exposed to the AP curriculum increased from 574 to 634, with an increase in the number of tests administered from 518 to 762. A commensurate increase on California standardized test results in the predominantly minority school was also noted (Flores and Gomez, 2011, p. 77).

The cases of Seaford and Fontana schools anecdotally illustrate the impact various school-based factors can have in reducing the disparity in AP enrollment and success, including

teacher training, expanded rigorous course offerings, school-based family outreach efforts, scheduling practices, curricular alignment with feeder middle and elementary schools, school-based AP related initiatives, and purposeful efforts made to change archaic stereotypes related to the identity of the AP student. Quantitative and qualitative research-based studies have provided further evidence of the impact of school-based factors on AP participation among African-American students. In his "Answers in the Tool Box: Academic Intensity, Attendance Patterns, and Bachelor's Degree Attainment" (1999), Clifford Adelman's longitudinal study measured the effects of twenty-four variables on educational attainment using a cohort of students identified as 10th graders in 1980 until they were approximately 30 years old in 1993. Adelman's findings suggested that "…if high schools offer advanced and rigorous courses, they encourage students to take them, and the students actually elect to participate many students could accumulate the portfolio predictive of college success…this rigorous high school experience, for individuals, is far more important than their demographics related to socioeconomic status, race, and level of parental education in predicting the attainment of a degree in higher education" (Burney, 2010, "High Achievement on Advanced Placement Exams: The Relationship of School-Level Contextual Factors to Performance, p. 122).

Barnard-Brak, McGaha-Garnett, and Burley utilize structural equation modeling techniques in their 2011 "Advanced Placement Course Enrollment and School-Level Characteristics" to determine the degree to which AP course enrollment is a function of school characteristics and access to AP courses, conducting their study using a sample of children from the National Center for Education Statistics. The authors identify barriers to minority student AP enrollment as "…lack of encouragement from school personnel and parents" (p. 168). The authors also note that "high minority and low SES school characteristics are not associated with

the number of students enrolled in AP courses, but rather the availability of those courses" (p. 171).

Curriculum characteristics: variety of AP offerings, rigor and alignment

It is intuitive to assume that early preparation of a child in both the elementary and middle school years will impact his or her long-term academic achievement. However, in the case of Black students, many more of whom, statistically, face greater challenges during those formative years such as lower family income, lower parent educational levels, and concentration in lower performing schools, public schools must end the deficit thinking model and look toward systematic ways to provide interventions to counterbalance the early challenges that disproportionately impact Black students. This practice of early identification and intervention on behalf of Black students in an effort to prepare them for AP offerings must complement other programmatic practices. "Prior preparation is especially important for enabling students to master AP course content and pass AP exams" (Dougherty and Mellor, "Preparing Students for Advanced Placement: It's a PreK-12 Issue" 2010, p. 225).

In their "African-American Educators' Perspectives on the Advanced Placement Opportunity Gap", DeVance Taliaferro and DeCuir-Gunby discuss the responses of Black educators interviewed about Black educational inequities. "Educational trajectory, early tracking, was responsible for the lack of African-American students in AP courses. While these advisors did not believe that the students could not perform, the advisors thought it might take students additional effort due to early educational decisions made in elementary and middle school" (2007, p. 175). VanSciver writes, "It is important to point out that the foundation for this capacity to thrive in the advanced placement setting is developed long before these students open the door to their high school experiences. For most, it is set as early as the sixth grade, for

some much earlier" ("Closing the Diversity Gap in Advanced Placement Enrollment", 2006, p. 57). Moore and Slate reach similar conclusions through their analysis of advanced placement variables in Texas data from all school divisions in 2004-2005 and 2005-2006 in their "Who's Taking Advanced Placement Courses and How Are They Doing? A Statewide Two-Year Study". They write, "Teachers and administrators should engage in curriculum alignment in all subject areas that prepare all students for taking more rigorous course work prior to their first enrollment in AP classes" (2008, p. 64). The disproportionate participation of Black students, especially Black males, in exceptional education programs is cited as another factor within early identification that serves as a barrier to eventual educational attainment for Black students.

The term "tracking" is one that is discussed in literature as another barrier to AP enrollment. Effectively, "tracking" as it is practiced, has placed Black students on paths to lower achievement relative to potential at a much higher rate than White students. This includes overidentification of Black students as needing exceptional education services. "Special education correctly reflects intellectual ability for some students. However, intellectually capable students may be placed in special education programs for behavioral or other reasons…the disproportionately high rate of special education participation among Black students makes the adverse impact of special education greater for this group as a whole than for White or Hispanic students" (Klopfenstein, 2004, p. 118).

Curriculum rigor should be a goal of school processes. "The most important predictor of college success is an academically rigorous high school experience. Rigorous course work in elementary and middle school provides students with the foundation to complete college-level course work in high school" (The College Board AP Program Equity Policy Statement, 2012, p. 2). Middle school coursework, especially coursework in mathematics, is traditionally considered

a gate to high school achievement. "The tremendous importance of a students' 8th grade achievement in their probability of advanced course taking in high school also reinforces prior literature on the role that tracking plays in shaping students' futures and dividing students by race and class" (Lucas, 1999; Oakes, 1990) (Conger, Long, Iatorola, 2009, p. 573).

Moore and Slate (2008) found that one consequential barrier to expansion of an AP program, with long term manifestation, is the lack of a rigorous curricular infrastructure between the middle schools and high schools, as well as within the high school itself. The study further contends that teachers and administrators should engage in curriculum alignment within all subject areas that prepare all students for taking more rigorous coursework prior to their first enrollment in AP classes (p. 64).

High schools with a large concentration of minority students normally offer fewer AP courses than their predominantly White counterpart schools. The results of the study conducted by Barnard-Brak, McGaha-Garnett, and Burley indicate that "…the percentage of students who are minorities and the percentage of students who receive free lunch (were) inversely associated with the number of AP courses at these schools…high minority and low SES school characteristics are not significantly associated with the number of students enrolled in AP courses, but rather than availability of those courses" (2011, p. 171). This lack of offerings compounds the barriers for African-American students in accessing rigorous college preparatory curriculum through AP. Quantity and variety of AP course offerings impact access; not only do adequate sections of AP courses need to be available to students, but the content of the AP courses must allow for students to engage with and select from a menu of options. "The greater variety of AP courses offered at a school, the greater the choice of subject matter and the higher the probability that a student from any racial group will take their first AP course. If AP calculus

is the only AP course offered, AP participation is likely to be lower than if AP English, AP History, and AP Music Theory are also offered" (Klopfenstein, 2004, p. 120). In its "Access to Success: Patterns of Advanced Placement Participation in U.S. High Schools", the Educational Testing Service (ETS) (2008) writes that "fifty-eight percent of U.S. public high schools, enrolling 85 percent of all students, offered some type of AP program" (p. 3). However, the report continues to note that "there is unequal access to the AP program among racial/ethnic groups. While 94 percent of Asian American students attend public schools where at least one student is taking an AP exam, only 81 percent of African American students attend such schools. Further, when the AP program is available, African American students are more likely to attend schools classified as 'low AP' and are the least likely to attend 'high AP' schools" (p. 3).

Solorzano and Ornelas illustrate the connection between AP access and minority school composition in California. The authors note that "… in 1997-1998, over half (53%) of California's 870 comprehensive high schools offered between 0-4 AP classes. Research and legal documents indicate that these schools are located in rural and urban parts of the state and in low-income communities of color. On the other hand, schools that offer more AP classes are located in more suburban and affluent parts of the state" (2002, p. 220).

Hallett and Venegas utilize descriptive statistics and interviews with low-income urban minority students in their mixed-methods analysis of AP course access. Within interviews, students reported difficulties in navigating the system, including "high school track placements with limited AP offerings and the absence of a counselor in the selection process", and "In some cases, these (qualified) students attend schools that do not provide the specific AP courses for which the students are academically ready. In other cases, the school may be using inappropriate

enrollment criteria, such as the student's prior GPA, which research has actually shown to have a low ability to predict success in the AP (.25 correlation)" (2007, p. 481).

Academic readiness is not fruitful for students if the opportunity to take courses is nonexistent. "If New Mexico enabled each of its 5,500 students with high academic readiness to take even just one AP course for which they have demonstrated academic readiness, New Mexico would immediately outpace most states in the nation in achieving equity in access to AP coursework" (Jeff Peterson, Senior Director of Government Relations, The College Board. "The Advanced Placement Program & New Mexico: Legislative Education Study Committee Briefing" November 13, 2013). Burney (2010) cites Adelman's longitudinal research to highlight the importance of course offerings:

> The finding that the number of AP course offerings relates strongly to high achievement is consistent with Adelman's (1999, 2006) studies. His findings suggest that if high schools offer advanced and rigorous courses, they encourage students to take them, and the students actually elect to participate many students could accumulate the portfolio predictive of college success. Adelman purports that this rigorous high school experience, for individuals, is far more important than their demographics related to socioeconomic status, race, and level of parental education in predicting the attainment of a degree in higher education. Students cannot take the courses and reap the benefits in terms of college preparation unless they are offered. Access to these courses is a factor within the control of school administrators and policy makers. The question to consider then, is how might small schools with minimal resources offer these advanced courses for their high ability students. (Burney, 2010, p. 122)

Brak, McGaha, and Burley expand on the importance of course offerings. "Ford and Whiting (2009) say it best when they conclude that students cannot prepare for and test into courses that do not exist...Students enrolled in schools with high minority and low SES populations do not have the same access to AP course programs as compared with students enrolled in schools with low minority and high SES populations. This lack of access to AP course programs puts these students at a disadvantage in being prepared for and pursuing higher

education in a timely manner…these students are not as well prepared to enter higher education because of this lack of access" (Brak, McGaha, Burley, 2011, p. 172).

School-based engagement with families and parents of Black AP students

Extensive research has been conducted measuring the influence of parent involvement in student achievement. VanSciver (2006) states that though parents of low income and minority students "trust school officials with the academic future of their children", they are unsure of how to advocate for their children, especially toward increased rigor and challenge in the classroom (VanSciver, p. 57). Black advisors interviewed in "African-American Educators' Perspectives on the Advanced Placement Opportunity Gap" discussed the fact that more White students had been exposed to college campuses and had knowledge of AP courses, which were generally opportunities far fewer Black students had experienced due to the different nature of parent involvement. The advisors considered this "opportunity gap" indicative of differences in parental and student advocacy efforts within African-American inclusion in AP courses (2007, p. 176). Perna and Titus (2005), found that parental involvement is related to college enrollment through their study of the dynamic between parent involvement and college enrollment patterns along racial identities in "The Relationship Between Parental Involvement as Social Capital and College Enrollment: An Examination of Racial/Ethnic Group Differences". The authors cite several studies finding the benefits of parental involvement toward college enrollment and advanced coursework:

> The stated commitment of most college preparation programs to involve parents reflects an assumption that parental involvement promotes the college enrollment of underrepresented groups of students. Researchers have found that parental involvement is associated with a greater likelihood of aspiring to attend college and actually enrolling (Cabrera & La Nasa, 2000; Horn, 1998; Hossler, Braxton & Coopersmith, 1989; Hossler, Schmit & Vesper, 1999; Perna, 2000), as well as with higher grades (Lee, 1993; Muller, 1993; Zick, Bryant, & Osterbacka, 2001), higher eighth grade mathematics and reading

achievement (Lee, 1993; Sui-Chu & Willms, 1996), lower rates of behavioral problems (Lee, 1993; Zick, Bryant, & Osterbacka, 2001), and lower likelihood of high school dropout and truancy (McNeal, 1999). (p. 486)

Parent awareness of what constitutes rigor from an early stage in their child's education, along with a subsequent awareness of the requirements and nature of AP, are important to the success of every student in enrolling and succeeding in AP courses. "Very few students succeed without the support of their parents or guardians…parents, especially those unfamiliar with AP and the system of American colleges and universities, need to be familiar with the school's AP program and the commitment that both the students and parents need to make" (Flores and Gomez, 2011, p. 74).

Harris and Robinson, in their "A New Framework for Understanding Parental Involvement: Setting the Stage for Academic Success", note that parental involvement, especially when analyzed in the context of variations among racial and ethnic groups, is not simply a question of less desire to be involved. Rather, the more significant variable influencing parental involvement is related to the broader identity and operation of schools that serve majority Black students:

> Our own previous work…suggests that black and Hispanic parents value education either the same as or more than their white counterparts (Harris 2011; Robinson and Harris 2014), and that achievement inequality in outcomes by race and class persist even net of forms of parental involvement within parents' control (Robinson and Harris 2014). Additionally, the configuration and resources of cities, neighborhoods, and schools play a significant role in educational inequality (Alexander, Entwisle, and Olson 2014)…Schools also operate and respond differently for parents based on race and class, with white parents being advantaged at the expense of black and Hispanic parents and children (Lareau 2003; Lewis and Diamond 2015). Thus, not all parents have the same ability to influence their children's academic outcomes or opportunities. In our view, suggesting that inequality of educational opportunity stems primarily from the home itself and the culture does not square well with recent empirical evidence. The conception of school and family as being in competition ignores the reality that these factors both jointly and independently influence how the stage is set in the first place. (p. 198)

Harris and Robinson conclude that educators should assist parents by confronting the "inequality in how students experience the school setting", working to "minimize the extent to which school personnel perpetuate racial inequality by responding to youth based on racialized and class-based assumptions and tracking racial minorities into lower academic tracks" (p. 199).

Effective school-based family engagement toward equitable AP enrollment should be more than placing expectations on the families of students to be involved, whether that is attending PTA meetings, volunteering in the school, or buying an AP study guide at the bookstore. While no harm can come from parents being made aware of the benefits of AP and advocacy for enrollment in AP on behalf of their children, schools must be careful to not allow parental involvement to become another reason to *not* include Black students with potential in AP courses. Parent engagement must be thoughtful and consistent with the school's work toward equitable outcomes.

Level of teacher training, knowledge of the AP program and curriculum, multicultural awareness of teachers and staff

Data has demonstrated that effective teachers are one of the most, if not the most, significant factors impacting student achievement. Conversely, ineffective teachers can significantly disrupt learning for students, to the extent that one year attempting to learn from a poor teacher can take years for a student to overcome in his or her learning. This is no different for those involved in the teaching and learning process in AP courses. Level of training and experience with AP courses along with typical effective teacher characteristics can act as significant characteristics to potentially open up access and engage Black students in AP courses. AP teachers appear to be of critical importance in discovering and encouraging academically talented minority students. Coley and Casserly (1992) conducted a study of high minority

schools with a high proportion of students earning a 3 or better on the AP examination. When asked about important educational influences, seventy percent mentioned an elementary school teacher and 75 percent mentioned a middle school or high school teacher (Burton, et al., "Minority Student Success: The Role of Teachers in Advanced Placement (AP) Courses" (2002, College Board Research Report). Teachers who experienced success in engaging and instructing Black students tailor their instruction and practice to goals broader than passing AP scores. "To the more experienced teachers of minority students in the present study, the most important goals are that the students experience college-level work, build their confidence in the subject, and build their confidence of success in college" (Burton, p. 12).

The skills needed to only teach AP content using traditional methods is not sufficient to improve equitable outcomes for diverse students. The AP Equity Policy Statement explicitly addresses the importance of teacher training in promoting equity:

> AP students are more likely to be successful when AP teachers have the instructional skills and content expertise to support diverse learners. Like AP students, AP teachers need feedback and reinforcement to master instructional skills fundamental to success in AP. By providing the time, space and resources for professional development and collaboration, districts can build the skills of existing AP teachers and create a pipeline of future AP teachers. Examples of district support include:
> - Formal professional development opportunities to develop instructional skills and content expertise for both AP and pre-AP teachers prior to and while teaching AP courses;
> - Informal coaching and feedback that reinforce new skills;
> - Time to collaborate with peers teaching the same AP course; and
> - Time to collaborate with peers across content areas and grades. (p. 3*)*

The College Board, in its *AP Report to the Nation,* provides several steps to states, districts, and schools to be followed to enhance equity. Under "increasing rigor", one of two steps is to "develop plans to recruit, retain, train, and mentor new and less experienced AP teachers". It is also recommended that that states "build teacher capacity by requiring AP teachers to complete content-specific professional development before or during their first year

and to update their training regularly", as well as "make funding available for attending these professional development events" (*AP Report to the Nation,* 2013*).*

In schools or districts attempting to improve AP performance and participation, this is often a key variable that is neglected in the midst of budget cuts and rushed plans to push students into AP courses. Student interviews conducted by Hallett and Venegas illustrated the impact ill-prepared teachers have on African-American AP students. "Students reported that an important factor in their failure to pass the end-of-course exam could be attributed to the skills or preparation of their high school AP teachers. Students spoke about teachers who had been assigned to teach AP courses but had not received a credential to teacher the subject area or had not participated in AP training" (2007, p. 478).

Though conducted related to Latino students, it is reasonable to draw parallels to the experience of Black students in the Pearsall (2009) study, entitled "Barriers to Advanced Placement for Latino Students at the High-School Level":

> External support through parents, friends, role models, teachers, and colleges as well as both success experiences and positive failure experiences were identified as the primary factors that encourage Latino enrollment in AP coursework…three of the four student participants identified teacher encouragement and school and college outreach as particularly significant in influencing Latino student decisions regarding college aspirations and AP course enrollment. This finding confirmed the importance of professional development geared toward multicultural understanding and multicultural outreach and validated the need for improved communication and community building aimed at enhancing student motivation and achievement. (p. 19)

The skills, experience, and knowledge of AP teachers and their attitudes toward inclusion in AP classrooms of a variety of students to include more than just the "top" students will significantly impact the capacity of the school to enroll more African-American students in the AP class. "Beyond funding measures associated with curriculum and instruction of AP courses, Ford, Grantham, and Whiting (2008) found that teachers, particularly the role of teacher referrals

for advanced programming, to be suspect. They suggest much improved multicultural and gifted education for teachers to improve access to such advanced curricula. Additionally, they identified a need for better ways of identifying students for special programming that could lead to AP coursework, including a need for culturally sensitive placement instruments" (Brak, McGaha, Burley, 2011, p. 172).

Mindset of staff and an awareness of bias cannot be ignored. "The same sociocultural factors contributing to ethnicity gaps in gifted and talented programs may influence these advanced academic programs. Even though AP and IB programs may be open to all students regardless of formal gifted and talented identification, subtle expectations of who ought to participate may exist in the perceptions of both students and educators" (Kettler and Hurst, p. 14).

Identification and recommendation practices

Unless identified, recommended, and enrolled into an AP course, no student in a high school, unless enrolled in a special program requiring an AP course, will be provided the opportunity to benefit from exposure to AP content and the previously discussed advantages that AP offers in both high school and in the college admissions process. This school-based process of identification and recommendation is rarely standardized, even within school divisions, and the attention given to the process represents a significant gate to AP enrollment for all students. Prior research finds that many schools are not leveraging the available tools for AP identification and recommendation, and that many schools fail to provide opportunity to otherwise qualified students simply due to a failure to utilize those resources and assess internal practices that can unintentionally deny opportunity and equity.

AP Potential is an available resource to all participating AP schools, and is a resource that

the College Board consistently cites as critical to expanding opportunity to all students,

especially those within underserved and under-enrolled populations, including Black students.

The 2015 *AP District Leader Playbook* describes AP potential, its availability, and its intended

use for school personnel:

> *What is AP potential?* AP Potential is a free, Web-based tool that allows states, districts, and schools to generate rosters of students who are likely to score a 3 or higher on a given AP Exam. Based on research that shows strong correlations between PSAT/NMSQT scores and AP Exam results, AP Potential is designed to help educators increase access to AP and to ensure that no student who has the chance of succeeding in AP is overlooked.
>
> *Who can access AP Potential?* District officials, high school principals, counselors, teachers, and state department of education officials can access AP Potential.
>
> *How should I use AP Potential?* Studies show that PSAT/NMSQT scores are stronger predictors of students' AP Exam scores than the more traditional factors such as high school grades, including grades in same-discipline course work.
>
> AP Potential should never be used to discourage a motivated student from registering for an AP course. The AP Potential results only account for some of the factors that contribute to the students' exam results, and do not take into account the power of student motivation, parental support, and teacher efficacy. (p. 5)

The use of AP Potential is not without controversy, however. As early as 1998 in *Black

Issues in Higher Education (9/17/98),* Karin Chenoweth noted that "some high schools have

recently been found to use the SAT-or its preparatory analog-the PSAT-as a filter to keep

students from taking AP courses. Howard Everson, vice president for teaching and learning at

the College Board, stated that the College Board had recently surveyed tens of thousands of

students and found that AP courses benefitted all students, no matter what PSAT scores were"

("The College Board decries preparation gap", 198, p. 2). A New Mexico legislative report

noted the failure of schools to provide opportunity and encouragement to qualified students

toward AP enrollment. In the New Mexico public schools, class of 2012-16, which included 389

PSAT test takers, 1,209 students out of 2,579 listed as potential AP English students enrolled, while 453 of 1,453 math students enrolled in AP (Jeff Peterson, Senior Director of Government Relations, The College Board. "The Advanced Placement Program & New Mexico: Legislative Education Study Committee Briefing" November 13, 2013).

Schools must at a minimum utilize AP potential, but prior research also emphasizes the need to go beyond in creating equitable recommendation and identification processes at the school level. "73% of school districts in the United States continue to rely heavily on nationally normed standardized testing to identify students for placement in honors-level programs (Oakland and Rossen, 2005). A shift away from standardized assessment measures of high potential and toward multicultural and multimodal measures of high potential offers an increased probability that the identification of high-potential learners will be more equitable" (Pearsall, 2012, p. 13). Deficit thinking by school personnel charged with identification, recommendation, and enrollment complicates the opportunity for Black students to access AP.

> Equitable and socially responsible identification of high-potential learners is complicated by the fact that deficit views of cultural differences routinely impede teacher recognition of high potential in culturally diverse students (Hertzog, 2005; Kettler et al., 2006; Lidz & Macrine, 2001). Speirs-Neumeister et al. (2007) found that, despite training and exposure, even experienced teachers of minority and economically disadvantaged students maintained narrow views of giftedness and failed to recognize nontraditional characteristics of high potential. Despite the development of multimodal measures of high potential, multicultural student access to AP coursework is too often impeded by early ability-tracking practices, an overemphasis on standardized achievement and standardized assessment, and the continued existence of biased teacher recommendations. Policy, procedure, and practice specific to minority and economically disadvantaged student access to honors-level and AP coursework are needed in most school districts across the nation. Critical to equitable and sustainable honors-level and AP program development is the alignment of identification and enrollment practices with course content, which requires district-wide programming, communication, and commitment. (Pearsall, 2009, p. 14)

Trends toward inequitable AP enrollment are a result of complex factors that contribute to recommendation and identification processes. "Literature clearly indicates that high-potential

minority and economically disadvantaged students at every level are largely overlooked due to

narrow definitions of high potential, systemic bias, the underutilization of multimodal methods

of identification, and the impact of social, cultural, and economic factors" (Grantham, 2002;

Hertzog, 2005; Lidz & Macrine, 2001; Lohman, 2005; Oakland & Rossen, 2005; Rothstein,

2004; Sarouphim, 2002; 2004; Speirs-Neumiester et al., 2007) (Pearsall, 2009, p 15).

Prior Research in Related Case Studies and Programming Related to AP Equity

Arlington County Public Schools: Gaining on the Gap

"Gaining on the Gap", by Robert G Smith, former superintendent, was presented as a

case study of the Arlington, Virginia Public School division's partnership with George Mason

University, published in *School Administrator* in June of 2010 (67 (6). 21-24). The case study

explored the purposeful efforts of the division to expand access to advanced coursework,

including AP and International Baccalaureate (IB courses), for students of color.

Arlington County Public Schools, at the time of publication, consisted of 48% White, 27%

Latino, and 13% Black students. Smith described an existing system that was rigid in its access

to advanced coursework:

> One major barrier to expanding access to and success in rigorous high school classes and
> one important remedy to under-representation of students in advanced classes resides in
> the expectations held by teachers, parents, and the students themselves…these
> expectations play out in the rigor of courses offered and in the quality of instruction
> experienced in the various levels of courses. In Arlington, we maintained a well-defined
> separation of academic experiences for students based on those expectations with three or
> more levels for most high school subjects and with little movement among the levels. (p.
> 22).

This is not atypical: many high schools employ multiple levels, including regular,

college prep, advanced, AP, and IB. Students are confined to certain levels sometimes well

before entering high school without the purposeful efforts of schools and school personnel to

work to expand opportunity. The described Arlington County process for course recommendation and identification is representative of many divisions and schools-prerequisites, teacher anxiety over dilution of talent among the students in class, and reactive parent advocacy determined student placement. "Teacher, counselor or principal would suggest the student had not performed on prerequisite course work to a level that would portend success in algebra in grade 8 and that the school would not want to set the student up for failure or force the teacher to water down the class. In several instances, persistent badgering by the parents led to the students' entry into Algebra I despite the prerequisites. Typically, those students succeeded" (Smith, p. 23).

Smith references the importance of involving individuals at all levels, including the school, to drive change. "We share with the federal government an 'inside the beltway' tendency to define a problem, create a program and an office or organizational unit to address the problem, and then leave it up to that program and set of people to solve the problem, leaving the rest of the organization free of either responsibility or accountability…Given the breadth and depth of the achievement gap issue, finding and working on the solution must be the responsibility of all members of the organization" (p. 22).

Smith identified four key variables to drive development and implementation of interventions to expand access: expectations, quality of instructional interactions, access to opportunities, and parent and community involvement (p. 22). As a first step, the division collapsed the many levels of courses with the exception of leaving AP and IB courses on a different level. The focus then shifted to the proportion of students enrolled in AP and IB courses based on race. "The theme played out over the year has been reserving for White middle-class students the opportunity to engage in rigorous courses" (Smith, p. 23). To address

disproportionality, the division then revised associated course sequencing information and school handbooks, explicitly stating to parents "If they wanted their children to try an advanced class they could do so with the understanding that the standards for those classes would be maintained" (Smith, p. 23). Teacher study teams were then developed to support success of "minority males in advanced placement classes" and students were "identified and invited to join a cohort of like students that met weekly with two or three faculty members to prepare for enrolling in AP classes" (Smith, p. 23).

To address many of the school-based factors influencing diverse AP enrollment, the division partnered with George Mason University, a nearby institution, to develop the "Early Identification Program" to provide summer booster classes, school year seminars, parent support, summer AP preparation, and a during the day AP seminar" for minority students (p. 24). The emphasis on working with a cohort was expanded to a schoolwide emphasis on preparation for rigorous courses. When this program was implemented in 1999-2000, 15 males of color were represented in 21 AP classes. By 2008-09, 85 males of color in the cohort were taking 161 AP courses. Black students, representing 29 percent of the school's enrollment, made up about 20 percent of the AP enrollment. Latino students, constituting 44 percent of the school's enrollment, were 40 percent of the Advanced Placement enrollment (Smith, 2010, p. 24).

Explicit and innovative programming to confront equity challenges

Pearsall (2009) describes other steps implemented in divisions to improve equitable outcomes for students of all racial and ethnic backgrounds. "Innovative districts across the nation are recognizing enrichment programming as a viable means for overcoming barrier-erecting ability-tracking preferences. Grier (2002) described the enrichment efforts of one such district in North Carolina that expanded AP course offerings across the district and encouraged

AP enrollment for every student scoring a 50 or higher on mandatory PSAT tests (lowest

possible score 20 and highest possible score 80). This program was implemented with the

guiding belief that advanced coursework was not for the elite but for the prepared and that

increased access to AP coursework would decrease the achievement gap" (p. 14).

In "A Little Now for a Lot Later", C. Kirabo Jackson (2009) concludes that the Texas

APIP (Advanced Placement Incentive Program), which was a cash incentive program "targeted

primarily to low-income, minority –majority school districts with a view toward improving

college readiness" (p. 591) and included significant teacher incentives (3K to 10K) and per score

bonuses of $100 and $500 for each score of 3 or more earned by an 11th or 12th grader enrolled

in their course, along with student incentives of between $100 and $500 for each score of 3 or

above for course and test passing (p. 595). APIP was found to be associated with increases in the

number of students taking AP course and number of students taking AP exams, with

"substantially increased AP/IB exam taking for Black and Hispanic students" (p. 630).

Counselors claimed that the "alignment of school, student, and teacher incentives had a strong

effect on the culture and attitudes of both students and educators, which in turn led to improved

student outcomes" (p. 631). Though the program cost 200 dollars per student who takes an AP

exam, if the results increased a student's likelihood of attending college, increased the quality of

the college attended, and reduces the time it takes to graduate from college, the costs of the

program on a per student basis will be far less than the average increase in lifetime

earnings…Texas was spending $80 million per year in 2006 to bring ill-prepared college

students up to the level at which they could cope with college-level course material" (p. 631).

The Eli and Edythe Broad Foundation Report (2013), "Road to Equity", described

successful strategies of six urban school systems to boost African-American student participation in and performance on AP tests: Cobb County, Georgia; Fulton County, Georgia; Garland ISD, Texas; Jefferson County, Kentucky; Orange County, Florida; and San Diego USD, California. These divisions shared similar strategies, including:

- Offer rigorous curriculum beginning in elementary grades
- Expand gifted access
- Analyze PSAT to identify potential students and recruit
- Extra academic and social support
- Increase number of AP offerings
- Teacher training and professional development
- Instill confidence and provide social emotional support to students
- Educate parents about benefits of AP

Conceptual Framework: Gates and Gatekeepers

Personal experience, professional experience as an educator, and prior research support the metaphor of gates and gatekeepers as suitable to conceptualize the school level processes, practices, and policies that contribute to the disproportionately low access, participation, and outcomes in AP course enrollment experienced by Black students. Gates are value neutral; they do not exist as obstacles. Gates are able to be opened or closed depending on the force exerted by an individual or other external force, or gatekeeper. Gates can be locked closed, or left wide open.

Any student must pass through various gates during his or her academic career. For Black students, the gates can be more numerous and more difficult to open without a gatekeeper in the form of a college-educated parent, advocating teacher or staff member, or with a school staffed by less experienced teachers and offering fewer AP courses -the very type of school that

most Black students attend in the United States (OCR, March 2014). The four primary types of "gates" that must be navigated by students and tended to by school personnel via individual behaviors include those associated with curriculum factors, teacher and staff characteristics, family engagement and outreach processes, and student identification and recommendation practices, based on prior research.

These individual gates are not clearly separated and interact to form the circle, or "gate" comprised of the school-based factors that permit or prevent student enrollment in AP courses. As students move toward AP enrollment, various gatekeepers, including key personnel, agencies, processes, and policies, manage the gates and can actively open gates, fail to open gates, or actively close gates. This conceptualization speaks to the essence of the research question: **How do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school?**

The experience of each individual student, regardless of race or socioeconomic background, is unique beginning with forces over which the student has no control, even before birth. Research has identified external factors influencing eventual academic achievement, from parental education level to the number of words spoken to a child during their first years of life. Once a child enters the school, gates are already opened, closed, or closing despite the student's lack of accountability for the circumstances to that point. If the ultimate goal of public education is, as Brookover and Lezotte describe, "equalizing the life chances of individuals as a consequence of educational attainments" (1981, p. 69), schools would intuitively need to make equity and the maintenance of the gates toward equity-school level programming, policy, behaviors, and practices-an explicit priority, rather than another mechanism supporting traditional content instruction and standardized achievement.

The conceptual framework (Figure 2) illustrates the AP enrollment process. It includes the four categories of school-based factors shown by previous literature to potentially open the gate to AP enrollment for Black students. Those categories are quantity and variety of AP courses, teacher and staff training and awareness of practice toward increased equity in AP enrollment and performance, family engagement and outreach, and student identification and recommendation practices implemented at the school level to populate AP classes. As indicated by the arrows among the four categories, these four school-based factors are interactive and often overlapping within school-based practice. Variety of courses and scheduling logistics prerequisite offerings and limits on enrollment and vice versa; instructional practice and teacher training can, in some schools, limit or expand the number of courses offered. Parent outreach and its effectiveness is determined by knowledge of identification and recommendation processes. Each of the four categories of school-based practice work to open the gate around AP enrollment for Black students, as indicated by the arrows moving toward AP enrollment and the dotted oval around AP enrollment, the gate that must be negotiated through the school-based practice.

Figure 2: Conceptual Framework

Curriculum: Quantity and Variety of AP Courses

Staff: Teacher Training and Awareness

- Engaging course choices
- Ease of scheduling
- Complementary coursework (support seminar)
- Pre-AP course rigor

- College Board AP Training
- Effective content instruction
- Willingness to vary methods for learning style differences
- Multicultural instructional skills

AP Enrollment

- Parent education on AP
- Mentoring
- Incentive programs
- Fee reductions

- Teacher recommendations
- Course prerequisites
- Gifted requirements
- Exceptional education limits
- Parent input and approval

Family Engagement and Outreach

Student ID and Recommendation Practices

Chapter 3: Methodology

In this chapter, I first provide the rationale for the use of a qualitative approach to the overall research design, with further justification of the use of a case study to answer the research question. Using guidance by Yin (2009), I then outline the five components of effective case study research design in the context of my study, including 1) the case study questions, 2) case study propositions, 3) unit of analysis, 4) logic linking data to the propositions, and 5) criteria for interpretation of findings (p. 29). Specifically, the research site, participant selection and related selection criteria, data collection methods, proposed data analysis methods, validity concerns, research ethics concerns, limitations and the researcher identity are outlined in detail in order to present a comprehensive research design.

Rationale for Case Study Design

Among the wide range of potential research designs available in social sciences, consideration must be given to the purpose of the study and nature of the research question in the process of choosing the best research design to answer the research questions given the context. Yin (2014) proposes three conditions to consider when deciding upon a research method: the type of research question posed, the extent of control a researcher has over actual behavioral events, and the degree of focus on contemporary as opposed to entirely historical events (Case Study Research: Designs and Methods, p. 9). Those conditions should be considered in relation to the current research question:

How do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school?
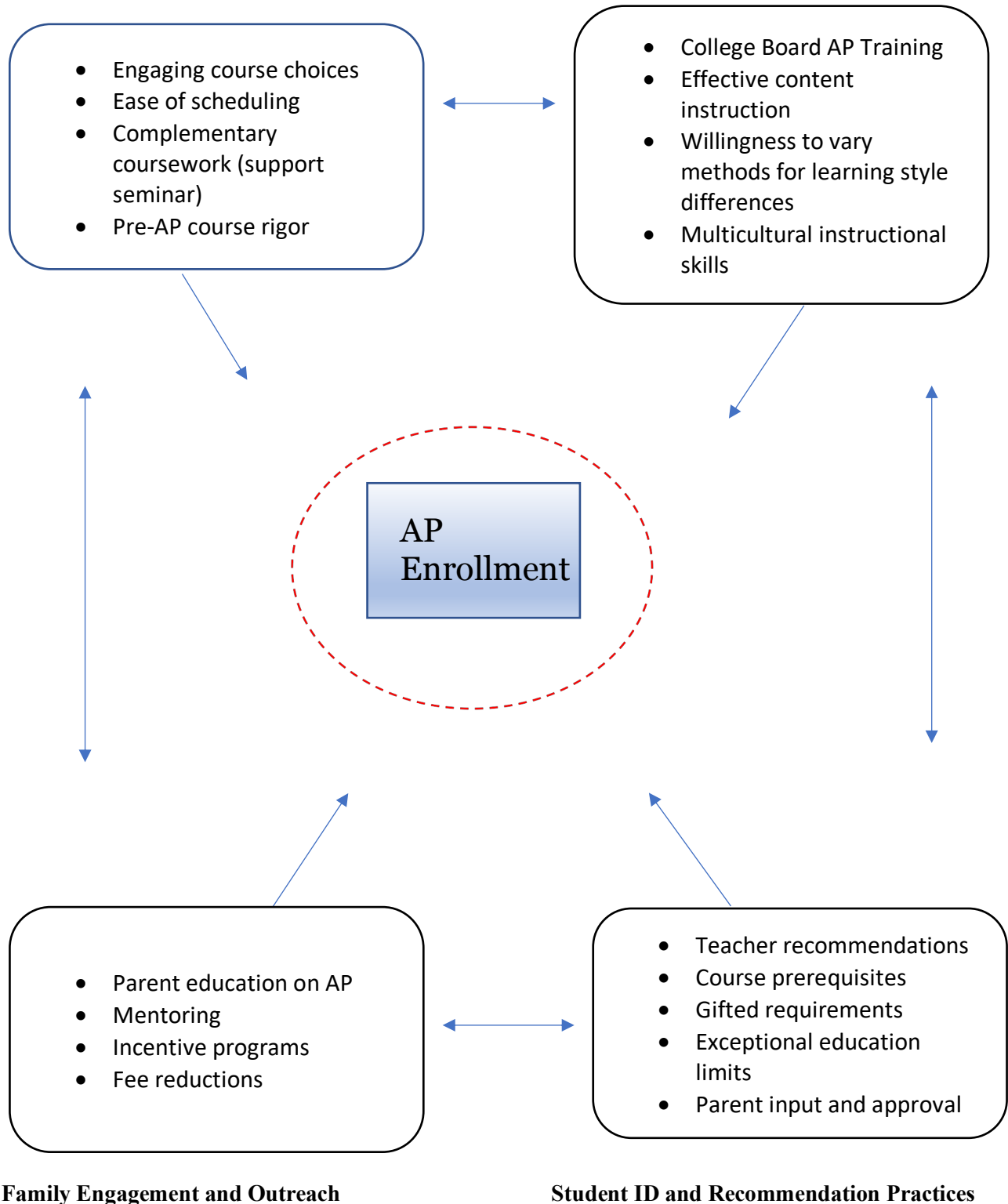
Case study research has a "distinct advantage" when "a how or why question is being asked about a contemporary set of events over which the researcher has no control" (Yin, 2014,

p. 14). The phenomena of AP enrollment for Black students in any school is a contemporary

event, as it takes place at least annually in all high schools. Researcher control over the events

involved in AP enrollment is not practical: the complex variables involved in the process leave

no opportunity for control or manipulation of the conditions in schools.

Yin (2014) defines the case study as "an empirical inquiry that investigates a

contemporary phenomenon (the 'case') in depth and within a real-world context, especially when

the boundaries between phenomenon and context may not be clearly evident" (p. 16). To answer

the current research question, the contemporary phenomenon of AP enrollment must be

investigated in depth in the context of the school: the real-world context in which school-based

practices, policies, and processes take place that directly impact enrollment and the equitable

outcomes of enrollment. Given the complexity of the research setting and processes involved-

public high schools and the varying dynamics within, including student identification, teacher

and staff behaviors, community outreach, and curriculum characteristics, all of which vary

within schools serving unique populations with unique resources-experimental, survey, or

historical designs would potentially provide incomplete answers to the current research question.

To conduct this study, a single case study method was utilized. The rationale for the use

of a single case to answer the research question is based on the unique phenomena of equitable

Black AP enrollment at Juniper High School from among the central Virginia high schools. The

case of Juniper High School further represents a critical case, as it "represents the critical test of

a significant theory" (Yin, 2014, p. 51): that a high school can achieve equitable AP enrollment

for Black students despite local and national trends of inequity through implementation of

school-based factors, including policy, programming, and practice designed to achieve equitable

outcomes. The purposeful selection of Juniper High School as the case school was done "to

allow for the examination of cases that are critical for the theories that the study began with or that have subsequently been developed" (Maxwell, 2009, p. 235).

Single Case Study: Justification and Defense

Although the single case study method has been met with skepticism within social science research, it is a method well-suited to this study of a unique, complex and contemporary phenomenon, as previously discussed and supported by Yin. Public administration research, like educational research, has recognized the benefits of qualitative research methods, such as the single case study, toward advancing social equity research. Gooden and Portillo (2011) extol the virtues of narratives in social equity research. "Narratives can provide details and insights that would otherwise be overlooked with traditional social science methods. Assembling narratives also provides for the collection of rich details about the institutions in which experiences take place...The analysis of narratives provides for a descriptive understanding of how social schemas play out in day-to-day organizational life" (p. i71). This mirrors the intent of this single case study: to collect rich details about the experiences taking place in a school that impact AP enrollment for Black students. By collecting these details, this single case study attempts to achieve the goal of social equity research as described by Gooden and Portillo, which is "not simply…a deeper understanding of social equity within public organizations and public service but a conscious attempt to improve policies and practices with regard to social equity" (2011, p. i71).

In a more universal defense of the single case study method, Flyvbjerg (2006) addresses and corrects common misunderstandings about case-study research in his "Five Misunderstandings About Case-Study Research". Those five misunderstandings are:

1. General, theoretical (context-independent) knowledge is more valuable than concrete, practical (context-dependent) knowledge.

2. One cannot generalize on the basis of an individual case; therefore, the case study cannot contribute to scientific development.

3. The case study is most useful for generating hypotheses; that is, in the first stage of a total research process, whereas other methods are more suitable for hypothesis testing and theory building.

4. The case study contains a bias toward verification, that is, a tendency to confirm the researcher's preconceived notions.

5. It is often difficult to summarize and develop general propositions and theories on the basis of specific case studies. (p. 221)

Flyvbjerg defends the case study method against each of these misunderstandings, beginning with two arguments for the "closeness of the case study to real-life situations and its multiple wealth of details", stating that human behavior "cannot be meaningfully understood as simply the rule-governed acts found at the lowest levels of the learning process and in much theory", and that "If researchers wish to develop their own skills to a high level, then concrete, context-dependent experience is just as central for them as professionals learning any other specific skills" (p. 223). Flyvbjerg questions the nature of predictive theory and associated research methods in social sciences. "Social science has not succeeded in producing general, context-independent theory and, thus, has in the final instance nothing else to offer than concrete, context-dependent knowledge. And the case study is especially well suited to produce this knowledge" (p. 223).

Another significant misunderstanding, specifically relating to the single case study, is the view that "one cannot generalize on the basis of a single case", a view that is "usually devastating to the case study as a scientific method" (Flyvbjerg, 2006, p. 224). After questioning the value of generalization as the "main source of scientific progress", and considering generalization as one of many within a "wide range of practical skills for carrying out scientific work", Flyvbjerg returns to consideration of the single case study:

> That knowledge cannot be formally generalized does not mean that it cannot enter into the collective process of knowledge accumulation in a given field or in a society. A purely descriptive, phenomenological case study without any attempt to generalize can certainly be of value in this process and has often helped cut a path toward scientific innovation. (p. 228)

In response to the misunderstanding that case study research contains a bias toward verification, Flyvbjerg argues for the unique rigor of the case study and its proximity to the phenomenon being researched. "If one assumes that the goal of the researcher's work is to understand and learn about the phenomena being studied, then research is simply a form of learning…it becomes clear that the most advanced form of understanding is achieved when researchers place themselves within the context being studied" (p. 236). Case study research in social and political affairs is given specific attention. Flyvbjerg cites Abbott's (1992) observation that "…a social science expressed in terms of typical case narratives would provide 'far better access for policy intervention than the present social science of variables'"(p. 240). Flyvbjerg concludes his defense with Kuhn (1987), stating that "…a discipline without a large number of thoroughly executed case studies is a discipline without systematic production of exemplars, and that discipline without exemplars is an ineffective one. In social science, a greater number of good case studies could help remedy this situation" (p. 242). Flyvbjerg's work provides a thorough defense against the typical critiques and misunderstandings that

accompany case study research, and serves to defend the appropriate use of the single case study to attempt to answer the current research question.

Limitations

The single case study, though appropriate as a method to attempt to answer the research question of the current study, does contain two distinct limitations that should be acknowledged.

Generalizability is a limitation of the single case study. The results of this study cannot be utilized to infer conclusions about or to be representative of a larger population; in this case, the larger population being schools other than the case school. However, as discussed by Flyvbjerg (2006) and Maxwell (2013), the goal of the single case study is not to generalize to a larger population, but rather, to "provide an account of a setting or population that is illuminating as an extreme case or ideal type" (Maxwell, 2013, p. 137). This is the intent of this research study; however, the fact remains that generalizability is a limitation of this single case study.

The other limitation of this research study is that of researcher subjectivity. As discussed in the subsequent researcher identity section, the researcher in this study has significant interest and experience in the case school and with participants in the study. Maxwell (2013) states that "qualitative research should be participatory in the sense of working collaboratively with research participants to generate knowledge that is useful to the participants as well as to the researcher" (p. 92). Though a limitation to the objectivity of the study, data collection through qualitative research and the case study method will be enriched through the researcher's subjectivity.

Researcher Identity

As a first-generation college graduate who benefited from the advantages of AP courses, a career educator and a former principal in majority Black middle and high schools, educational equity has been of personal, professional, and academic interest for several years. In my personal experience as a school principal, when I encouraged even the smallest steps toward being more inclusive in opening up the opportunity for students to become engaged in AP or pre-AP curriculum rigor, such as using a more objective recommendation process based on the AP potential report or removing content prerequisites or minimum GPAs to enroll in AP, the veteran AP teachers would often reflexively bristle at the notion of greater participation. The thinking was that by allowing students who were less qualified to join the AP class, it would dilute the overall quality of the course, regardless of how greater access and participation may have positively influenced diversity within the classroom. The mindset behind achievement, shared by many teachers, was rooted in preconceived stereotypes and biased perceptions based on factors irrelevant to a student's potential.

Although I had gained insight on prior research and potential methods for conducting my own personal research to inform school practice toward enhanced equity, it was not until I was provided with key data relating to AP enrollment within the high schools in my area, including those at which I had worked during my career, that the most appropriate research design, the single case study, became evident. As a high school principal, I had a vague idea that many of the Black students at my school, despite potential and ability, were not being challenged sufficiently through enrollment in advanced and AP courses. However, despite meeting monthly with all principals in my large metropolitan school division for several hours at a time on at least

a monthly basis to discuss school and division trends and concerns, instruction and equity were rarely topics of conversation. Opportunity was rarely provided to network with and learn from schools in the same division with similar demographics. Had this opportunity been afforded, and had AP enrollment data been discussed, I would have realized that my school lagged in equity, and that another school with nearly identical demographic characteristics was right on target. That other school is the very school that has been identified as the case school-Juniper High School.

The identification of Juniper High School as the case school is also of personal interest to me. I began my teaching career at this school, and served as an assistant principal at the same school as well as the principal at the feeder middle school located just across the street from the high school. Fourteen of my first fifteen years in public education were spent in the community of Juniper High School as a teacher and administrator. I developed meaningful relationships with students, parents, and colleagues at Juniper High School, many of which still thrive today. My last class of 6th and 7th graders from my tenure as principal at the feeder middle school adjacent to Juniper High School, from 2012-2013, are now among the current 11th and 12th graders at Juniper High School, and are among the AP students at the school, some of whom I interviewed during data collection.

My personal attachments and knowledge about the case school merit discussion related to potential research bias. Working with a qualitative research method to conduct the case study research, it is important to consider my own biases, limitations, and views relative to my position as researcher in the research setting. Having a degree of personal and professional familiarity with both students and teachers at Juniper High School required acknowledgement of potential influence on various dimensions of the research process. However, the benefits in this study

outweighed potential risks. Although positivist studies would consider my position a threat to validity, within the qualitative research design and the constructivist/interpretivist paradigm, my position supported the establishment of credibility and comfort in the research setting. My past experience and familiarity in the case school were found to facilitate rich and deep research during the data collection process.

Components of the Case Study Research Design (from Yin, 2014)

Case study questions: the case study question has been refined according to the stages suggested by Yin (2014): use literature to narrow interest to a key topic, dissect a few key studies on your topic of interest, and examine further studies on the same topic. My personal interest, discussed in the background and researcher identity section, prompted my review of literature on AP, AP equity, and the relationship of school-based factors to AP equity. After initial thorough review of a few key studies on this topic, including the Smith (2010) Arlington, Virginia case study, Klopfenstein (2004), and Flores-Gomez (2011), my literature review expanded as categories of school-based factors cited in literature as meaningful in promoting AP equity emerged. After several revisions, the case study question mirrors the research question:

How do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school?

Propositions: The following theoretical propositions describe the relationships among the factors identified through the review of literature, the conceptual framework, and the standard of educational and social equity described in the theoretical considerations. These propositions serve in large part as working hypotheses to the case study question. As Yin (2014) states, the propositions begin to "tell you where to look for relevant evidence" (p. 30). Thus, these propositions will serve as the foundation for data collection methods, which will be designed to

collect evidence of the nature of teacher training, leadership behaviors, communication at different levels between school and families, curricular alignment and coordination across levels and within the school, the formalized course recommendation processes and the individual treatment of those processes by staff, and any unique programming, policy, or practice implemented by Juniper High School toward AP enrollment.

The following propositions are justified by prior literature analyzing various facets of equitable practice in AP enrollment within the four broad categories of school-based factors and practice, outlined in the review of literature and applied in the conceptual framework. Each proposition represents the potential dynamics between and among the factors demonstrated by prior literature as influencing the equity of the practice of AP enrollment at the school level.

1. Teacher training undergone by Juniper High School AP teachers at various levels (school, division, regional, and national) includes not only relevant instructional techniques for teaching the content of AP courses, but also includes awareness of the value of equitable access, participation, and outcomes on behalf of Black AP students.

2. Leadership and support staff (principal, administrator, counselor, testing coordinator, instructional coach) make equity in AP enrollment an explicit goal of programming, practice, and interactions with staff, students, and the community, resulting in Black enrollment equity across the dimensions of access, participation, and outcomes not by chance, but by thoughtful articulation of the value of equity in both word and action within the population of AP students.

3. Communication to parents and the community is undertaken to clarify the nature of AP courses, the work required to achieve success, the resources available to Black AP students, and the benefits of AP course participation in the short and long term on behalf of students.

4. Curriculum is coordinated by staff both within the high school and between the middle and high school to ensure that Black students are prepared for the rigor of AP, both experientially through exposure to rigorous coursework across the content areas and through enrollment in pre-AP courses designed to maximize success in AP courses.

5. Identification and recommendation processes are characterized by the tendency to challenge Black students who may not be typically high achieving in all subject areas rather than to prevent Black students from enrolling in an AP course out of fear of diluting the skill level of the classroom or prompting a teacher to tailor instruction to support Black students needing additional resources to achieve in AP.

6. Course offerings and the scheduling process are thoughtfully facilitated by staff with flexibility toward greater inclusion of Black students in AP courses. Course offerings are diverse in content to engage the most students.

7. Unique programming is implemented at the school level to provide resources to staff, students, and families to support equitable practice.

Unit of Analysis:

Miles and Huberman (1994) define the case as "a phenomenon of some sort occurring in a bounded context. The case is, 'in effect, your unit of analysis'" (p. 25). The case in this study is the AP program at Juniper High School, in that the AP program, which includes enrollment,

professional development, instruction, unique communication, and coordination among various

personnel and departments within the school, is the setting in which the school-based factors for

which evidence was collected did occur. The Juniper High School AP program has been

identified as the case based on the research questions and propositions, which require that

evidence be collected from several individuals involved in the departments and processes

flowing through many dimensions of the high school related to AP.

The case boundaries were established by the original research questions and

propositions, to focus on the policies, practices, and programming originating in the school and

contributing to the phenomena of Black student enrollment in AP classes at Juniper High School.

Binding the case of the high school by definition and context, as suggest by Miles and Huberman

(1994), is the most appropriate method in this study. As the data collection process took place, it

was important to not place strict boundaries within the school, as the school-based factors being

studied can move in many directions within the school setting, including leadership processes,

school communication, classroom interactions between teacher and student, or departmental

interactions among teachers and teachers and leaders. Other key relationships that could

potentially contain important evidence to determine what school-based factors are at play at

Juniper High School and how those factors influence AP enrollment among Black students were

not restricted in the data collection.

Data Collection Procedure:

Yin (2014) defines a core strategy of the case study method as the collection of multiple

sources of evidence in order to understand the complex phenomena being studied-in this case,

the school-based factors that comprise the AP enrollment process for Black students. In order to

answer the case study questions and to "test" the propositions, this case study relied on multiple

sources of evidence. Using multiple sources of data and evidence (documentation and interviews), data will be triangulated to evaluate convergence of evidence related to the use of the school-based factors proposed in the study propositions.

The character of these evidence sources is determined based on the study propositions; that is, evidence was collected relating to the school-based factors proposed to influence equitable AP enrollment by Black students at Juniper High School using the following sources of evidence:

Sources of Evidence

Documentation: documentation collected as evidence included documentation related to special programming for AP, including the Virginia Advanced Study Strategies (VASS) grant program, the Juniper High College Success Seminar grant program and the recommendation flowchart for student course placement. Documentation included current school year information as well as information for previous school years dating back to the 2015-2016 school year as available. Virginia Department of Education (VDOE) documentation relating to efforts to work with local school divisions in supporting equitable practice were also collected and analyzed, and were integrated in the recommendations included in the conclusion.

Interviews: Shorter case study interviews (Yin, 2014, p. 111) were conducted to collect evidence of the presence of and interaction among school-based factors. The "shorter case study interview" is more focused, though conversational and open-ended. Four interview protocols were used during the interview. Protocols can be found in the appendices.

1. *Non-teaching staff personnel protocol (school-based)*: for individuals involved in AP but not in the role as a classroom teacher, including counselor, testing coordinator, and administrator.

2. *Non-teaching staff personnel protocol (division and state):* for individuals working outside of the school setting but in roles related to equitable practice at the division and state levels.

3. *Teaching staff personnel protocol:* for individuals involved in AP at the case school in the role of a classroom teacher, including veteran AP teachers, novice AP teachers, and teachers instructing pre-AP curriculum.

4. *Student protocol:* for Juniper High AP students, including recruited Black AP students, high achieving Black AP students, and, for comparison purposes, recruited White AP students and high achieving White AP students.

*Participant selection***:** purposive sampling was performed according to the mandated division research protocol to select "well-informed interviewees" capable of providing information about the presence of school-based factors and their interactions toward equitable AP enrollment.

Student Interviews

Students (n=17):

- **High achieving Black AP students (n=5):** students recommended by school staff (principal, assistant principal, or counselor) as consistently high-achieving Black students who are currently enrolled in at least 1 AP course for whom recruitment efforts were minimal

- **Recruited Black AP students (n=4):** students recommended by school staff (principal, assistant principal, or counselor) as having been targeted for enrollment in AP based on

AP potential or other indicators and are currently enrolled in at least 1 AP class. Recruitment efforts were significant to convince student to enroll in AP.

- **High achieving White AP students (n=4):** students recommended by school staff (principal, assistant principal, or counselor) as White students who are currently enrolled in at least 1 AP course for whom recruitment efforts were minimal.

- **Recruited White AP students (n=4):** students recommended by school staff (principal, assistant principal, or counselor) as having been targeted for enrollment in AP based on AP potential or other indicators and are currently enrolled in at least 1 AP class. Recruitment efforts were significant to convince student to enroll in AP.

Per requirements of the division research protocol, names of students recommended under each of the student categories-high achieving Black AP students, recruited Black AP students, high achieving White AP students, and recruited White AP students-were provided directly from the case school principal to the division department of research and planning. I was then required to provide the research and planning representative with mailings that included a cover letter, informed consent documents, and self-addressed, stamped envelopes for return by the students to me.

After receiving very few responses via the direct mailing, I was able to secure identifying information from the case school for the potential participants, including email addresses and phone numbers for parents. I then emailed the same cover letter and informed consent documents to the families. More participants were recruited, but it was only after making, in several cases, multiple follow up phone calls, that sufficient participants were recruited for the interviews. 17 total students were selected for interview, including 5 high achieving Black

students, 4 recruited Black students, 4 high achieving White students, and 4 recruited White students.

Table 2

Student Interview Subjects

Identifier	Gender	Grade	Race	HA or R*	Age	# AP Courses
JD	Male	12	Black	HA	17	1
AC	Male	11	Black	HA	17	2
NF	Female	11	Black	HA	17	1
AJ	Female	11	Black	HA	17	2
JN	Male	12	Black	HA	18	3
LE	Female	11	Black	R	17	2
SP	Male	12	Black	R	17	2
TJ	Male	11	Black	R	17	1
JW	Male	11	Black	R	17	2
RW	Female	11	White	R	17	2
JM	Male	11	White	R	17	1
TR	Male	12	White	R	18	1
EL	Female	12	White	R	18	2
DC	Male	11	White	HA	16	2
ME	Female	12	White	HA	18	4
CT	Female	11	White	HA	17	2
SH	Female	10	White	HA	16	1

*HA=high achieving; R=recruited

Staff Interviews

School-Based Staff (n=8):

- **Principal (n=1):** familiar with overall school operations, and can provide information about other key personnel with knowledge about AP enrollment processes and school-based factors. Principal is also directly involved in scheduling, professional development, and family outreach.

- **Coordinator of Assessment and Remediation (CAR) (n=1):** responsible for all testing logistics, including AP, and works with counseling staff to review AP potential reports.

At Juniper High School, the CAR is an experienced staff member who served as a teacher before assuming the CAR role, and is knowledgeable about school-based efforts to recruit and enroll Black students in AP.

- **School Counseling Director (n=1):** key staff member in developing the school's master schedule, and works directly with school administration and CAR to conduct efforts to enroll AP students, including student and parent outreach. Facilitates the course selection process and recommendation process with counseling and instructional staff.

- **AP and Pre-AP Teachers (n=5):**

  o **Veteran AP teacher (5+ years experience teaching AP) (n=2)**

  o **Novice AP teacher (2 or less years teaching AP)(n=2)**

  o **Non-AP teacher (2) teaching pre-AP courses (n=1)**

Non-School Based Staff (n=3):

- **Division level staff-instructional director (n=1):** able to provide evidence relating to any division-level practice or policy related to AP enrollment and equity that impact school practice.

- **Virginia Department of Education staff-Office of Minority Affairs and Policy (n=2):** able to provide evidence relating to any state-level practice or policy related to AP enrollment and equity that impact school practice.

Table 3

Staff Interview Subjects

Identifier	Title	Location	Race	Years in Current Position
AS	Principal	School	W	5
CN	Counseling Secretary	School	W	7
PB	Assessment Coordinator	School	W	12
ES	AP Teacher	School	W	10
AJ	AP Teacher	School	W	14
JL	AP Teacher	School	W	2
JW	AP Teacher	School	W	2
JJ	Pre-AP Teacher	School	B	8
OW	Division Director	Division	B	5
LW	Equity Administrator	State	B	4
CC	Policy Administrator	State	W	13

These staff members were selected based on their involvement and familiarity with school efforts across all categories of school-based factors, including teacher training, instructional characteristics, and recommendation processes. Selected staff participants were able to provide evidence relating to coordination among departments and levels in curriculum development and alignment. Non-school based staff participants were selected based on their involvement with policy and equity issues at the division and state level with ramifications for present and future school-based practice.

Collection and Storage of Evidence

Semi-structured interviews were conducted in a face-to-face setting in 21 of the 25 total interviews. Due to scheduling issues, two student interviews were conducted over the phone, and two staff interviews were provided using written responses via e-mail. During the face-to-face interviews with all school-based staff and 13 of the student interviews, the interview was

conducted in a private space in the main office area away from the flow of foot traffic on the campus. 2 student interviews were conducted at the local public library.

Digital recording devices were used during the entire interview and all subjects were informed that the interview was being recorded digitally. Both a laptop computer using Quicktime recording software and a mobile device using Apple voice recorder were used simultaneously for recording to provide a backup recording in the case of any malfunction. All recorded files were immediately transferred from the mobile device and laptop recording file on Quicktime to the password protected Google drive folder dedicated to data collection. The files were then deleted and destroyed from the recording devices after being maintained on the google drive folder.

Documents were provided by interview subjects by request as specific programmatic components of the Juniper High School AP program were discussed during interviews. For example, when interviewing experienced AP teacher ES, who had coordinated the College Success Seminar, she was asked if she could provide the grant application and description of the program. In addition, documents related to the Virginia Advanced Study Strategies (VASS) grant and recommendation guidelines for the English department were provided for review. These documents were analyzed within the narrative analysis in the appropriate category.

Interviews were transcribed for a fee by a transcription agency. Once transcriptions were provided by the agency, the transcriptions were then uploaded into Atlas.TI, a computer program designed to assist in coding qualitative data. The Atlas.TI program and all transcriptions were maintained on a password-protected device.

A case study database was established for collection and organized storage of collected evidence from all sources. The raw data and evidence (scanned copies of documents, audio files

and transcriptions of interviews, and field notes) were maintained separately from the case study report. Scanned documents, audio files, transcriptions, and field notes are all maintained in a secure digital database using a password protected google drive folder.

Data Analysis

The case study propositions were developed in an effort to potentially explain what school-based factors contributed to the equitable AP enrollment among Black students at Juniper High School. According to Yin (2014), to "explain" a phenomenon (in this case, the unique equitable enrollment of Black students in AP classes) is to "stipulate a presumed set of causal links about it, or 'how' or 'why' something happened" (p. 147). The case study propositions accomplish this, by stipulating a presumed causal relationship between the categories of school-based factors (Curricular rigor, variety, and quantity of AP offerings, parent and family outreach efforts, recommendation practices, curricular alignment, and explicit focus on providing equitable opportunities to enroll in AP courses) and the outcome of equitable AP enrollment among Black students in AP classes at Juniper High School in 2015-2016. As with most qualitative research analysis, data will initially be manipulated to search for patterns and relationships to the case study propositions.

The overall process used to answer the research question is represented in Figure 3. Literature review guided the development of the conceptual framework, which designated the categories of school-based factors evidenced to have influenced equitable Black AP enrollment and related outcomes (curriculum characteristics, parent outreach, recommendation processes, and teacher training) based on prior literature. The resulting conceptual framework then informed the development of the case propositions. Interview protocols were designed to

address the specific claims of the case propositions. These interview protocols were used during the data collection process in semi-structured interviews.

Data collected during interviews was then coded in multiple phases. The initial coding refined the raw data-all interview responses-into broad categories consistent with the categories of school-based factors. Open coding allowed for any emerging themes not associated with the original categories of school-based factors to be integrated as new themes and codes, which will be discussed in the following chapter. Document analysis and refined coding, including established and emerging codes, were then used to develop theory to answer the research question.

Figure 3

Research Process: How do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school?

Coding

Computer-assisted qualitative data analysis software (Atlas.TI) was used to efficiently organize data for analysis through coding of transcribed interview text data for patterns and categories of school-based factors influencing the AP enrollment process for Black students at Juniper High School. Coding was undertaken using the broad categories presented in the conceptual framework to organize collected data. These broad categories included teacher training, curriculum characteristics, identification practices, and parent outreach and engagement as developed in the review of literature and conceptual framework. Coding and data analysis were open and dynamic, and were adjusted to include additional categories and subcategories or to revise existing categories as evidence was analyzed. Maxwell's *Qualitative Research Design: An Interactive Approach* (2013) served as a primary guide and reference during the data analysis and coding practice. Maxwell recommends supplementing the organizational techniques of coding with narrative analysis, which was used as an additional data analysis technique.

Initial coding was refined in multiple phases to organize codes into thematic code groups. Quotations used in narrative analysis are selections initially coded within the associated thematic code group. Figure 4 illustrates the organizational framework and process of the findings and data analysis.

Figure 4: Coding, Themes, and Data Analysis
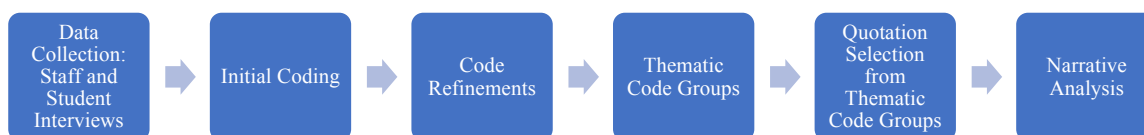
The narrowing of the findings from broad thematic patterns and the prevalence of themes to detailed narrative analysis using selected quotations will provide the "thickness" of data that distinguishes quality qualitative research. Findings will include relevant analysis of appropriate documents associated with the Juniper High School AP program, including local division policy and unique school-based programming documents related to grants and programs at Juniper High that have been implemented to support AP enrollment, student support, and instruction.

Validity

Traditional validity measures of internal validity, external validity, construct validity, reliability, and generalizability are being reframed for qualitative/case study research using the following techniques:

Triangulation of data: using multiple sources of data and evidence (documentation and interviews), data was triangulated to evaluate convergence of evidence related to the use of the school-based factors proposed in the study propositions.

Member checking: all interview transcriptions were sent to participants via email for their review to ensure ideas are accurately represented. No corrections or concerns were received from interview subjects.

Maintenance of a trail of evidence: all evidence and data collected to support claims are maintained securely to ensure legitimacy of all claims.

Researcher reflexivity: personal perspectives, especially for me and my connection to Juniper High and its students, was documented to account for any subjectivity.

Avoiding Bias: Despite my personal and professional knowledge of the inner workings of Juniper High School, along with my broader professional and academic interest in educational equity, care was taken to not conduct this study in order to substantiate any preconceived

position relative to equitable educational outcomes, in this case for Black students enrolling in AP classes. In order to minimize this risk of bias, I engaged in peer review, discussing and sharing collected evidence and tentative interpretations with critical colleagues to "test my own tolerance for contrary findings" (Yin, 2014, p. 76). These colleagues included current colleagues with terminal degrees who have limited familiarity with the case school.

Furthermore, my personal and professional relationships from prior experience at Juniper High School, rather than imparting bias to the study, functioned as an advantage in this particular research study. The importance of rich, detailed data to answer the research question in this single case study is facilitated by my personal and professional relationships with both staff and students. Their familiarity and comfort with me individually allowed for a free flow of responses and ideas for respondents, and my credibility as a colleague enhanced the quality and richness of responses. This allowed for data collected in an atmosphere of comfort and familiarity to not simply verify any of my pre-conceived ideas about the dynamics of school-based factors and equity in AP enrollment at Juniper High School.

External Validity: according to Maxwell (2013), "the primary concern of the study is not with generalization, but with developing an adequate description, interpretation, and explanation of this case" (p. 79). Aforementioned data collection techniques and steps were taken to ensure validity will satisfy this expectation of qualitative research in the present case study.

Research Ethics Concerns

Yin (2009) states that a sound case study is significant and complete and utilizes alternative perspectives, sufficient evidence, and is reported in an engaging manner. Without a foundation of ethical research, however, completion of a sound case study will be impossible.

Confidentiality: Due to the controversial nature of the research topic and the potential identification of individuals participating as informants in the study, school and individual identities were anonymized. This was done to protect the privacy and confidentiality of those involved in the research. While this study is appreciative in nature, and recognition and identification of the case school and individuals involved would likely serve to provide positive impressions of the school and its efforts to achieve equitable AP enrollment, ethical concerns prevented identification of the case school due to the singular roles involved in the interview process occupied by many participants, which would be identified personally were the school identity to be revealed. All subjects were assured that their identities and that of the school would remain anonymous in order to not only meet ethical research standards, but also to permit respondents to provide rich, forthcoming data without fear or concern of their identity being divulged.

Informed consent: After receiving formal approval per division protocol to conduct this case study at the school location, informed consent was received from all individuals involved in the case study. Consent was required and received by parents for student participants. Assent was obtained for all student participants per the approved IRB proposal. The informed consent document included details related to the case study and its goals, and was developed in cooperation with the host school division to ensure that all required protocols were met while conducting research at the school site (see Appendix D).

Chapter 4: Findings and Analysis

Introduction and Organization of the Chapter

The purpose of this study was to determine how school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school-in this study, Juniper High School, a central Virginia high school with the unique distinction among 38 central Virginia high schools of achieving proportional enrollment between Black and White students in AP classes during the 2015-2016 school year. In order to discover what these school-level practices, programs, policies, and characteristics were, semi-structured interviews were conducted with relevant stakeholders in the case school, including Black and White students both historically high-achieving and recruited into AP; school staff, including leadership, veteran AP teachers, novice AP teachers, and pre-AP teachers; and division and state personnel working in unique positions of influence and knowledge in the realm of school practice, educational policy, and equity concerns at school, division, and state levels.

School-level practice and the experiences, opportunities, and interactions of the Black student in American high schools is where progress toward equity can be realized. Inequities in public schools are complex, built from the innumerable daily experiences of each student that transpire among homes, communities, schools, offices, and classrooms each day, and are allowed to exist or to be remedied with the influence of federal, state, and local policy and regulation. The following findings and analysis will hopefully serve to target school-based practices, characteristics, and policies that show promise in increasing equitable practice on behalf of Black students in AP and in the larger context of public education.

This chapter will be organized to present the findings of the data collection process with accompanying analysis. First, tables intended to illustrate the prevalence of codes derived from

interview data will provide an overview of the themes that emerged most frequently among each of the individual student groups (Black high achieving, Black recruited, White high achieving, White recruited) and among the school-based staff group. Following the tables and accompanying analysis of the prevalence of themes, narrative analysis will be presented, including selected interview quotations.

Overview of Student Interview Data

Black High Achieving Students

From an initial list of 39 codes assigned to interview data collected from Black high achieving students, codes were refined and categorized into 12 thematic codes. Table 4 provides a summary of the prevalence of the thematic codes for Black high achieving students by each student interviewed, with the overall average frequency of each code (*M)* within the Black high achieving student group.

Table 4: Black High Achieving Students-Code Frequency by Student Identifier and Average Frequency

Code	AC	AJ	JD	NF	JN	Total	*M*
Teacher engagement and relationships with students	6	4	8	5	7	30	6
School culture of encouragement, support, and inclusion	6	4	2	2	1	15	3
High expectations of teachers and staff	5	4	3	1	1	14	2.8
Practical benefits of AP-grades, college admissions, financial	2	3	2	2	2	11	2.2
Prior exposure to instructional rigor (pre-AP)	3	2	3	0	2	10	2
School counselor engagement with students	2	3	0	3	2	10	2
Engaging content and rigor of AP course	3	1	1	0	2	7	1.4
Outreach and communication to families	1	0	3	2	1	7	1.4
Parent influence and expectations	0	3	1	0	0	4	0.8
Unique school-based programming	2	0	0	2	0	4	0.8
Identification and recommendation practices	2	0	1	0	0	3	0.6
Leadership and support staff engagement and relationships with students	0	0	2	0	0	2	0.4

For Black high-achieving students, findings indicate that, on average, teacher engagement and relationships with students was the most frequently discussed theme, followed by high expectations of teachers and staff, the practical benefits of AP, the engaging content and rigor of AP coursework, and prior exposure to instructional rigor in preparation for AP. Lesser discussed themes included leadership and support staff engagements and relationships with students, parent influence and expectations, unique school-based programming, and identification and recommendation practices. All Black high achieving students were aware of the typically promoted benefits of AP in the form of weighted GPAs, college admissions advantages, and the financial incentive of being able to place out of required courses with successful performance on the AP exam. School culture emerged as a theme, with all students mentioning the character of the dynamics of the Juniper High School community.

White High Achieving Students

From an initial list of 38 codes assigned to interview data collected from White high achieving students, codes were refined into 12 thematic codes. Table 5 provides a summary of the prevalence of the thematic codes for White high achieving students by each student interviewed, with the overall average frequency of each code (*M)* within the White high achieving student group.

Table 5: White High Achieving Students-Code Frequency by Student Identifier and Average Frequency

Code	CT	DC	ME	SH	Total	*M*
Teacher engagement and relationships with students	4	7	7	6	24	6
Engaging content and rigor of AP course	5	6	5	3	19	4.75
School culture of encouragement, support, and inclusion	3	5	7	3	18	4.5
Identification and recommendation practices	5	4	3	3	15	3.75
Practical benefits of AP-grades, college admissions, financial	2	2	0	3	7	1.75
High expectations of teachers and staff	1	1	1	1	4	1
Outreach and communication to families	1	1	1	1	4	1
Parent influence and expectations	0	2	1	1	4	1
School counselor engagement with students	1	1	1	1	4	1
Prior exposure to instructional rigor (pre-AP)	1	0	1	1	3	0.75
Leadership and support staff engagement and relationships with students	1	0	1	0	2	0.5
Unique school-based programming	0	1	0	0	1	0.25

For White high-achieving students, findings indicate that, on average, teacher engagement and relationships with students was the most frequently discussed theme, followed by the engaging content and rigor of AP coursework, identification and recommendation practices, the practical benefits of AP, and prior exposure to instructional rigor in preparation for AP. Lesser discussed themes included leadership and support staff engagements and relationships with students, parent influence and expectations, unique school-based programming, prior exposure to pre-AP instructional rigor, and identification and recommendation practices. All White high achieving students mentioned parent and student outreach in relation to their AP experience. School culture emerged as a theme among White high achieving students, with all students mentioning the character of the dynamics of the Juniper High School community.

Black Recruited Students

From an initial list of 33 codes assigned to interview data collected from Black recruited students, codes were refined and categorized into 12 thematic codes. Table 6 provides a summary

of the prevalence of the thematic codes for Black recruited students by each student interviewed, with the overall average frequency of each code (*M)* within the Black recruited student group**.**

Table 6: Black Recruited Students-Code Frequency by Student Identifier and Average Frequency

Code	JW	LE	SP	TJ	Total	*M*
Identification and recommendation processes	6	4	4	2	16	4
Engaging content and rigor of AP classes	3	4	4	2	13	3.25
School culture of encouragement, support, and inclusion	5	3	0	2	10	2.5
School counselor engagement with students	2	3	3	1	9	2.25
Teacher engagement and relationships with students	1	1	3	2	7	1.75
Outreach and communication to families	3	3	0	1	7	1.75
High expectations of teachers and staff	1	1	0	2	4	1
Parent influence and expectations	0	3	0	1	4	1
Practical benefits of AP-grades, college admissions, financial	0	2	2	0	4	1
Unique school-based programming	0	0	4	0	4	1
Leadership and support staff engagement and relationships with students	0	0	2	1	3	0.75
Prior exposure to instructional rigor (pre-AP)	0	0	2	0	2	0.5

For Black recruited students, findings indicate that, on average, identification and recommendation practices was the most frequently discussed theme, followed by engaging content and rigor of the AP course, a school culture of encouragement, support, and inclusion, and teacher engagement and relationships with students. Lesser discussed themes included leadership and support staff engagement and relationships with students and prior exposure to instructional rigor pre-AP. Only half of Black recruited students demonstrated awareness of the typically promoted benefits of AP in the form of weighted GPAs, college admissions advantages, and the financial incentive of being able to place out of required courses with successful performance on the AP exam. All Black recruited students discussed the role of their school counselor as meaningful to their AP experience during their interviews.

White Recruited Students

From an initial list of 29 codes assigned to interview data collected from White recruited students, codes were refined and categorized into 12 thematic codes. Table 7 provides a summary of the prevalence of the thematic codes for White recruited students by each student interviewed, with the overall average frequency of each code (*M)* within the White recruited student group.

Table 7: White Recruited Students-Code Frequency by Student Identifier and Average Frequency

Code	RW	JM	EL	TR	Total	*M*
Teacher engagement and relationships with students	5	8	7	5	25	*6.25*
Identification and recommendation processes	2	6	4	5	17	4.25
School culture of encouragement, support, and inclusion	2	6	6	3	17	4.25
School counselor engagement with students	2	2	3	2	9	2.25
High expectations of teachers and staff	1	2	1	2	6	1.5
Unique school-based programming	0	2	1	1	4	1
Engaging content and rigor of AP classes	0	1	1	0	2	0.5
Outreach and communication to families	2	0	0	0	2	0.5
Practical benefits of AP-grades, college admissions, financial	0	1	0	1	2	0.5
Leadership and support staff engagement and relationships with students	0	1	0	0	1	0.25
Prior exposure to instructional rigor (pre-AP)	1	0	0	0	1	0.25
Parent influence and expectations	0	0	0	0	0	0

For White recruited students, findings indicate that, on average, teacher engagement and relationships with students was the most frequently discussed theme, followed by a school culture of encouragement, support, and identification and recommendation practices. Lesser discussed themes included parent influence and expectations, engaging content and rigor of AP coursework, prior exposure to instructional rigor pre-AP, and leadership and support staff engagement and relationships with students. Only one white recruited student discussed parent outreach or expectations in their AP experience, and only half of the white recruited students indicated awareness of the practical benefits of AP.

All Students: Comparison of Average Prevalence of Themes Among Student Groups

Average frequency of the thematic codes is displayed in Table 8 for each of the four student interview participant groups for the purpose of comparison.

Table 8: Comparison of M among student groups

Code	BH (n=5)	WH (n=4)	BR (n=4)	WR (n=4)	Frequency	M
Teacher engagement and relationships with students	6.0 (30)	6.0 (24)	1.75 (7)	6.25 (25)	86	5.06
School culture of encouragement, support, and inclusion	3.0 (15)	4.5 (18)	2.5 (10)	4.25 (17)	60	3.53
Identification and recommendation processes	.6 (3)	3.75 (15)	4.0 (16)	4.25 (17)	51	3.00
Engaging content and rigor of AP classes	1.4 (7)	4.75 (19)	3.25 (13)	.5 (2)	41	2.41
School counselor engagement with students	2.0 (10)	1.0 (4)	2.25 (9)	2.25 (9)	32	1.88
High expectations of teachers and staff	2.8 (14)	1.0 (4)	1.0 (4)	1.5 (6)	28	1.65
Practical benefits of AP-grades, college admissions, financial	2.2 (11)	1.75 (7)	1.0 (4)	.5 (2)	24	1.41
Outreach and communication to families	1.4 (7)	1.0 (4)	1.75 (7)	.5 (2)	20	1.18
Prior exposure to instructional rigor (pre-AP)	2.0 (10)	.75 (3)	.5 (2)	.25 (1)	16	0.94
Unique school-based programming	.8 (4)	.25 (1)	1.0 (4)	1.0 (4)	13	0.76
Parent influence and expectations	.8 (4)	1.0 (4)	1.0 (4)	0 (0.0)	12	0.71
Leadership and support staff engagement and relationships with students	.4 (2)	.5 (2)	.75 (3)	.25 (1)	8	0.47

This comparison of the average frequency of coded responses among the four student groups includes several findings worthy of further analysis and discussion. Although this is a broad and rudimentary statistical analysis of the prevalence of discussed themes, this initial snapshot of trends among the student groups prompts further analysis through detailed narrative analysis to

identify the school-based factors at Juniper High considered influential in the promotion of equitable AP enrollment.

Among Black student participants, Black high achieving students provided responses at a significantly higher frequency related to prior exposure to instructional rigor, understanding of the practical benefits of AP, high expectations of teachers and staff, and school counselor engagement in their AP experience compared to Black recruited, White high achieving, and White recruited students. Black high achieving student responses included significantly fewer responses related to identification and recommendation processes as part of their AP experience. Black recruited student responses included significantly fewer responses compared to the other student participant groups related to teacher engagement and relationships and the school culture of encouragement, support, and inclusion as part of their AP experience.

Among white student participants, white high achieving students provided a relatively high frequency of responses in the areas of school culture of encouragement, support, and inclusion and the engaging content and rigor of the AP coursework. Responses by White high achieving students were relatively fewer among the four student participant groups related to unique school-based programming and its role in the AP experience. White recruited students provided responses at a relatively high frequency among the four student participant groups in relation to teacher engagement and relationships with students and identification and recommendation practices when describing their AP experience. White recruited students provided responses at a relatively lower frequency among the four student participant groups related to prior exposure to pre-AP instructional rigor, practical benefits of AP, and the engaging content and rigor of the AP coursework.

Overview of School-Based Staff Interview Data

Interview responses with 8 school-based staff members, including veteran, novice, and pre-AP teachers, the principal, coordinator of assessment, and school counseling director, produced 178 unique codes that were refined and categorized under 17 code groups based on theme related to policies, practices, and characteristics of the Juniper High AP program that have been considered influential in promoting equitable AP enrollment between Black and White students. Table 9 provides a summary of the prevalence of the thematic codes for staff participants by each category of school-based staff participant (experienced AP teacher, novice AP teacher, pre-AP teacher, and administrative staff), with the overall average frequency of each code (*M)* occurring in responses by each staff group.

Table 9: School Based Staff: Prevalence of Themes by Average Occurrence of Theme by Staff Group

Code	Experienced AP	Novice AP	Pre AP	Admin	*M*
Relationships and expectations: staff to student	6	8.5	10	11.7	9.1
Leadership behaviors and expectations	4	6.5	1	15	6.6
Unique school-based programming	10.5	5	1	7	5.9
Related teacher training-AP and equitable practice	5	4	6	4.7	4.9
Recommendation processes toward equitable enrollment	4	5	4	4.7	4.4
Course offerings and scheduling processes	3.5	3.5	5	5.3	4.3
Parent and student AP outreach by school	2	3.5	4	6.3	4.0
Instructional techniques and quality of teaching practice	2.5	5	2	3.3	3.2
Inclusive school culture	2	7.5	0	1.3	2.7
Curricular alignment among schools to prepare for AP	1.5	1	2	1.7	1.6
Curriculum rigor and academic expectations	0	1	1	2.3	1.1
Pre-AP experience (middle and elementary)	1.5	0	0	1.7	0.8
School and division resources	1	0.5	0	1	0.6
Policy factors related to AP enrollment	0	0	0	1.7	0.4
Parent expectations	.5	0.5	0	0	0.3

This comparison of the average frequency of coded responses among the four school-based staff respondent groups includes several findings worthy of further analysis and discussion. This initial snapshot of trends among the staff groups prompts initial analysis that will continue with more detailed narrative analysis. Among the unique groups of staff respondents (experienced AP teachers, novice AP teachers, pre-AP teacher, and administration, including the principal, assessment coordinator, and counseling director), the frequency of themes that emerged from interview responses were inconsistent among all staff groups with a few exceptions.

Overall, staff respondents consistently and frequently cited the course recommendation process, teacher and staff training, and student to staff relationships as school-based factors that influenced equitable AP enrollment. Unique programming at Juniper High was cited as a school-based factor influencing equitable AP enrollment at high rates among responses from school-based staff with the exception of the pre-AP teacher, who provided a response related to unique programming only once. This could be due to the fact that, having not yet taught AP, the teacher has yet to be exposed to unique programming geared toward AP at Juniper High School. Conversely, the pre-AP teacher cited the inclusive school culture of Juniper High at a significantly higher frequency than other respondent groups. It is useful to note that the pre-AP teacher is the one teacher of color from among the staff respondents. Leadership behaviors and expectations were cited frequently among all staff respondent groups with the exception of the pre-AP teacher. School-based parent outreach to students and families about AP was frequently cited by respondents as influencing equitable AP enrollment, but parent expectations was the lowest thematic category included in responses by staff respondents. School-based staff respondents frequently referenced the school-based outreach performed by the school to inform,

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educate, and encourage AP enrollment by students but rarely saw the same influence of the expectations of families and parents in equitable student enrollment patterns. School administrators responded more frequently than all teachers about policies influencing equitable student enrollment, likely due to exposure to more division and state policy dynamics at the school administrative levels. These policy factors included VDOE-mandated graduation requirements as well as division and state funding to reimburse disadvantaged students for AP test fees.

Narrative Analysis

Introduction

After several phases of refining and categorizing of codes for student and staff interview data, data was organized into broad categories that fell within the original categories of school-based factors proposed in the conceptual framework as influencing equity in AP enrollment. These broad categories of school-based factors influencing equitable AP enrollment were curriculum: quantity and variety of AP courses; staff: teacher training and awareness; family engagement and outreach, and student identification and recommendation practices. Broad categories remained relatively consistent with the original categories of school-based factors developed through the review of prior literature with the exception of one emergent category that was created based on collected data that did not fit within the four broad categories included in the conceptual framework and prior literature.

Data will be presented using narrative analysis in order to determine how school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school-in this study, Juniper High School. As stated in the goals of the study, it is my hope that this study will provide a glimpse into the work taking place in this

selected school that demonstrated success in providing a greater degree of equitable access to AP within a diverse school population. Within this detailed narrative analysis, which will include quotations, analysis, and integrated documents, will hopefully be found school-level practices with potential for implementation, replication, or adaptation as needed in high schools toward the ultimate goal of improving equity through a reduction in the enrollment gap between Black and White high school students in AP courses. These findings will provide rich detail related to school-level practices that contribute to the uniquely equitable outcomes at Juniper High School in the hopes that these findings and subsequent conclusions and recommendations can guide public policy and accompanying practice toward greater equitable outcomes for traditionally underserved populations in U.S. public schools.

The categories of school-based factors influencing equitable enrollment between Black and White students in AP courses at Juniper High School include **student identification, recommendation, and school scheduling processes, curriculum alignment and early preparation for AP, high academic expectations and curriculum rigor with commensurate student academic support, school culture of diversity, inclusion, and encouragement, student and family outreach and education about AP, teacher training, and unique school programming and resources to support equitable practice.** Narrative analysis under each of these categories will include selected quotations from students and staff with accompanying analysis, and will integrate selected documents for greater detail and convergence of evidence.

AP Student Identification, Recommendation, and School Scheduling Processes for Staff and Students at Juniper High are Designed and Administered to Reduce Barriers to AP Enrollment.

Response data from both students and teachers across all groups demonstrated that student identification, recommendation, and scheduling processes were among the school-based factors taking place at Juniper High School that have influenced the school's equitable enrollment patterns between Black and White students in AP classes. Within this broad category of school-based factors, specific dimensions cited by respondents included flexibility in student scheduling and recommendation for AP, identification and recommendation practices with explicit goals of greater inclusion and enrollment in AP courses with limited and flexible barriers, teacher scheduling performed to enhance student engagement in AP courses, and priority placed on ensuring a variety and quantity of AP course offerings are made available, even when AP course availability comes at a cost to overall efficiency of the student schedule.

Staff and student Scheduling: the operational framework for equitable practice

Many high schools develop teaching schedules using a seniority model, providing more experienced teachers with more advanced classes in their teaching load, including AP. This traditional process often has the outcome of negatively influencing engagement and enrollment in AP classes; teachers teaching classes consisting of all or most advanced classes, without exposure to diverse ability levels balancing the consistent population of advanced classes, lose the opportunity to engage with students who are not in advanced classes yet have the potential to achieve in advanced or AP classes. Juniper High School's administration has shifted the scheduling process to not allow any teacher to teach schedules consisting exclusively of advanced or AP classes, exposing teachers to learners of varying abilities and backgrounds. Teachers and leaders interviewed discussed the benefits of this process at Juniper High and its

positive influence on equitable AP enrollment. Staff respondent PB, who serves as the school Coordinator of Assessment and Remediation, had served as a teacher and coach at Juniper High for several years before becoming the Coordinator of Assessment and Remediation in 2005. "…so, for me, it's not only knowing the at-risk students, but understanding the total population here at Juniper. So I like to go in and see an honors class or meet with the honors kids…most of our departments now, you don't just teach an SOL. You might have a non-SOL class, you have a SOL class, you may have an honors-level class included. So we stagger…I think they see every child, every aspect" (27:4).

Teacher JL, a novice AP teacher, compared this process to his experience in prior schools, noting that his mixture of AP and non-AP classes have created another point of access for students who he has had the opportunity to encourage and teach who may have not considered AP without the experience in his non-AP classes.

> Next year, some of those same freshmen from collab or non-collab are going to be circling back into my AP, and it's that exact conversation, where, you know, I still see them now and would see them…and kids I had good relationships with, I wouldn't even present it as a choice. I said, 'I'm going to see your butt in my AP class'…and it's the first time – I've taught a variety of subjects over the course of 16 years. I had never actually taught AP before, partially because in many systems, you ran into that seniority wall, where the lifers kind of held onto their AP classes quite tightly. But the dichotomy between some of our – some of our, I guess – I don't want to say – weakest students maybe, or students who maybe need more support at that collaborative level with world history I, and then having my – you know, my college-level AP kids, it's actually been great because you can kind of draw from experiences in each and bring it back to the other one and say, okay, this is – so it's a good kind of comparison to have. (14:6)

Teacher JW, a novice AP teacher, discussed the purposeful scheduling of the supplementary study block, known as ABC. All students are enrolled in an ABC class. ABC is designed as a daily short period for students to receive extra help, attend club meetings, and does not carry a grade or specific content. Juniper High scheduled the ABC class to expose teachers to a greater variety of students by grade level and ability. Teacher JW

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describes the advantage scheduling of the ABC class has provided in establishing relationships that could potentially translate into enrollment in his AP courses for students in future, as well as providing the opportunity to collaborate with other teachers to assist students.

> …the cool thing about how our ABC, our kind of study block, has been scheduled, I have a bunch of freshmen…I'm mainly a senior teacher, yet I have a group of freshmen for my study hall. And that's actually really nice. It was genius that it was set it up that way because I now get to know students that will eventually show up in one of my classes somewhere along the line, and that is really good because that's what I really realized – because this is the longest tenure I've had at any school, and over the last two years, it's felt so nice when you can walk around campus and you see so many people that you know and they say hi to you, and you just have that built-in reputation and relationships with so many people. And so we do talk about, you know, I'm seeing this kind of activity in ABC. What are they like in class? And then we're able to talk about what types of strengths they have and what types of weaknesses they have. And the teachers are all very perceptive. We are a sharp faculty. (25:16)

Teacher JL sees the purposeful mixed scheduling of ability levels for teachers as an opportunity to "sell" advanced coursework. "…about having freshmen and then having this other section of upper-class, is that you can sell kids on it and kids – everybody wants to hear you're good at something, and half the time, it's kids who are really bright kids. I'm like, you shouldn't have been in this collaborative class to begin with. I'm thinking that. Why don't you think about AP? Why? Because you can do it" (14:10).

Juniper High's scheduling process for teachers and students has helped to influence equitable enrollment in advanced and AP classes by working to eliminate the traditional silo mentality that drives the schedules of many schools, one that limits teachers to working with only one dimension of students, whether by grade level, ability level, or special need. Juniper High's purposeful effort in scheduling creates more points of engagement and organically creates a setting to cultivate relationships between staff and students toward equitable AP enrollment.

The overall master schedule at Juniper High School is developed with a sensitivity to the availability and variety of AP courses, even when it may reduce the overall efficiency of the entire schedule. While most high schools traditionally work to create a schedule that prioritizes balanced class sizes and teacher requests before accommodating advanced or AP offerings, Juniper High works in reverse-creating a master schedule that begins with unique class offerings, including AP courses, in an effort to reduce conflicts that would preclude student participation. Counseling director CN works directly with school administration for several months prior to the beginning of the school year to create the Juniper High master schedule. "It's tough because our AP numbers have dropped a little bit in the past two years, so there's a lot of singletons, and that can be difficult. But what the administration and I do when we build the master schedule is we – I started this last year when I realized how difficult it was to fit AP requests-we do our AP classes first, before we do anything else. So, like we'll put English 11 and English 12 in the same period because we know there's not going to be a conflict there. We put our histories in the same period. So that helped a lot last year and we did it again this year. And then trying to space out the communication classes (laughs) with that, too. There's still always a handful of conflicts" (16:30).

Exceptionally small AP class sizes do not necessarily eliminate the existence of an AP class, as often occurs in most school schedules where a class without sufficient enrollment does not "carry". Juniper High has placed greater value on maintaining AP offerings. Teacher JJ, a pre-AP teacher, noticed an example in her observations during the past school year. "Yesterday, I ran into four kids, and they were in AP environmental. It was four of them. And I was like, wow, that class made. I would've thought it would not have made with just four kids" (10:8).

While several student respondents discussed situations in which their AP course request was not available due to scheduling conflicts, many went on to note the school's efforts to eventually accommodate their request. Student JW, a Black recruited AP student, was not able to take AP Human Geography despite his request to take the course and his teacher's recommendation due to confusion about prerequisites. "I was recommended for AP Human Geography, and I didn't take it because me and my counselor, we were confused because my counselor believed that I had to have had World History II already taken, but come to find out I didn't have to have that taken. So, I just didn't take that AP class. But my World History I teacher, Mr. R, he thought that it would've been a good idea for me to take the AP Human Geography class because the world history class that I was in, he said I exceeded it" (11:1). Student JC, a high achieving Black student, was eventually able to take AP Psychology after a delay of one year due to his counselor's efforts.

> *Student JC*: Last year, last summer, I thought I was taking AP psychology this year, this current school year I'm in. Did the project for the summer and everything, did a whole summer project. Come out this year, I couldn't take it.
>
> I: Why not?
>
> *Student JC*: I couldn't take it because one of my AP classes was interfering with that AP Psychology.
>
> I: So you had two AP classes. And they're only scheduled at one time.
>
> *Student JC*: Yeah, exactly. So I did the project for it and I'm taking it next year, so the great thing about it is that –
>
> I: Can you count that for next year?

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Student JC: Yeah, exactly. It's not like they said oh, it doesn't fit your schedule, sorry

(2:16).

Student DC, a White high achieving student, received similar assistance in schedule adjustments

to include an AP class.

> *Student DC*: I was about to not be able to take AP Calculus because of my CSS program but thankfully, my counselor was able to switch up times for us.
>
> I: Good. So your counselor did some work for you to make that happen. Who was your counselor?
>
> *Student DC*: Ms. CN.
>
> I: Okay, got it. So tell me about her and what role she has when you're getting your class schedule set up.
>
> *Student DC:* She works with, I believe, all of her students personally. For me, she does work with me personally. She brings me up every – the beginning of every year, sits me down in this – and just asks me if I'm okay with my classes, what grade – what GPA I have right now, and if I want to change anything. She just works very well and close with all of her students (7:17).

Scheduling with limited resources in staffing and licensure poses a significant challenge to all

public high schools in their efforts to expand AP offerings, especially in schools serving

significant non-White populations such as Juniper High, due to statistically fewer AP courses

and experienced teachers in those schools compared to more affluent, predominantly White

schools. Juniper High has thoughtfully implemented mechanisms within the scheduling process

to engage a wide variety of students with AP teachers for potential future enrollment and to

sustain the quantity and variety of AP courses being offered, another school-based factor shown

in prior literature to engage more students from all demographics in AP (Barnard-Brak, McGaha-

Garnett, and Burley, 2011; Klopfenstein, 2004; Solorzano and Ornelas, 2002).

Student identification and recommendation processes: thoughtful, flexible, inclusive "push"

Recommendation processes to enroll students into AP are traditionally rigid and include various prerequisites. These prerequisites are often minimum overall grade point averages, standardized test scores, and required prior course completion. Compounding these processes is the difficulty for students, especially those of color and those from previous middle and elementary experience lacking in sufficient instructional rigor, to escape the "track" that denies them the opportunity to enroll in AP classes during their high school careers (Grantham, 2002; Hertzog, 2005; Lidz & Macrine, 2001; Lohman, 2005; Oakland & Rossen, 2005; Rothstein, 2004; Sarouphim, 2002; 2004; Speirs-Neumiester et al., 2007, Pearsall, 2009).

No division-level policies or regulations prescribe any specific prerequisites to enroll in AP courses, and the College Board's guidelines include a recommendation to consider more than standardized testing in making AP recommendations (2015 *AP District Leader Playbook)*. Nevertheless, the recommendation process continues to influence equitable enrollment between Black and White students in AP nationwide. The only mention of AP within the division policy of Juniper High School is included in Figure 5:

Figure 5: Division Policy P7-08-005: Honors and Advanced Placement Courses

P7-08-005 Honors and Advanced Placement Courses
Class offerings in all County high schools shall include courses of study designed to meet the needs of highly motivated and academically gifted students. Such classes shall carry additional grade weight for purposes of class rank. Development and implementation of each such course shall be approved by the Director of Secondary Education

Juniper High School, like most high schools in Central Virginia and beyond, is not mandated to implement any specific practice toward improving equity in AP or advanced course enrollment. Juniper High School's English department guidelines for teachers when considering the

recommendation of students for advanced classes (college prep to honors; honors to AP) includes indicators of student work ethic, grade performance, organization, and standardized test results. The process for course recommendation is briefly described by Counseling Director CN:

> At Juniper, the school counseling department holds informational sessions to explain available courses, planning for college, etc. Parents are then given information about the benefits of taking AP courses along with how Juniper can help their student be successful in the course. When course recommendations begin, teachers choose students who they feel would be best suited for AP courses, discuss those options with them and make recommendations accordingly (8:9)

The school, led by the counseling staff, begins to provide information to students and families in the winter, visiting rising 9th grade classes at middle schools and visiting current Juniper High 9th, 10th, and 11th grade students in large groups to discuss general requirements and to outline the course selection and recommendation process. The process in the Juniper High division is now online. Teachers select course recommendations for the following year based on student performance. Students select courses for the following year online as available, normally for elective courses not requiring teacher recommendation. Parents approve the selections, and counselors receive the requests. Once course requests are submitted, counselors spend the following months meeting with students individually to discuss their course requests and then begin to schedule students in the late spring and summer, working to balance course numbers while still providing students with their choices of courses. Parents can override teacher recommendations through a written request to the school counselor.

Figure 6: Juniper High School English Guidelines for Teacher Recommendation

(Please advise students these are minimums that teachers are to give—can they handle the load successfully?)

College Prep to Honors?	Honors to Honors?	Honors to AP?
As a teacher, you see the following attributes from the student and can answer "YES" to each of the statements below:	As a teacher, you see the following attributes from the student and can answer "YES" to each of the statements below:	As a teacher, you see the following attributes from the student and can answer "YES" to each of the statements below:
_____ The student completes homework above and beyond expectations	_____ The student completes homework above and beyond expectations	_____ The student completes homework above and beyond expectations
_____ The student consistently has an A in the course	_____ The student consistently has an A, B, or C in the course	_____ The student consistently has an A in the course
_____ The student is responsible with submitting and completing make-up work	_____ The student is responsible with submitting and completing make-up work	_____ The student is responsible with submitting and completing make-up work without prompting
_____ The student offers a complex perspective in classroom discussion	_____ The student offers a complex perspective in classroom discussion	_____ The student can keep track of a myriad of assignments (homework, classwork, quizzes)
_____ The student is at or above grade level on the NWEA	_____ The student is at or above grade level on the NWEA	_____ The student is at or above grade level on the NWEA
_____ The student successfully has passed EOC Writing		_____ The student successfully has passed EOC Writing with a score of a 475 or higher

Despite the nature of the written recommendation guidelines, teacher and student participant responses reflect a more flexible and inclusive recommendation process that involves several stakeholders, including teachers, administrators, counselors, students, and parents. Experienced AP teacher ES, who also served as the English Department chair, focused on the willingness of the staff to provide opportunity and encouragement to students to engage in AP classes:

> *Teacher ES*: Yeah. We don't – we do not, at Juniper High School, from my experience, track students to the detriment of others. Either their own or other people's. We are a – open the

gates, everyone is welcome, everyone deserves the opportunity, and if you're willing to do the work, then we're willing to have you. Because at Juniper, there are a lot of circumstances that could keep students out of AP or honors initially, but then later on as they grow, as they mature, as they start to see their friends are in these classes as well, or that their teachers are mentioning these things, or they go to a college seminar and they've heard that I need to be in honors and AP classes because a rigorous schedule is actually – it matters more in a lot of times than an SAT or an ACT score for a private school. Now we're generating a different conversation.

I: And they're not handcuffed to where they can't, at that point, get into that class.

Teacher ES: Correct. There is still a way that that can happen (23:33).

The recommendation process is not unilateral; the AP teacher is not the sole voice acting as a gatekeeper to student enrollment, as can be the case in many schools. Coordinator of Assessment and Remediation PB discussed the collaboration among teachers and counselors in extending opportunity to students who may not meet traditional criteria for inclusion in AP classes:

Coordinator of Assessment PB: I think it's identifying a child that you wouldn't typically identify. That you're saying to them, I believe you can do this. I know it's going to be tough, but I think you can do it. It's going the extra mile to identify who is that kid. Who are you out there? You know, like seeing something in them. Having – teachers talking on the walkway about something that happened or in the workroom. Or you know, this happened in class and this kid said – this was a pretty profound kind of statement to come out – you know, we were talking about this. And that resonates with a teacher who's teaching AP, or somebody who says hey, you know what, this kid might – this might be a good fit for them, you know.

I: So how does that – how does that conversation in like the hall, wherever, trickle down to the counselling office when that kid's in for recommendations?

Coordinator of Assessment PB: So that's all – so teachers know – if they see something in a kid like that, they know who to talk to here. Like it's not like that's going to be a big deal. They're not going to call a counselor and get a bunch of static. Like oh, well, you know, that kid. (27:16).

When asked what teachers are looking for when recommending a student for AP, teacher responses overwhelmingly included language about student work ethic and willingness, and the teacher tendency to provide opportunity to students based on their relationships and knowledge

of the student's abilities rather than strictly objective criteria. Novice AP teacher JL, who also

serves as Social Studies Department chair, discussed the flexibility within the recommendation

process and the barriers strictly objective criteria present:

Teacher JL: For my department, it's very subjective. And I'm sure we have some departmental guidelines somewhere, but for the most part, it is left up to the individual teacher, who they want to recommend. And that's something I think we need to improve. And I don't necessarily think recommendation needs to be more objective, because I think that's when you run into those barriers and those – you know, you throw up the gates. I've been in schools, for instance – and this, I think, is ludicrous – that have a minimum GPA. Yeah, there still needs to be some criteria. It could be subjective criteria, but right now, we don't have anything that's really enforced.

I: And some schools say you have to have an overall GPA of this, and you have to have had this average in the class and if you don't, that's it.

Teacher JL: And I don't want that. Because what frustrates me about those is, A, they don't tell me much about what kind of AP student you're going to be. And B, they're never as hard and fast as schools purport they are. Because I guarantee you if – if I have the right type of parent clued into the right network, even that can be – you know, I can get around that. And so if that's the case, then we might as well just remove that barrier for everyone. Those barriers frustrate me on the more kind of practical level of a GPA doesn't tell me much about what kind of AP student – and that's why I think the criteria has to be subjective. What I want to – and I've even, on a very kind of informal basis, what I've told my teachers from my AP classes – and I know the AP gov teacher and the AP human geo teacher are pretty much in line with this, but that's not because we formalized it. It's just more our personalities matching.

I: Yeah, similar ways of thinking.

Teacher JL: Work ethic is my number one criteria. I can help you with your skills. That's what I get paid for. That's fine. I can't have you coming in and sleeping in class. I can't have you refusing to grow as a person for whatever reason. That's fine if you don't want to. Honors is fine. So I'm less worried about GPA, even SOL scores. I need someone who I know is going to work and rework and – because it is an amazing amount of work (14:35).

Student responses included frequent reference to individual teachers and counselors

"pushing" students to take AP classes in their discussion of their AP experience and arrival to

AP. Principal AS also used the term "push" in her description of the recommendation process.

"But I honestly think a lot of it is the kid saying to themselves, I can't do it. Trying to find a way

to make the teachers slow down when they do the recommendations, because they just want to click. They want to click whatever's automatic. And trying to make them slow down and think about, is this a kid I could push? You know, is there a quiet kid in the back of the room? And they've just done everything all year long and I've ignored them (laughs) because they've done everything all – you know, is there a kid that I can push?" (26:16). Black recruited student SP discussed the role of school counselors in challenging students to take AP. "I think the counselors challenge you to take those courses. Like once they see your grades from the other classes before, like the regular classes, and they accelerate you to the AP class, I think they challenge you. They don't – they don't steer you away from taking those classes" (20:3). Black high achieving student JD credited teachers and their encouragement in the recommendation process for his enrollment in AP:

> *Student JD:* They did a good job. Usually, like – well, all of my teachers, they recommended me to take the AP class and made the recommendation.
>
> I: So if you hadn't – if you hadn't gotten that recommendation from them, would you have pursued it yourself?
>
> *Student JD*: Honestly, no (9:12).

The College Board and the AP Potential Report: usefulness at Juniper High is minimal

The AP Potential Report is the College Board's weapon of choice for divisions in their work to close the AP equity gap. AP Potential is an available resource to all participating AP schools, and is a resource that the College Board consistently cites as critical to expanding opportunity to all students, especially those within underserved and under-enrolled populations,

including Black students. The 2015 *AP District Leader Playbook* describes AP potential, its

availability, and its intended use for school personnel:

> ***What is AP potential?*** AP Potential is a free, Web-based tool that allows states, districts,
> and schools to generate rosters of students who are likely to score a 3 or higher on a given
> AP Exam. Based on research that shows strong correlations between PSAT/NMSQT
> scores and AP Exam results, AP Potential is designed to help educators increase access to
> AP and to ensure that no student who has the chance of succeeding in AP is overlooked.
>
> ***Who can access AP Potential?*** District officials, high school principals, counselors,
> teachers, and state department of education officials can access AP Potential.
>
> ***How should I use AP Potential?*** Studies show that PSAT/NMSQT scores are stronger
> predictors of students' AP Exam scores than the more traditional factors such as high
> school grades, including grades in same-discipline course work.
>
> AP Potential should never be used to discourage a motivated student from registering for
> an AP course. The AP Potential results only account for some of the factors that
> contribute to the students' exam results, and do not take into account the power of student
> motivation, parental support, and teacher efficacy. (p. 5)

Staff responses from among Juniper High administrators, teachers, and the school counseling

director indicated that the AP potential report did not play a role in the AP recommendation

process. Exposure to College Board resources, including the AP potential report, was minimal

and insufficient in the view of Juniper High staff respondents. Principal AS was asked about the

use of the AP potential report at Juniper High.

I: Have you seen the AP potential report?

Principal AS: Mhm.

I: Do you look at that?

Principal AS: Mhm.

I: Does it – tell me about that.

Principal AS: There's not very many kids on it for us. I mean-it's coming from the PSAT.

I: What does that mean to you?

Principal AS: Whether they're taking it serious or not. But there's not – there's never enough kids on there. If we just went by that, we'd have nobody enrolled in AP (21:11).

School counseling director CN agreed that the AP potential report was not a consideration in their AP identification and recommendation process.

I: AP Potential Report. Do you get that every year?

Counselor CN: I do, but I'll be honest, I don't pay much attention to it because there might be 10 kids on there and I disagree and I think that (laughs) we have more AP potential than that. So I'm not going to solely base it off of data.

I: Yeah, yeah. So it's really not of much use to you?

Counselor CN: I don't think so (16:18).

Novice AP teacher JL was critical of the College Board's motives as well as the content of the AP potential report and its use of the PSAT. "If you look on the College Board's resources about improving the diversity of your AP students and the recommendations they give you, it's usually that's the first thing. AP Potential Report is a report that's generated based on the results of the PSAT. And it gives you – it spits out this data about who would succeed in what classes. And everybody I've talked to, like it's just – number one, who takes the PSAT seriously anymore, you know? Nobody, except for your 11th-graders, and by then, it's kind of late in the process. So that's one of the things you'll see a lot from the College Board, is they're going to promote that, which is kind of promoting their own mechanisms that they're, again, making a lot of money from" (14:35). Experienced AP teacher ES discussed similar concerns with the PSAT and its role in AP potential. "My problem with the PSAT is always who's taking it seriously? These kids don't really understand the PSAT report. It's like in October. You've got 9th- and 10th-graders and they're like – yeah. And for me, I know pretty early on who my very, very intelligent students are that are also exceptionally lazy, based on pre-assessments from the start

of the year. So the AP potential form doesn't tell me as much individually, but I do know that there are other people that don't even know that it exists, other department chairs and other AP teachers that have no idea that it exists" (35:00).

For Counseling Director CN, who oversees the AP testing process in addition to all school-based scheduling, the College Board serves a mainly informative purpose, rather than that of a provider of practical recommendations for improving equity in AP enrollment.

I: The College Board, I mean, do they – does the College Board stay in touch with you? You're an AP school, so I'm sure they send you stuff.

Counseling Director CN: I get emails all the time.

I: Is there anything that you ever kind of look at and it's useful, or for the most part it's just junk? Anything that deals with equity?

Counseling Director CN: Junk. I mean, it's useful when they send me emails to remind about (laughs) AP testing and stuff like – you know.

I: So what is their biggest concern?

Counseling Director CN: They want to make sure that you've got all your security stuff straight and you got your proctors. I'm getting daily emails right now (16:19).

Leadership expectations in the scheduling, identification, and recommendation process are a distinguishing characteristic of Juniper High School and a school-based factor influencing equitable AP enrollment between Black and White students. In a large comprehensive high school, the work of scheduling and recommendations is sometimes kept at arm's length by the principal who delegates the process to assistant principals and counselors. However, Principal AS is explicit in her expectation that AP enrollment and recommendation needs to be a thoughtful and thorough process. Principal AS stated, "You don't – you don't leave the enrollment list alone. You don't – you look at it and you say, it's not good enough, and then you start having the counselors and the teachers talk to individual kids, start holding information

sessions during ABC, explaining this is – you know, giving them a better explanation and offering up support" (21:17). Once students are recommended and classes are established, Principal AS takes the additional step of monitoring enrollment to ensure that students are not dropping AP classes without good reason. Students who wish to drop an AP class are required to meet individually with the principal, and her individual relationships with students are leveraged to ensure that students continue in AP, even when circumstances are complex. Principal AS related the story of her conversations with Black recruited student SP, who considered dropping AP because of his athletic obligations.

> *Principal AS:* I have always had the attitude of AP of you don't say no to a kid who says, I want to try it. You don't – you know, if a kid says, I want to try this, you don't say no. They have to come meet with me before they drop AP.
>
> I: Oh, really? Okay, tell me about that.
>
> *Principal AS*: So the AP drop date is –
>
> I: It's like October 15th or something?
>
> *Principal AS*: Yeah, you can't drop before that. If they want to drop, they have to come with their school counselor and meet with me. And there's a set of questions that they have to answer. What's your current grade? What have you done? What – why'd you take this class to begin with? Why are you dropping it? What does your teacher say about this? What does your mom and dad say about this? So we go through that set of questions. And there have been –
>
> [15:00]
>
> *Principal AS*: Kids where I have said no, you're not dropping it. SP, number six in the class...
>
> I: I know SP
>
> *Principal AS*: SP came to me and said, last year, I'm going to drop this – dude, you have an A in the class. No, you're not going to drop this class.
>
> I: So for SP – this is a good example. He's an athlete, right?

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Principal AS: Mhm, he is.

I: So what were his reasons for wanting to drop it?

Principal AS: Workload. He said – I could go back, I have the notes. I could go back and find what he said. But he said, well, I just – there's so much going on, and I'm like, but clearly, you're handling it. You have an A. You're handling it, and as a student athlete, it only gets harder from here. He was football and basketball. He wants to play football in college now. He was back and forth. He has walk-on offers from UVA and William and Mary.

I: Right. Now, has he ever come back to you and talked to you about that, and just said, hey, you know, I'm glad you –

Principal AS: He – I think I said something –

I: Made me stay?

Principal AS: To him this year. I'm trying to think if he wanted to drop something this year. I think I said something to him and I was like, you did okay, and he's like, I know, I know. You know, that kind of –

I: Yeah, yeah, [inaudible 15:57]

Principal AS: But I mean, he's fine. He's number six in the class. He's got generous offers in front of him, whether he wants to play ball or not.

I: Right, he can even go to any school he wants to. That's great.

Principal AS: Yeah. So I don't – it's – it's rare that I say no, but if I can see it in a kid and they can handle it, I'm like, mm, nope, here – or I'll work – you know, let's try this. If that doesn't work out, I'll eat my words and I'll drop you at semester. And I haven't – I don't think I've had to do that with anybody. But putting that in place has totally decreased the number of kids who even ask (26:13).

Curriculum Alignment and Early Preparation for AP are School-Based Factors that Present Challenges for Juniper High School in its Efforts to Increase Equitable AP Enrollment

In its large school division that includes two division feeder middle schools, several feeder elementary schools, and a degree of student transience from among other states and school divisions, Juniper High staff and students face challenges in establishing consistency in the pre-AP experience. This pre-AP experience includes the cultivation of curricular alignment

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with feeder schools and within the school in the face of teacher turnover, division mandates, and differing needs across schools in the same division. With a significant diversity in ability levels and demographics, Juniper High staff must individualize practice, both organizationally and instructionally, in order to create effective classroom instruction while continuing to encourage AP enrollment. Early preparation is difficult to influence or control for students before they enter Juniper High in the 9th grade, and the school has dedicated resources toward training teachers to move to greater instructional rigor in pre-AP courses being taught at Juniper High School before student enter the AP class.

Vertical alignment-the development of curriculum collaboratively with pre-AP teachers both at the high school and in the feeder elementary and middle schools to create a rigorous experience that will contribute to AP enrollment and success-is cited in prior literature as one of the most important practices contributing to college success and the capacity to thrive in advanced coursework. Black students are found to disproportionately attend schools that lack in effective alignment and adequate pre-AP curriculum preparing students for success in advanced coursework (Moore and Slate, 2008; Doughtery and Mellor, 2010; Devance Taliaferro and Decuir-Gunby, 2007; VanSciver, 2006). Data collected at Juniper High School indicates that although efforts are being made to strengthen pre-AP curriculum within the school, vertical alignment with feeder middle schools has been inconsistent due to divergent needs in middle schools. Teacher turnover at Juniper High School has also created an obstacle to alignment of curriculum preparing students for AP, negatively impacting both Black and White enrollment in certain AP classes.

Pre-AP curriculum alignment at Juniper High School: current efforts and remaining challenges

Teacher turnover has caused a disruption to the proliferation of AP enrollment at Juniper High School, requiring that the school recruit and re-train new teachers for both AP content instruction and inculcate new staff members on school-level instructional expectations. Processes to strengthen the dialogue among AP, advanced, and non-AP teachers to align curriculum toward greater overall rigor and increased opportunities for students to engage in AP coursework are in progress, but are still scattered inconsistently among departments and teachers. Teacher ES, a veteran AP and Juniper High teacher, and Principal AS discussed the impact individual teacher challenges for as little as one semester had that reverberated throughout the entire AP program.

> *Teacher ES:* I have definitely seen ebbs and flows. I will say the last couple of years coming up through AP – like last year was a really challenging year because those kids just did not have the capacity for words. But this year's group is phenomenal. Next year's group will be phenomenal.
>
> I: So do you think that's just from bouncing back with some continuity in your department?
>
> *Teacher ES*: I think so, too. Absolutely.
>
> I: So that teacher continuity, the quality of the teachers building up to AP-is that important?
>
> *Teacher ES*: Oh, absolutely. And we had a very strong vertical team. So VASS came in and made you do vertical team meetings. So we were all aligned and every single teacher that taught honors and AP was here for a very significant amount of time. I mean, it was years. And then in the last five years, I mean, we've had – we've lost an AP language teacher. We've lost three of our honors teachers. It affects our numbers and their preparation drastically (23:11).

Principal AS spoke to the impact of turnover in curriculum alignment and early AP preparation schoolwide, and also makes mention of Laying the Foundation, a school-based teacher training focusing on creating rigor in the pre-AP curriculum.

Principal AS: Yeah, I mean, the turnover, you know, you've got new teachers teaching like honors geometry, which really doesn't – right now, doesn't look any different than regular geometry. So trying to fix those things. Social studies is almost completely rolled over.

I: And that all trickles down to your AP?

Principal AS: Yep.

I: In English, you've had less turnover. You've got an experienced department chair.

Principal AS: Right. And really – I mean, really streamlined what does it look like to get to AP. They've backwards planned the books that they want them to read. They've backwards planned the skills. The 11 AP teachers have said 10, 9, you must do these things with these kids. They can't come to me and be the first time that I teach them X, Y, and Z. So – but it's also been easy because Laying the Foundation does it for you.

Novice AP teacher JL noted the need to improve vertical alignment specifically within the AP program at Juniper High School, along with more consistency in the AP recommendation process.

Teacher JL: That's something that I think needs to improve. I think we do a pretty good job of vertically aligning, and obviously, the SOL framework kind of makes that easy. But for our gen ed courses, I think we do a pretty good job. For AP, I don't think so. And even – I still think it's funny you brought up that shift in what AP could or should be.

I: Yeah, how you sell it.

Teacher JL: Because I think even if you were to come into my workroom and poll the 10 or so of us who are in the social studies department and say, what does an AP kid look like, you would probably get two to three different types of answers. And so that's something that we probably – not probably – we need to be more deliberate about moving forward, even if it just means me or whoever happens to be teaching AP courses saying, this is the type of student I want. Whether you think that's an AP kid or not at this point in the conversation, it's kind of moot, because I'm the one teaching it. So here's who I want you to send me or who I want you to recommend. Right now, it's kind of ad hoc (14:32).

The challenges in curriculum alignment have not been ignored by Juniper High leadership, however. Principal AS stated, "Well, I've made it clear that I do not support the gatekeeper mentality. I mean, I've said as much. We will not be gatekeepers. We will – the other thing that we looked at – we did a good job starting last year, and then I focused a little bit different on PD

this year and we're going to go back to it, but we started talking about the rigor in the – what I call the pre-AP courses" (26:17).

Pre-AP curriculum alignment with feeder middle schools is not meaningful

Respondents discussed the additional challenges of working with the feeder middle schools to extend vertical alignment to the pre-high school years to provide students with preparation at the middle school for the rigor of pre-AP and AP coursework that will be encountered at Juniper High School. When asked about the level of preparation for AP among incoming 9th grade and pre-AP students from feeder middle schools, Principal AS responded, "Some of them, but not all of them. I think a lot of it has to do with what's the track that they've taken through middle – you know, through middle school and 9th and 10th grade, depending on when they start AP. I think it has a lot to do with the teachers that they've had. I think English at this point is probably doing a better job because they've had Laying the Foundation training. So they know how to set the rigor in the previous classes. Math has had too much of a turnover (pause), really like in the last two years" (21:13).

Work with the middle school staff to develop curriculum alignment toward AP readiness has been challenging for many of the same reasons challenges have arisen at Juniper High: teacher and staff turnover and challenges achieving Virginia Standards of Learning (SOL) accreditation among them.

> *Principal AS*: The first year we did Laying the Foundation Training, we included middle school A and middle school B. And then it seemed like they had a lot of turnover and they weren't necessarily implementing it. I think we could do a better job, even as administrators, principals talked to each other. But they – you know, they've gotten middle school transformation stuff now –they've got that to worry about. And accreditation. Of course, we have to worry about accreditation (21:15).

Veteran AP Teacher ES: We tried to go down to middle school. The problem at that – even at that point was accreditation. So we tried to work specifically with our middle school department chairs to say, if this is what we're doing in high school, this is really what we need. And they were familiar with that. At that point, when Principal AS was still the specialist, she brought in Laying the Foundation training. So teachers were being trained, and middle school teachers did understand that there was a – there was a requirement for them to do something. But I don't think there's as much follow-through in the middle school as there has been in the high school, of an instructional focus (23:12).

Student experiences during their middle and pre-AP years varied. During my tenure as principal at the largest feeder middle school to Juniper High School, I began to push 6th graders into pre-Algebra. Normally, advanced students at the middle school would take Algebra I in 8th grade. By participating in pre-algebra in grade 6, students eventually took geometry in 8th grade, a sequencing that was already available in other division middle schools serving less underserved and Black students. Both Black recruited student SP and White high achieving student ME recalled this in their responses. Black recruited student SP had taken AP calculus in 11th grade among the three AP courses he had taken before his graduation (20:1), while White high achieving student ME stated, "…like sixth grade to eighth grade, there was a difference, a huge difference. And I know a lot of people take geometry in 10th grade, and I took it in eighth grade, and I think that – I think taking stuff like that early and being exposed to like that high school-level curriculum early really was a factor in me being able to be confident in taking these AP classes. Because if I was on like a standard track and then I just tried to jump into AP classes, I'd probably be like, whoa, you know (15:9).

Black recruited student JW arrived at Juniper High School after attending a private religious school in the nearby City of Richmond. JW reflected on the importance of the lessons outside of the content in his previous school as being more important than the content curriculum.

Student JW: No, I did not walk in here well-prepared for that. I think – I think it's more – I don't think it's the classes that prepare you. I think it's more of the lessons you are taught.

I: Mhm. Tell me more about that.

Student JW: Because I'm – I can't say for the Juniper High feeder middle school because I never went there, but I went to the private school, Christian Junior Academy, and the lessons that I taught – that I was taught there helped me more than the actual – than the actual curriculum (11:9).

Other students recalled specific teachers or situations in their pre-high school experience that had an impact on their path to AP at Juniper High school. Black high achieving student JD pointed to a specific teacher who gave him the "push" to advanced coursework at the middle school level. "I would say Ms. K, for sure, because she put me on the honors English track in sixth grade. I was in I was in regular English in sixth grade, and she moved me up to honors English because she said I had no business being in a regular English class" (9:10). Black high achieving student AJ advocated for himself to reach AP courses early, benefiting from the support of his teachers. "I've been thinking about taking AP classes since I was young, because I have big dreams and I have things that I want to do, so I need to take those steps. So I went to my teachers and I told them, I need to be here. Can you help me prepare? And they did not take any bull from me. They said, if this is what you want to do, this is how it needs to be done" (3:2).

White high achieving student DC made efforts on his own with little support from staff to move into advanced courses. "I was generally taking the regular classes. To middle from elementary school, I wasn't placed in any advanced classes except for science, so I actually had to do a lot to get into advanced English, and then the same thing with math. But other than that, I was really just taking science. But then I did get above in math for one year. Like I was able to take algebra I in eighth grade instead of like the regular" (7:1).

The inconsistent pathways and difficulties experienced by students and the lack of staff confidence in systemic vertical curriculum alignment toward AP, both within Juniper High and among Juniper High and its feeder schools, indicates that this is a complex and challenging dimension of school-based factors influencing equitable AP enrollment.

High Academic Expectations and Curriculum Rigor Distinguish Juniper classes, and Academic Expectations are Balanced with Teacher and Staff Support of AP Students to Encourage and Retain AP Students.

The College Board, in its *AP Equity Statement* (2012), describes curricular rigor as the "foremost predictor of college success" and "foundation of AP". Without exposure to rigor in curriculum and instruction, both before and during AP classwork, students are at a disadvantage. This disadvantage is felt more acutely by students of color (Conger, Long, and Iatorola, 2009). Adelman (1999) found that a "rigorous high school experience" can outweigh demographics, race, and parental education in predicting higher education attainment. Juniper High School is attempting to shift from the more typical instructional focus on Virginia standardized testing and accreditation to one of rigorous and meaningful learning. Although there is work to be done, students and staff frequently cited curriculum rigor as a significant factor in the AP experience. This rigor was not a deterrent to enrollment, however, due to the willingness of AP teachers to adjust instruction and provide additional help to students in order to facilitate their success. Many traditional advanced or AP teachers operate with the mindset that AP coursework should not be made available to students who require additional support, and the provision of support should be a dimension of their instructional practice. Several teacher respondents also made explicit statements of support for student participation in AP as being more valuable than AP test scores, citing the value and benefit of exposure to rigor in enhancing a student's academic experience and college readiness, regardless of performance on year-end AP examinations.

Rigor is recognized by staff and students as a distinguishing characteristic of AP courses

Both Black and White student respondents discussed rigor in the AP classroom,

sometimes by name and sometimes by description. Rigor, however, was not a deterrent to their

participation due to the teacher's willingness to work with students to meet their individual needs

as they navigated the rigor and challenge of the AP courses. Black recruited student SP stated, "I

just think the AP just – AP classes just challenge you. Like I'm normally used to multiple choice,

and even in multiple choice at the AP level, it's not just A through D. It's A through E. You

know, and also, it's a lot of free response and a lot of essays, and I feel like I needed that help

because I struggled in writing sometimes. But it helps – it helps me" (20:2). Black high

achieving student JN noticed the difference in rigor in AP compared to normal college prep

(regular) courses. "Well, there's a different expectation of AP students than regular college prep

students. Like AP, they teach in a more elevated style and like more – like not harder content,

but the content will be much deeper and goes into what it actually means, if that makes sense"

(38:2). White high achieving student ME described the differences she observed between AP

and non-AP rigor:

> *Student ME:* Well, for non-AP, there's not a lot of work you have to do outside of the classroom. So you'll have homework here and there, but it'll take you, I mean, 15 minutes to finish your homework. But for AP, you're looking at two or three hours doing a project a night, or studying for a test, or writing papers. That's the biggest difference is the amount of work, I feel like. And the tests. The tests and the quizzes are a lot more rigorous in AP classes rather than regular or honors.
>
> I: And when you say they're more rigorous, what do you mean?
>
> *Student ME:* They're longer. You have less time, because you're timed most of the time. The questions are like longer. Just multiple-choice questions are longer. The words, like they use the language and stuff. It's very advanced (15:2).

Black recruited students LE and JW referred to the "depth" of AP classwork, a word used to

frequently describe rigor within educational practice. "It requires you to like go deep in like the

recesses of your mind, you know. You don't have to just like – you're thinking outside of the box, way outside of the box, not just like, you know, write this, or name three countries. It's like, you know, why do you think that this person – like the questions are definitely more – I don't know, you have to really think deeply" (*Student LE,*12:4). Student JW stated, "They delve into the subjects a lot more deeply, and – a lot more in-depth. They actually – they actually cover material that makes us and forces us to actually sit down, think, or go home and study. Because most classes that you take – for most students, it's not – or for students that take AP classes, like honors classes and college prep, they don't require much studying or studying at all. You just learn it in class and you come back. But these topics are topics that you actually struggle with comprehending, and it takes you a while, maybe some extra – extra studying or some extra tutoring or trying a different approach. Or more than – or you might have to be taught the lesson more than once" (11:3).

Rigor has not been a distinguishing characteristic of instruction at Juniper High by chance. Principal AS, a former instructional specialist, has made instructional rigor an explicit expectation of teachers and provides the resources required to adjust teaching strategies and student engagement toward increased rigor. A focus has also been placed on the daily work of school administrators, moving from a discipline and SOL-heavy focus to more meaningful and rigorous instruction:

> That's been our focus area, because the admin team was very comfortable, when I got here, doing discipline. And then we really started to shift our focus. Because we were tired of counting bodies in June. We were tired of hoping and praying and, you know, oh my gosh, are we going to make it? Let's remediate at the last minute. We were tired of all that stuff. And so we started having conversations about changing tier one instruction. And how do we increase the rigor? How do we change tier one instruction? How do we get the teachers to think about their individual instruction? So in terms of the instructional message, admin – and I would also say the instructional leadership team, over the past

five years, that team – it's evolved. It's changed. But we've spent a lot of time talking about professional development instructionally. Putting, you know, really quality – what we think are quality walk-through tools in place so that we're giving feedback based on my focus area or the admin focus area, and the area of growth for the department. So this year, each department has their own tool. Everything on the front is the same. Everything on the back is the area of focus for the department (26:3).

While many schools serving majority Black and lower socioeconomic status schools tend to characterize their experience in terms of the needs of their students and the limits those needs place on expectations, the expectations set by leadership and Principal AS for staff and students at Juniper High School is more than the bare minimum in state accreditation standards, direct instruction, or behavior management, student needs notwithstanding. Principal AS also mentions the movement in Virginia policy and regulation toward more rigorous assessment and instruction.

> There's this overarching feeling sorry for the kids, and so I feel like then, we're not going to set the expectation that high because they have all this trauma and all these circumstances and they can't do it, and I'm like, that isn't true. And they don't want that for themselves, either. So I think – I think it's more about, are we holding everybody to the same expectations and teaching them how to get there? Instead of just the bare minimum, the lowest level of the standard. At some point, it's got to become about more than that. And the state's moving that way, too. I mean, the state's taking some of the tests away and going to performance-based and limiting who we can test within so many years. So I think that we're on the right path with that (*Principal AS,* 21:6).

Principal AS is working to change the attitudes that normally afflict majority Black schools, moving from a deficit thinking model to one of high expectations. "Stop – stop feeling sorry for the kids and teach them – have a high level of expectation for them and teach them they can do it. They will rise to the occasion. But you've got to increase the level of your instruction. You've got to come away from the babying them with the closed notes and the constant lecture and worksheets and I need endless copies because I'm going to give them all the three words of the new – I mean, pushing them away from that. And that looks different in every department. And

some departments have been much better at that than others, and you know, that's – pushing those other departments is next" (26:5).

The Juniper High staff has recognized this top down expectation of increased rigor. Novice AP teacher JW stated, "The one thing that we have been told throughout the years is really limit direct instruction. Do not be the sage on the stage. So I just said, you know what? Great. I will create scaffolded, project-based learning, and I'll do my little intro or we'll watch a clip from either the news or some sort of explainer, but then they're going to be here, and that allows their personalities to flourish" (25:19). Coordinator of Assessment and Remediation PB, with several years of experience at Juniper High School, has noticed the shift:

> I: Do you think – do you think teachers here at Juniper are more apt to push kids in the direction of rigor than they have before?
>
> *Coordinator of Assessment PB*: Absolutely. Absolutely. Yeah, I think we've embraced rigor, and I think Principal AS does a really good job of that. While she might not be liked for, you know, pushing you like that, I think the teachers, I think, here at Juniper, we're embracing rigor and trying to step away from SOL testing and accreditation and realizing that in order to get our attendance up, in order to get our students doing well in school, that we have to change our rigor in the classroom. Like we're not teaching to the test anymore.
>
> I: You're trying to go beyond that.
>
> *Coordinator of Assessment PB*: Yeah, we're really pushing beyond that in our classrooms. (27:7).

Balancing rigor and high expectations with support

Student responses from both Black and White students demonstrated awareness of their teachers' role in delivering rigorous content while also balancing high expectations with support for students as they engaged in the challenging and deeper curriculum. Black high achieving student JN stated, "Well, they like (pause) – how do I say this? They – like they just – like they

help us out. Like if we're like struggling in the class, you know, they have help sessions. You know, they have after-school, they have before-school, and that really helps out some students who struggle, so like the teachers really help us. I would make sure my students understand what I'm teaching them" (38:5). Black recruited student TJ, when asked how the teacher supported him in AP, stated, "She understood it was hard for us, because most of us, it was our first time taking an AP class. So she just – she did whatever she could, and just walked us through like the whole year" (24:3). Black high achieving student AJ stated, "See what you did wrong. She'll find the mistake, and if she doesn't know it, she'll go and work it out and bring it back and work it out with you. Whereas other teachers will just be like, well, you're wrong. Like, I know I'm wrong. Where?" (3:8). White high achieving student EL stated, "Yeah, I mean, English, it was kind of almost like that, but then I would talk to her and she would explain how to do it. And then physics, like that's one of my favorite teachers to this day now. He really made sure that every student understood. Like he would break it down to the simplest form he could to make sure everyone was doing great in that class" (7:6).

Teachers recognized and accepted that to provide access to AP and encourage enrollment, support of students is required. Experienced AP teacher ES stated:

> To be successful in my class, you have to be determined. You have to be hardworking. And you have to envision the end goal. And if my kids were here, they would say you have to trust the process. I say that to them all the time. You – we have to have a trust and a working relationship that you understand that I know more than you know, and that you have to blindly trust me, but my actions are going to show that there's a reason to trust me so that we can all get to the next level, so that my dream of you passing this AP test is successful, but also that there is an end goal beyond AP. Whether you pass the AP or not, that's not my end goal (23:20).

Rigorous expectations do not equal expectations of high AP scores

Teacher ES and her value of rigorous experience and exposure to AP over AP test scores

was echoed by other interviewed staff members. Both novice teacher JL and JW expressed

similar views that AP scores were secondary to the value of the AP experience for students.

Teacher JL stated:

> Plenty of middle-class white kids have been getting ones on the AP exams for decades, and it's been – you know, which is – I'm not saying that's good or bad. It just has been. And so that's what I remind kids here. I was like, I don't care what you get on that test. Obviously, I'm going to try to prepare you to get your best grade, but you're taking this class to challenge yourself. You're taking this class to tell colleges that you're not afraid to challenge yourself (14:9).

Teacher JW stated, "I think my role isn't for how I can get their scores, but to make them

successful in a college-style class, because I think it's the end product of them being college-

ready, which is more important than them getting a five" (10:12).

Juniper High School is Distinguished by a Diverse, Inclusive, and Encouraging School Culture Focused on Relationships and Expectations

Relationships and the nature of a school's culture and climate were not found to be an

obvious category of school-based factors influencing equitable AP enrollment between Black

and White students in the review of prior literature. Most literature and research, built with

quantitative methodologies, focused primarily on the *isolated* practices and characteristics within

schools that contribute to equitable AP enrollment, including those named in the conceptual

framework of this study: teacher training, curriculum and course offerings, recommendation

processes, and parent outreach. Data collected in this study revealed that Juniper High School's

diversity, interpersonal relationships, expectations, and overall culture of inclusion, support, and

encouragement were among the most frequently discussed school-based factors by respondents

in all participant subgroups (see Table 8, Table 9). Use of a qualitative case study and rich

narrative data facilitated the presentation of this category, and though it is not considered a tangible process or policy, the overall culture of Juniper High School and the individual elements of the culture are a critical school-based characteristic that influences equitable AP enrollment by facilitating and supporting individual processes and policies at Juniper High. This emergent category of an inclusive and encouraging school culture focused on relationships and expectations permeates practice at Juniper High School, and, in answer to the research question, is a school-based factor that, when considered holistically with the school practice in curriculum alignment and rigor, recommendation processes, parent outreach, scheduling, teacher training, and unique programming, influences equity in AP enrollment between Black and White students based on findings. School culture-the relationships, diversity, expectations, and support that characterize a school-is difficult to measure in objective terms. Narrative analysis of this dimension of Juniper High School will illustrate its impact in equitable practice at Juniper High School.

Diversity and the lack of a statistically marginalized Black population is an inherent advantage in promoting equitable AP enrollment

School segregation, especially in the U.S. south, has steadily increased since its lowest point in the 1980s. Black students continue to be isolated in predominantly Black schools as housing patterns, court action and inaction, and an increasingly polarized racial and political climate in the U.S. drive White families to communities and schools with greater racial homogeneity. The following table from the UCLA Civil Rights Project (2014) describes this trend in detail by U.S. region.

Table 10: *Percentage of Black Students in 90-100% Minority Schools, 1968, 1988, 1991, 2001, and 2011*

	1968	1988	1991	2001	2011	Change from 1968-2011 (% Change)	Change from Past Decade (% Change)
South	77.8	24.0	26.1	31.0	34.2	-43.6 (-56.0)	3.2 (10.3)
Border	60.2	34.5	34.5	41.6	41.0	-19.2 (-31.9)	-0.6 (-1.4)
Northeast	42.7	48.0	49.8	51.2	51.4	8.7 (20.4)	0.2 (0.4)
Midwest	58.0	41.8	39.9	46.8	43.2	-14.8 (-25.5)	-3.6 (-7.7)
West	50.8	28.6	26.6	30.0	34.4	-16.4 (-32.3)	4.4 (14.7)

Source: U.S. Department of Education, National Center for Education Statistics, Common Core of Data (CCD), Public Elementary/Secondary School Universe Survey Data. Data prior to 1991 obtained from the analysis of the Office of Civil Rights data in Orfield, G. (1983). *Public School Desegregation in the United States, 1968-1980.* Washington, D.C.: Joint Center for Political Studies.

Demographic data from Central Virginia high schools display few exceptions to this national pattern. Only 4 of the 38 Central Virginia Region I high schools have an enrollment rate of Black students that falls at or between 40% and 60% of the total student population. White and Black students tend to be concentrated in predominantly White and Black schools.

Juniper High School would, under those criteria, be considered a predominantly Black school, with a population of 65% Black students. However, responses from both White and Black students and staff describe a school that values its diversity, and actively works to dispel the stereotypes that normally accompany majority Black schools. The culture, as described by participants, is one that does not treat either Black or White students as "marginalized", but rather attempts to engage all students in advanced and AP coursework. Novice AP teacher JL states, "We have, you know, such a significant majority number of African-American students. It's not that they're 30% of our population and we have to find a way to rope them in. They are our population. Finding a way to then include their experiences is our – is our goal" (14:22).

Student responses demonstrate an appreciation for the demographic makeup of Juniper High. Black recruited student JW stated, "There's also – often one side of the Black culture that's like focused on education and stuff like that, and then other people who sometimes slip up a little bit, and I feel like that's the same way for the Caucasian culture. And I feel like half and half – half

the people are like really aggressive in their schoolwork and want to go and achieve higher education and stuff like that. I feel like half the black people and half of the Caucasian people, and it's just that Juniper has a so well-mixed blend of race that I feel like it just ends up to be that way" (11:4). Black high achieving student AC noted the opportunities for all students at Juniper High School. "They want both students, both Black and White students to get the same opportunity as each other. And I know some of the African American teachers here, they let us know that, you know, we're already at a disadvantage based on our color sometimes, due to the fact that, you know, so many stereotypes, so many bad things happen to the color of us, that they want us to know that we can be as smart as, do the same stuff as and be as great as White people. The only thing that's really differentiating us is the color of our skin. We all have the same opportunities when we get to school" (2:6).

Several students discussed the inclusive nature of Juniper High School and its impact on their experience in and out of the AP classroom, indicating that AP classes are, unlike in many schools, not limited to only high achieving, White students. Black high achieving student AJ stated, "I've noticed there's really not that much of a clique hierarchy here, because everyone just kind of floats together, so there's not really just the Black kids, but there's White kids in there with them, so they're kind of like rubbing off on each other" (3:9). Black high achieving student JD stated, "… like the people here really don't look at color. We see everybody as a person. Like everybody in the school is friends with each other. You look around at Juniper, it's a great community. Everybody is friends, no matter what color. So I would say that definitely contributes. Everybody's equal here" (9:4).

A pervasive feeling of familiarity and connectedness among the entire school community is a characteristic of Juniper High School that reduces reluctance to take academic risks, such as

AP, with the understanding that students and staff know and support each other. Black high achieving student AC stated, "I mean, everybody around the school, when they see me, everybody – not only teachers, but administrative staff, even the security people, they talk to me, ask how I'm doing and I think it's just a community more so. More so a community. Juniper's like a family. We have family all around and everybody looks out for everyone" (2:10).   Black high achieving student AJ, when asked what Juniper High does to provide all students with opportunity, stated, "I would have to say that that would come from (pause) the teachers and the staff, because they really do stick by the Blue Devils motto, in that we are here for each other. Tearing each other down is not going to get you anywhere, and I think that that makes a big impact" (3:10).

Both Black and White respondents made mention of the desire to change negative stereotypes placed on Juniper High due to isolated incidents in the media. White recruited student RW stated, "I feel like as Juniper, we kind of have a target on our back, so I feel like because we do have that target of the big fights that we have and like all that stuff, and the only reputation we have is that we're a bad school and we have bad students. So I feel like the people that do care – because there's people that don't in every single school – but the people that do care are fighting back harder to give Juniper a good reputation. And because we are from here, we also have to work a lot harder to get to where we want to be in life" (19:3). Black high achieving student AC stated, "Juniper has been saw and put in the media, in the news as such a negative school at times, that teachers want to push and motivate students to be a – light of positivity" (2:5). White high achieving student DC stated, "I just feel like at Juniper, we – we all keep to ourselves or we all worry about our own studies, and I think we just all push ourselves.

Or maybe it's because since we don't have that good of an image out in the real – like in the public, maybe we all want to push ourselves more because of that" (7:8).

Relationships and expectations

Students and staff in all participant groups discussed the role of individual relationships in encouraging, or "pushing" students toward AP. Relationships between staff and students were considered by many to be the most important school-based factor encouraging and promoting AP enrollment, especially among those students who would otherwise not choose to pursue AP. Relationships at Juniper High impacting AP enrollment and engagement extended past teachers and students to include administrators, counselors, and students.

Principal AS responded to the significance of relationships and individual conversations in pushing both students and staff to engage in AP enrollment:

> I think it's somebody having a personal conversation with them. And most of the time, the answer is, I don't think I can do it. It's lack of self-confidence. For example, like – I'm trying to think of what it was last year. When CN brings me the initial numbers, I'm like, nope, they're not good enough. I know there's no more – I know there's more AP kids out there. Have your counselors start pulling people who are in the honors, looking at their stuff, looking to see what else they've taken, talking to the teachers about why they didn't recommend the kids. We don't just go with the straight-up recommendations. Then the counselors start pulling kids. We've done AP sessions during our directed study time. Come on in, let us tell you about AP(26:14).

When asked what impacts access and participation outcomes for Black students in AP enrollment, Principal AS stated, "I think, first, it's the relationship with the teachers. It's – if there's a strong relationship there and the teacher is saying you're ready, you can do this, you can go to AP – I think people discount how much that matters to the kids. And then it's, you know, are they – are they talking to the AP teachers?"(21:16). Student responses confirmed the Principal's value placed on relationships in AP enrollment processes.

Black high achieving student JD, in his response about teachers and their role in encouraging AP enrollment, stated, "They push like everybody to be connected, friendships. And also with AP classes, they try to push everybody to take AP. Like during class enrollment, even though I didn't take it, like my counselor, she wanted me to take AP physics. Like she begged me to, begged me. The teachers want to see you in AP, which is a good thing. They want to see you to well (9:5)". Student JD cited the encouragement from one particular teacher in his decision to enroll in AP. "So, I'm not going to lie to you. Now, in 10th grade, I was in honors English because there's no AP 10. And I was debating if I wanted to take AP English 11 or not, but my teacher, Ms. Sanchez, she forced me to do it because she believed that I can excel in it" (9:13). White recruited student JM stated that his teachers provided a similar "push" to AP. "I was very fortunate to have the teachers that I've had in the past to push me to honors and AP classes. Some teachers just let kids do what they want and not push them. They pass a class, but when given the opportunity to take the easy route and get an easy A, or go to an AP class and B+, B-, they would take the easy A (37:12).

Students also took a role in encouraging their peers to pursue AP enrollment. Black recruited student JW stated, "Usually, most of us encourage one another to continue taking AP classes. Because sometimes, after taking AP classes, some students might want to drop out. And it's not just from – it's just not black people encourage black people. It's interracial. Everybody just wants everybody to do – to succeed and aim higher for themselves"(11:5). Black high achieving student JW provided a specific example of student to student encouragement. "Like I just talked my friend Jamal into taking AP English 12. I'm like, you can do it. We'll be okay. We can rough it together. We'll figure it out. You're taking this class" (3:17)

Staff responses frequently referenced student and staff relationships as essential to

Juniper's equitable AP enrollment patterns. Experienced AP teacher ES describes Juniper as a

"relational" place, one in which students are attracted to AP not because of the content, but

because of the teacher and relationship that is present between student and teacher. "So

Juniper's a very relational place, and when students feel that they have a teacher at the helm

that is willing to go above and beyond for them, they return that tenfold. So you'll always hear

kids, well, who's the teacher?" (23:8). Novice AP teacher JL stated, "And so this year, we had

one AP section of 28. Next year, we're going to have two sections. We have almost 60 kids

taking it next year. But being able to talk to kids that I had taught previously, because we all

know, and someone like yourself who's probably swimming in research more than you care to,

the relationships are all – is what matters anyway. Like kids aren't signing up for a class.

They're signing up for – oh, that's Teacher JL" (14:16).

Pre-AP teacher JJ will assume AP teaching responsibilities during the next academic year

for the first time. When asked about the most important factors in engaging students in AP,

she considers her role as AP teacher as going beyond content instruction.

> *Teacher JJ:* I think it's the relationships. I think, hands down. And I hate to say it – I
> mean, certain people take AP psych because they know who the teacher is.
>
> I: It's not the content?
>
> *Teacher JJ*: It's not the content. It's because they know they're going to get the best
> education from that teacher. They know that teacher is going to support them and help
> them. At Juniper, AP includes college essays, you know. I know some AP programs like
> start month one with AP prep. Juniper says, no, we need to help you write a college
> essay. I need to help you apply for FAFSA. And we cut time on our AP timeline to make
> sure our kids are successful at life. You know, we still have a college planning unit. Like
> how do you buy a car? How do you do that? You know. I know other schools say there's
> no time for that in AP. You should know how to do that (10:16).

Parent and Student AP Outreach and Education are Implemented by Juniper High Through Informal and Formal Processes

Prior literature identifies parent outreach as a significant school-level practice toward equitable AP enrollment, especially on behalf of Black students and students of color (VanSciver, 2006; Perna and Titus, 2005). Research has shown that White students are typically exposed to college campuses and have greater knowledge of the benefits of AP courses due to the differing nature of parental involvement. Juniper High School leverages select large-scale events, such as a yearly AP panel and visits to feeder middle schools, as well as individual, informal dialogue with parents, students, and families to educate about the benefits of AP and to encourage enrollment. Establishing trust with individual families is cited by many staff members as a conduit to outreach and education on the benefits of AP.

Pre-AP teacher JJ describes her interactions with families of her students and the importance of trust families place in teachers to do what is best for their children.

> I think our parents know that we take care of them. Like I think some of our parents don't know how to fill a FAFSA. We have a lot of first-generation coming from our community. So I think the kids take the AP classes because they know that those are the teachers that care about them so much, and they want to do so well in those classes for those teachers. And I think – even from an honors student, I think – teacher, I think they trust our placement with them. And even for my kids that drop down to college prep, I'm like, that's okay. You're going to do one year here. You're going to build your skills back up, and we're going right back to honors. You know, I think they feel that we believe in them. So hey, I'll try it. If Ms. Jones says I should try it, I should try (10:17).

Coordinator of Assessment PB similarly leverages relationships that have been cultivated with families to communicate with parents about the benefits of AP. When asked to describe the nature of her interactions with parents, she stated; "I think that they see it – that the word is that they see a difference in their children as they're maybe improving in other courses. My kid took this teacher last year, this AP class. They might not have passed that test, but they did really well.

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I mean, I have kids coming back to me that want to pay to take the test, that didn't pass it last year, because they're just – they just want to pass it, just to see" (27:12).

Individual teacher efforts to provide parent outreach and education about AP is not standardized across the entire school, and teachers state that improvements could be made to large scale events that are designed to provide AP outreach. Novice AP teacher JW stated, "I would like to have more built-in, if not required kind of relationships, or moments throughout the year where they were made aware of that, or we did just check in and be like, hey, here's what's going on, here's all that. But no, I don't have a lot of built-in opportunities to stress to them the kind of net benefit. And so I don't know if they know that, because oftentimes in our society, the focus is on grades, GPA, what college can or will I get into, and the emphasis is not on you're learning for learning's sake" (25:14).

Experienced AP teacher ES describes greater value in individual interactions with families than the current large-scale AP outreach events to encourage greater AP enrollment. "I used to get a lot of phone calls from parents saying, you know, how can I help you? Like what can I do? And I was like, you know, there's a lot that you could be doing, but you don't know what you don't know. And I think we as teachers sometimes take for granted that they know what they're supposed to be doing. So yeah, I will send home a parent newsletter, and it will highlight like the texts that we've read, the skills that they're reading, what would be some inquisitive questions to ask their students about, vocabulary that they should be studying, and then just like general, hey, the SAT is coming up, or hey, this college is coming. And I have found that the more you communicate, the more buy-in you get every step of the way" (23:23). Teacher ES was asked if she thinks parents understand the benefits of AP for their children:

I: Do you think parents understand the benefits of AP for their kids?

Teacher ES: I think that not as many understand that as they should. So what I've found is that a lot of my – the parents who have been tracked – so they were in 9 honors, 10 honors – they understand the importance of AP, because they're coming to like a college night, and they're –

I: Which is probably why their kids are there to begin with.

Teacher ES: Exactly.

I: It's all circular, right.

Teacher ES: Exactly. I don't think that enough parents understand the value of just sitting in an AP class, and I think that's where our communication has broken down to the community at large.

Teacher ES suggested that parent and family outreach should be conducted in a more inclusive fashion by taking the message to the community, rather than holding events at the school site.

> I think a community like Juniper, you have to go to where they are. And when you have a one-parent household that's working three jobs, and the students – our students are the caregivers, why in the world would you ever think that they're going to come to a 7:00pm – they're not coming. AP panel? They don't even understand what that means. So to me, I was actually talking – I have a colleague in Maryland that is in a similar community. They go to like the local grocery stores. They go to the churches. They go to the community centers. They set up like through the daycares. Like they do all of this community outreach of – in ways that we're missing – that it's one of those things. You don't know what you know until you don't know it. Like people are not going to come here (23:25).

Principal AS sees room for improvement in school-based outreach efforts, which would ideally include more detail about curriculum rigor along with the benefits of AP. "We've had a conversation, I think it was last year, where we wanted – and I'd still like to do it – to bring the honors and the AP parents in and say, let's talk about the difference between rigor and harder. And do they understand what they're getting their kids into when they sign them up for AP and the kid says I don't want to? Or you know, do they – are they aware of all the things AP can do to build skill?" (21:7).

Novice AP teacher JL sees a need to ensure that students and families understand that AP

benefits are not dependent on successful AP exam scores, a mindset that is believed to

prevent students from enrolling out of fear of the test and fear of failure.

> I don't even think enough of the kids understand the benefits. One phenomenon that I
> discovered this year that was amazing to me – and this is all coming from like a place
> of privilege, because this is never how I approached it as a student – is we will have –
> and this is true across subject areas – often, a significant number of kids who take AP
> classes to completion and then don't take the exam…it's not based on economics or
> test cost. It's 'I don't want to get a one'. And that totally caught me by surprise and
> has already kind of changed how I want to introduce the class next year and kind of –
> and that's what tells me, oh, you don't fully understand – I feel bad that you've been
> conditioned to be afraid of failure so much. Convince them that there's no shame in a
> one. But they – they said, well, what about colleges? They'll see that. I said, well,
> remember, it's up to you to report your scores to schools. And I said, they're also
> going to see, though, that you took an AP class and then didn't send them your score.
> That's going to look a lot worse than you sending them that one. And I think, too,
> what I was trying to remind a lot of them – here's what's funny, I guess, when you're
> asking about the benefits. More of them seemed aware of the benefits in terms of
> college credits if I get that four or five, than of the benefits of simply sitting in that
> class and having it on your transcript. That's awesome if you can get some credits and
> save some money, but that's gravy. We're trying to get you into the college of your
> choice, and that's where the strength of your schedule is going to matter, regardless of
> whether it's a one, two, three, four, or five (14:30).

Experienced AP teacher AJ observed differences in Black and White parent involvement

at Juniper High School. "Parent involvement is low in general at Juniper, however, it is

painfully low among our Black families. It has been my experience that often times when I place

a phone call home or send an email about a concern, I generally get a response from a White

parent much more quickly than from a Black parent. This could be due to the fact that many of

our black students are in home situations where they are being raised by grandparents or other

family members who are stretched too thin with other responsibilities to engage in parent/teacher

communication" (8:13).

Students demonstrated a general understanding of the basic benefits of AP test taking, but

referred less frequently to the impact of simply taking AP courses on the "strength of schedule"

rigorous AP coursework can provide on college applications. Black recruited student SP was

aware of the advantages AP participation can provide past college credit and grades. "Well,

obviously, it saves you money in college later. I feel like it also prepares you for the college

work. Because I talked to a lot of students that's in college now that took AP courses now, and I

asked them how does it compare, and they'd be like, it's very similar" (20:8). Black high

achieving student NF stated, "I mean, I feel like AP is good because it boosts your grades if you

do well in the class, and it also allows you to have an idea of what college is actually like in high

school. And if you take the exam, then you get the credit" (17:6).

Juniper High School Implements Targeted Teacher and Staff Training and Unique Instructional Programming and Resources to Support Equitable Practice

Among the successful strategies of six urban school systems identified in the 2013 Eli

and Edythe Broad Foundation "Road to Equity" report to boost Black participation in AP are

teacher training and professional development, and extra academic and social support. Juniper

High School has implemented a wide variety of professional development and training for staff,

including College Board AP training, Virginia Center for Inclusive Communities (VCIC)

training for increased awareness of diversity and associated needs, and Laying the Foundation

(LTF) training to train teachers to utilize rigorous pre-AP instructional techniques to prepare

students for AP. The equitable AP enrollment patterns between Black and White students in

2015-2016 are also cited as a result of the multi-year participation in the Virginia Advanced

Study Strategies grant-funded program that was implemented at Juniper High between 2008 and

2014.

Several unique instructional and school community programs have also been

implemented at Juniper High School, including the grant-funded College Success Seminar

(CSS), Jostens Renaissance, AP Boot Camp, the Excel 2 Excellence program, and Social

Emotional Supports. Each programming opportunity and teacher training program has a unique

goal and audience, but combined contribute to the unique inclusiveness and climate of Juniper

High while in some cases directly impact increased equitable enrollment in AP courses for Black

students through programming and incentives. Staff and student response data point to the

significance of targeted teacher and staff training, unique instructional programming, and

accompanying resources as a school-level factor influencing equitable AP enrollment between

Black and White students at Juniper High School.

Teacher training-AP and equity

Virginia Advanced Study Strategies (VASS) Grant Program

Juniper High School was part of the first cohort of the Virginia Advanced Study

Strategies program, a program funded by the National Math and Science Initiative (NMSI) that

provided approximately $100,000 per year to each of the Cohort 1 schools, including Juniper

High School, between 2008 and 2014. Funds were dedicated to funding AP training for teachers,

providing monetary incentives to teachers who demonstrated student achievement and

enrollment in AP courses and AP tests, and additional monetary incentives to students who took

and passed AP tests. Teachers who were part of the VASS grant at Juniper High describe its

impact as transformative in improvement of instructional rigor and expansion of AP enrollment.

Experienced AP teacher ES was teaching her second year of AP in 2008 at Juniper High School

during the launch of the VASS grant. She describes the program and the continued return from

the experience on behalf of Juniper High School.

> *Teacher ES:*   I think the VASS grant is what changed the game for us. So prior to that, in
> '07-'08, I had 11 students enrolled in an AP 12 class, and I was the only AP 12 teacher. And
> while my pass rate on the AP exam as a first-year teacher really is not indicative of the
> quality of teaching, I think (laughs), that I possessed, but their pass rate was phenomenal. I
> think I had something like an 89, 90% pass rate. But then at the end of the year with the

VASS grant, one of the components coming in that VASS established very early on was whatever are your gatekeepers, you have to remove them. So whatever policies were in place in terms of tracking, they all got to come down. So I can't remember exactly what our gatekeepers were at Juniper, but I know there was a grade component and I know before you took an AP class, like you had to be almost tracked in in some capacity.

I: In some kind of pre-AP curriculum?

Teacher ES: Yeah. And now, what happened was in order for us to build our numbers, I mean, I went from one class of 10, 11 kids, to two sections of 42.

I: In a year's time?

Teacher ES: In a year. Yeah, in a year, the very next year. And I found that they did not have strong enough skills, but they were engaged learners. So although my pass rate started to really tank initially, because I had not figured out how do I plug in the gaps, the interest in the course was there. The VASS grant changed everything for us. We got trained as teachers. There was the financial component for students, where they got $100 every time that they passed.

I: And was there some kind of incentive for teachers as well?

Teacher ES: There was. So teachers had a three-tiered threshold system. So your thresholds were based on what your data looked like from the previous year of passes and fails. So it was like a $1,000, $3,000, and a $5,000 incentive.

I: So you feel some of those components still, to this day – even if you're not getting the money and you don't have those tiers, just the attitudes about AP and who gets into it – do you feel that still exists?

Teacher ES: Oh, definitely still exists. I think that a lot of times as well, the students are not willing to allow somebody else to tell them what they can or can't do. So as soon as a teacher says, well, I didn't recommend you for AP, they take that personally and they want to know why. And then they will say things like, well, I'm just going to do a parent override, and I'm like, you're right. They understand that there's other options and other avenues to get where they want, and I think teachers are very willing to say, if you don't like my decision, that's completely fine. Here's the parent override, and –

I: They're an active participant in the process as well?

Teacher ES: I think that VASS was a – I was one of the people (laughs) that was most excited to go to VASS. And I think also being the youngest in terms of my teaching career, I was still – I'm still an open book. For me, VASS was critical to understand that there wasn't a right way to do things, I had all the resources, and my job now was to say, okay, how can I – how can I learn the most about my students so that I can create lessons and units and thematic plans that best attack your weaknesses and play on your strengths. So they're not

just going to read black authors. They're going to read authors from every cultural genre, and how does their culture impact a viewpoint? I mean, that was like a game-changer to them as seniors (23:9).

Coordinator of Assessment and Remediation PB had transitioned from the classroom to her role as CAR when the VASS grant was implemented at Juniper High School.

Coordinator of Assessment PB: That is where – the VAS grant is what built our foundation. So that relationship built our model for how we work with the students, recruit the students, recruit the teacher that's in place, making sure that's a good fit. We used all of the – I use all of those as a premise for that.

I: So that VASS grant, when you talk about how that really set the foundation for the way you work with AP now. What are some key points from that that still, to this day, you feel have had an impact on the way you work with AP?

Coordinator of Assessment PB: Yeah, I mean, key for me is choosing the right – you know, making sure that you're looking at the right student, looking for the outliers, the student that may – you may not – may not look on paper like they have the ability, but they really do have the ability. Enhancing their curriculum by offering an AP class to them and saying, you might want to try this. Helping the student realize that they do have the ability to do it, even though it may not – they might be borderline. They may not be that ideal student. The rigor of that classroom will prepare them for later obstacles with college, even, you know, to community college.

I: So did the grant actually –

Coordinator of Assessment PB: Teachers, choosing the teacher. The right teachers.

I: Right, so do teachers – do the teachers get training through that grant? Did they get training?

Coordinator of Assessment PB: Yes, they did. The teachers did.

Coordinator of Assessment PB: In 2008 is when it – that's the year that I got hired in this job, and that was in place, so that was a key part of – I mean, they trained the teachers across the state of Virginia. They trained us. It was a strong foundation. But I think for us here, we try to identify not your typical student (27:3).

Virginia Center for Inclusive Communities (VCIC) Training

The Virginia Center for Inclusive Communities "works with schools, businesses, and communities to achieve success by addressing prejudices, in all forms, in order to improve

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academic achievement, increase workplace productivity, and enhance local trust" (from

www.inclusiveva.org). Principal AS initiated an ongoing partnership with VCIC to build trust

among staff and increase awareness of student backgrounds and needs at Juniper High School.

The partnership expanded from work with staff into the development of lessons to be

implemented with students to increase understanding of equity and differences among their

peers. Principal AS stated:

> I like VCIC. So we've done that with a primary focus on the staff, and trying to get the
> staff to talk to each other, share personal, you know, background experiences with each
> other. A group of five or six teachers went to this week-long intensive camp with VCIC
> last summer. They were at Sweetbriar, I think it was. But that core group then came back,
> and they started putting the stuff in place, with a primary focus on developing the
> community within, developing the staff relationships, celebrating the staff. Now our staff
> contact is working with them to develop the lessons for student advisory that will be
> student-focused, and how do we get kids to understand differences in equity and that kind
> of stuff (26:11).

Novice AP teacher JW described his experience in the VCIC staff training, highlighting the

impact it had on his awareness and instructional practice with his students.

> *Teacher JW:* They had some people come out and – during a faculty meeting for a few
> months or here and there, they would come and talk. We would do surveys or activities
> that's like, do you think about these things? I think, really, just kind of making us aware,
> forcing us to realize what we take for granted, what we do and don't know, and trying to
> shed some light on what our students go through or consider or struggle with. I mean, I
> think one of the things that really stuck with me is that at our school, everybody has a
> computer. There are only 23 students at this school that don't have a computer. So that's
> at least really nice that we're a basically full one-to-one. But we're always reminded, like,
> hey, some of these students don't have internet access at home. So like I gave up on
> homework a long time ago. Or I try to at least build my class to be a workshop, and then
> homework becomes, well, if you don't finish it, or if you take it upon yourself, you can
> do homework. But I think that's – that was one of the bigger things that was stressed
> early on and that really allowed me to kind of be like, don't worry about homework.
> Let's just work in the 90 minutes that we have with our kids each day or every other day.
>
> I: Just increased awareness, more wherewithal?

Teacher JW: Yeah, increase the awareness. Maybe it's too political and that's why it hasn't shown up in our trainings, but I haven't – I'm very – I try to be very conscious of microaggressions, but we haven't really gotten trained on that. I even teach that to my students. You know, when we look at topics of race in our various classes, we talk about what microaggressions are, what they look like, and things like that. So I try to – I try to be honest with my kids, but also try to be very cognizant that just what I'm wearing is a microaggression in and of itself. So although it's not been formalized, those kinds of things are present in my mind (25:9).

College Board AP Training

All interviewed AP teachers, novice and experienced, as well as the pre-AP teacher, have been provided College Board-sponsored AP training. The College Board describes the summer training workshops as intended to:

- Make equitable access a guiding principle in your school's AP program
- Prepare your students for success in college-level courses
- Develop instructional approaches that align with the goals of AP
- Identify the tasks and materials for which students might need more preparation
- Draft a syllabus that meets the curricular requirements for the course
- Successfully coordinate your schools' AP Exam administration

(from https://apcentral.collegeboard.org/professional-development/workshops-summer-institutes/about-workshops)

Though "equitable access" is listed a goal of College Board AP training, Juniper High teacher responses related to the AP training centered on instructional practice. Pre-AP teacher JJ described her recent AP training, held at the College of William and Mary, as an important step to her becoming an AP teacher at Juniper High School. She stated, "Yep, I'm trained, and then the door opened. I think this school is really good about having two teachers trained, even if you don't need them. I sat in on AP classes this year, so my planning was set up so that I could go into the AP class" (10:2). The Juniper High administration, who make ultimate assignments for teachers to teach AP classes, has ensured that all AP teachers are provided training at costs covered by the school and division.

In addition to AP training for current AP teachers, Juniper High has established a robust Laying the Foundation (LTI) program across various content areas to enhance pre-AP rigor and ease access to AP content for students. LTI is, like VASS, is funded in part by the NMSI. NMSI describes LTI as intended to help "…teachers raise expectations and advances students' levels of thinking and learning. The program allows teachers in grades 3-12 to build and maintain subject matter expertise, enhance abilities to lead diverse classrooms, use new technologies and prepare students to be confident and creative problem solvers" (from

http://www.nms.org/getmedia/a4cdc1e3-6a2b-498f-9c19-15853aa53e93/LTF-Overview-2018_v3.pdf.aspx). Pre AP teacher JJ participated in LTF:

> *Pre AP teacher JJ:* We do Laying the Foundation training here, which is the pre-AP, so I think just some of that teaching style and expectations will help me with AP.
>
> I: As a pre-AP teacher, what kind of skills does LTF really equip you with?
>
> *Pre AP teacher JJ*: The rigor. It really –
>
> I: How do you define that?
>
> *Pre AP teacher JJ*: Helped me see how to make my texts rich and dig deeper into them, but making them accessible. It's still – it made it accessible, but we were digging deeper into texts. And it also really helped me with seeing like I could read one point and do grammar and do research and do a writing passage and, and, and add onto it. So I think that really helped me. And then when I use my kids – like when we did it in class, we would look at the same story for two weeks instead of one week, so they felt confident going into the test. So I think it built up their confidence as well. Like hey, this was really hard on Monday. Two weeks from now, oh my goodness, I get it (10:3).

Unique AP instructional programming

AP Boot Camp

In order to provide support to ease the transition to AP for students moving from college prep or honors classes to AP, Juniper High has created the "AP Boot Camp", a one day, no cost program that is designed by AP teaching staff to provide students with a preview of the

instructional rigor that can be expected in AP courses. AP Boot Camp is a unique school-based

practice at Juniper High School, designed to support the transition to AP:

> I: What do you in boot camp?
>
> *Principal AS*: They offer study sessions. Like they'll say, hey, if you're AP enviro come on in and we'll do a study session with you to kind of get you ready. They'll do a book review for the AP.
>
> I: During the summer?
>
> *Principal AS*: Mhm. In August.
>
> I: Is this a division-mandated program?
>
> *Principal AS*: No. No, no, no. It's something that we saw that the kids want to be there, but the skill set coming from the honors classes isn't there (21:10).

White recruited student JM recalled the AP boot camp and discussed its benefit as he

transitioned to his first AP class in 10th grade.

> I: Was there ever an event at school to give you info about AP?
>
> *Student JM*: Yes, I think it was going into 9th grade or maybe going into 10th grade. They held like (pause) some – later in August, they had like – it was called AP Boot Camp, and you went in. It's like – maybe worked on the kind of work, like example problems and stuff like that.
>
> I: This is before you went into like AP environmental?
>
> *Student JM*: Yes, it was going into 10th grade. They sent me that. So that was good preparation for going into AP.
>
> I: So did that preparation make you just – just gave you some more confidence? Did it kind of ease some anxiety about it?
>
> *Student JM*: Yeah, and it made it more clear in what it was going to be. Because when you tell a kid in high school, it's like, oh, this is like a college credit class, they're like –
>
> I: What does that mean?

Student JM: What? What do you mean? So when you take that or go to that, or anything that – like a teacher will tell you to like make it a little bit more clearer, it makes all the difference in the world. Because the last thing you want to do is go – not just with AP classes, but with anything – go in like blind, and you're just kind of feeling it out (37:7).

College Success Seminar (CSS)

Juniper High's College Success Seminar (CSS) is a grant-funded program through the Virginia Department of Education's Extended School Year Grant. The program is unique to Juniper High and was designed by experienced AP teacher ES. The grant application provides a brief summary of its goals, including the following statement:

> The Juniper Student Prep Program was created to provide the foundation and support necessary by designing a unique program for a select group of college-bound students by strengthening their reading, writing, and math skills to be as prepared as possible to enroll in a four-year college of their choice. While in high school, the specific goals are to meet a B average in their courses, and an A in our elective course during the school year, have at least one honors course by their sophomore year, and have at least one AP course for their junior year and another their senior year. By putting supports in place to provide the necessary guidance, our program will help these passionate individuals fulfill their dreams of graduating from a four-year university.

CSS includes a dedicated class for CSS students with a consistent teacher each year during their four years of high school for support and creation of a support network within the program. College visits are also incorporated into the programming. The grant was also written to include funding for Laying the Foundation training administered school-wide by an in-house trainer from the Juniper High staff. Principal AS described the program:

> We have a grant from the department of education, the extended school year grant, which we call College Success Seminar. The goal of that grant was to make sure that all of those kids were college-ready. They would be first-generation college kids.Teacher ES has had those students now for four years, or three years. We wrote into that grant the Laying the Foundation training for the entire English department. So Laying the Foundation is really for grades 6 through 10, but we've trained everybody, because I just think it supplements the AP training. And then we know that the AP teachers, who don't exclusively teach AP, have

also heard what the 9th- and 10th-grade teachers are supposed to be doing. And I have the trainer now on staff. She's the Center chair (21:14).

Experienced AP teacher ES originally wrote the grant and has managed the program as its coordinator and teacher for three years. Teacher ES describes the program as having been conceived by a diverse group of stakeholders from across content areas identifying the need to engage more capable students in honors and AP coursework at Juniper High School. In addition to requiring AP participation as part of the grant, the funding also covers the cost of AP exams, which normally require $93.00 per test.

> *Teacher ES:* So these are students who are strong when it comes to college prep. They do have a strong work ethic, but maybe they just don't have enough foundational skills to be successful. So these students apply coming out of middle school, so it is an application-based program. And then one of the goals, one of the tenets of the program is to actually be enrolled in honors and AP courses by the – honors by the time they're in sophomore year, and then AP by the time that they're in their junior year. And then part of the grant is that we pay for the AP exams, so typically it's a financial burden. But we also have a renewed focus of really targeting students whose parents did not go to college. So the majority of students in the program did not have a parent attend college
>
> I: Majority black students in the program?
>
> *Teacher ES*: Majority black, mhm.
>
> I: Is it 15 students per grade level, and does that kind of come full circle? Do you have four grade levels now? 15 each?
>
> *Teacher ES*: So I have three grade levels. We just recruited our last freshman class coming in, and they have their own class with me. It is an elective class that counts as honors credit. And we build their foundation literacy skills, so it's very, very targeted reading, vocabulary, communication, writing, researching, and then I pull things cross-curricularly as well. So what they're studying in history, tying it in with an English focus. Science, I'm pulling it in with an English focus. We're working on disciplined literacy and focused on how do you actually understand the vocabulary that's happening. How can you break that down? And then we'll go on field trips that correspond with what we've been doing.

Counseling director CN serves as the counselor to students involved in CSS. She points to the additional advantage of funding for summer Health and P.E., which allows students to

participate in the College Success Seminar for academic support during the regular school year due to their schedules not including the Health and P.E. class.

>I: Tell me about the CSS grant program.
>
>*Counselor CN*: It's the full-year school program where they do – they pay for summer school for health and PE, so they're able to have an extra elective in their schedule, and they work on like college and career prep, writing skills, kind of more pushing with reading. So it's basically for those bubble kids that typically, you know, they're not the straight-A kids, they're not the really low kids. So they're the middle that sometimes get forgotten about.
>
>I: What are the criteria for participation?
>
>*Counselor CN*: We look at a lot of like maybe are they coming from a single-parent household? Are there a lot of kids in the household? We look at those applications from the middle schools, and we're able to have 15 kids each year. We're going into our fourth year next year.

Summary of Findings

A review of the findings returns to the objective of the case study as defined by Yin (2014): "to understand a real-world case and assume that such an understanding is likely to involve important contextual conditions pertinent to your case" (p. 16). In this case, the AP program of Juniper High School, one that is distinguished by its unique proportional enrollment of Black students in AP classes among regional high schools, those important contextual conditions are found in the school-based policies, practices, and characteristics related to the AP program. Those school-based factors that influence equitable AP enrollment at Juniper High School have been identified and analyzed through coding, narrative analysis, and document review.

Relationships among leadership, faculty, and students at Juniper High School is the catalyst that sets the school apart in its equitable outcomes in AP enrollment between Black and White students. Staff and students alike consistently referenced the culture of the school and the

premium this culture placed on encouragement, individual connections with students, and high expectations from the top down in the school. Findings point to those school-based factors present in prior literature and integrated into the conceptual framework as important practices and characteristics at Juniper High School in their achievement of equitable AP enrollment between White and Black students. Those school-based factors-flexible recommendation processes, parent and student outreach and education about AP, teacher training and unique programming for AP and equitable practice, and adequate quantity and variety of AP course offerings through scheduling to engage more students-are practices, characteristics, and factors that Juniper High and its staff have purposefully designed and implemented toward the explicit goal of achieving equitable enrollment in AP classes between Black and White students. However, those school-based factors alone do not answer the research question: *how* do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school? Consideration and implementation of those factors is indeed a requirement to lay the foundation of practice toward equitable AP enrollment patterns for Black students at Juniper High School, but *relationships and an inclusive school culture* are the catalyst, the fuel that powers the program toward equitable enrollment patterns.

A useful analogy is that of an automobile. Any automobile must be comprised of certain required mechanical parts: a transmission, an engine, an exhaust system. Those parts are needed to get the automobile moving. But those parts cannot function together appropriately without the oil that lubricates the system, allowing it to function. A car without oil, no matter how new the parts, will not run and will sit idle before rusting away. Likewise, the relationships and inclusive culture of Juniper High and the encouragement, attention, and diversity that come with the

culture serve as the oil that allows the system, comprised of the school-based processes, practices, policies, and characteristics, to work together to create equitable outcomes.

At Juniper High School, this does not occur by chance: school leaders expect and model behaviors that distinguish this culture, pushing staff to identify students who would otherwise not enroll in AP or advanced classes, instructing and supporting teachers in their efforts to raise academic expectations and rigor in practice, and making the efforts to implement unique programming that further supports equitable outcomes for students and instruction that is designed to support those outcomes. The impact of leadership should not be understated; the principal of Juniper High School is a significant catalyst in the overall processes that result in equitable outcomes. The principal's personal attitudes and experience, particularly in the realm of instructional practice and rigor, have directly influenced the performance of staff, the implementation of programming, and the expectations that are felt by all members of the school community. The principal's leadership activates the chain of events and serves as the "ignition" that runs the school's practice, and also follows behind, staying attuned to teacher behaviors, school data, and student engagement. In its achievement of equitable AP enrollment patterns between Black and White students, Juniper High School has not only implemented and maintained the key components cited in prior literature needed to enhance equitable outcomes in AP enrollment for Black students; they have nurtured the interactions among those components with a culture of inclusion, encouragement, and positive relationships that is modeled from the top down. In response to the research question, the catalyst that explains "how" school-level practices and policies influence equity in AP enrollment between Black and White students is the culture of Juniper High School, a culture that is distinguished by diversity, inclusivity, and

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relationships between leaders and staff, staff and students, and leaders and students that create high expectations, encouragement, and support for all students.

The overall analysis of responses, both within the statistical prevalence of themes as well as within the preceding narrative analysis, does not show significant divergences in responses among the respondent groups. Black students, White students, and school-based staff respondents, despite variation in the *frequency* with which they cited certain school-based factors as influential in equitable AP enrollment, were relatively consistent in the content of their responses. Relationships and encouragement were consistently discussed as school-based factors that were meaningful in creating equitable outcomes, and the overall school culture and its diversity were consistently highlighted as positive factors toward equitable outcomes, including AP enrollment. The appreciation that Black students, White students, and teachers demonstrated for an inclusive, encouraging school culture of high expectations is atypical when considered in the context of traditional present-day high schools. Mistrust, skepticism, fear, and apathy can permeate schools that serve marginalized or diversifying populations without effective leadership or attitudes on behalf of staff. As mentioned by teacher JL, the existence of a relative *balance* and the fact that neither Black nor White student populations at Juniper High are so small as to be characterized as "marginalized" distinguishes Juniper High School in an unfortunately increasingly segregated landscape of public education. The fact that teachers, leaders, and students coexist and learn in an environment that includes a balanced population of Black and White students allows, encourages, and demands that instruction, leadership and culture to adapt to what is best for all students. The equitable outcomes in Black AP enrollment at Juniper High could have their origin at that point: a school that enrolls significant numbers of Black and White students, demanding adaptation of practice to meet the needs of both student groups.

Conclusion

The primary findings of this analysis are:

- AP student identification, recommendation, and school scheduling processes for staff at Juniper High are designed and administered in a manner that reduces barriers to AP enrollment through ease of communication among staff, students, and counselors, priority given to AP and advance course offerings in master schedule creation to increase availability of AP courses, and the practice of mixed class schedules with teachers to expose them to diverse students in both ability level and grade.

- Curriculum alignment and early preparation for AP are school-based factors that present challenges for Juniper High School in its efforts to increase equitable AP enrollment between Black and White students. School leadership has implemented specific training to increase the rigor or pre-AP courses in some departments at Juniper High School, but the diverging needs of middle and elementary schools creates difficulties in meaningful and effective vertical curriculum alignment toward greater advanced coursework for all students.

- High academic expectations and curriculum rigor are the explicit goals articulated by school leadership for all classes to best prepare all students for advanced and AP coursework. These high academic expectations are balanced with teacher and staff academic and emotional support of AP students and encouragement of potential AP students, especially Black students and those less likely to engage in AP coursework. This support for students is formalized and implemented through a variety of practices, including AP boot camp, teacher help before and after school, and special programming

such as the College Success Seminar and the Virginia Center for Inclusive Communities partnership.

- Juniper High School is distinguished by a diverse, inclusive, and encouraging school culture that is built upon positive and encouraging relationships between staff and students, staff and staff, and students and students. The overall relative balance of White and Black students contributes to the inclusive culture and reported positive relationships between White and Black students in the absence of a "marginalized" ethnic or racial group. Teachers, students, and leadership all report that individual relationships, especially those between staff and students, make major contributions to the equitable enrollment patterns in AP by Black and White students through adult encouragement to students in individual conversations that provide students with the initial confidence and support to enroll in AP classes.

- Juniper High School implements targeted teacher and staff training and unique school-based instructional programming and resources to support equitable practice. Previous participation in the NMSI VASS grant established practice that is still implemented at Juniper High. This includes instructional practice in AP and pre-AP classes as well as school-based practices to support reduced barriers in AP enrollment at both the teacher and administrative levels. Current implementation of the NMSL Laying the Foundation training along with Juniper High's dedicated and unique establishment of a grant-funded LTF coordinator on site extends the work to create classrooms distinguished by high academic expectations and increased rigor balanced with individual student support to retain students in AP. Juniper High's initiative to establish the grant-funded College Success Seminar provides another opportunity for engagement for Black students in AP

coursework with associated support, and Juniper High's work with the Virginia Center

for Inclusive Communities provides all staff with training related to cultural bias,

stereotyping, and awareness of equitable practice and outcomes.

Chapter 5: Implications of Findings, Recommendations, and Conclusion

Knowledge makes a man unfit to be a slave. Frederick Douglass

Black students continue to be underrepresented among the population of AP students and AP test takers nationwide relative to White and Asian students, creating disproportional enrollment trends in AP between Black and White students on both the national and local levels. In its most recent *AP Report to the Nation* (2014)*,* the College Board, the organization that founded and administers the AP program in public and private high schools nationwide, reported that Black students were the "most underrepresented group in AP classrooms and in the population of successful AP test takers" with only 9.2% of AP exam takers being Black from among an overall population of 14.5% Black students in the 2013 graduating class nationwide (p. 30). In Central Virginia, when examined at the regional and school level, the disparity is even more striking. In 2015-2016, of the 18,569 Black students enrolled in the 38 high schools of Virginia Region I, representing 15 school divisions varying from large suburban to urban to small rural divisions, 1,920, or 10% were enrolled in an AP class. Of the 27,042 White students enrolled in the same 38 Region I high schools, 7,102, or 26%, were enrolled in AP classes.

Among those 38 Region I high schools in 2015-2016, one high school, Juniper High School, a school serving approximately 1,700 students of whom 67% were Black and 24% were White, achieved proportional enrollment in AP courses. At Juniper High School in 2015-2016, 137 of the 204 students enrolled in AP courses were Black students, an identical proportion to that of the overall Black student population. In same school division in 8 high schools, the average disproportionality in 2015-2016 for Black students in AP courses was -8%. This study seized upon this unique distinction of Juniper High school in order to understand in better detail

the forces at play at the school level, and how those school-based factors influenced this outcome of proportional AP enrollment for Black students.

Considering this "unique, complex and contemporary phenomenon"(Yin)-unique in that Juniper High is the only diverse high school in Central Virginia Region I to achieve proportional AP enrollment between Black and White students in 2015-2016, complex in that public high schools and processes occurring within and influencing them are highly complex and involve students, teachers, administrators, families, policies, and practices at the school, division, state, and federal levels, and contemporary in that the phenomena has taken place in the past five years and is the same AP enrollment process that takes place yearly in schools nationwide, albeit with different outcomes, a single case study approach was used to answer the following research question:

- How do school-level practices and policies influence equity in AP enrollment between Black and White students at a central Virginia high school?

This study was designed to understand what Juniper High does to make proportional AP enrollment between Black and White students occur, to understand *how* Juniper High achieves a uniquely proportional and equitable outcome in AP enrollment between Black and White students.

To answer the question of *how* school-level practices and policies influence equity in AP enrollment between Black and White students at Juniper High School, the single case study methodology utilized semi-structured interviews to collect data about the school-based factors identified in prior literature as influencing AP enrollment by Black students. Interview protocols for school-based instructional staff, school-based non-instructional staff, division and state staff, and students, including Black high achieving, Black recruited, White high achieving, and White

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recruited AP students, were developed to gather data about Juniper High's school-based
practices, policies, and characteristics related to teacher training, student identification and
recommendation processes, parent and student outreach, and curriculum characteristics,
including quantity, variety, and rigor of AP coursework, as well as the nature of pre-AP course
exposure for students.

The purpose of this chapter is to relate the findings of the study to both the conceptual
and theoretical frameworks presented earlier within the dissertation. Findings and their
implications will be discussed in the context of the overlapping theoretical frameworks of equity-
social equity and educational equity-each of which is useful for the purpose of articulating how
school-based policies, practices, and characteristics influence and contribute to the equitable
outcome in AP enrollment at Juniper High School. The findings of this study will also be
discussed as a potential prompt in discussion of the value of greater alignment between the fields
of public administration and public education, in recognition of their mutual goals in social
equity and the potential benefits for public education by embracing public administration theory
and practice. Additionally, implications for public policy, limitations of the study and findings,
and potential areas of future research will be discussed.

**Educational Equity, Social Equity, and the Interaction of Influential School-Based Factors
in Promoting Equitable AP Enrollment**

There are undoubtedly few institutions with more at stake in the area of public policy and
administration than public education. The layers of local, state, and federal policies operating in
unique schools and divisions, distilled to the daily, human interactions taking place between
adults and children they are charged with educating, counseling, transporting, assessing, and
preparing for the world represent a colossal institution impacted by countless policies. Yet, few

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public education administrators at the school or district level would likely characterize themselves as public administrators. There exists opportunity for public education and public administration to include each other and learn from each other in their respective spheres, potentially providing mutual benefit to both fields. Jeffrey A. Raffel, in his "Why Has Public Administration Ignored Public Education and Does it Matter?", supports the application of public administration thinking to public education and notes, as a former school administrator, that public administration could provide useful knowledge to those leading public education organizations at the school and division level. After all, the U.S. Census Bureau reported in 2002 that "public education accounted for one-quarter of total state and local direct general expenditures in fiscal year 1999" with federal expenditures in elementary and secondary education "approaching $93 billion" in the same time period. The roughly 13,726 school districts in the United States, each with its own governing structure, "account for slightly more than 15 percent of all the nation's governments, but they employ more than one-third of all government workers at all levels" (Raffel, p. 137). Greater inclusion of public education within the field of public administration is justified and represents potential advancement in theory and practice for both fields. Raffel notes that topics of use to public education normally studied and practiced in public administration could include:

> …working with elected officials and administrators from other sectors, developing political understanding and skills concerning the relation of politics to administration…working successfully with public officials to build public support for schools, gaining a fuller range of decision-making models and examples to draw from…because many problems in public education are related to management, as public education addresses those issues, it would benefit from the increased understanding of public administration applied to public education(p. 146).

This returns the focus to educational equity. Public administration has, since the 1968 Minnowbrook conference, established "…an emphasis on social equity that has shaped both

public administration scholarship and practice in the years since" (Gooden and Portillo, 2011, p. 162). Public schools and educators have focused on educational equity, but rarely do all school divisions, and even the same schools within a division, work collaboratively to design or apply models of decision-making or social equity analysis to their collective concerns. Public administration could provide the pathway to more effective processes to evaluate and contend with inequities. Since inequities among schools, among divisions, among teachers, and among students by race, ethnicity, income, and disability in practically every dimension of the school experience are now at the forefront of countless controversies in public schools and divisions nationwide, occurring in a currently hostile political climate, public education may benefit from the tools of public administration to contend with the complex political, economic, and demographic challenges that confront public education. After all, the character of social equity and educational equity share similar goals regardless of where the experience occurs, be it in a more traditional public administration field such as health care or in the AP program at Juniper High School. Gooden (2008) cites the 200 National Academy of Public Administration's Board of Trustees Standing Panel on Social Equity and its definition of social equity as "The fair, just, and equitable management of all institutions serving the public directly or by contract, and the fair and equitable distribution of public services, and implementation of public policy, and the commitment to promote fairness, justice, and equity in the formation of public policy" (p. 7). When applied to the current study and issues of educational equity, this theory retains its usefulness in the institution of public education. The legal and practical basis of the distribution of public education and the imperative of a just democratic society are key considerations of equitable educational practice and outcomes. Schools and school organizations must consider

education and related equitable outcomes in a similar manner to bring about large-scale, systemic improvements toward equity.

Juniper High School Practice, Policy, and Characteristics: "Ingredients" of Equitable Practice

The goal of this study was to find school-level practices and characteristics with potential for universal implementation and replication in high schools toward the ultimate goal of improving equity through a reduction in the enrollment gap between Black and White high school students in AP courses. In Chapter 2, educational and social equity were discussed in multiple frameworks. Brookover and Lezotte define educational equity as requiring three ingredients: access, participation, and outcomes; without one of those "ingredients" equity is not achieved. That is, schools that provide access yet cannot demonstrate participation by Black students, or schools that demonstrate participation without demonstrating outcomes for Black students are not equitable. Gooden (2014) notes that social equity involves the "delivery of public services". This "delivery of public services" within the institution of public education takes place at several levels. As discussed in Chapter 2, for the purpose of this study, that "delivery of services" takes place primarily at the school level, and the school-based factors of concern in this study are what drive the "delivery of services": the interactions among processes, staff, students, and communities in the public school toward provision of opportunities to students.

Findings of the current study, the school-based factors at Juniper High that influence equitable enrollment patterns for Black AP students, are illustrated below in relation to the three required dimensions of educational equity outlined by Brookover and Lezotte:

Access

- School scheduling is performed to ensure a variety of AP courses are offered, despite logistical challenges, to engage more students based on interest.

- Teachers are provided with a teaching schedule that includes a balance of advanced and non-advanced classes, providing greater personal engagement among advanced and AP teachers and potential students who may not naturally emerge as AP students.

- School counselors and staff work with students on individual schedules to resolve conflicts that would prevent enrollment in AP classes.

- Leadership is clear in the expectation that staff work to identify AP students using more than student and parent requests and the AP potential report, leading to engagement of more Black students in AP.

- Pre-AP classes at Juniper High School are distinguished by a focus on instructional rigor and high academic expectations, moving beyond the standardized-testing minimum competency focus found in many predominantly Black schools. This preparation increases the potential for access to future AP classes.

Participation

- Leadership monitors data related to Black AP enrollment and engages students and families in individual dialogue to support their continued participation.

- Leadership and staff implement parent and student AP outreach through large-scale events such as the annual AP panel as well as less formalized processes that take place through cultivated relationships with students and families.

- Teachers, staff, and students support an inclusive and encouraging culture. Students are given the encouragement and support both before and during AP coursework to prevent being overwhelmed despite a lack of previous advanced coursework.

- Leadership and teachers provide a balance of high expectations, rigor, and support during instruction, moving from the traditional practice of a "sink or swim" expectation of AP students to a more dynamic, individualized instructional practice that provides students with academic and emotional support.

- Teacher training and unique programming support the school's efforts to engage students in AP classes and to create equitable enrollment patterns. AP content training, Laying the Foundation pre-AP training, Virginia Center for Inclusive Communities workshops, the College Success Seminar, and the prior participation in the VASS grant have supported dimensions of equitable practice in and out of the classroom.

Outcomes

- Juniper High School enrolled an identical proportion of Black students in its AP classes in 2015-2016 to the proportion of the Black student population overall.

- Teacher and staff attitudes reflect the top-down focus on providing the opportunity and support for Black students in AP classes.

- Teacher and staff attitudes place a greater premium on the benefits of AP participation over AP test scores, and the value of exposure to AP coursework for Black students in their efforts to be accepted and successfully complete postsecondary education.

Brookover and Lezotte's framework of educational equity provides a useful analysis of findings; however, this analysis does not fully satisfy the goals of the researcher in this study. As a former

teacher, principal, and current division leader, I feel compelled to turn the findings of this study into practical action steps to fully realize its goals.

Gooden (2008), writes, "Researchers devote considerable time and energy to identifying the existence of racial disparities in various areas of public policy. Whether the focal topic is education, earnings, poverty, crime, or health, the common research story is characteristically predictable. The methods vary, the statistics models change, but the 'take away' message is essentially the same: Minorities, especially African Americans and Latinos, fare worse than their white counterparts" (p. 8). This is indicative of the "ready, aim, study more" (Gooden, 2008, p. 7) cycle of race and public policy analysis that, while establishing research highlighting inequities, does little to influence change in organizations. The goals of this study, as discussed in Chapter 1, were to find school-level practices and characteristics with potential for universal implementation and replication in all high schools toward the ultimate goal of improving equity through a reduction in the enrollment gap between Black and White high school students in AP courses. Gooden defines this as "fire" research, intended to "identify, analyze and/or replicate organizations, policies, or programs that have been successful in significantly reducing or eliminating racial inequities" (2008, p. 9). This case study of the Juniper High school AP program and its policies, practices and characteristics that have influenced its uniquely proportional AP enrollment between Black and White students is a clear example of moving past the numerous descriptive and statistical studies of AP equity that traditionally focus on isolated school-based processes toward a more nuanced, detailed, and prescriptive study that can inform the practice of school officials and educational policymakers working to reduce inequities in AP enrollment and beyond.

Implications for policy

During the data collection phase of this study, officials from the Virginia Department of Education, including senior level leaders working exclusively in policy and equity, were interviewed by the researcher and provided response data relating to emerging initiatives and processes at the state level intended to address inequities. Their responses show initial promise that Virginia has begun to confront educational inequities directly through policy and practice. Although the unique structure of public education can represent potential obstacles to state initiatives due to the bulk of funding and administrative control sourced at the local level, state funding for local divisions is significant, and tangible changes in educational policies and regulations from the VDOE will have to be negotiated in some form by school divisions and school leaders. Major change already being implemented as of 2018 includes the shift to new school accreditation standards, updated graduation requirements, and the recent approval by the State Board of Education to establish a special committee dedicated to focus on the priorities highlighted in 2018-2023 VDOE strategic plan, including equity and teacher shortages. This committee, the Committee on Evidence-Based Policymaking, was created as a permanent committee by the Board president. Division policy official CC stated, "...they started to talk about, well, what does equity mean to us? And it's not equality, it's actually looking at the distribution of resources and then trying to ensure that everybody has the same opportunities to learn, has the same materials, has the same access to quality teachers" (6:12).

New accreditation standards, part of the revisions to the Standards of Accreditation (SOA) that have been implemented as of 2018, require that schools go further than meeting an arbitrary pass rate on standardized tests, as had been prior practice, to earn accreditation. State equity official LW states:

> Virginia has completely reformed our school accreditation process, or our state accountability system. And in doing so, for the first time, we've applied an equity lens to school quality and are measuring achievement gaps for the very first time in our state accreditation system, which mean that there are many schools in this state that will, for the first time ever, not be accredited because of achievement gaps. We've identified these schools and made public that they have an issue with this. That's step one. We've empowered communities with valuable information to advocate with their local school boards, because technically the State doesn't have control over schools in Virginia. But then the third step in our role at the Virginia Department of Education is to deploy technical assistance to divisions that need it. And we are just now literally beginning to have those conversations here about what that is going to look like. (13:21)

School-based practice and policies, such as those found at Juniper High School influencing equitable AP enrollment, can close the loop in local and state policy toward affecting more equitable outcomes. Virginia has made bold first steps by formalizing and codifying equity in the larger analysis of school quality, and communities are now operating with a greater awareness of the performance of *all* students. If a school that is 85% White and 15% Black demonstrated a 92% overall pass rate on an English SOL test under the previous accreditation standards, yet only 6% of the Black students passed, should that school be considered an equitable, high quality school?

Changes to accreditation practice, graduation requirements, and the momentum around equity across various dimensions of the K12 public school experience are moving Virginia in a direction toward greater accountability for equitable outcomes on behalf of all students being served. Without practical, living examples of how school-based policies and practices affect equity, however, support of divisions and schools on behalf of marginalized student populations will be insufficient. Juniper High School has provided replicable examples of practice, programming, and behaviors that work together to influence equitable outcomes for Black students in AP enrollment. It is reasonable to assume that these same examples could be applied to other dimensions of equity in schools across the nation.

Recommendations: Policy and Practice

Policy Overview

Though Virginia is beginning to implement policies that will hold schools and school divisions more accountable than ever for equitable outcomes, policy in public education still rests at the outcome level, with little attention given to the practices taking place at the school level with the potential to drive equitable outcomes. In public education, with overlapping policies at the federal, local, state, and division levels, all tied to varying proportions of funding for school programs, policy is highly complex. School division policies, created by elected or appointed school boards to ensure compliance with state and federal law, tend to have the greatest proximity to and impact on classroom practice in the context of the wide authority granted to local school divisions to administer public education. That creates a patchwork of division policies across the unique districts in each county, city, and municipality across the nation. Depending on the character of the elected official, the identity of the community, or the political influence, policies can vary greatly, even from division to division in the same region of the same state.

Universally, policy should explicitly address equity and operationalize equity in clear terms, to include not only access but also the dimensions of participation and outcomes. If state and federal policies continue the recent trend of including equity as a criteria for student achievement tied to accreditation and funding, local division policies can prescribe more practical suggestions and requirements for equitable practice at the school level. Policy should also prescribe greater data collection in the area of equity. This data should include AP participation rates by race, and data on AP potential and recommendation patterns v. enrollment by race.

Another inadequate area of data collection is that of teacher racial identity. Overall trends are identified in current research and data, but more detailed data reflecting individual teaching assignments by race, including the racial makeup of AP teachers, is not available. This data would provide richer information to guide equitable practice and hiring by schools and school divisions, and prompt more purposeful efforts. The U.S. Department of Education's Office of Planning, Evaluation and Policy Development, in its July 2016 "The State of Racial Diversity in the Educator Workforce", notes that "teachers of color are more likely to 1)have higher expectations of students of color (as measured by higher numbers of referrals to gifted programs); 2)confront issues of racism; 3)serve as advocates and cultural brokers; and 4)develop more trusting relationships with students, particularly those with whom they share a cultural background" (p. 2). It is reasonable to assume that teachers of color could influence equitable outcomes and school-based practice. Unfortunately, it is impossible to determine how many teachers of color are working with AP students. Data does show that "High-poverty elementary and secondary schools employed a greater percentage of black and Hispanic teachers and a smaller percentage of white teachers than did low-poverty schools, according to a 2007-08 NCES analysis" (U.S. Department of Education, 2016, p. 7). Data exists about teacher preparation programs and the teacher pipeline and educational attainment of teachers, but does not exist related to specific course assignments and detailed connections among teaching assignment and student outcomes. To thoughtfully implement equitable practice in schools, this data will be important to consider. Virginia's updated School Quality Profiles now contain more rich detail to assess equitable outcomes and would be a logical point for introduction of more detailed teacher identity data.

The conceptual framework and categories of school-based factors emerging in the findings of this study provide a useful guide for policy recommendations to influence equitable outcomes, including AP enrollment for Black students, at the school level.

Identification, recommendation, and scheduling processes-recommended policy and practice

- Policy should prohibit exclusive scheduling of all advanced classes for teachers, and school-based practice should embrace varying teacher schedules along ability leveled classes. Doing so will improve student outcomes by exposing students otherwise unfamiliar with AP to advanced and AP teachers, and could improve teacher retention outcomes by eliminating the "seniority wall" that arbitrarily restricts certain teachers from teaching advanced courses due to limited teachers monopolizing advanced and AP offerings.

- Policy should outline sensible and equity-focused student recommendation processes, moving away from the archaic gatekeeper processes characterized by required GPAs, course prerequisites, and standardized test scores to include more intangible indicators of AP potential, such as work ethic and willingness to engage in the curriculum. Incentives can be prescribed for schools demonstrating an increase of AP enrollments across dimensions of race, special need, or poverty to encourage and recognize efforts in this area. Counselors should be funded sufficiently at high schools and supported by school leadership: their role is essential in providing the technical and emotional support for students as they navigate enrollment into AP classes.

Curriculum alignment and early preparation-recommended policy and practice

- Policy should align priorities in accreditation for both middle and high schools, and encourage a shift past minimum competency standardized tests toward authentic, rigorous instruction. The state's move to revised accreditation standards with an equity focus is a meaningful first step.

- School-based practice should include the provision for time and resources to engage in frequent, collaborative dialogue focused on curriculum alignment, both within the school and among feeder elementary, middle, and high schools. Curriculum alignment should address the needs of all students and explore methods to disrupt and avoid tracking of students, especially those of color.

Curriculum and expectations-recommended policy and practice

- School-based practice should include targeted, ongoing staff development with the purpose of creating rigorous instruction in all content areas in order to prepare students for AP and advanced coursework.

- School-based practice should balance rigorous expectations with thoughtful academic and emotional support for students assuming more advanced and rigorous coursework than had been previously experienced.

- Policy should fund, incentivize and recognize innovative school-based programming and training designed to engage and support students of color in AP classes.

Diverse, inclusive, and encouraging school culture

- Policy should represent a rededication to the intent of civil rights policies and desegregation orders, and should be utilized to re-establish diversity in school populations and reverse recent trends of school re-segregation.

- School practice should include an explicit focus on cultural understanding and the importance of relationship development in schools serving all students, especially those schools serving significant proportions of students of color.

Limitations

This is a single case study that relies on an initial analysis of secondary data in the form of AP enrollment trends from Virginia Region 1 high schools, and subsequent semi-structured interview response data from 17 students, 5 teachers, and 6 school, division, and state leaders with selected documents including relevant data to the AP program at Juniper High School. The findings are, by design, based on interview responses that are subjective and difficult to verify. Another limitation is the time elapsed between the initial secondary data analysis and the data collection process. This study was based on data from the 2015-2016 school year, but semi-structured interviews did not take place until the spring and summer of 2018. While many of the staff interviewed have been employed at Juniper High since that time, the students interviewed were likely not enrolled in AP classes during the 2015-2016 school year. The use of a single case study limits generalizability, as the findings cannot be generalized to other high schools locally, regionally, or nationally. Another limitation is the sample, both in identity and size. The identity of the student interview subjects was dictated by the division and school protocol for research, which limited selection to a pre-determined sample. The size of the sample for all groups was limited due to practical restrictions of time and resources. Though the focus of the study is limited and the single case study does not produce generalizable results, the findings are still meaningful and informative to practice in other schools.

Future research

The increasing focus on equity in public education demands more than descriptive studies prompting more research. There is a clear need to affect change to the inequitable patterns of achievement among many marginalized populations being served in American public schools. This change is needed at a time when social and political forces are challenging many of the fundamental principles of the American democracy and the role public education has in maintaining that democracy. We know, both in public administration and public education, that certain groups underperform. Future research must go further and expand the thinking and practice of public administration and public education leaders as they work together to provide the frameworks and models that can influence greater equity for Black students, all students of color, students of poverty, students with disabilities, and first-generation college students.

A recommended next phase of this study would move from a single case study to a multiple case study, performing the same data collection and analysis in several schools to compare practice. It would be of great interest and value to implement this study in at least 2 schools of similar demographic makeup with opposite outcomes in AP enrollment patterns between Black and White students in order to assess what practices, policies, and characteristics affect equity both negatively and positively. Extending the research outside of Central Virginia with a sample of case schools from across the nation would be of value, especially considering the varying levels of resources across states and divisions in the United States.

Continuing to break down the silo around public education research and administration will benefit future educational research. The theories, models, and examples available in public administration hold promise for advancing educational research and public administration can benefit from greater attention to the public education, particularly in the areas that currently pose

the greatest threats to the credibility of public education: equity, efficiency, and the management of human capital.

Conclusion

Public education is highly complex at every level. From a teacher working directly with children of varying needs and abilities to the various organizational and governing structures that administer school funding, the answers to the challenges facing educators and educational leaders in a setting that is in constant motion due to changing laws, expectations, populations, and resources are never simple and rarely applicable to all instances of the educational process. Add to that complexity the fact that educators work with *children,* children not their own, each with his or her own changing story that educators and educational leaders must navigate while transporting, discipling, feeding, nurturing, counseling, teaching, and assessing with scattered resources and relatively low pay, and it is no surprise that teachers and leaders are hard to find and hard to keep.

In the midst of this, examples of schools and educators that are implementing practices in their own classrooms, schools, and divisions that create uniquely different and positive results on behalf of students should be recognized, studied, celebrated, and replicated whenever and wherever possible. Despite legal victories, Black students and students of color continue to struggle in many of America's schools. Johnson and Savra (2011) write, "The group basis for differences in access, treatment, quality, and results is powerful and pervasive in American society and continuously takes on new forms. Public administrators must be attentive to new expressions of the social inequity challenge and creative in combating these inequalities" (p. 286).

In public schools the "components" that for many would satisfy the test for equitable treatment may exist in the form of programming, community partnerships, technology, and funding, but in public education, in the work between and among humans, the need to administer those components with an awareness and sensitivity to the importance of diversity, inclusion, and positive, encouraging relationships cannot be discounted. As demonstrated by Juniper High School, a predominantly Black school known more in the public for its discipline issues than its academic achievement, equitable outcomes in AP enrollment that reverse local and national trends can be achieved on behalf of Black students with the thoughtful administration of recommendation processes, curriculum alignment, teacher training, class scheduling, high instructional expectations, and unique programming with the right blend of interpersonal relationships, individual support for students, and an attitude from the top down that maintains high expectations for both students and staff while balancing those expectations with training, support, and care.

Appendix A

Interview Protocol: Non-Instructional Staff (School-Based)

NON-INSTRUCTIONAL STAFF INTERVIEW QUESTIONS

Background Information

1. Briefly describe your professional background. What experiences (education, other teacher/admin positions, other career) brought you to this school?

2. Describe your title and role at this school/department.

Teacher Training and Experience

1. How long have you worked at this school/department? Which individuals do you spend the most time with in your role?

2. Describe the out of school (division or wider-regional, national) training or professional development you or the staff have undergone related to AP teaching (content training, diversity training in AP)?

3. Describe the training or professional development you have undergone related to AP teaching in school.

4. Describe any professional development or training you have undergone related to equity (cultural understanding, poverty, etc.).

5. Which professional development or training experiences have been most important to your practice in working with AP students in your role? Why?

6. Do you feel that any part of your training or professional development has been especially important related to improving outcomes for Black AP students? Why?

Leadership and Staff Focus on Equity

1. Do you feel that your school/department values equity in access, opportunity, and outcomes for Black students? What does the school/department do to demonstrate that value?

2. How does leadership (department, administration, division) support the efforts of teaching AP? How?

3. How does that support impact the work with Black students in AP classes?

Communication and Parent Outreach

1. Describe your interactions with parents of AP students.

2. Do you feel that parents of AP students understand the benefits of AP for their children? Why?

3. Describe what you think the school does to help educate parents and students about AP.

Curriculum

1. Do you feel that students are adequately prepared for AP when they arrive to an AP class? Why is that?

2. Do you feel that Black students arriving to AP classes have similar levels of preparation as White students? Do you observe any differences or hear of any differences from teachers?

3. Describe the communication you have with other teachers and staff members at this school about student progress.

4. Describe the communication you have with other schools (feeder middle and elementary schools) about curriculum. How do those conversations impact your work with teachers, staff, and students?

5. What aspects of the pre-AP curriculum do you feel impact access, participation, and outcomes for Black students?

Identification and Recommendation Processes

1. What input do you have on the recommendation process for AP students?

2. What work do you do directly with staff to support their work with AP students?

3. What do you feel is necessary for a student to be successful in an AP class (prerequisites, work ethic)?

4. Are you familiar with the AP potential report? If so, describe what you know about it.

5. If you have given a concern about a student being recommended an AP class, do you handle that concern? How?

Appendix B

Interview Protocol: Non-Instructional Staff (Division/State)

NON-INSTRUCTIONAL STAFF INTERVIEW QUESTIONS

Background Information

1. Briefly describe your professional background. What experiences (education, other teacher/admin positions, other career) brought you to your current position?

2. Describe your title and role at this department.

Teacher Training and Experience

1. How long have you worked at this department? Which individuals do you spend the most time with in your role?

2. Describe the professional training or professional development you or your staff have undergone related to AP teaching and administration? (content training, diversity training in AP)?

3. Describe the training or professional development you have undergone or administered related to AP teaching in school. Where did it take place? What were the themes?

4. Describe any professional development or training you have undergone related to equity (cultural understanding, poverty, etc.).

5. Which professional development or training experiences have been most important to your practice in working with AP programs, staff, and students in your role? Why?

6. Do you feel that any part of your training or professional development has been especially important related to improving outcomes for Black AP students? Why?

Leadership and Staff Focus on Equity

1. Do you feel that your school/department values equity in access, opportunity, and outcomes for Black students? What does the department do to demonstrate that value?

2. How does leadership (department, administration, division) support the efforts of equitable administration of AP? How?

3. How does that support impact the the outcomes for schools in enhanced equity in AP enrollment?

Communication and Parent Outreach

1. Does your department administer any parent outreach or communication about AP, either through the schools or from your office?

2. Do you feel that parents of AP students understand the benefits of AP for their children? Why?

3. Describe what you think your department does to help educate parents and students about AP.

Curriculum

1. Do you feel that Black students arriving to AP classes have similar levels of preparation as White students? Do you observe any differences or hear of any differences from teachers, schools, or divisions?

2. Describe the communication you have with other staff members in your office or in schools about student progress.

3. Describe the communication you have with other offices(local divisions, policy department at VDOE, etc.) about curriculum. How do those conversations impact your work with teachers, staff, and students?

Identification and Recommendation Processes

1. What input do you have on the recommendation process for AP students through resources or policy that are provided by your office?

2. What work do you do directly with staff to support their work with AP students?

3. What do you feel is necessary for a student to be successful in an AP class (prerequisites, work ethic)?

Interview Protocol: Instructional Staff (School-Based)

INSTRUCTIONAL STAFF INTERVIEW QUESTIONS

Background Information
1. Briefly describe your professional background. What experiences (education, other teacher positions, other career) brought you to this school?

2. What courses do you currently teach?

3. How would you describe the student makeup of your AP classes (race, gender, general ability, motivation)?

Teacher Training and Experience

1. How long have you taught AP (Here, Elsewhere)?

2. Why did you decide to teach AP (Decision, Recommended)?

3. Describe the out of school (division or wider-regional, national) training or professional development you have undergone related to AP teaching (content training, diversity training in AP)?

4. Describe the training or professional development you have undergone related to AP teaching in school.

5. Describe any professional development or training you have undergone related to equity (cultural understanding, poverty, etc.).

6. Which professional development or training experiences have been most important to your practice as an AP teacher? Why?

7. Do you feel that any part of your training or professional development has been especially important related to improving outcomes for Black AP students? Why?

Leadership and Staff Focus on Equity
1. Do you feel that your school values equity in access, opportunity, and outcomes for Black students? What does the school do to demonstrate that value?

2. Does leadership (department, administration, division) support your efforts in teaching AP? How?

3. How does that support impact your work with Black students in your AP classes?

Communication and Parent Outreach

1. Describe your interactions with parents of your AP students.

2. Do you feel that parents of AP students understand the benefits of AP for their children? Why?

3. Describe what you think the school does to help educate parents and students about AP.

Curriculum

1. Do you feel that students are adequately prepared for AP when they arrive to your class? Why is that?

2. Do you feel that Black students arriving to your class have similar levels of preparation as White students? How do you observe any differences?

3. Describe the communication you have with other teachers at this school about student progress.

4. Describe the communication you have with other schools (feeder middle and elementary schools) about curriculum. How do those conversations impact your instructional delivery?

5. What aspects of the pre-AP curriculum do you feel impact access, participation, and outcomes for Black students?

Identification and Recommendation Processes

1. What input do you have on the recommendation process for AP students, both in your own AP classes and other AP classes?

2. What do you feel is necessary for a student to be successful in your AP class (prerequisites, work ethic)?

3. Are you familiar with the AP potential report? If so, describe what you know about it.

4. If you have a concern about a student being recommended for your class, how do you handle that concern?

Appendix D

Interview Protocol: Students

STUDENT INTERVIEW QUESTIONS

Background Information

1. Tell me about yourself. What grade are you in? What classes are you currently taking? What are your plans for after high school?

2. Before this year, did you take any AP classes? If so, how many?

3. What kind of classes did you take in middle school?

4. What are your AP classes like? How are they different from other classes (students, teachers, makeup)?

5. Here at your school, Black students are in AP classes as much as White students. Why do you think your school is different?

Teacher Training and Awareness

1. Think about your AP teachers. How are they different from your other teachers?

2. Do your teachers ever talk about anything they do differently for AP than they do for non-AP classes? If so, what?

3. What do you think the best way to teach an AP class is?

Leadership and Staff Focus on Equity

1. When you hear the word equity, what do you think that means?

2. What do you think your school does to give all students a fair chance, no matter what race or background they come from?

3. What did your principal or assistant principal do that made you feel comfortable taking on the challenge of an AP class, if anything?

Communication and Parent Outreach

1. Did your school or anyone from your school ever talk to you or your parents about AP and what it meant to take an AP class?

2. What do you understand are the advantages of AP over, say, an honors or regular class?

3. How did you learn that?

4. What do you think your school has done to educate you about AP-what it means and why it is good to take an AP class?

Curriculum

1. Do you think the classes you took before AP-even elementary and middle school classes-helped you to be ready for AP? How?

2. Do you know if your high school teachers ever talked to your middle school teachers? If so, what did they talk about?

3. When you're in your AP class, what do you think you could have learned or done differently in another class before to make you better prepared for the AP class?

Identification and Recommendation Processes

1. Describe how you set up your class schedule. What did you do? Your counselor? Your parent?

2. Who helped you decide on what classes to take?

3. Did your counselor recommend taking an AP class? Why?

4. Did another teacher recommend taking an AP class or talk to you about it?

5. Have you ever heard of the AP potential report? If so, what do you know about it? Did you receive any information about it from the school?

6. Why do you think students who have the potential to take AP classes do not take AP classes?

Appendix E

Informed Consent Approval Form-Student

RESEARCH SUBJECT INFORMATION AND CONSENT FORM

TITLE: A Case Study of a Central Virginia High School's Distinguishing Practices, Policies, and Characteristics Toward Proportional Racial Representation in Advanced Placement Enrollment

This consent form outlines important information about a research study in which your child is being asked to participate. Before you sign this consent form, you may contact the principal investigator to discuss this form with you in detail at which time you will be free to ask any questions regarding the language of the form or your child's participation in the study.

PURPOSE OF THE STUDY

The purpose of this research study is to identify the school-based factors that distinguish a central Virginia high school in its equitable AP enrollment among Black students, to include programming, policy, and practice at the school level. Your child is being asked to participate in this study because he or she is a student that attends Juniper High School, the case school, and is currently taking an AP class, or was determined to have the potential to take an AP class.

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT

If you decide for your child to be in this research study, you will be asked to sign this permission form after you have had all your questions answered and understand what will happen to your child.

In this study your child will be asked to attend one interview with the researcher, Mr. Andrew R. Armstrong. Each interview will last approximately 45 minutes. Each interview will be conducted with only the student and Mr. Armstrong present, and interviews will be conducted in a location at Juniper High School. In the interview, your child will be asked questions about his or her experience with the AP program, interactions with staff members in the course selection process, current class schedule, post-graduation plans, and previous classes taken in high and middle school. Follow-up questions or prompts may be provided in order to obtain more detailed information. The interviews will be tape recorded to ensure all responses and ideas are included, but no names will be recorded on the tape nor will any names be used in the research report to be provided to VCU.

RISKS, BENEFITS AND COSTS

It is unlikely that participation in this study will cause you any risk or discomfort. However, discussion of any past experiences in school could potentially be upsetting for students depending on individual experience. If your child appears upset, he or she will be provided with

a pass to see his or her school counselor to discuss their concerns further and you will be made aware through a phone call after the interview. There is also a risk of a loss of confidentiality.

You and your child may not get any direct benefit from this study, but, the information we learn from people in this study may help us improve our practice at Juniper High School and in schools elsewhere in the division, region, state, and nation.

There are no costs for participating in this study other than the time your child will spend in the interview. Interviews will be conducted when convenient for your child's schedule in order to avoid missing instruction during normal classes.

CONFIDENTIALITY

Data collected is only for the purposes of this course assignment. Potentially identifiable information about your child will consist of interview recordings and AP potential report information including student name, grade, and student number. Data is being collected only for research purposes and will not be shared in its original form in any way. Your child's data will be identified by ID numbers and codes, not names. All personal identifying information will be kept in password protected files and these files will be deleted upon the conclusion of the research project. Access to all data will be limited to study personnel.

We will not tell anyone the answers your child gives us; however, information from the study and the consent form signed by you may be looked at or copied for research or legal purposes by the sponsor of the research, or by Virginia Commonwealth University.

We will not tell anyone the answers your child gives us. But, if your child tells us that someone is hurting her or him, or that she might hurt herself or someone else, the law says that we have to let people in authority know so they can protect your child.

The interview will be audio taped using a digital recording device, but no names will be recorded. At the beginning of the session, all students being interviewed will be asked to use initials only so that no names are recorded. The tapes and the notes will be stored in a password protected file accessible only by the researcher. After the information from the recordings is transcribed, the digital recording files will be destroyed after a period of 5 years.

The information and samples collected as part of this study will not be used or distributed for future research studies, even if identifiers are removed. In general, we will not give you any individual results from the study.

VOLUNTARY PARTICIPATION AND WITHDRAWAL

You and your child do not have to participate in this study. If you and your child choose to participate, you or he/she may stop at any time without any penalty. Your child may also choose not to answer particular questions that are asked in the study. Choosing not to participate or withdrawing from the study early will result in no penalty or loss of benefits to which you or your child are otherwise entitled. **Though the researcher does have the professional role of a**

former school principal in Henrico County Public Schools, for the purposes of this study he is acting as a researcher. There is no penalty to your child for answering questions honestly, regardless of controversy.

Your participation in this study may be stopped at any time by the sponsor without your consent. The reasons might include:

- the study staff thinks it necessary for your child's health or safety;

- your child has not followed study instructions.

QUESTIONS

In the future, you may have questions about your participation in this study. If you have any questions, complaints, or concerns about the research, contact:

Andrew R. Armstrong: 804-332-0965

Student Investigator

Andrew R. Armstrong
L. Douglas Wilder School of Government and Public Affairs Virginia Commonwealth University
804-332-0965
armstrongar@vcu.edu

Or

Dissertation Chair

Dr. Jesse Senechal
School of Education
Virginia Commonwealth University 804-274-8720
senechaljt@vcu.edu

The researcher/study staff named above is the best person(s) to call for questions about your participation in this study.

If you have general questions about your rights as a participant in this or any other research, you may contact:

Virginia Commonwealth University Office of Research 800 East Leigh Street, Suite 3000
Box 980568
Richmond, VA 23298

Telephone: (804) 827-2157

Contact this number to ask general questions, to obtain information or offer input, and to express concerns or complaints about research. You may also call this number if you cannot reach the research team or if you wish to talk to someone else. General information about participation in research studies can also be found at http://www.research.vcu.edu/irb/volunteers.htm.

Do not sign this consent form unless you have had a chance to ask questions and have received satisfactory answers to all of your questions.

PERMISSION

I have been given the chance to read this consent form. I understand the information about this study. Questions that I wanted to ask about the study have been answered. My signature says that I am willing for my child to participate in this study. I will receive a copy of the consent form once I have agreed to participate.

Name of Child

_____

Name of Parent or Legal Guardian (Printed)

_____

Parent or Legal Guardian Signature Date

_____ Name of Person Conducting
Informed Consent
Discussion
(Printed)

_____ _____ Signature of
Person Conducting Informed Consent Date Discussion

_____ _____ Principal
Investigator Signature (if different from above) Date

Approved by the VCU IRB on 5/18/2018

Appendix F

Informed Consent-Adult/Staff

RESEARCH SUBJECT INFORMATION AND CONSENT FORM

TITLE: A Case Study of a Central Virginia High School's Distinguishing Practices, Policies, and Characteristics Toward Proportional Racial Representation in Advanced Placement Enrollment

This consent form outlines important information about a research study in which you are being asked to participate. Before you sign this consent form, you may contact the principal investigator to discuss this form with you in detail at which time you will be free to ask any questions regarding the language of the form or your participation in the study.

PURPOSE OF THE STUDY

The purpose of this research study is to identify the school-based factors that distinguish a central Virginia high school in its equitable AP enrollment among Black students, to include programming, policy, and practice at the school level. You are being asked to participate in this study because you are a staff member involved in the process of Advanced Placement enrollment.

DESCRIPTION OF THE STUDY AND YOUR INVOLVEMENT

If you decide to be in this research study, you will be asked to sign this consent form after you have had all your questions answered and understand what will happen. In this study you will be asked to attend one interview with the researcher, Mr. Andrew R. Armstrong. Each interview will last approximately 45 minutes. Each interview will be conducted with only you and Mr. Armstrong present, and interviews will be conducted in a location at your high school. In the interview, you will be asked questions about your experience with the AP program, interactions with staff members, students, and parents in the course selection process, class scheduling, alignment with elementary and middle schools, and school programming related to AP. Follow-up questions or prompts may be provided in order to obtain more detailed information. The interviews will be recorded to ensure all responses and ideas are included, but no names will be recorded on the tape nor will any names be used in the research report to be provided to VCU.

RISKS, BENEFITS AND COSTS

It is unlikely that participation in this study will cause you any risk or discomfort. However, discussion of any past experiences in school could potentially be upsetting depending on individual experience. If you are uncomfortable or upset during the interview process, you may stop participation at any time. You may not get any direct benefit from this study, but, the information we learn from this study may help us improve practice at your school and in schools elsewhere in the division, region, state, and nation. There are no costs for participating in this

study other than the time you will spend in the interview. Interviews will be conducted when convenient for your schedule in order to avoid missing instruction during normal classes.

CONFIDENTIALITY

Data collected is only for the purposes of this research study. Potentially identifiable information about you will consist of interview recordings. Data is being collected only for research purposes and will not be shared in its original form in any way. Your data will be identified by ID numbers and codes, not names. All personal identifying information will be kept in password protected files and these files will be deleted upon the conclusion of the research project. Access to all data will be limited to study personnel. We will not tell anyone the answers you give us; however, information from the study and the consent form signed by you may be looked at or copied for research or legal purposes by the sponsor of the research, or by Virginia Commonwealth University. We will not tell anyone the answers you give us. The interview will be audio taped using a digital recording device, but no names will be recorded. At the beginning of the session, all subjects being interviewed will be asked to use initials only so that no names are recorded. The tapes and the notes will be stored in a password protected file accessible only by the researcher. After the information from the recordings is transcribed, the digital recording files will be destroyed after a period of 5 years.

The information and samples collected as part of this study will not be used or distributed for future research studies, even if identifiers are removed.

In general, we will not give you any individual results from the study

VOLUNTARY PARTICIPATION AND WITHDRAWAL

You do not have to participate in this study. Choosing not to participate will result in no penalty or loss of benefit to which you are otherwise entitled. If you choose to participate, you may stop at any time without any penalty. You may also choose not to answer particular questions that are asked in the study. Though the researcher does have the professional role of a former school principal, for the purposes of this study he is acting as a researcher. There is no penalty to you for answering questions honestly, regardless of controversy.

Your participation in this study may be stopped at any time by the sponsor without your consent. The reasons might include:

• the study staff thinks it necessary for your health or safety;

• you have not followed study instructions.

QUESTIONS

In the future, you may have questions about your participation in this study. If you have any questions, complaints, or concerns about the research, contact: **Andrew R. Armstrong: 804-**

332-0965 or armstrongar@vcu.edu
Student Investigator

Andrew R. Armstrong
L. Douglas Wilder School of Government and Public Affairs Virginia Commonwealth University
804-332-0965
armstrongar@vcu.edu

Dissertation Chair

Dr. Jesse Senechal
School of Education
Virginia Commonwealth University 804-274-8720
senechaljt@vcu.edu

The researcher/study staff named above is the best person(s) to call for questions about your participation in this study.

If you have general questions about your rights as a participant in this or any other research, you may contact:

Virginia Commonwealth University Office of Research 800 East Leigh Street, Suite 3000
Box 980568
Richmond, VA 23298

Telephone: (804) 827-2157

Contact this number to ask general questions, to obtain information or offer input, and to express concerns or complaints about research. You may also call this number if you cannot reach the research team or if you wish to talk to someone else. General information about participation in research studies can also be found at http://www.research.vcu.edu/irb/volunteers.htm.

Do not sign this consent form unless you have had a chance to ask questions and have received satisfactory answers to all of your questions.

CONSENT

I have been given the chance to read this consent form. I understand the information about this study. Questions that I wanted to ask about the study have been answered. My signature says that I am willing to participate in this study. I will receive a copy of the consent form once I have agreed to participate.

_____

Participant name printed Participant Signature Date

_____

Printed Name of Person Conducting Informed Consent Discussion

_____ _____

Signature of Person Conducting Informed Consent Discussion Date

_____

Principal Investigator Signature (if different from above) Date

Approved by the VCU IRB on 5/18/2018

Appendix G

Youth Assent Form

VCU IRB PROTOCOL NUMBER: **HM20013174**

YOUTH ASSENT FORM

RESEARCHER'S NAME: Andrew R. Armstrong

Why are we meeting with you?

I am asking you and other students to take part in a research study. A research study is a way to learn more about something. You are being asked to join this research study because you are an AP student or demonstrated potential to be an AP student. After we tell you about it, we will ask if you'd like to be in this study or not.

This form may have some words that you do not know. Please ask me to explain any words that you do not know. You may take this form home to think about and talk to your parents about before you decide if you want to be in this study.

What is this study about?

We are doing this study to try to figure out what your school does to motivate students to take AP classes, specifically how your school motivates both Black and White students to take AP classes at about the same rate of participation.

What will happen to me if I choose to be in this study?

You will sit for an interview with me for about 45 minutes. I will ask you questions, most of which will be about:

- Your basic personal and academic information-schedule, grades, classes you take
- Your AP class or classes if you are in AP class-teachers, what the class is like
- What your school does to help achieve equity-fair outcomes for all students, no matter what their differences are.
- How you are enrolled and scheduled into the classes you take.
- How your school communicates with your family and your home.
- What classes were like before high school

  When I interview you, you can give me as much information as you like. I may ask questions to understand you better based on what you tell me. There are no wrong

answers.

I will record our interview, but your identity will be kept completely secret and the recording will not be given to anyone.

Will any parts of this study make me feel bad?

Probably not. Our conversation will be about your classes, how you learn, and what you feel your school has done to help you and your classmates. If you feel uncomfortable about answering my questions, you absolutely do not have to. Likewise, if you want to just stop being part of the project, all you have to do is let me know.

How will this study help me?

This study may not help you since you are already an AP or potential AP student. But it may get you to think about advanced classes and what it means to be in an advanced class. This study could also help other students in other schools by sharing some of the things your school does that gives more students an opportunity to take AP classes.

What do I get if I am in this study?

You get a $5.00 gift card after the interview as a token of my appreciation for your time.

Will you tell anyone what I say?

We will not tell anyone the answers you give us. We will not share your answers with your teachers or parents or friends.

If you tell us that someone is hurting you, the law says that we have to let other people know so they can help you. If you tell us that you might hurt yourself or someone else, then we have to let people know.

Do I have to be in this study?

You do not have to be in this study. It is up to you. You can say okay now and change your mind later. No one will blame you or get mad at you if you don't want to do this. All you have to do is tell us you want to stop.

Do you have any questions?

You can ask questions at any time. You can ask now or later. Just tell the researcher when you see them or ask your parent or another adult to call me, Mr. Andrew Armstrong, at 804- 332-0965.

Before you say **yes or no** to being in this study, we will answer any questions you have now. **If you don't want to be in this study, just say so, and don't sign this form.**

**If you sign here, it means you agree to participate in this study.

_____ Youth Participant's Name (Printed)

_____ Youth Participant's Signature

_____ Name of Person Conducting Assent
Discussion (Printed)

_____ Signature of Person Conducting Assent
Discussion

_____ Principal Investigator Signature (if different
from above)

_____ Date

_____ Date

_____ Date

_____ Date

4-1-2018

Approved by the VCU IRB on 5/18/2018

Appendix H

Coding Structure

Examples of Qualitative Data Analysis Coding Structure

Theme	Code	Description	Sample Quote
Student identification, recommendation, and school scheduling processes	Course offerings	Variety and quantity of AP offerings at Juniper High School	It's tough because our AP numbers have dropped a little bit in the past two years, so there's a lot of singletons and that can be difficult. But what we do when we build the master schedule is we do our AP classes first, before we do anything else. So like we'll put English 11 and English 12 in the same period because we know there's not going to be a conflict there. We put our histories in the same. So that helped a lot last year and we did it again this year (25:00).
	Scheduling processes	Master course timetable construction for entire school designed to spread out advanced courses to provide more student exposure	Next year, some of those same freshmen from collab or non-collab are going to be circling back into my AP, and it's that exact conversation, where, you know, I still see them now and would see them, you know, on the sidewalks and wouldn't even – you know how we can be as teachers – and kids I had good relationships with, I wouldn't even present it as a choice. I said, I'm going to see your butt in my AP class (14:7).
	Identification and recommendation processes	Processes by which students are identified as capable of enrolling in AP, and subsequent activation of a schedule that includes AP	When I've had kids who haven't necessarily profiled great, I've been able to email them without question and say, hey, I love Jimmy, he's a great kid. I know he got a C in my class, but he had, you know, X, Y, and Z going on for a semester. He loves the subject. Let's push him and see where he would – you know, what's the worst that could happen? He fails the class, okay. Let's put him in this honors class (14:36).

			Oh, yeah, I'm saying, please give me students that have a good personality, desire to learn, a work ethic, and the rest will figure itself out. Because I – the thing that I'm worried about is that I don't want students to be intimidated by the letters AP. Like – and I feel like maybe that there's an intimidation factor (25:18)
Curriculum alignment and early preparation for AP	Curricular alignment among schools and within the school to prepare for AP	Degree to which curriculum is developed between schools and levels (elementary to middle, middle to high, 9 through 12th grade) with awareness of required knowledge for each subsequent level.	The first year we did Laying the Foundation Training, we included middle schools. And then it seemed like they had a lot of turnover and they weren't necessarily implementing it. I think we could do a better job, even as administrators, principals talked to each other (21:15).
	Prior exposure to instructional rigor	Coursework before AP enrollment that is taught in a rigorous fashion.	Honestly, I do. Because with my English classes, at least I know that those teachers set me up for how this class was going to be. Because I've been thinking about taking AP classes since I was young, because I have big dreams and I have things that I want to do, so I need to take those steps. So I went to my teachers and I told them, I need to be here. Can you help me prepare? And they did not take any bull from me. They said, if this is what you want to do, this is how it needs to be done (3:2).
	Pre-AP experience (middle and elementary)	Experience taking courses prior to high school that are taught in a manner that prepare for later AP content.	I think that – I think taking stuff like that early and being exposed to like that high school-level curriculum early really was like a factor in me being able to like be confident in taking these AP classes. Because if I was on like a standard track and then I just tried to jump into AP classes, I'd probably be like, whoa, you know(15:9).
High academic expectations and curriculum rigor with student support	High expectations of teachers and staff	Teachers and staff expect more than minimum competency from students in their mastery of content, and skills are assessed accordingly.	I think I've learned more this year in school than I have any other year, due to my failures in the AP classes, failing tests and quizzes, things of that nature. And just the broad knowledge, honestly, I want to do stuff with speaking, things of that

			nature, so my AP English class did a lot for me this year (2:12).
	Engaging content and rigor of AP classes	AP courses are taught with engaging instructional techniques and an expectation of higher order thinking.	But they delve into the subjects a lot more deeply, and – a lot more in-depth. They actually – they actually cover material that makes us and forces us to actually sit down, think, or go home and study. Because most classes that you take – for most students, it's not – or for students that take AP classes, like honors classes and college prep, they don't require much studying or studying at all. You just learn it in class and you come back. But these topics are topics that you actually struggle with comprehending, and it takes you a while, maybe some extra – extra studying or some extra tutoring or trying a different approach (11:3).
	Curriculum rigor and academic expectations	Curriculum and instructional expectations focus on higher levels of thinking, to include application of ideas and critical thinking.	It requires you to like go deep in like the recesses of your mind, you know. You don't have to just like – you're thinking outside of the box, way outside of the box, not just like, you know, write this, or name three countries. It's like, you know, why do you think that this person – like the questions are definitely more – I don't know, you have to really think deeply (12:4).
	Instructional techniques and quality of teaching practice	Methods by which content is delivered and assessed; effectiveness of teacher in delivering content using those methods.	P: Well, in my AP English class, it was kind of like you either do your work and you do good, or you don't, and you just – you know, you got to do your work. Like they would push us to do our work, but it was ultimately our choice whether we do it or not. I: Right, because you had to decide to be in this class. P: Yeah. What else did you ask?

| | | | I: Do they help you out? I mean, do they support you when you're having difficulty?

P: Yeah, definitely.

I: How do they do that?

P: Well, they would – if you're having problems and stuff, they would say you can come to them, you know, before or after school, during our little study hall stuff. And they would like offer extra help and stuff, other sources, like stuff on the internet, stuff like that (5:3). |
|---|---|---|---|
| School culture of diversity, inclusion, and encouragement | Leadership and support staff engagement and relationships with students | Leadership and non-teaching staff develop relationships with students, are familiar with students, and interact with them regularly. | I mean, everybody around the school, when they see me, everybody – not only teachers, but administrative staff, even the security people, they talk to me, ask how I'm doing and I think it's just a community more so. More so a community. Juniper's like a family. We have family all around and everybody looks out for everyone (2:10). |
| | Teacher engagement and relationships with students | Teachers develop relationships with students, are familiar with students, and interact with them regularly. | They're more involved, too, and I feel like they care more about their students. I mean, like every other – teachers do, but like they really want you to like shine because they know it's a hard course, and they just – they want to work with you. They're not there to like make you fail, which is great (7:5). |
| | Leadership behaviors and expectations | School leader actions, communication, and modeling of expected behaviors for both staff and students. | And so we started having conversations about changing tier one instruction. And how do we increase the rigor? How do we change tier one instruction? How do we get the teachers to think about their individual instruction? So in terms of the instructional message, admin – and I would also say the instructional leadership team, over the past five years, that team – it's evolved (26:3). |

	School counselor engagement with students	School counselors develop relationships with students, are familiar with students, and interact with them regularly.	The counselors, they do a great job of trying to make sure that you have everything. They're like, your grades are low or something, come talk to me. Hey, you know, what's going on? You know, they really try to make sure like that you're staying on top of things. (12:6).
	Inclusive school culture	School dynamics among staff, students, and leadership are characterized by positive interactions among various student groups.	Like the people here really don't look at color. We see everybody as a person. Like everybody in the school is friends with each other. You look around at Juniper, it's a great community. Everybody is friends, no matter what color. So I would say that definitely contributes. Everybody's equal here (9:4).
Student and family outreach and education about AP	Parent influence and expectations	Actions and encouragement by parents toward student academic engagement.	P: Yeah, [inaudible 13:44] I was very sad. I had to fight with my dad about that one. I was like, just let me take theatre. I: So your dad pushed you to take AP English? P: Yeah. I: He was kind of like, yeah, no, sorry, you got to do it (3:14).
	Outreach and communication to families	Efforts by the school to educate and inform parents and families about school activities and programming.	And I think our parents know that we take care of them. Like I think some of our parents don't know how to fill a FAFSA. We have a lot of first-generation coming from our community. So I think the kids take the AP classes because they know that those are the teachers that care about them so much, and they want to do so well in those classes for those teachers. And I think – even from an honors student, I think – teacher, I think they trust our placement with them (10:16).

	Practical benefits of AP-grades, college admissions, financial	Advantages of AP enrollment and test taking, including weighted grade averages, college admission strength of schedule, and potential savings through awarding of college credits.	I: What did you understand are the advantages of taking the AP class? P: Well, definitely if you take the AP test and you pass that, you can get that college credit for certain – [5:00] P: Colleges. It saves money. It just really prepares you for college. I: You covered all of it. Good. How do you know that? How'd you learn that? P: My teachers, they tell us that. So you should take the AP test, you know. Never know if you're going to pass it. You might save some money with that (5:5).
	Parent and student AP outreach by school	Specific actions related to AP taken by school and school staff to educate and inform students (current and future) and families about AP.	I feel like I did get mail from the school about potentially enrolling in AP classes here. The school gives out a lot of information about AP classes. Like the counsellors will tell you. Even at my middle school, they were – they were giving out like seminars about having AP classes in high school (9:8).
Teacher training and unique school programming	Unique school-based programming	School-specific programs thoughtfully implemented with specific purposes toward improving student outcomes.	It's the full-year school program where they do – they pay for summer school for health and PE, so they're able to have an extra elective in their schedule, and they work on like college and career prep, writing skills, kind of more pushing with reading. So it's basically for those bubble kids that typically, you know, they're not the straight-A kids, they're not the really low kids. So they're the middle that sometimes get forgotten about (16:4).

	Related teacher training-AP and equitable practice	Training for teachers specifically designed to improve instructional delivery in AP teaching and to increase awareness and improve practice toward equitable outcomes.	I think in my interview, I actually – they said what was my – what courses did I teach when I was student teaching, because in Pennsylvania, we do our student teaching as part of our undergrad degree. And I had done English 9 and communications, and I said I'm very interested in teaching like an AP course. That same year, the woman that I was replacing was an AP teacher. So I got a phone call about a week after I was hired, and was asked, would you be willing to do AP? You need to go to training. And I said, absolutely, like I'm in. So truly, it felt like to me that I was hired to be that AP teacher (23:13).

References

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