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QUALITY OF ADVANCED PLACEMENT PROGRAMS

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QUALITY OF ADVANCED PLACEMENT PROGRAMS

A Dissertation
Presented to the
Faculty of
California State University,
San Bernardino

In Partial Fulfillment
of the Requirements for the Degree
Doctor of Education
in
Educational Leadership

by
Thomas Gomez
June 2020

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Approved by:

Dr. Nancy Acevedo-Gil, Committee Chair, Education

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ABSTRACT

There has been an abundance of research studies regarding the underrepresentation of minoritized students (i.e., Latino & African Americans) in high school Advanced Placement programs. However, recent or current research studies have demonstrated that although this issue has improved over the years. A new problem has emerged for minoritized high school students regarding the “quality” of Advanced Placement programs. More specifically, minoritized students in urban school districts are being allowed to be enrolled in subpar Advanced Placement programs. Moreover, research has indicated that Advanced Placement programs in urban schools are of unequal quality among minoritized students. It is not only sufficient to just offer more AP courses to low income students but rather it is more important to provide these student populations with equity in AP course quality.

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I would like to acknowledge Mary Gomez and my family. I would also like to acknowledge and thank Dr. Nancy Acevedo-Gil.

DEDICATION

This dissertation is dedicated to my family but especially for my mother. My mother passed away while I enrolled in this doctoral program. I would like to thank my mother so much for everything she ever did for me, and for instilling in me good morals and values. I love you so much mom, and this could not have been even possible without your love, support and advice. Thank you, mom! In addition, I would also like to thank my father for being such a great role model, both personally as well as professional for me. My father's humble upbringing has been so inspirational for me, and it has propelled me not only through this doctoral program but has also sustained me through life. Thanks dad! I love you too. More importantly, I would also like to thank God for everything.

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CHAPTER ONE

INTRODUCTION

The Advanced Placement program in the United States was created shortly after World War II, and its primary mission or purpose was to provide a more challenging curriculum to the highest-achieving students at the best US high schools. The Sputnik launch of 1957, made the United States focus more heavily upon creating a generational focus on math & science in order to compete globally against other countries. Therefore, the launch of Sputnik in 1957, incited the development of the Advanced Placement program. The Advanced Placement program in 1961, gained enormous popularity and was deemed as providing an edge in the college admissions process. Furthermore, in 1961 top educational institutions like the following: MIT, Michigan, Stanford, Northwestern, and six of the Ivy League schools noted that students who had taken AP courses were predominately admitted to these prestigious educational institutions (Schneider, 2006).

During this time period, school administrators thought that only the best and brightest should only be challenged through AP course curriculum in order for these students to maintain leadership positions after high school. School reformers, and especially those from less privileged backgrounds began to call for the expansion of AP programs into many urban schools. During the Spring of 1954, only 532 students took AP exams from 18 participating schools, then the

number of high schools who took the AP exam increased to 929 students. Fifty years later, the number of students who took AP exams increased to 1.1 million (Schneider, 2006). An issue of concern regarding AP courses is that its curriculum is primarily focused on preparing students for the end of the year standardized testing, and AP course curricular tends to also focus more upon breadth rather than depth. Another issue of concern regarding the AP program is that it lost its uniqueness because it moved to a wider range of schools (Schneider, 2006). More specifically, as the AP program net has widened post-secondary institutions gave very little weight to AP courses that students took. The result has been that while many schools in underserved communities are still playing catch-up, many of the US's best high schools are dropping AP entirely (Schneider, 2006). However, during the early part of the 1960s, the AP program remained primarily reserved for the wealthiest independent schools.

The AP program in the United States did expand in 1976, 3937 schools implemented the AP program, and also during this same time period 75, 651 students had engaged in AP course/s. In 1980, pedagogical AP practices were reconstructed to include the following types of teaching methods: increasing lectures, worksheets, and questioning for monosyllabic factual answers (Schneider, 2006). Furthermore, many argued against this change of AP instruction, and they felt like it did not leave AP teachers with enough time for analysis and instruction.

Although the AP program expanded through mid-1980's the equity factor still remained a significant issue. Moreover, during 1986, the type of stereotypical student/s to engage in the AP program came from homes in which parents were found to be educated, and these types of students often came from large schools that had a minoritized student population of 15%-49% (Schneider, 2006). As the expansion of the AP program grew in urban low socio-economic areas, and with minoritized students so did it also expand with some states, including West Virginia and Arkansas, and also these states had high minoritized populations. During the 1998-1999 academic school year, the United States federal government spent \$2.7 million subsidizing AP examination fees for low-income students and professional development for AP teachers from low-income districts (Schneider, 2006, p. 821).

As a result of the expansion of the AP program, many have become skeptical about the prestige that is associated with the AP program (Schneider, 2006). Many educational proponents who favor the challenging curriculum have expressed their concern with the declining prestige that is now associated with the AP program, and many educational secondary institutions are attempting to find alternative ways to distinguish themselves from other high schools. In contemporary education the majority of secondary educational institutions have the AP program on their campus, and schools now are trying to set themselves apart from one another because now every school district has implemented the AP program. Since the AP program has been expanded exponentially in the 21st

century, many opponents have argued that the expansion of the AP program has led to a watering-down effect. The argument against the expansion of the AP program and watered-down AP curriculum has led the following universities: University of Pennsylvania, Stanford, Yale, Cornell, Virginia, and the University of North Carolina at Chapel Hill to engage in a process that does not issue college credit for those students who score less than 5 on any AP examination.

Nevertheless, unequal access into Advanced Placement (AP) programs among low-income students has continued to exist since the program was established. This chapter reviews previous research studies that have been conducted on this research topic, particularly as it relates to African American and Latino students. In 2008, the National Center for Educational Statistics found that African Americans, Hispanics, Native Americans, and low-income students have increased their completion rates of secondary education but these ethnic groups will substantially attend college at a much lower rate than White and Asian American students.

There are three “achievement gaps” that must be confronted simultaneously: the one between White students and their Black and Latino counterparts; the one between U.S. students and the students in other parts of the world; and the one between what it took to be prepared for the 20th century and what will be required for adequate preparation in the 21st century (Boykin & Noguera, 2011, p. 6). Standardized achievement test scores in reading and math among African Americans historically have typically been lower than any other

ethnic group (United States Department of Education [USDOE], 1998). However, the National Assessment of Educational Progress (NAEP) long term trend assessments have indicated that Black and Latino student achievement has slightly risen in reading as well as in math, and it also revealed that a lower percentage of minoritized students scored at the lowest levels. In contrast, as significant as these achievement gains were for minorities, they do not translate into reductions in the achievement gap because White and Asian scores also have risen over the past 40 years (Boykin & Noguera, 2000). An analysis of the 25 largest school districts in the U.S. indicate that in most gifted programs, Black students are drastically under-represented and over-represented in special education programs (Ford, 1995; Gregory, 2000; Patton, 1998; Russo & Talbert-Johnson, 1997). In attempting to understand academic achievement among different subgroups it is important to note that students from majority and minoritized populations do not share similar historical nor political contexts for achievement (Gregory, 2000). However, the use and measure of ambition in research studies has indicated that African American students have higher educational aspirations than Caucasian students.

In regards to students of color the majority of the literature reviewed is found to reveal that the cause of underachievement in students of color has solely been based upon a deficit model. The deficit model is defined as a perspective which attributes failures such as lack of achievement and learning to a personal lack of effort or deficiency in the individual, rather than to failures or

limitations of the education or to prevalent socio-economic trends” (Orrock & Clark, 2018; Wallace, 2012, p. 1014).

More importantly, students of color encounter the following types of systemic barriers: A single parent system, socioeconomic status (SES), perceptions of masculinity, and lack of multicultural awareness and acceptance in schools, and these barriers contribute to the academic struggles of students of color in education (Orrock & Clark, 2018).

Another systemic factor that affects the academic achievement of students of color is the aspect of multicultural awareness in public education. Students of color enter into the United States Public Educational system where predominately 83.1% of teachers were Caucasian, 7% were African American, 7% were Hispanic, 1.2% were Asian, 0.2% Pacific Islander, and) .5% were Native American (National Center for Educational Statistics [NCES], 2012). More importantly, these students of color must adapt to a set of White middle-class rules, and they must adhere to these new set of rules that are very unfamiliar to them simply because these rules are not found within their own communities. Therefore, these new set of rules create anxiety and frustration among students of color. Learning these new set of rules creates weariness of the school system as well as defiance and then the students feel that they are being treated unfairly in comparisons to their White counterparts. Racial minorities often find themselves alienated or rejected by the schools as they deem their discipline and

treatment from authority figures unjust and unfair compared with White students (Orrock & Clark, 2018, p. 1016).

Students of color will have their own social constructs or perceptions of masculinity. The term of masculinity is a narrowly defined ideal that is constructed from one being powerful, strong, able bodied, successful, deserving of respect and control based on race majority (Orrock & Clark, 2018, p. 1016). At an early age, boys are taught to be tough and not show emotion. Do to this socially constructed view of masculinity, students of color especially males are less likely to ask for academic support, and if they were thinking or contemplating about asking for help it will most often be viewed as feminine. Inevitably, this action will also lead to further deficits in learning.

The Advanced Placement program is a non-profit organization created in 1955, by College Board and offers secondary students the opportunity to enroll in 30 different types of AP courses. College Board provides the necessary tools for teachers through the Advanced Placement Training Institutes or (API). It is important to note that all AP teachers must attend the (API) training in order to receive the proper AP curriculum training.

It is important to ensure access to quality AP courses because it can result in various benefits. Enrollment in AP courses provides an advantage during the college admissions process because AP courses are weighted more heavily than non-AP courses (Hallett & Venegas, 2011). Thus, the more AP courses a student takes and successfully passes, the more likely it is that his/her GPA can

increase. Another added benefit of taking AP courses is that if a student takes and successfully passes the AP Exam after taking the course, he/she may receive college credit if a score of 3 or higher is earned. In turn, the student would reduce her time-to-degree and tuition costs. Colleges often look at merit-based indicators for admission¹.

The lack of access to AP has resulted in significant court cases that aimed to challenge the unequal access. These cases included *Daniel et al. v. State of California* (2013) and *Castaneda et al. v. the University of California Regents* (2003). Both cases were filed in 1999 and it was found that students were denied equal access to AP courses, which put them at a distinct disadvantaged vis-à-vis other California high school students, and resulted in a disparate effect among the plaintiffs who were members of minoritized groups (i.e., Latinos, African American, and Filipinos).

Although the student population among the majority of California high schools are exceedingly increasing with minoritized student populations these students are underrepresented in AP course enrollment. According to (Speirs-Numeister et al., 2004), there has been a long-standing awareness of inequity among economically disadvantaged minoritized students, they continue to be underrepresented in honors-level courses at integrated urban schools. In contrast, other ethnic subgroups in urban settings will relatively have lower student populations such as: White students and Asian American students.

¹ See College Board (2018) for more information on the potential benefits of participating in AP.

However, these specific student populations will inevitably be overrepresented in AP courses.

The presence of AP courses in an urban school setting will often be limited, and the quality or integrity of the AP program will be extremely substandard. According (Speirs-Numeister et al, 2004) it found that as the number of minorities increased the percentage of students receiving free-reduced lunch also increased, but the availability of AP courses decreased. This same research study found that as student enrollment increased so did the number of AP courses. If this is the case, then the underrepresented student population will be at a disadvantage when applying to colleges. With the substandard resources in urban schools, unmotivated teachers, limited access to AP courses (Oakes, 2008) it is no wonder that these underrepresented students will have substantially lower AP enrollment numbers.

Problem Statement

Given the aforementioned studies and court cases, this study proposes to examine the quality of AP programs being provided to African American and Latino students. There has been limited research on the quality of AP programs in urban school districts among minoritized students. For instance, in a research study conducted by Hallet and Venegas (2011), they found that low-income students who took AP courses received an average course grade of a B+. However, when these same students took the AP Exam they did not pass. Once

again there has been limited research on the effectiveness or quality of AP programs especially in urban school settings.

The benefits of providing unrepresented students with AP courses increases their chances of gaining access into postsecondary education and achieving their academic goals (Hallett & Venegas, 2011). This research study has the potential to benefit all students in under-resourced urban schools by creating an inclusive educational environment that ensures equity and access for all students.

Moreover, data accessed on Dataquest from California's Department of Education highlights that school districts with large percentages of low-income students have dismal passing rates for the AP Exam. The Inland Empire is located in Southern California, and includes two public universities (i.e., University of Riverside, and California State University, San Bernardino), and also consists of 12 community colleges that serves approximately 200,000 students that have poor student achievement outcomes. Moreover, for every 1000 high school freshmen entering into a four-university in the region only 151 will complete a bachelor's degree at a California public university compared to 225 high school freshmen also entering into universities statewide (Completercollege.org, n.d.). The data demonstrates the need for this dissertation study to examine the quality of Advanced Placement programs in the Inland Empire.

Purpose Statement

The purpose of this research study is to explore the quality of *Advanced Placement* programs in urban school districts that are located in California's Inland Empire in Southern California. The primary focus of this research study is to examine the quality AP programs by interviewing African American and Latino students.

Research Questions

The following research questions will guide the dissertation study:

1. Do high schools with similar characteristics have different student achievement outcomes?
2. How do AP courses prepare Latino and African American students for the AP exam?
3. What are some of the challenges and benefits that students of color experience when taking AP courses?

The first research question will be answered using descriptive statistics accessed on the California Department of Education. The second question will be answered by interviewing African American and Latino alumni of AP courses.

Significance of the Study

This research study aims to ensure that equity of quality Advanced Placement programs exist for all high school students. If quality Advanced Placement programs tend to exist in suburban schools, then this creates a

disparity among those students attending urban schools. Research has found that although students in urban schools receive an above average grade in their respective AP course; these same students take the AP exam many of them are unsuccessful and receive a failing grade (Hallet & Venegas, 2011). Therefore, many of these students do not receive college credit and may spend a longer time attempting to complete their college education. The benefits of providing unrepresented minoritized students with AP course pathways include an opportunity of gaining access into postsecondary education and achieving their academic goals (Hallett & Venegas, 2011). This research study will benefit all students by examining how to foster an educational environment that ensures both access and equity for all students.

Theoretical Underpinnings

Some research studies that examine inequitable access to educational resources utilize critical race theory (CRT) as a framework to address the issue of unequal access into AP programs. The CRT in education framework calls for the examination of racial and ethnic inequities, as they intersect with other forms of marginalization and is informed by an array of disciplinary perspectives. According to Malhotra-Benz and Shapiro (1998) critical race theory seeks to explore the contradictions between what social institutions “talk” and what social institutions “walk.”

Assumptions

Two key assumptions guide this study. The first is that participants involved in this research study will be honest and truthful with their response. The second is that participants involved in this research study have similar experiences with the phenomenon.

Delimitations

This research study will only be conducted in urban schools found in Southern California. This research study will focus only on Students of Color, more specifically, Latino and African American students. This research study will not focus on any other school program besides the Advanced Placement program. This research study will only focus on urban schools with a high percentage of minoritized students receiving free-reduced lunch.

Definitions of Key Terms

Latino and African American Students are defined as underrepresented, when considering their representation in K-12 schools in comparison to their representation in higher education. Latino and African American students are defined as Students of Color.

Summary

The Advanced Placement program has the potential to facilitate various benefits for students, particularly as it relates to college access and completion.

However, despite lawsuits and research studies finding that Students of Color experience inequitable access to AP courses more studies are needed to examine why students in urban schools are less likely to pass the AP exam, despite earning passing grades in the coursework. The following chapter will review previous studies that examine access to AP programs for African American and Latino studies and begin to discuss the quality of the coursework.

CHAPTER TWO

LITERATURE REVIEW

Introduction

The purpose of this chapter is to review the literature regarding not only access to Advanced Placement (AP) programs among the underrepresented students but to also examine the inequalities that underrepresented students encounter in attempting to access challenging and rigorous academic curriculum through quality AP programs in Southern California. More specifically, topics that will be reviewed include the following: Historical Landmark Court Cases, Affirmative Action Policy, Anti-Affirmative Action Policy, Importance of Access to AP programs, Latinos Trends and Future Directions, Academic Achievement of Underrepresented Students, Student Representation in AP courses, Teacher Expectations, Student Experiences in Rigorous Curriculum, Strategies for Increasing AP course enrollment for minoritized students, Quality of AP programs, and Neoliberalism.

The theoretical framework of critical race theory will be utilized to guide this study. The theoretical framework of critical race theory (CRT) can be used in the K-12 educational setting to anticipate and prepare school leaders for challenges they may encounter regarding issues of inequality and equity. More importantly, to account for the systemic ways that coloniality such as: Americanization programs, English-only policies, tracking, denial of home

languages and community histories shape the (mis) education of Latinos, and the theoretical framework of (CRT) helps to address these types of social injustices (Delgado et al., 2017, pp. 22-23). In addition, the (CRT) theoretical framework also challenges the dominant social class's deficit belief about persons of color lacking knowledge and their limited aspiration or desire to achieve. Valencia and Solórzano (1997) refer to deficit thinking as a theory that places all the responsibility and accountability on students of color and blames their academic failure on supposed internal deficits or deficiencies such as: limited intellectual abilities, linguistic shortcomings, lack of motivation to learn and immoral behavior. Critical race theory has a greater emphasis on the material outcomes of racism in the form of property and property rights rather than on the view of racism as a set of specific values, beliefs and ideals (Bell 1987; Harris 1993; Ladson-Billings & Tate, 1995; Pollack & Zirkel, 2013). The issue of property, which is characterized by ownership or entitlement access, and absolute right to exclude is considered by many CRT legal scholars to be central to all conflicts related to racial equity.

In 1931, the Lemon Grove Case (Roberto Alvarez vs. the Board of Trustees of The Lemon Grove School District) the theoretical framework of critical race theory (CRT) was used as a social justice model to determine and elaborate on unfair educational practices. More importantly, this was the nation's first recognized court-ordered school desegregation case. More specifically, this case involved 70 students of Mexican decent that were directed by their school

principal to attend a two-room segregated school, called the “caballeriza,” (i.e., horse stable, and or barn), and this new proposed school building was located in the Mexican side of town (Madrid, 2008, p. 15). Although this was the first recognized legal proceeding in the nation that dealt with the “Separate but Equal” doctrine it received little to no notoriety.

The situation in the Lemon Grove Unified School District was critically analyzed through the following three core components that are closely associated with the theoretical framework of critical race theory: (a) The centrality of property and property rights in any social justice change efforts, as well as lengths the privileged will go to in order to protect those property rights, (b) majoritarian narratives that serve to protect the property interests of the powerful, and (c) interest convergence as a condition for change efforts (Pollack & Zirkel, 2013). Therefore, in the 1931, Lemon Grove Court Case the issue of property was characterized by ownership or entitlement access by the dominant social class and their absolute right to exclude the most vulnerable social class. Thus, many (CRT) legal scholars tend to believe that ownership or entitlement access and the absolute right to exclude others to be the centrality of conflicts related to racial equity.

Secondly, majoritarian or dominant narratives were the second component of the (CRT) model that were used to identify injustices and or unfair practices. More specifically, in the Lemon Grove Case, the dominant social class were the White students, and they used the following derogatory language to describe the

Mexican-American children: foreigners, indolent, underdeveloped, half-breeds, illiterate, diseased, and slow. Madrid (2008, p. 16) stated there would have been no value in educating the Mexicans because they were inferior and because it was thought and hoped some of them eventually would return to Mexico.

In addition, the interest convergence is also closely associated with the critical race theory framework, and it essentially is built upon political history as well as legal precedent. Moreover, interest convergence theory emphasizes that significant progress for minoritized populations is only achieved when the goals of the minoritized populations are consistent with the needs of White students (Bell, 1980, p. 214).

Affirmative Action Policy to Remedy Past Discrimination

Affirmative Action as a policy of actual goals and timetables in higher education was only implemented for a relatively short time period from 1968 to 1978 (Solórzano & Yosso, 2002). In higher education although Affirmative Action was used to assist qualified underrepresented minoritized students gain entry into four-year universities the policy is often called into question by university admissions especially when the number of students of color exceeds that of White students. This increase of the number of students of color being admitted into four universities then becomes noticeable and the system of higher education is then viewed by the dominate social class as being engaged in discriminatory practices against White students (Solórzano & Yosso, 2002).

The original intent of Affirmative Action policy according to U.S. Department of Health, Education and Welfare Title 45 (Regents of the University of California, 1978, p. 343) was to remedy past and present racial discrimination (Solórzano & Yosso, 2002). Affirmative Action is a policy that advocates for members of a disadvantaged group who currently or has historically experienced racial discrimination from the dominant culture. Moreover, the concept of affirmative action is to hold employers accountable in the public and private sectors from engaging in unequal treatment against minoritized groups.

Affirmative action originated in June 1941, by the 32nd President of the United States Franklin D. Roosevelt's Executive Order 8802, and the main premise of this law was to establish equal employment opportunity legislation in regards to defense contracts (Rebore, 2004). In 1966, President John F. Kennedy issued Executive Order 10925, and this order established the President's Committee on Equal Employment. Furthermore, Executive Order 10925 gave the (EEOC) authority to enforce its own regulations by imposing sanctions and penalties against non-compliant employers. The Equal Employment Opportunity Commission is created under the jurisdiction of Title VII of the Civil Rights Act, and with its authority it has the power to investigate alleged discrimination based on race, color, religion, sex or national origin.

In 1978, the landmark court case *Regents of University of California v. Bakke* was a case that was based upon Affirmative Action. More specifically, the facts surrounding the case involved a white male applicant named Allen Bakke

and his denial into the University of California Davis' Medical School. Bakke Argued that his denial was strictly affected by a racial quota. More specifically, UC Davis' Medical School had 100 available slots for qualified candidates and held 16 slots for minoritized students. In a five to four ruling the U.S. Supreme Court revealed that preferential racial quotas in educational admissions violated the Civil Rights Act of 1964 (Solórzano & Yosso, 2002). However, students of color still remain underrepresented in historically White colleges and universities, and the few who were granted access to these institutions often encounter racial discrimination (Solórzano & Yosso, 2000).

In California, Affirmation Action policy changed after the passage of Proposition 209, the Anti-Affirmative Action Initiative, in 1996. Under the Anti-Affirmative Initiative many underrepresented students (i.e., African Americans, Latinos, and Native Americans) experienced a decline in the admission process at California higher education institutions (Solórzano & Yosso, 2002). In addition, inadequate state funding is another reason that the University of California institutions have not been able to increase enrollment for minoritized students. The elimination of Affirmative Action has reduced the diversity in the following UC schools: UCLA, UC San Diego, and UC Berkeley.

Another landmark case that was affected by Affirmative Action was the 1997 Grutter v. Bollinger. This case is also known as the University of Michigan (UM) Law School Affirmative Action case. This court case involved a white female applicant that was denied admissions into the University of Michigan's

Law School. The facts surrounding the case were that Grutter argued that (UM) discriminated against her and other more qualified white applicants like herself (Solórzano & Yosso, 2002). The University of Michigan argued that using race in the admission process is good practice for creating a more diverse student population. This court case also involved 41 African Americans and Chicana/o students that were recognized as Intervenors during the court case. The Intervenors played a significant role in this case, and their mission was to preserve Affirmative Action.

Importance of Access to Advanced Placement Courses

However, equitable education concerns go beyond Affirmative Action policy. According to the California State Department of Education in 2001, California's per pupil expenditures went from being ranked from fifth nationally in educational funding and quality to twenty-first during the time frame that the numbers of African American and Latino students exceeded those of white students in public schools (Solórzano & Yosso, 2002). Currently, Vermont and Alaska have the highest per pupil expenditures in the nation at \$20,795, and Utah has been found to spend the least per pupil expenditure at \$7,207. More importantly, the national average per pupil expenditure is at \$12,526, and California spends approximately \$9,417 per pupil expenditure (Education Week Research Center, 2018). Furthermore, Per Pupil Expenditure in Riverside and San Bernardino Counties is at \$11, 500 (California Department of Education, 2018).

Poverty plagues the community of the Latino population. According to a United States Census Bureau (2011) study regarding poverty among children the following percentages were identified: Latinos (37%), White students (30.5%), and African Americans (26.6%). There are approximately 6.1 million Latino children living in poverty, and two thirds of these Latino children are coming from immigrant parents. Traditionally, low socioeconomic schools primarily serve children who live in poverty, and these educational institutions will often lack funding for academic support systems, academic interventions, and outreach programs to assist the underrepresented minoritized student populations gain access into four-year universities. During 2007 and 2011, the California Budget Project revealed that approximately 11.1% of school funding was decreased. Therefore, low socioeconomic schools often have to rely heavily upon after school programs to augment enrichment classes for their students. More importantly, school districts that serve large low socio-economic student populations in urban and rural areas, need to develop or build capacity through the following mechanisms: providing staff with appropriate training, implementing effective intervention strategies, and obtaining the resources necessary to meet student needs (Boykin & Noguera, 2011).

Solórzano and Yosso (2002) developed a schematic called the Chicana/Latina Pipeline, and the purpose of this schematic was to demonstrate that only a few Latina/Chicana students attain post-secondary degrees. Although the Latino population has increased, educational attainment among the Latino

population has not kept pace. Malagon et al. (2015) developed a United States Educational Pipeline schematic by race, ethnicity, and gender and it revealed the following: for every 100 Latinas/os who begin kindergarten, 63 Latinas and 60 Latinos will complete a high school diploma, 13 Latinas and 11 Latinos will complete a bachelor's degree, four Latinas and three Latinos will complete a graduate degree, and 0.3 Latinas and Latinos will complete a doctoral degree. In contrast to White students where, out 100 students who begin kindergarten, 92 females and 91 males will complete a high school diploma, 32 females and 33 males will complete a bachelor's degree, 12 females and 13 males will complete a graduate degree, and one female and 2 males will complete a doctoral degree. For every 100 Asian American students who begin kindergarten, 84 females and 88 males will complete a high school diploma, 48 females and 52 males' bachelor's degree, 18 females and 24 males will complete a graduate degree, and two females and five males will complete a doctoral degree. For every 100 African American students who begin kindergarten, 85 females and 82 males will complete a high school diploma, 21 females and 17 males will complete a bachelor's degree, eight females and six males will complete a graduate degree, and 0.6 females and 0.7 males will complete a doctoral degree. For every 100 Native American students who begin kindergarten 83 females and 80 males will complete a high school diploma, 16 females and 12 males will a complete a bachelor's degree, 6 females/ 4 males will complete a Graduate degree, and 0.5 female and 0.6 males will complete a doctoral degree. As the data acquired by

Malagon and colleagues (2015) revealed, Latino students represent the most vulnerable population with the lowest educational attainment.

Citizenship is yet another concern that affects the educational attainment of the Latino population. The education of Latina/o youth who are undocumented is a critical issue that needs to be addressed because the majority of undocumented Latinos reside within the boundaries of California and more than in any other state in the United States (Passel & Cohn, 2009; Perez-Huber et al., 2015). The California Latina/o Educational Pipeline revealed the following information: Out of 100 US-Born Latina/os elementary students only 83 Latinas/80 Latinos will receive a High School Diploma, 18 Latinas/14 Latinos will complete a Bachelor's Degree, 6 Latinas/4 Latinos will go on to complete a Graduate Degree, and 0.4 Latinas/0.3 Latinos will complete a Doctorate program. For every 100 Naturalized Latina/os elementary student 56 Latinas/55 Latinos will complete a High School Diploma, 10 Latinas/10 Latinos will complete a Bachelor's Degree, 3 Latinas/3 Latinos will complete a Graduate Degree, and 0.2 Latinas/0.4 Latinos will complete Doctorate. For every 100 Noncitizen Latina/os elementary student 34 Latinas/34 Latinos will complete a High School Diploma, 4 Latinas/3 Latinos will complete a Bachelor's Degree, 1 Latina/0.8 will complete a Graduate Degree, and 0.1 Latina/0.09 Latinos will complete a Doctorate. This schematic of the California Educational Pipeline was developed (Perez-Huber et al., 2015), and it was created to demonstrate and illustrate that educational attainment amongst undocumented Latinos is a critical issue that

needs to be addressed. California needs a more educated workforce and without one our global economic standing will inevitably decline. More importantly, by 2030 California needs 1.65 million more college degrees and credentials than we are currently on track to produce (Campaign for College, 2018, p. 1). Currently, California's population is approximately 40% Latino or 15 million, and by the year 2060 it will have a Latino population of approximately 45%. According to the (California Department of Education, 2017) it revealed that over 50% of California's K-12 students are Latino, and 40% of all college Undergraduate students in California are Latinos (NCES, 2017).

High school grade point average (GPA), standardized college entrance exam scores, and AP level courses are essential factors considered for university eligibility. In particular, access to AP courses not only assists students to acquire knowledge but also helps students gain an advantage with admission to four-year colleges (Solórzano & Yosso, 2002). AP courses serve as impact vehicles for earning college credit before matriculating into higher education by reducing the cost and time to degree. Thus, AP courses increase the chances of post-graduate study (Barnard-Brak, 2011).

More importantly, significant inequities exist between predominately all Latino and predominately all White high schools. In 2015-2016 Civil Rights Data Collection, revealed the following descriptive statistics between 50 predominately Latino high schools and 50 predominately White high schools: Latino high schools had an average of 87% Latino enrollment, school size of 2,960, 15 AP

courses available, SAT Reading score of 435, SAT Math score of 444, SAT Writing score of 429, and Average A-G completion rates of 44% (Civil Rights Data Collection, 2015-2016). However, schools with 61% of white students have an average enrollment of 1,562, 19 AP courses available, SAT Reading score of 544, Math score of 556, SAT Writing score of 535, and Average A-G completion rate of 65% (Civil Rights Data Collection, 2015-2016). Clearly, the opportunities and outcomes are inequitable and unequal based on the racial background of the majority of students.

In the University of California system, it is important to distinguish between admissions and eligibility. UC eligibility means that a student is guaranteed a spot within the UC system. Whereas, UC admissions simply means that the student was accepted to the campus of their choice. Immediately after the elimination of Affirmative Action voters in California passed Proposition 209 in 1997, and admission rates declined among minoritized students. More importantly, prior to 1997, Latinos and African Americans had an 82% UC admission rate and this level has not been reached in 20 years. In addition, as the number of students applying for UC admission increases and insufficient funding for enrollment growth continues, admission to UC campuses has become extremely competitive (Campaign for College, 2018). However, UC admission for White students/Asian American students obviously increased slightly after the elimination of Affirmative Action in 1998. Data from the UC President's Office revealed that in 1998 UC admissions for Latinos and African Americans declined.

The passage of Proposition 209 in 1994, increased university admissions for minoritized students. Whereas, after the elimination of Affirmative Action, with Proposition 209 in 1998, there was a significant decline in the UC admissions process for African American and Latino students (Ledesma, 2013). The University admissions process typically places a significant emphasis on merit-based factors such as: the number of AP courses a student applicant has taken and a student's GPA. For instance, in 1997, UCLA admitted students with an average of 16 AP/Honors courses and students who had over a 4.1 GPA. If a high school student achieved a letter grade of an "A" in either AP or Honors level courses in high school, during the university admissions process these students were given five points rather than the standard four points for their ability to achieve an "A" in AP or Honors level in high school.

Court Cases Addressing Inequitable Access to College Preparation

An important court case that emerged that involved inequality was the *Castaneda et al. v. the University of California Regents*. The case was filed in 1999 as a United States Federal civil rights class action lawsuit where the plaintiffs argued that the defendants UC Regents and UC Berkeley violated their civil rights. More specifically, the plaintiffs argued that UC Berkeley's admissions process used an unfair set of practices in their admission criteria that relied heavily upon the number of AP courses taken by a student. Since the plaintiffs were denied equal access to AP courses they were put at a distinct disadvantaged vis-à-vis other California high school students, and this resulted in

a disparate effect among the plaintiffs who were underrepresented in higher education (i.e., Latinos, African American, and Filipinos). Inequalities that result from the lack of opportunity gaps are perpetuated by the following: inequities that are directly related to a student's background, and school practice that reinforces and often exacerbates the inequity (Boykin & Noguera, 2011).

Similarly, Solórzano and Yosso (2002) investigated the issue of access into Advanced Placement courses, in particular for Chicana/o students. Solórzano (2002) expressed that Chicana/Latina as well as underrepresented students had poor educational outcomes because they were not exposed to the same enriched curriculum as white students, which resulted in inequality.

Another significant court case that emerged in response to unequal access into AP courses was the *Daniel et al. v. State of California*. In this California Supreme Court case filed in 1999 the plaintiffs were four African American students being denied access into Advanced Placement courses in a California public high school. Moreover, the plaintiffs along with their parents expressed that there was a lack of availability of AP courses afforded to them, and they also felt as if they had received essentially no encouragement to get involved or enroll in the AP program. The plaintiffs argued that the lack of the school's ability to provide AP courses placed them at a distinct disadvantaged vis-à-vis other California high school students especially when competing for admissions into universities.

Court Case Addressing Inequitable School Financing

However, inequitable educational opportunities were nothing new in the 1990s. For instance, the 1977 Serrano v. Priest California Supreme Court Case was another landmark court case that addressed inequitable school financing. Contemporary school financing occurs through the following processes the state provides approximately 61% of funding for its schools through its General Fund, local property taxes contribute less than 21%, and the Federal Government provides less than 2% for total school funding. Prior to 1977, California was heavily dependent upon property taxes to provide funding for its schools.

Prior to 1977 this pre-existing school financing system created significant disparities for school revenues, and this school financing system was found to have violated the 14th Amendment of United States Constitution regarding equal protection of the laws. More specifically, the California Supreme Court ruled that this pre-existing school financing system or scheme greatly discriminated against the poor. The California Supreme Court held that this school financing system makes the quality of a child's education a function of wealth of his parents and neighbors. At the time since California relied heavily upon property taxes to generate school funding individuals that resided in smaller impoverished neighborhoods were at an extreme disadvantage because they could only generate limited amounts of funding towards their child's educational institutions. In contrast, those students that came from larger and more affluent neighborhoods their parents were able to provide more funding through property

taxes towards their designated school district. More importantly, more funding not only provides more per pupil expenditures but also provides students with resources such as college preparatory classes, better school facilities, and qualified teachers.

College Access for Latino Students: Trends and Future Directions

Latinos are the largest non-white ethnic group in the United States estimated to comprise 15.4 percent of the population, and are growing at a much faster rate than the rest of the nation (United States Census Bureau, 2008). In addition, it is projected that 25 percent of all students enrolled in US public schools in 2025 will be Latino. The academic trend for educational pathways to higher education among Latinos is abysmal. According to the US Census Bureau (2007), only 12.7% of all Latino adults have a baccalaureate degree compared to 30% of white students. Nevertheless, the educational disparities between Latino and white students appears to be widening further. The National Center for Educational Statistics (NCES) also revealed the inequitable outcomes between white, Asian American, Black, and Latino students when it came to high school completion and bachelor degree rates. The achievement gap of underrepresented minoritized students in comparison to that of White students and Asian American students regarding post-secondary educational attainment is not only astonishing but it also is a critical issue that needs and demands prompt attention.

Zarate and Burciaga (2010) found that educational college attainment was hindered by the alarming high school dropout rate among Latinos, and only 54 percent of Latinos educated in the U.S. completed school. Furthermore, White students had more opportunities to take rigorous college prep curriculum. Whereas, Latinos are less likely to access challenging curriculum and had less access than White students to financial opportunities.

In California, Latinos make up approximately 36.6 percent of California's population. Although California has the nation's largest network of public higher education institutions, Latino enrollment in the public higher education system does not reflect the state's racial/ethnic population (Zarate & Burciaga, 2010). Latinx students are underrepresented across all sectors of higher education: 45% of Latinos attend California Community Colleges, 42% of Latinos attend a California State University, 27% Latinos attend a University of California, 27% of Latinos attend private nonprofit colleges, and 31% of Latinos attend for-profit colleges (NCES, 2017). In a research study conducted by Perna (2000), Latinos were less likely to enroll in a 4-year university than white students when gender, costs, benefits, and financial resources were taken into account. More importantly, Latinos were more likely to enroll in four-year universities after taking into account measures of social and cultural capital such as parental education and peer encouragement (Perez & McDonough, 2008). Research indicates that the majority of Latinos students, approximately 71%, will attend Community Colleges and only 7% to 20% of those Latino students attending community

colleges will eventually transfer to four-year institutions (Zarate & Burciaga, 2010). Furthermore, the same research also indicates that Latinos who do not transfer from community college and do not complete their associate degree. In 2001, at the community college level of all associate degrees earned, Latinos represented only 10% of those completing their associate degrees and 72% were white students (Zarate & Burciaga, 2010). However, California Community Colleges Latino completion rates, which include both graduation and transfer, have improved from 38% in 2010-2011 to 42% in 2016-17 (Campaign for College, 2018).

First-generation and low-income Latino students are more likely to attend less selective educational institutions with high drop-out rates, opt for an institution with lower average tuition and attend part-time (Hearn, 1991; Perez & McDonough, 2008; Swail et al., 2004). Considering that California schools disproportionately with high Latino and African American enrollments are more likely to have less prepared teachers, counselors with exceedingly high counselor-to-student-ratios, fewer supplies, and poor facilities (Zarate & Burciaga, 2010), it makes sense that students would choose less selective institutions. In addition, minoritized students are more likely than White students to attend schools that are Program Improvement schools, under-resourced, overcrowded, experience serious shortages of qualified teachers, and often lack the capacity to offer a college preparatory curriculum to all student (Madrigal-Garcia & Acevedo-Gil, 2016; Rogers et al., 2016). The argument of the

inequitable school system resulting in a New Jim Crow Education (NJCE) highlights the interconnected webs that serve to reinforce power and regulation for the dominate social class against the most vulnerable minoritized student populations through the use of the following mechanisms: inadequate school resources, zero tolerance policies, and high stakes testing (Madrigal-Garcia & Acevedo-Gil, 2016).

Prevalent trends occurring in the Latino population are that Latinas are attending and graduating from four-year institutions at higher rates than their male counterparts. For instance, in 2004, 28.4 percent of Latino males 16 to 24 years old were high school stop-outs, compared to 18.5 percent of Latinas, 7.1 percent White males, and 13.5% of African American males (NCES, 2005; Saenz & Ponjuan, 2008). Such a trend has continued to emerge in secondary and post-secondary education. Latino males are more likely to join the workforce rather than attend college, and to leave school before graduating (Solórzano et al., 2005; Yosso & Solórzano, 2006). If Latino males are not entering into systems of higher education, then they are inevitably entering the workforce, military and or incarceration. Low educational attainment amongst Latino male workers can only translate into higher concentrations in low-skilled jobs (Saenz, & Ponjuan, 2008). According to a 2007 U.S. Bureau of Justice report, Latinos make up 20.9% of the 2.1. million male inmates in federal, state and local prisons. Furthermore, 63% of Latino males between the ages of 18 through 34 were found to be incarcerated in 2007, and this could account for the inability of Latino males to keep up with their

respective Latino females in regards to attending higher educational institutions. A 2005, U.S. Census report revealed that over 1.9 million Latino males within 18 to 34 years of age were enrolled had finished a post-secondary education, representing 28.1% of all Latino males within that age group. Furthermore, in the same U.S. Census report it also revealed that 2.1. million Latina females 18 to 34 years of age were enrolled or had finished college, representing 35.5% of Latina females within that age group (Saenz, & Ponjuan, 2008). For instance, in 2004, 28% of college aged Latinas were enrolled in college compared to only 22% of Latinos. The issue at large is that Latinos already represent an overwhelming percentage in regards to the student enrollment population. However, the enrollment of this specific underrepresented group in AP courses is low.

Academic Achievement among Underrepresented Students

The implementation of new school reforms along with the adoption of new curricula and new textbooks, organizational restructuring, administration regime changes may occur but unless there is a strategy for countering the normalization of failure, it is highly unlikely that disparities in achievement among minorities will be reduced or change (Boykin & Noguera, 2000). For example, The No Child Left Behind Act (NCLB) required that schools disaggregate test scores by race and other designated subgroups and this federal law also led to the exposure of many schools and districts with ample resources and track records of academic success, but the poor and racial minoritized student populations in these schools were typically not well served (Boykin & Noguera,

2000, p. 28). According to the NCES, in the 2015-2016 academic school year all public high schools nationally achieved the highest graduation rate which was 84%. However, when disaggregated by race/ethnicity, the graduation rates revealed the following: Asian/Pacific Islanders 91%, White students 88%, Hispanics 79%, Blacks 76% and American Indians 72% (NCES, 2015-16). Thus, Latinos and Black students maintained lower rates than White and Asian students. Educational attainment among individuals 25-64 from the following ethnic groups revealed the following: White less than a high school diploma (5%), White high school graduate (18%), White some college no degree (25%), White Associate Degree (9%), and White Bachelor's degree or higher (43%), Latinos less than high school diploma (37%), Latinos High school graduate (26%), Latinos some college no degree (19%), Latinos Associate Degree (6%), and Latino Bachelor's degree or higher (12%), Black less than a high school diploma (10%), Black High school graduate (24%), Black some college no degree (32%), Black Associate Degree (10%), and Black Bachelor's degree or higher (24%), Asian less than a high school diploma (10%), Asian High school graduate (13%), Asian some college no degree (15%), Asian Associate Degree (8%), and Asian Bachelor's degree or higher (54%), California's less than a high school diploma (17%), California's High school graduate (20%), California's some college no degree (22%), California's Associate degree (8%), California's Bachelor's degree or higher (32%; United States Census Bureau, 2016).

Although high school graduation rates have moderately increased among the underrepresented minoritized student populations, Latinos remain behind White students in completing a College-ready Curriculum with a C or better. Furthermore, 2016 data from the California Department of Education regarding the completion of a College –ready- Curriculum revealed the following: White students 52%, and Latinx students 39%. In addition, A-G requirements are the minimum four- year university entrance requirements needed by high school students. California Department of Education revealed the following data regarding A-G completion rates in 2006-2007: Latinx students 25% and White students 40%. Furthermore, in 2016-2017, the (CDE) revealed the following data also regarding A-G completion rates: Latinx students 39%, and White Students 52%. More importantly, the A-G completion rate in 2006-2007 revealed a 15- percentage point achievement gap between Latinx and White students; and the A-G completion rate in 2016-2017 revealed a 13- percentage point achievement gap between Latinx and White students. Although there are more Latinx students completing the A-G requirements or prepared for college, there are over 60% of Latinx high school graduates that are ineligible to apply to the CSU's and UC's.

When looking at California, in particular, Latino high school graduates that were eligible for the California University system admissions increased from 16% in 2003 to 22.5% in 2007, while African Americans increased from 18.6% in 2003 to 24% in 2007. However, the minoritized admission rates into the California University system still remains lower in relation to their Asian (59.9%) and White

(37.1%) counterparts (California Postsecondary Education Commission, 2003). Data from the (NCES, 2005) revealed that in the fourth, eighth, and twelfth grade Latinos and African Americans had achieved lower test scores in reading in regards to their White, and Asian counterparts (Gregory, 2009), highlighting a potential connection between early academic achievement and secondary outcomes.

Contreras (2005) also conducted a research study that focused on comparing academic achievement factors between Latino and White students. This research used information or criteria such as parent income, parent education level, and access to AP courses to determine if these factors had any influence on the educational outcomes for Latino population. Contreras (2005) used data that was acquired through the College Entrance Examination Board. More specifically, she used data from a questionnaire that was given to research participants before they took the SAT examination, called the Student Descriptive Questionnaire (SDQ). The (SDQ) was composed of variables/indicators that were pertinent for academic achievement among all students that were involved in the study. The Contreras (2005) exploratory research study revealed that the average GPA for SAT test takers did not increase from 1999-2003 among the Latino population. However, the GPAs among the Asian American population increased.

Overall, research has established a connection between income and academic achievement. For instance, research has established that children who

experience poverty, particularly persistent poverty during their preschool and early school years have lower rates of school completion than adolescents who experience poverty only in later years (Aber et al., 1997; Ward, 2006). When considering income ranges between Latinos and White students who take the SAT, Contreras (2005) found that the majority of parental incomes among the Latino families were below \$35,000 and the income level for parents of White students were above the \$35,000-dollar threshold. Other research has also verified that participation in AP programs is highly correlated with family income (Gregory, 2009).

The need to further understand factors that impede student achievement among underrepresented minoritized students is paramount. In addition, it is also essential to understand poverty and parental education and their effects on student academic achievement. For example, parental education is a significant predictor for access to post-secondary education and educational attainment. It is absolutely paramount to find solutions or recommendations that promote programs and practices that encourage students to take academically rigorous coursework.

College Board's Sat 2018 Annual Report for California revealed the following information: Race/Ethnicity Test Takers – American Indian/Alaska Native 1,032, Asian 46,615, (18%), Black/African American 12,871 (5%), Hispanic/Latino 122,525 (47%), Native Hawaiian/Other Pacific Islander 1,323 (1%) and White 59,845 (23%). The 2018 SAT Mean Score's from College

Board's SAT Annual Report for California also revealed the following scores for the Evidence Reading Writing Portion and Math Portion: American Indian/Alaska Native – ERW (492), Math (477), Both (29%), Asian – ERW (590), Math (619), Both (74%), Black/African American – ERW (494) Math (473), Both (26%), Hispanic/Latino ERW (501), Math (490), Both (30%), Native Hawaiian/Other Pacific Islander – ERW (513), Math (507), Both (37%), and White ERW (588), Math (579), Both (68%). As one can clearly see that although White and Asian students had a smaller percentage of students in relation to Latinos taking the SAT exam their achievement percentage scores are well above the average. The SAT scores the Evidenced-Based Reading/Writing (ERW) and the Math sections from a score between 200-800. Moreover, although African Americans had only a 5% SAT test taking rate they had similar achievement SAT outcomes in relation to mean scores as Latinos.

More importantly, also included in College Board's SAT 2018 data are the following two types of College and Career Readiness Benchmark Assessments the SAT (ERW) and SAT Math. The SAT College Benchmark Assessment includes the SAT (ERW) and SAT Math sections, and they indicate that students meeting the benchmark assessment will inevitably have a 75% chance or better of earning at least a C in the first semester of credit bearing college level courses (College Board, 2018). The 2018 SAT data Annual Report revealed the following in regards to meeting the standard of the SAT Benchmark Assessments:

American Indian/Alaska Native – (ERW) 53%, Math 31%, None 45%, Asian –

(ERW) 86%, Math 77%, None 10%, Black/African Americans – (ERW) 54%, Math 27%, None 44%, Hispanic/Latino – (ERW) 59%, Math 33%, None 39%, Native Hawaiian/Other Pacific Islander (ERW) 64%, Math 39%, None 33%, White (ERW) 89%, Math 70%, and None 10%. The 2018 SAT Benchmark Assessment data suggest that White and Asian had a relatively high percentage of students who were college and career ready. More importantly, these two subgroups also only had less than 10% of their ethnic student population who were not college and career ready in accordance with the SAT Benchmark Assessment. On the other hand, African Americans and Latinos had about a 30 percentage point achievement gap in comparisons to White and Asian students in regards to being college and career ready. More importantly, African American and Latinos also had a higher percentage of their respective subgroup populations who were not college nor career ready.

According to the USDOE (2003), 88% of all African Americans students and 62% of Hispanics students graduated from high school in comparisons to 94% of White students who received a high school diploma. Rates of undergraduate enrollment in and completion of post-secondary education for minorities have increased slightly in recent years. The percentage of students that have completed some college by all ethnic groups has increased as well. However, White students, and African Americans have shown the most progress in relation to their Hispanic counterparts regarding post-secondary education. Moreover, 66% of White students and African Americans were reported to be

more likely to complete some college as compared to 31% Hispanics (USDOE, 2005). Furthermore, 34% of White students aged 25 to 29 years of age completed college as compared to 18% of African American students and 10% of Hispanic students. Johnston and Viadero (2000) found African American and Hispanic students required more time to complete an undergraduate degree than their White counterparts.

Since 1996, through 2012, there has been a significant explosion of growth in the number of high school students enrolling in Advanced Placement courses. However, Advanced Placement growth has not kept paced with overall student achievement. Also, during the time period of 1997 through 2012 advanced placement courses have nearly doubled as well. AP exams are scored on a 1 to 5 scale and an AP exam score of a 3 or higher indicates successful passage. AP growth could be attributed to many factors such as: competing for student enrollment, and selling the notion of taking a rigorous curriculum. The national ranking system devised by U.S. News and World Reports determines a list of Best High Schools based upon AP and International Baccalaureate (IB) participation and achievement. Furthermore, U.S. News AP criterion applies a 25% weighted proportion for students completing an AP exam, and they also apply a 75% weighted proportion for students achieving a passing score of a 3 on the AP exam as well (Judson, & Hobson, 2015).

The Judson and Hobson (2015) exploratory research study evaluated AP participation over time and compared the following three variables: number of

high school graduates, number of AP students, and number of AP exams taken. More specifically, to evaluate recent trends of AP growth and achievement the data that was acquired through College Board was split into groups from 1996 through 2004 and from 2005 through 2012. AP students from 1997 through 2012 were organized by the following grade levels: (9th grade) in 1997 had 1,671 and 2012 had 88,147, (10th grade) in 1997 had 41,487 students and in 2012 364,913 students, (11th grade students) in 1997 had 219,427, and in 2012 781,437 (11th grade students), and (12th grade students) in 1997 had 309,169 and in 2012 had 824,869.

AP exams taken in 9th grade had the fewest during the time period from 1997 through 2012. Whereas, 12th grade students had the highest number of AP exams taken during the time period from 1997 through 2012. In 1997, for every Asian student graduating from high school, there were 1.3 AP exams administered to Asian students from all grades; by 2009 there were 2.4 AP exams administered to Asian students for every Asian student graduating from high school (Judson & Hobson, 2015). In 1997, Hispanics had 264,466 high school graduates, and had only 67,705 Hispanics participate in AP exams. However, in 2009 Hispanics had 451,384 high school graduates, and had 383,915 Hispanics participate in AP Exams.

Although AP growth has been on the upward spiral the percent of students passing the AP exam with a score of 3 or above has decreased from the 1992 level of 65.5% to the 2012 level of 59.2% (Judson & Hobson, 2015). The Judson

and Hobson, 2015 research study indicated from the time period of 1997 through 2012 that Asian American students and White students maintained relatively stable AP pass rates across all AP exams.

Access to Advanced Placement Courses

According to a 2003 California Department of Education report it revealed the following descriptive statistics regarding the number of AP courses out of 1,094 high schools: there was a range of number of AP courses offered between none and 21. The total AP Courses in California was 6,590 with an average of six AP Courses Offered per School. Although the student population in California high schools have concentrations of a majority-minoritized student population and low-income students who qualify for free/reduced lunch. The majority of underrepresented students are segregated in schools located in urban under-resourced school settings (Harris, 2006; Kashatus, 2004; Orfield & Lee, 2006). Liou and Rojas (2018) and Solórzano and Ornelas (2002) contend that Latino students primarily attend overcrowded schools that have limited opportunities to receive individualized attention regarding post-secondary education. Although there has been a long-standing awareness of inequity among economically disadvantaged Latina/o and African American students, they continue to be underrepresented in honors-level courses at integrated urban schools (Speirs-Numeister et al., 2007). In contrast, other racial subgroups in urban settings will have relatively lower student populations such as: White and Asian Americans

but will have a much larger representation in AP courses (Speirs-Numeister et al., 2007).

In 2002, Solórzano engaged in a descriptive quantitative study to investigate the relationship if any existed between access to advanced placement courses for underrepresented Chicana/Latina students. (Solórzano & Yosso, 2002) found that in 1997-1998 that although student population among Latino and African American students exceeded that of any other ethnic group, these underrepresented groups were essentially non-existent in AP high school courses in California. Solórzano 2002 also found that although White and Asian students had lower student populations in California high schools, there representation in Advanced Placement programs were substantially higher than any other subgroup.

In 2004, Solórzano conducted another research study that assessed 780 California high schools that had a minimum of 500 students for the number of AP courses offered as well as their student population. Using 2000-2001 data from the California Department of Education, Solórzano (2004) analyzed the data quantitatively through the Advanced Placement Student Indicator (APSI) to assess the AP enrollment and student population among each of the California high schools. More specifically, the (APSI) was primarily used to divide each high school's number of AP courses offered by their student population, and an (APSI) score was given to each high school involved in this 2004 research study. The results indicated that access to AP course enrollment among the

underrepresented minoritized student populations were abysmal. According to the California Department of Education in 2001-01, it revealed the following Student Population (SP) and Advanced Placement (AP) enrollment data: Asian American students (13% SP, 29% AP), Latina/o (38% SP, 16% AP), African American (8% SP, 5% AP), White (39% SP, 49% AP) and Other (1% SP, 1% AP). Although the student population among the Latino subgroup was relatively high in this particular subgroup, their AP course enrollment was essentially non-existent. Nevertheless, Contreras (2005) found that, nationally, from 1993-2003 the Latino population had significant increases in access to AP courses.

According to the data in LAUSD's table 2000-01, the Latino student population was 66%, and their enrollment in AP courses was 49%. Whereas, student populations among Asian American students and White students were relatively low, and these two specific subgroups AP enrollment numbers were relatively high in the same LAUSD data table. All populations in AP course enrollment revealed that equity and access issues among the underrepresented sub-group substantiate the quantitative data in this research. Nationwide, similar trends exist. Klopfenstein (2004) found that African American and Latino students enrolled in Advanced Placement courses at half the rate as White students. African American and Latino students have an exceptionally lower enrollment percentage into Advanced Placement Math, Science and English courses.

Unfortunately, the presence of AP courses in urban school settings has been limited, and the quality or integrity of the AP program has often been

substandard. In Bernard-Brak et al.'s (2011) quantitative research study they specifically addressed the accessibility of Advanced Placement courses. The Bernard-Brak et al. (2011) study analyzed data using the Structural Equation Modeling (SEM) and hypothesized that school characteristics would have a stronger relationship with the availability of AP courses rather than the number of students who enrolled in these courses at school. The sample size used in the study was 12,144, which was selected through the National Center for Education Statistics. The sample size of 12,144 from the (NELS) is representative of approximately 2,921,547 students from across the nation. The results of the Bernard-Brak et al. (2011) research study indicated that as the number or percentage of minoritized students receiving free and reduced lunch increased; the number of Advanced Placement courses available to these racially underrepresented students decreases.

Walker and Pearsall (2012) conducted a qualitative research study that examined the challenges in AP that underrepresented students experience in secondary high schools across the nation. Their study utilized critical race theory as their theoretical framework to consider the institutionalization of inequitable access to AP programs. They used a small focused group interview approach conducted before and after school and underrepresented students were asked a series of interview questions about perceived barriers that they encountered regarding enrollment in AP.

Walker and Pearsall (2012) found that underrepresented student populations encountered obstacles when enrolling into Honors and Advanced Placement courses. While the student population from a Latino subgroup was relatively high, enrollment in AP among the Latino student population was essentially non-existent. This inverse proportion of the relatively high percentage of underrepresented students enrolled at secondary public institutions, and the low enrollment numbers among these underrepresented minoritized students in honors or AP courses represented a clear issue of inequity.

Increasing Advanced Placement for Underrepresented Students

Flores and Gomez conducted an Action Research Study in 2008, through 2010 regarding the underrepresentation of minoritized students in AP courses. More specifically, this action research study was used to address the issue of underrepresented middle or average students' low enrollment numbers in AP courses. This action research study was influenced by College Board's data, which revealed a significant gap existed between minoritized students enrolling in AP courses. In addition, this action research study also assessed the barriers to AP enrollment among the underrepresentation populations.

This action research study was conducted at Fontana High School, and it revealed the following barriers to AP expansion: a lack of a rigorous curricula, both at the high and middle school levels, a lack of pre-requisite classes before enrolling in AP courses, a lack of communication between high and middle school teachers about curriculum, the master schedule not focused on student

needs, and a lack of funding to support the AP program. The authors argued that a deficit ideology was present with the argument that only academically high-achieving students were worthy of enrolling in rigorous curricula, like AP classes. A significant barrier that was revealed in this action research study was the lack of understanding the benefits of AP courses by the parents regarding the AP program.

Funding AP Exams

A possible explanation for the low enrollment numbers among African American and Latino student populations, noted earlier, could be due to students not being able to afford the AP exams. Klopfenstein (2004) found that the Texas Advanced Placement Program did not charge their students fees for enrolling in AP courses but students had to pay approximately \$78 if they chose to partake in the AP examination. However, as with the majority of states, Texas students paid only \$5 dollars because College Board would subsidize these exam fees for low-income students.

However, Koch et al. (2016) reported that federal funding for Advanced Placement, and International Baccalaureate programs was reduced by \$26 million dollars in 2011. However, some states as well as certain school districts have decided to subsidized AP exam fees for underrepresented minoritized students. At the cost of \$87 per student per exam, it is important that students who take AP courses be adequately prepared to pass the AP exams. In addition, most federal programs supporting investments in k through 12 college initiatives

in urban and rural areas were reduced during the Regan administration (Colgren, 2015).

Outreach Programs

Outreach programs have also been used with the aim to increase enrollment in AP courses. Gandara conducted a four-year evaluation study on the Puente Program's impact in California high schools. The Gandara evaluation research study included 18 Puente program schools across the state of California, and the participants of this research study included 1000 Puente participants, and 1000 non-Puente participants. Survey questions were asked to both Puente as well as non-Puente students, and semi-structured interviews were also conducted. In particular, the study aimed to assess the effectiveness of the Puente Program in attempting to close the achievement gap of underrepresented students, and also to increase a-g completion rates. The Puente Program requires that students take a Language Art's Honors course for their freshmen and sophomore years. Furthermore, the Puente Program designates a Puente school counselor that works closely with all Puente students to develop four-year academic plans. Gandara (2002) found that approximately three fourths of all Latino college students in California enrolled in two-year community colleges. Puente students were more likely than non-Puente students to complete an A-G course of study. The research participants answered: Who Influences How Hard I work at School, Going to College, and Future Goals? Puente research participants from all grade levels responded that their parents

were primarily responsible for how hard they worked at school, and that the Puente research participants also responded that their parents were instrumental in them going to college. It is important to note that all Puente research participants in this research study responded that the next individual to influence them was their school counselor. Furthermore, the Puente program strongly recommends Puente students to enroll in Advanced Placement Language Art's classes their 11th and 12th grade years.

TRIO programs, which came into existence in 1964, under President Lyndon Johnson because there were significant disparities between the high number of White students entering into college, and the low number of underrepresented students (i.e., Latinos, African and Native Americans) entering into four-year institutions. The largest outreach program in the United States is one of the Trio programs called Upward Bound, and its mission is primarily to assist the underrepresented student population enter into four-year institutions. The Upward Bound program specifically looks to recruit low income and first-generation students into their prospective program. Secondly, the Educational Talent Search program is also aimed to help first generation, and low-income underrepresented students in middle school. Mathematica Policy Research Inc., (1999) found Upward Bound to have a positive effect on students' college enrollment, and overall college attainment, but it had no effect on academic preparation or grade improvement. In a longitudinal research study conducted by Balz and Esten (1998), it found evidence that substantiated Upward Bound's

ability to increase baccalaureate degrees among the underrepresented student populations. Outreach programs, such as Puente and TRIO represent possible avenues to increase the number of students who receive information to enroll in AP courses and to connect students with the fee waivers for the exam.

Student Barriers

While students in outreach programs have added support systems, Akos et al. (2007) found that academic tracking influenced both students' academic success and their career and academic aspirations. Underrepresented minoritized students may experience oppressive practices such as: retention, standardized testing, tracking, and disciplinary policies both inside and outside schools (Oakes, 2008). These oppressive practices may tend to create educational barriers that prevent these students from accessing higher level courses and diminishes their post-secondary aspirations.

In order to alleviate the issue of the lack of representation in AP courses among the underrepresented student populations a group of school counselors collaborated and were involved in an Action Research study conducted by Immerwahr (2003) model based upon their own data. The school counselors' data from their own respective school site revealed the following: total enrollment 2,692 students, 41% White, 9% African American, 40% Latino, 5% Asian, 3% multiracial, and 1% American Indian or Alaskan native. Only 11% of the Latino students and 8% of the African American students were enrolled in AP classes. After the school counselors involved in this program model disseminated the data

they collaborated with teachers, administration, and parents regarding best practices to prepare the underrepresented populations for advanced placement. The participants of the research study were identified or selected by the examination scores on the PSAT/National Merit Scholarship Qualifying Test. The school counselors held sessions regarding the benefits of the AP program to all participants involved in the program model. After the counseling group sessions, school counselors held individual student planning sessions with participants. Immerwahr (2003) found that a lack of a positive role model coupled with the lack of experience in higher education was a barrier to educational attainment among the underrepresented population. Although this action research was really a program model designed for school counselors to enhance the number of underrepresented students enrolling in AP courses it clearly identified that school counselors played an integral role in assisting students with career and academic aspirations.

Student Experiences in Rigorous Curriculum

A predictor for post-secondary academic success is participation in quality and rigorous curricula (Adelman, 2006). However, as noted above, underrepresented students are tracked into non-college preparatory curricula rather than in academic rigorous curriculum (Noguera, 2007; Oakes, 2008). Furthermore, as Manzo (2003) stated, “There are more students who are taking more advanced courses, but their achievement is not increasing which presumes that they are not getting what they need out of those courses” (p. 17).

The high majority of AP and IB students experience a type of stress called perceived stress (Lazarus & Folkman, 1984), define Perceived Stress as an experience after one's resources to deal with a given challenge are deemed by the individual to be taxed. In 2011, Shaunessy-Dedrick et al. conducted a qualitative inductive research study that addressed perceived stressors, coping strategies, and intrapersonal and environmental factors that students perceive to influence their success in AP and IB courses. Previous research identified sleep deprivation, cognitive withdrawal, self-isolation, and chronic fatigue as stress-related factors that are primarily experienced by AP & IB students (Shaunessy-Dedrick, 2011). However, this qualitative research study utilized successful factors based upon engagement theory, which states that students must be actively engaged with others in or during a worthwhile task. The study was primarily focused on the successful and unsuccessful factors that students experienced in AP and IB courses.

The Shaunessy-Dedrick et al. (2011) qualitative research study selected a diverse sample size of six schools from three districts in the state of Florida. In two of the participating school districts two schools were selected to be the IB sites, and one school from the third district was selected to be the AP site. The student populations from the six participating schools ranged from 1,400 to 2,400 students, and students with low socio-economic backgrounds had a percentage rate from 16% to 62%. Participants that were interviewed included a total of 30 students AP (n=19), and IB (n=11). Interview questions that were asked to the

research participants were the following: academic issues, constant efforts to balance time demands, and additional stressors. In regards to the categorical theme of academic issues 11 AP and 9 IB students revealed that procrastination was an issue for them. Whereas, 19 AP students and 11 IB students had insufficient time to complete. Ten AP students felt that they were managing their time wisely, and the other AP students felt their time management practices were unsuccessful. In the seeking support from others, categorical theme five AP students struggled with asking for help from others, and two AP participants did not have trouble asking individuals for help. In the next categorical theme of personal traits 14 AP, and 12 IB students indicated that hard work makes them successful, and 11 AP and 9 IB students indicated that they were struggling with hard work. In the overcommitted categorical theme, 4 AP and 4 IB students indicated that they struggle with overcommitting.

Other studies also provide evidence of underrepresented students experiencing challenges of enrollment in AP courses. For instance, Walker and Pearsall (2012) found that the majority of the research participants felt afraid of taking advanced placement courses. These perceived barriers restricted the research participants' abilities to pursue enrollment into Advanced Placement courses.

Dual Enrollment

Dual enrollment courses are another alternative for students to take rigorous college preparatory curriculum without having to take and successful

pass an examination to receive college credit. California legislation governs funding as well as student eligibility requirements, and is also in charge of awarding college credit. Much of the policy interest in dual enrollment programs emerges from the notion that this specific program can help strengthen preparation for college, help with the college transition process, and also help with college success for a broad range of students (Golann & Hughes, 2008). Many school districts are partnering with neighboring community colleges to afford this opportunity to all high school students. However, many postsecondary educational institutions with dual enrollment programs 85% set academic eligibility requirements excluding at-risk students from participation. However, California does not impose statewide eligibility criteria for dual enrollment except that students obtain consent from a school administrator and parent/s. The most common form of assessment to enter into dual enrollment include the following: minimum high school grade point average and or assessment test score (Golann & Hughes, 2008). The Dual Enrollment Program has a community college professor or a high school credentialed teacher instructor a college level course on partnering school districts high school campus. Dual enrollment courses are typically scheduled for two days a week, and take place after school. Dual enrollment courses vary but may consist of core academic disciplines and electives such as: Math, English, Science, Graphic Design, and Criminal Justices courses. Once a high school student successfully completes a dual enrollment course/s the student will receive 4 units of college credit, and they may also

receive up to 15 credits on their high school transcript per semester as well. More importantly, the successful completion of dual enrollment course/s will inevitably increase a student's grade-point average, and this will increase their chances of being competitive for university admission.

The Quality of Advanced Placement Programs

Some states, such as Texas, have developed state initiatives to prepare teachers to teach in AP courses. For instance, The Texas Education Agency Initiative, not only promotes the AP program by funding exams, it also provides funding for high school teachers to attend the Advanced Placement Program Summer Institute. Moreover, the state of Texas also provides teachers with additional compensation in the amount of one hundred dollars for each student that successfully passes an AP examination. However, emerging concerns include: AP teachers out-of-field teaching, inadequate professional development for AP teachers, utilizing scores for program assessment, communication failures between, teachers, parents, and administrators regarding advanced placement enrollment information (Klopfenstein, 2003). In order to maintain the quality of AP programs these emerging trends must be addressed to ensure not only access to AP courses, but also to maintain the quality of the AP program.

In regards to Out-of-Field Teaching, the majority AP teachers do not have a college major or minor in the AP subject that they are required to teach (Klopfenstein, 2003). Moreover, AP teachers are placed in subject content areas that are unfamiliar to them, and providing them with essentially no professional

development training. Klopenstein stated that 24% of secondary classes in math, sciences, social studies, or language arts were taught by teachers lacking at least a minor in the field in 2000. This notion of out-of-field-teaching by AP teachers is substantially higher in educational institutions that are plagued by poverty, and that also have a high percentage of minoritized students.

Enrollment criteria is another emerging trend that is paramount to maintaining and or ensuring the quality of the AP program. AP courses are very demanding, accelerated, and require a substantial amount of studying in order for a student to be successful. However, some school districts are making participation in AP courses mandatory for all students. Making the AP program mandatory for all students is problematic. Unfocused, unmotivated, and unprepared students enrolling in AP courses will inevitably demoralize those students, and require the dilution of the curriculum for all students (Klopenstein, 2003).

Moreover, a high score for underrepresented students is not the only indication that high-level learning has occurred. AP exam scores alone provide a poor measure of AP program quality (Klopenstein, 2003). Aligning the expectations of the AP program with parents, teachers, counselors and administrators is crucial for maintaining the quality of the AP program. To ensure the quality of the AP program logistical information such as cost and the benefits of the AP program must be aligned with administrators and counselors' expectations. In addition, parents and AP teachers must also align their

expectations through meetings such as parent nights. According to National Research Council Standards, a quality AP program develops superior learners while equity and access to AP programs traditionally pertain to underserved groups.

A research study conducted by Hallett and Venegas (2011) addressed the quality of AP program instruction received from low-income students in an urban school. Previous research has solely focused on the equity factor as it relates to the underrepresented student population gaining access into AP courses. It is not only sufficient to just offer more AP courses to low income students but rather it is more important to provide underrepresented minoritized students with equity in AP course quality as well (Hallett & Venegas, 2011).

The Hallett and Venegas (2011) research study essentially wanted to reveal that the quality and equity of AP programs that are being offered to low income students are substandard. This was a qualitative research designed that utilized the theoretical framework called Funds of Knowledge. The Funds of Knowledge theoretical framework assumes that the ability of educational institutions should be able to provide students with access to the seven areas of knowledge: institutional discourse, bureaucratic operations, network development, technical labor, market relations, problem solving, and academic task specific knowledge. In their qualitative research study, Hallett and Venegas (2011) utilized 48 high school students identified as college bound students, and also these students were also involved in a summer bridge writing program. The

sample size was drawn from 15 different high schools in the Los Angeles Unified School District. This sample population were identified as low-income students by the criteria established by the federal government's Free-Reduced Lunch Program. The sample population consisted of 60% Latinas, and 25% African Americans. During the 5-week summer bridge program interviews and observations were conducted on each participant. The interviews and observations were coded and analyzed for emerging themes related to experiences in high school AP courses. In addition, school transcripts from all research participants were also analyzed to identify course patterns.

The most significant finding was the difference between the participants AP course grades and the AP examination score itself. All research participants received an average AP class letter grade between a B/B+, and on average all research participants who took an AP exam received an AP exam score of a 1 or 2, which is equivalent to failing. Hallett and Venegas (2011) also found that AP teachers were unprepared/unmotivated, AP course material did not match exam material, and structural issues. The most significant limitation of this study was obviously the sample size, and the other limitation was that this qualitative research study utilized all female participants.

More Than an Issue of Access to Advanced Placement

Koch et al. (2016) conducted a comparison research study regarding Advanced Placement English Literature and Advanced Placement Language Composition exam scores. This was a 16-year study from 1997 through 2012

that used archival data from College Board. College Board is a non-profit organization that is in charge of the Advanced Placement program. The archival data was separated by gender, ethnicity, and grade level.

This research study investigated high school Latino students in the following three states: California, Texas, and Arizona that took the AP Literature exam or the AP Language Composition exam. More specifically, Latino students who took the AP Literature exam were all high school seniors, and those Hispanic students that took the AP Language Composition exam were juniors. Data for this 16-year Comparison research study from 1997 through 2012 were analyzed through chi-square. Chi-square was used to examine the relationship between the variables. Pearson chi-square tests were used to determine whether statistically significant differences in AP exam score distribution were present among the following three states: California, Texas, and Arizona (Koch et al., 2016). The results from this comparison research study were astounding.

AP exams scores are based on a scale from 1 to 5. An AP exam score of 1 or 2 indicates failure. Whereas, an AP exam score of 3, 4, or 5 indicates passing. In order for a student to successfully achieve a passing exam score on any AP exam, and receive college credit they must receive a minimum AP exam score of 3. In regards to Research Question 1: exam scores for the AP English Literature and Composition exam revealed that although enrollment in the number of Hispanics increases each year, successful completion of AP English Literature and Composition decreases every year as well. Research Question 2:

exam scores for the AP English Literature and Composition revealed similar findings in relation to the first research question.

The enrollment of the number of Hispanics increased each year during this 16-year research study. However, the number of Hispanics achieving a minimum passing exam score on the AP English Literature and Composition exam steadily declined every year. Descriptive statistics such as the mean or average of both types of AP exams (i.e., AP Language/Composition, and AP Literature/Composition) revealed that the mean score in this 16-year research study did not even reach the minimum passing exam score of 3. In addition, from 1997 through 2012 a pie chart revealed the following percentages in regards to the AP English Literature and Composition exam: Arizona percentage of students earning a 3,4,5 – (34%), and percentage of students earning a score of 1 or 2 – (66%), California percentage of students earning a 3,4,5 – (31%), and percentage of students earning a score of 1 or 2 – 69%, Texas percentage of students earning a score of 3,4,5 – (24%), and percentage of students earning a score of a 1 or 2 – (76%).

In contemporary education disparities among certain marginalized groups in achievement outcomes is very apparent. A research study conducted by (Colgren, 2015) in Illinois utilized the ACT2 test to assess or gauge academic performance on the advanced placement courses. Colgren utilized a cross-

² The ACT is administered nation-wide, and is widely accepted by all four-year institutions in the United States. In addition, every year approximately 1.6 million students in the United States take this exam, and this assessment consists of the following components: English, mathematics, reading, and science ACT, (2013).

sectional section survey design research study, and this research also utilized secondary data from the Illinois State Board of Education indicating high school students' socioeconomic status, race, placement in AP courses and ACT scores. Moreover, this study aimed to understand the differences in ACT scores between students who completed at least one AP (English mathematics, science, and or social studies) course and those who did not; the differences in ACT scores between (a) Black students and White students and (b) between Latino students and White students. The statistical method known as analysis of variance (ANOVA) was used to examine the relationship and differences between students who completed AP courses, and those that did not in Illinois public schools (Colgren, 2015). ANOVA is utilized to determine if a treatment effect exist. The ANOVA results indicated that participation in AP courses produced a medium treatment effect in English (0.173), science (0.173), and social studies (0.186), and a large treatment effect in mathematics. The Colgren study indicated that across all four content areas (English, Mathematics, Science, and Social Sciences) there is significant underrepresentation among the following types of subgroups: African American, Latino, and White students. Colgren (2015) argued that increased access to AP courses for underrepresented and low-income students will not close the achievement gap. Moreover, the achievement gaps cannot merely be solved by increasing enrollment in AP courses among the underrepresented and low-income students.

Although court cases can require schools to increase the access to AP courses, more is needed to create equitable educational opportunities for African American and Latino students. Too often, attitudes and beliefs that contribute to the normalization of failure are unchallenged, and when failure is normalized, educators often grow comfortable seeing minoritized students underperform and fail in large numbers (Boykin & Noguera, 2000, p. 33) In particular, schools need to consider AP teacher ideologies and expectations because teacher expectations influence the academic achievement of students (Ward, 2006), I incorporate previous studies to consider the possible implication for African American and Latina/o students in AP courses. For instance, findings from a case study focused on a Chicano high school teacher who was social-justice driven (Liou & Rojas, 2016) indicate that high expectations of students include academic rigor, an empowering curriculum, caring relationships and social capital vis-à-vis community cultural wealth will lead to the teacher's transformative expectations of students, which will lead to empowerment for students and academic excellence as well. The population of this case study consisted of immigrant, or first-generation, Mexican decent. The teacher in this case study was a Latino male social studies teacher, and this case study took place in an urban high school in Southern California.

The data collection period was one school year and involved two semi structured interviews, two written responses, journal prompts, data collection, and continuous participant observation (Liou & Rojas, 2016). The results of this

case study indicated that the Latino Teacher's concept of social capital construct aligned to Stanton-Salazar's (2011) empowerment social capital construct, which states that resources and forms of institutional support are embedded in connections or relationships with high status, resourceful, institutional agents will inevitably lead to excellence (Liou & Rojas, 2016).

Throughout history Latinos have learned to utilize their educational attainment to bring about social justice in the forms of social movements that empower communities (Bernal, 1998; Liou & Rojas, 2016; Munoz, 1989; Urrieta, 2004). However, Latinos are often deficitally depicted of being disinterested in education (Liou & Rojas, 2016; Valencia, 2002). This inaccurate depiction of the Latino population being disinterested in education is a farce, and this ideology is created by the dominant social class. The dominant social class creates these majoritarian narratives to justify, legitimize, and to help maintain the status quo of racial inequities (Solórzano & Yosso, 2002).

In the k-12 educational setting there is a significant lack of diversity of teachers, school counselors, and school administrators of color. However, a research study that was conducted by Berta-Avila (2004), revealed that Latina/o teachers have a strong sense of responsibility for the social and academic successes of their Latina/o students. This stronger sense of personal responsibility that the Latina/o teachers have for their Latina/o students enables them to have higher academic expectations for their students. In addition, in 2007, Urrieta found that some Chicana/o activist educators used their

professional judgements as educators to raise awareness or consciousness that works towards social justice.

Minoritized students are primarily identified or viewed through the lens of stereotypes, and these stereotypes can often result in teachers having low expectations for these minoritized student populations. Attitudes about students' background and physical appearance influence their interactions with groups and individuals, and the distribution of learning opportunities to these students (Cooper & Tom, 1994; Liou & Rojas, 2016). In other words, teachers associate more with students who often have similar social capital as they do.

In order to counter the effects of deficit thinking educators must move towards the theory of transformative expectations. The theory of transformative expectations refers to instructional strategies and practices exhibiting teacher's belief and commitment to social justice pedagogy (Liou, & Rojas, 2016). The intent of this theoretical framework is not only to empower the students but to enable them to be agents of change for social justice. The theory of transformative expectations was informed through Freire's work, and the basis behind this theory was not to impose more testing onto the students but to make pedagogical practices dialogic. Freire (1970) pointed to a lack of dialogical practice as verbalism, whereby words are changed into idle chatter that allows a business as usual attitude to contribute to racial domination, subjugation, and stratification.

Rather, transformative expectations are about living, being, teaching, and learning in purposive, counterhegemonic ways so that students can be empowered to pursue freedom and ownership of her/his mind and destiny (Liu & Rojas, 2016). More specifically, educators must counter the production of deficit-based narratives of unmotivated or unfocused students of color. For example, many of the most commonly used deficit-based narratives are that minorities students are simply unmotivated, and unfocused. Educators that are social justice driven must do everything in their power to counter these types of unjust practices. In doing so, the teacher must be intentional when conveying his/her expectations of students through four areas of expectancy effects: social capital, academic rigor, ethics of caring, and empowering curriculum (Liu & Rojas, 2016). Teacher expectancy in regards to social capital requires that educators must recognize the social capital that Latino and African American students bring into the educational setting. Both educators and students need to acknowledge and reciprocate each other's social capital in positive ways that incorporate learning.

Neoliberalism

Neoliberalism affects those countries that do business transactions with the World Bank and or IMF. Neoliberalism ideology is based upon free-market principals also known as *laissez faire*. Rooted in the belief that free-market economies provide solutions to the vast majority of social concerns, neoliberal reform is centered in the rights of the individual coupled with the privatization of public goods (Stovall, 2016, p. 26). Neoliberalist view society as being

competitive, and this is how they feel the world should function. In addition, economic rationality or competition will bring benefits to all. Neoliberal ideology suggests that the states should be autonomous and not interfere with the free-market.

The neoliberal agenda centers itself within a districts school board and much of its members of the school board often come from the business, legal and philanthropic sectors. Contemporary educational district board members have very little educational work experience. Neoliberalism affects public education by narrowly focusing on high stakes standardized testing, including Smarter Balance Assessments, PSAT, AP, and IB testing. The neoliberalism agenda is to slowly eradicate the public educational school system. Public education is a non-profit organizational system that is heavily dependent on federal, state, and local governments. Therefore, neoliberalists believe that the public educational system should be more organized, and that it should also be driven by market forces. Neoliberalists are strong proponents for the urban sprawling of charter schools. The neoliberal ideology contends that the purpose of education is to prepare students for a neoliberal view point.

The neoliberal educational agenda also contends that education is performance driven, and it will demonstrate its effectiveness through results. The role of the learner in a neoliberal educational system contends that the student accepts given norms in school and society. Whereas, the teacher's role in a neoliberal educational system is for them to be the transmitter of knowledge and

focuses on pedagogical practices that incorporate cognitive skills as well as managerial skills. The learning in a neoliberal educational system is primarily focused on scores of standardized tests and stresses the importance of competition.

The learning that is acquired in a neoliberal educational system entails surface learning only, such as knowing how to pass the exams. In addition, students in a neoliberal educational system learn mechanistic forms of learning through the transmission process. Educational institutions that incorporate these neoliberal educational ideals will be more formal and standardized. Under neoliberalism, both government and society have taken up as their primary concern, their relationship with the economy (Bansel, 2007). In the public educational school system Advanced Placement testing can be construed as a form of neoliberalism. The Advanced Placement program that has taken root in almost all public high schools throughout the nation is provided through a non-profit organization called College Board. However, the consumer rights organization Americans for Educational Testing Reform (AETR) has criticized College Board for violating its non-profit status through excessive profits and exorbitant executive compensation; nineteen of its executives make more than \$300,000 per year, with CEO Gaston Caperton earning \$1.3 million. At the societal level, under the neoliberal umbrella, education is no longer viewed as a benefit nor as an investment to individuals (Hursh & Martina, 2003).

Theoretical Framework

The theoretical framework that will guide this dissertation study is critical race theory or CRT. CRT provides a framework to address these issues and draws from a broad race and ethnic relations literature based in law, sociology, history, and the field of education (Ladson-Billings, 1996). The theoretical framework of CRT uses educational law to challenge the dominant narrative or ideology. The CRT framework will be used to examine critically the social injustices in education, and can also provide additional information about legal precedents that have affected or violated students' educational rights. The five tenets of CRT in education are as follows:

1. Intercentricity of race and racism with forms of subordination: Basically, CRT begins from the premise that race and racism are an integral part in shaping how society in the United States functions.
2. Challenge to dominant ideology: CRT challenges White privilege and refutes the claims that educational institutions make toward objectivity, meritocracy, colorblindness, race neutrality, and equal opportunity (Solórzano, 1998).
3. Commitment to social justice: CRT's social and racial justice research agenda exposes the "interest convergence" of civil rights gains in education.

4. Centrality of experiential knowledge: CRT recognizes the experiential knowledge of people of color as legitimate, appropriate and critical to understanding the concepts of race and racism.
5. Transdisciplinary perspective: CRT extends beyond disciplinary boundaries to analyze race and racism within both historical and contemporary contexts.

Research studies tend to utilize the CRT as a framework to address the issue of unequal access to AP programs. Thus, CRT makes broad racial and ethnic inferences based on law that arises from an array of disciplinary perspectives. According to Malhotra-Benz and Shapiro (1998), critical race theory seeks to explore the contradictions between what social institutions “talk” and what social institutions “walk”.

The theoretical framework of critical race theory is used in the k-12 educational setting to anticipate and prepare school leaders for challenges they may encounter regarding issues of inequality and equity. The theoretical framework of CRT was used to examine inequity challenges at Berkeley High school. Those seeking to make schools better will serve students of color and poor children inevitably find that their efforts are met with strong, swift, and well-organized resistance (Cooper 2009; Noguera & Wing 2008; Oakes et al., 1997; Pollack & Zirkel, 2013, p. 2; Theoharis, 2007). Furthermore, Pollack and Zirkel (2013) defined equity-focused change efforts in schools as a structural pedagogical, curricular, or procedural change initiatives that are intended to

correct identified disparities in educational opportunity or outcomes between groups of students.

In short, the theoretical framework of critical race theory (CRT) is used during highly contested issues, and the situation at Berkeley High School was no exception. Berkeley High School is a large racially and socioeconomically diverse school with approximately 3,300 students. In 2011, Berkeley High School was named the California high school with the widest racially based achievement gap that has a long persistent, and often studied history (Noguera & Wing 2008; Pollack & Zirkel, 2013). Forty-two percent of the student population at Berkeley High School qualifies for free-reduced lunch, and students at this school site come from very economically diverse backgrounds.

Berkeley High School has one of the highest achievement gaps in California, and this achievement gap is reflected in their academic performance data. In English Language Art's 89.7% of White students scored Proficient, 37.9% of African American students scored Proficient, and 50.5% of Latinos also scored Proficient. Whereas, in Mathematics 89% of White students scored Proficient, 40.8% of African American students scored Proficient, and 54.4% of Latino students scored Proficient. Despite having one of the state's highest achievement gaps Berkeley High School offers approximately 30 Advanced Placement courses, and it also has one of the highest AP course offerings in the state of California.

The strategy at Berkeley High School was primarily to provide better academic support systems for those students who were found to be struggling in science. In order to address this issue, the administration at Berkeley High School decided to create an academic support system that would assist all students with the lab component of their science class. Basically, the administration team at Berkeley High School created a zero period that roughly began at 7:00 am in the morning, and they also created another science lab section after school to serve all students. Their decision was to create two science lab sections, one in the morning and one in the afternoon. They found that this provided students with a 20% increase in instructional time during the day, and this also provided more time for students to complete and or work on their science labs. Moreover, minoritized students were failing the science lab component at alarming rates, and the before and after school science labs were primarily intended to assist minoritized students with the science lab component. These minorities students were having a difficult time achieving a successful grade in their science class especially because they could not pass the science lab component, and inevitably this affected their chances of graduating as well as their post-secondary opportunities.

As time went on Berkeley High School assembled a school site council that consisted of parents, students, administrators, and teachers and what this advisory committee found was that the existing academic support system was not working for the minoritized student population. They found that many of the

underrepresented minoritized students were unable to attend do to a lack of transportation, student work schedules, family responsibilities, and before and after school activities, including sports. Minoritized students who attempted to attend the early morning science lab sessions were often turned away by teachers who decided to cancel the lab at the last minute.

The school site committee (i.e., Governance Council) as well as district administration decided to cancel the before and after school science labs. Their rationale for canceling this academic support system and reinstate the old system was to: provide truly equal access to required sciences courses for the many students who were not being served well by the before and after school science labs, ensure better integration of the science lecture and laboratory curricular content for all students, and redirect the funds that had been subsidizing these before-and after-school science labs to new efforts designed to address the longstanding achievement gap (Pollack & Zirkel, 2013).

The response by a small group of affluent families as well as science teachers developed a strong public outcry, and believed that the before and after-school science labs served their academically high-achieving students well. The academically high-achieving students in this case were also more likely to have been enrolled in AP courses, and the before and after-school science labs benefited these students by providing them with more instructional time throughout the regular school day. This small group of affluent parents as well as many science teachers launched a social media campaign to reverse the

decision to eliminate the before and after-school science labs. The dominant narrative that emerged from the media campaign was that academic standards were being lowered and hardworking highly-deserving students were being unfairly penalized and harmed in favor of unmotivated, less-deserving and less capable students (Pollack & Zirkel, 2013).

A compromise was reached between the school district's Superintendent and the opposition by affluent families. The Superintendent's decision was to keep the before and after-school science labs open, but only for those students involved in AP courses. However, the issue in the Superintendent's decision was that the majority of students involved in AP courses were mostly white and Asian American students. Whereas, the majority of students at Berkeley High School that were failing science classes were from the minoritized student populations.

In the Berkeley case the theoretical framework of critical race theory was used as a social justice lens to determine and elaborate on racist practices. The situation at Berkeley High School was critically analyzed through three core components associated with the theoretical framework of critical race theory (a) The centrality of property and property rights in any social justice change efforts, as well as lengths the privileged will go to in order to protect those property rights, (b) majoritarian narratives that serve to protect the property interests of the powerful, and (c) interest convergence as a condition for change efforts (Pollack & Zirkel, 2013).

In the Berkeley case the theoretical framework of critical race theory places a greater emphasis on the material outcomes of racism in the form of property and property rights than on the view of racism as a set of specific values, beliefs and ideals (Bell 1987; Harris 1993; Ladson-Billings & Tate, 1995; Pollack & Zirkel, 2013, p. 298). The issue of property, which is characterized by ownership or entitlement access, and absolute right to exclude is considered by many CRT legal scholars to be central to all conflicts related to racial equity. Therefore, in the Berkeley High School case the issue of property and property rights corresponds primarily to those who will reap the benefits, and in this case, it will be those privileged students that come from a more affluent background. For example, enactment of Proposition 209 (Anti-Affirmative Action) could be seen as a form of resistance that is utilized by the privileged social class as a means to keep and retain power. However, Affirmative Action was used to assist the underrepresented student populations gain entry into prestigious four-year universities, and those individuals found to be using unfair practices or techniques in order to maintain the status quo of those students who come from higher socioeconomic backgrounds are actively involved and or engaged in social injustice practices.

Majoritarian or dominant narratives were the second component of the CRT model that were used to identify injustices and or unfair practices. Scholars of CRT recognize the ubiquity and power of majoritarian narratives or stock explanatory stories, which justify, legitimate, and help to maintain the status quo

of racial inequities (Pollack & Zirkel, 2013, p. 298; Solórzano & Yosso 2002).

These majoritarian narratives are created by the dominant social class, and they are developed fabricated distortions of the less fortunate in order for the dominant social class to retain power. Moreover, white people tend to view majoritarian narratives not as uncontestable reality which is this is “the way things are” (Bonilla-Silva, 2006; Pollack & Zirkel, 2013, p. 299).

Lastly, equity focused change under the social justice model of critical race theory leads us to the third of component, which is Interest Convergence Theory. In 1980, Derrick Bell defined Interest Convergence as the idea that mainstream systems of power will only move toward racial justice to the extent that it will jointly advance the interest of mainstream society (Stovall, 2016, p. 7).

For example, in 1954, the landmark United States Supreme Court Case decision of *Brown v. Board of Education* essentially stated that the state laws establishing separate but equal educational institutions were found to be unconstitutional. This United States Supreme Court decision did not occur because the dominant social class had a miraculous epiphany that what they were doing was wrong. No, it was more likely do to interest convergence that equity focused change was allowed to occur or come to fruition (Bell, 1980). Bell noted that during this time period the Cold War was occurring and the United States could not engage in the practices of freedom, liberty, and justice internationally, when in its own nation condoned in segregated schools. Interest convergence occurred during this time period because by declaring the separate

but equal law unconstitutional it became evident that all United States citizen's especially African Americans were needed in order to serve white national interests (Pollack & Zirkel, 2013). Similarly, while access to AP courses for Students of Color has increased, it happened only after fighting in court. However, College Board benefits financially from increasing the number of schools and students who access AP. Given the historical inequities reproduced by U.S. structures, this dissertation study will be guided by CRT in education. The aim is to examine the experiences of students in AP courses in traditionally underserved high schools in the Inland Empire.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

Methodology

This chapter is organized to provide an overview of the quantitative and qualitative research methods that I will use in this phenomenological study. In addition, this chapter will also provide contextual characteristics of urban comprehensive high schools within Southern California that were also located in the Inland Empire. The following research design components will be included in this chapter: research questions; research design; research site; the participants; the role of the researcher; the proposed instrumentation and data collection procedures; the data analysis and interpretation procedures; and the methods that will be utilized to establish trustworthiness in this phenomenological research study.

Research Questions

This phenomenological research study will address the following research questions:

1. Do high schools with similar characteristics achievement outcomes?
2. How do Advanced Placement courses prepare Latino and African American students for the AP exam?

3. What are some of the challenges and benefits that Latino and African Americans experience when taking AP courses?

The first research question will be answered using descriptive statistics accessed on the California Department of Education. The second question will be answered by interviewing former African American and Latino AP students in and AP teachers in the Inland Empire region.

Research Context

San Bernardino County has a population of approximately 2,157,404 residents, which consist of the following ethnic composition: White 76%, American Indian and Alaska Native 2.1%, Asian American 7.6%, Native Hawaiian and other Pacific Islander 0.5%, Two or More Races 3.5%, Hispanic Latino 53.4%, and African American 76.9% (United States Census Bureau, 2017). In addition, San Bernardino County residents have the following different types of educational attainment for those who are 25 or older: high school graduate or higher 79.2% and bachelor's degree or higher 19.8%. San Bernardino County also has a median household income of \$57,156, per capita income \$22,867, and a poverty rate percentage of 16%, which is above the 12.4% national poverty rate.

Riverside County is also part of the Inland Empire and is composed of the following ethnic composition: White 35.4%, American Indian and Alaska Native 1.9%, Asian 7.0%, Native Hawaiian and other Pacific Islander 0.4%, Two or More Races 3.5%, Hispanic Latino 49.1%, and African American 7.2% (United States

Census Bureau, 2017). Residents of Riverside County have the following educational attainment for individuals who are 25 or older: high school graduate or higher 81 % and bachelor's degree or higher 21.5% (United States Census Bureau, 2017). In addition, Riverside County also has a median household income of \$57,156, per capita income \$25,700, and a poverty rate percentage of 12.9%.

As more families begin to move to the Inland Empire primarily San Bernardino and Riverside counties to find inexpensive housing and rent, the region is attempting to keep up with the demand. Riverside County alone added approximately 37,000 new residents, and San Bernardino County added another 20,000 new residents (Downey et al., 2018). This was the third largest population increase or growth of any county in the nation. One reason for the drastic increase in population growth in the Inland Empire could first be attributed to the fact that there were more births than deaths that occurred in the Inland Empire region (i.e., Riverside and San Bernardino County). Another reason could be attributed to housing; as housing prices continue to increase in Orange and Los Angeles counties, migration to more affordable housing in the Inland Empire area has also inevitably cause substantial population growth in the region.

The median home price in Orange County was \$710,000, and in Los Angeles County the median home price was \$580,000. In addition, as population increases in coastal communities (i.e., Orange and Los Angeles counties) the demand for construction has inevitably decreased, and this situation has caused

housing prices to increase in the coastal communities. The lack of construction along with increasing housing prices in Orange and Los Angeles counties, has contributed to families migrating towards less expensive housing in the Inland Empire region. The median home price in Riverside County was \$375,000 and in San Bernardino County was \$336,500 (Downey et al., 2018).

Although high school graduation rates have moderately increased among Latinos and African Americans, Latinos remain behind White students in completing a college-ready curriculum with a C or better. Data from the California Department of Education regarding the completion of a college-ready-curriculum revealed the following: White students 52% and Latinx students 39%. In addition, A-G requirements are the minimum four- year university entrance requirements needed by high school students. California Department of Education revealed the following data regarding A-G completion rates in 2006-2007: Latinx students 25% and White students 40%. Furthermore, in 2016-2017, the (CDE) revealed the following data also regarding A-G completion rates: Latinx students 39%, and White Students 52%. More importantly, the A-G completion rate in 2006-2007 revealed a 15-percentage point achievement gap between Latinx and White students; and the A-G completion rate in 2016-2017 revealed a 13-percentage point achievement gap between Latinx and White students. Although their more Latinx students that are completing the A-G requirements or prepared for college, there are over 60% of Latinx high school graduates that are ineligible to apply to the CSU's and UC's.

Research Design

This phenomenological research study sought to describe the shared lived experiences of former Advanced Placement students during their time in high school AP courses. Phenomenology tends to focus on describing the most common or central theme among all participants (Creswell, 2013). Through the examination of the following: participants decisions to participate in AP classes, kinds and number of AP courses taken, AP preparation, impressions of AP courses, impressions of AP teachers, number of AP test taken, number of AP Test passed, and number of AP courses failed will inevitably provide a more deeper understanding of the phenomenon. Therefore, data collection will be acquired from the participants who have experienced the same phenomenon, and in this research study the participants will be the former AP students. Moreover, the subjective and objective experiences of the participants experience with the phenomenon will inevitably provide for a more thorough understanding with the phenomenon. Thus, although this study will be primarily qualitative in nature, this phenomenological study will also incorporate aspects of quantitative research by the utilization of descriptive statistics.

Rationale for Phenomenological Study Methodology

In this research study the primary focus or objective will be to thoroughly understand the experiences of former AP students during their AP courses. Therefore, the goal of phenomenology is to understand what they experienced and how they experienced it (Moustakas, 1994). There has been limited research

on the quality of AP programs in urban school districts among minoritized students. AP courses not only have the opportunity to enhance a student's grade-point average but they also provide an opportunity for students to engage in challenging rigorous curriculum. Equally, important is that AP courses are advantageous for students seeking to attend four-year educational institutions.

For instance, in a research study conducted by Hallet and Venegas (2011), they found that low-income students who took AP courses received an average course grade of a B+. However, when these same students took the AP Exam they did not pass. Once again there has been limited research on the effectiveness or quality of AP programs especially in urban school settings. This is why it is so important to conduct a phenomenological research study to understand the shared lived experiences of former AP students not in only in the Inland Empire but throughout the state of California. The basic purpose of phenomenology is to understand the very nature of the phenomenon as individuals have lived it (Van Manhen,1990).

The benefits of providing unrepresented students with AP courses increases their chances of gaining access into postsecondary education and achieving their academic goals (Hallett & Venegas, 2011). This research study has the potential to benefit all students in under resourced urban schools by creating an inclusive educational environment that ensures equity and access for all students.

This research design is to provide a more in-depth analysis as to why students from a comprehensive high school with higher percentages Latino and African American students along high percentages of economically disadvantage students have or experience very different student achievement outcomes in regards to AP courses. A Phenomenological research study will inevitably provide for a better understanding of the phenomenon in question. Equally important is that a phenomenological research study is not only a powerful tool for understanding highly complex social issues, it can also be beneficial for empowering underrepresented individuals as well as groups through its use of story-telling (Creswell, 2007). In addition, a qualitative phenomenological study analysis allows the researcher to closely examine an issue or problem in a natural setting in which the problem exist, and seeks to interpret the phenomenon through the meanings ascribed to it by those who live and work within the setting and those who are directly impacted by it (Creswell, 2007).

Participants

Cone and Foster (2006) recommend the inclusion of the following three questions to be addressed into the participants' subsection of a dissertation (a) who will participate, (b) how many will participate, and (c) how will they be selected. The participants of this study research will include Latino and African American AP students who took AP courses at a public comprehensive high school in the Inland Empire.

In order to gain a more thorough understanding of the student experiences in their respective AP courses, the aim was to interview about 8 Latino and 8 African American students. The selection of student participants was accomplished through the utilization of advertising through social media and the snowball sampling. The snowball strategy technique is a form of purposeful sampling in qualitative research that “typically proceeds after a study begins and occurs when the researcher asks participants to recommend other individuals to study” (Creswell, 2005, p. 206).

Instrumentation and Data Collection

This phenomenological research study research placed the highest importance upon the assurance of ethical research. To ensure ethical research the following was acquired: informed consent of all participants and protecting all participants from harm (Bogdan & Biklen, 2007). All ethical assurances were presented in an application submitted to the Institutional Review Board (IRB) of California State University, San Bernardino. The researcher received IRB approval from CSUSB.

Once approval was established, participants were recruited through social media and then snowball sampling. Participants engaged in semi-structured interviews with researcher. An important prelude to any interaction between a researcher and his or her participants is the establishment of rapport (Creswell, 2007). Therefore, I shared with the students a brief overview of my personal and professional background as well as my interest for pursuing the research study. I

employed open ended semi-structured questions. This allowed for follow-up questions that will allow participants the opportunity to fully convey their stories. Although focus-group AP Teacher interviews would have been particularly useful to triangulate the student experiences they did not take place because of an initial delay with from a local school district's IRB office.

Data Analysis

In regards to data analysis and interpretation (Hatch, 2002; Yin, 2003), effective data analysis and interpretation in a research study depends greatly upon the researcher's ability to effectively plan for the analysis and interpretation of data prior to the onset of the study. Furthermore, Creswell (2007) describes the process of data analysis as a spiral of analytical circles. First of all, building upon data from the research questions along with the examination of interview transcripts, will be transcribed and evaluated. Significant statements or quotes were identified for pattern development and this provided an understanding of how the participants experienced phenomenon (Creswell, 2013). Analysis of the data followed the Patton guidelines of qualitative data handling. Transcripts from participant interviews were coded and analyzed for emerging themes. The statements and quotes from the participants were utilized for development of emerging themes and to write rich textural and structural descriptions about what the participants experienced (Creswell, 2013).

Positionality Statement

In order to gain a better understanding of conducting research it is imperative that an individual understand him/herself first. The reflection process of each individual must be completed first in order to conduct any type of research. Therefore, it is necessary to evaluate one's own positionality. More importantly, in social science research there are four-worldviews that researcher's must first consider: Post Positivism, constructivism, transformative, and pragmatism. For the purpose of this dissertation the constructivism worldview will be utilized.

The constructivism worldview is often associated with interpretivism. The belief among social constructivists is that individuals seek to understand the world in which they live through their own experiences. In addition, Constructivism world viewers develop or formulate their own subjective experiences, and they also attempt to create meaning of these experiences. The goal or objective of engaging in this type of research is to rely heavily on the participants' views or viewpoints of the phenomenon being studied. Moreover, social constructs are created or formed through the social interactions with participants. For the purpose of this research study regarding the quality of advanced placement programs in the Inland Empire, the constructivist perspective or world view works well.

The constructivist perspective enables or allows the researcher/s to focus on the process of social interaction among the participants. Obviously, the

socialization process that occurs in a constructivist theoretical framework is imperative for those conducting qualitative, ethnographic, and or participatory action research studies (Creswell, 2013). The worldview of Constructivism enables the researcher/s to utilize their own backgrounds as well as experiences, and apply their own subjective experiences to the research. This mixed method qualitative dominant researcher study incorporates the interpretive framework of constructivism that primarily focuses on making sense of the world.

The acknowledgement of my own personal beliefs, and my role as a researcher is going to be a little challenging. However, the first step in conducting objective research is the acknowledgement of one's own personal belief system. According to Peshkin (1998), the research process is a place where "self and subject became joined" (p. 17). In other words, the incipient phase of the research process truly begins when one's own subjectivity is joined with the objectivity of research. In this paper, I will describe my own belief system, assumptions, personal, and professional educational experiences.

First of all, I grew up in a middle-class Mexican household. My grandparents were born in Mexico, and my parents were born in the United States. My grandparents had limited English language speaking abilities. Both of my parents grew up in large families, and they also came from humble beginnings. My mother and father use to pick fruit/vegetables in Rancho Cucamonga, Romoland, and sometimes they would even travel up North to pick apricots as well as grapes. My mother had limited education. I believe my mother

left school in sixth grade. However, my mother was a very intelligent woman even up until her passing. Whereas, my father completed all phases of primary and secondary education. My father completed his undergraduate and graduate work at CSUSB, CSULA, and Claremont. My father eventually became a Spanish school teacher at Riverside Poly High School for approximately 35 years.

A strong emphasis was placed on education, and Christian beliefs in our household by both my mother and father. More importantly, I attended Parochial school from K- 8th grade, and I'm also a devout Catholic Christian. Catholic schooling was very regimented and extremely strict. For example, students were required to wear white collar pressed shirt and corduroy blue jeans as uniforms each day. Catholic school curriculum integrated the following subjects: Religion, English, Arithmetic, Social Studies, Physical Education. My parents at a young age instilled Christian morals, and these morals are an integral part of my belief system. As a practicing Christian I strongly resist the urge to be judgmental. My personal belief system must be closely align to that of the Institutional Review Board (IRB).

Once I graduated from Catholic school I attended a public high school in the Inland Empire. My public high school experience was very *laisse-faire*. At the time high school was overwhelmingly, and it also had a very limited support system (e.g., academics and personal/social). However, I managed to complete high school, and enroll into San Bernardino Valley College. From there I

proceeded to obtain my undergraduate and graduate degree from CSUSB. Currently, I'm also enrolled in a doctoral program at California State University, San Bernardino. Obviously, education is extremely important in my core belief system.

As far as my life experiences, I have been privileged to assist people during an inopportune time in their lives. More specifically, I was a Paramedic for approximately 22 years, and this experience has enabled me to interact with a diverse population. Human behavior in the midst of an emergency situation is unfortunate but it has taught me a great deal about human interaction. Part of my job description as a Paramedic was to ask or inquire questions regarding the patients overall medical condition. More importantly, as a medical professional this form of inquiry was essential to find what was going on with the patient. Moreover, being a Paramedic was much like being a detective, trying to ascertain information, and base this information upon objective findings. Similarly, as a researcher conducting a qualitative research study, the ability to ask or formulate questions based upon objectivity is an essential skill that I acquired during my tenure as a Paramedic.

My professional work experience as a high school counselor has also provided me with first-hand knowledge regarding the importance of a school counselor's role in advancing a student's academic achievement. More specifically, as a high school counselor providing academic services like an Academic Four-Year Plan is paramount for providing students with the

opportunity to engage in challenging academic college course curriculum. The academic plan outlines the specific academic courses the student will take all throughout high school. During this academic four-year plan meeting the student will also establish an academic goal, and this goal will provide direction on how to attain or fulfill their goal established post-secondary goal. I have witnessed the benefits of not only conducting these Academic Four-Year Plan meetings produce but also the benefits it provides both the student as well as the parents with the necessary academic and career information in order for the students to fulfill post-secondary goals.

My experience in public education as a high school student was different. More specifically, I came from a private school where I attended during elementary and middle school. During my first year in a public high school my school counselor just issued my schedule and there was no discussion regarding college preparatory curriculum, nor outreach programs. More importantly, this occurred every year while I was in high school. Truth be told the only thing I really knew at the time was that I needed to have a 2.0 GPA to participate in athletics, and I think my football or baseball coach informed me of this. This was really the only academic guidance at the time that I received. With that said I did not know about the differences between a community college and that of a four-year university. Also, I did not know about the SAT/ACT exams or anything that was remotely associated with the college process. My only concern in high school was meeting the graduation requirements of 225 credits.

As a minoritized student myself I felt that not only my lived experience in high school aligned with that of the research participants but also my family background culture, and parental education. I could see part of myself in the research participants, particularly in the area of the lack of information that I received or did not receive, which is why I wanted to ensure that the findings were representative of their lived experiences.

My role in this phenomenological research study will be as a researcher. As a phenomenological researcher it will my responsibility to describe the shared lived experienced with the participants, and attempt to discover the meaning of those experiences to better understand the phenomenon.

Validity and Trustworthiness

The validity of this qualitative research study will be accomplished through the method of triangulation or crystallization. The most commonly used data-gathering techniques in qualitative research are interviews, observations and document collection, and each component of data gathering serves to deepen interpretations and understandings to strengthen the validity of phenomenology research through the processes of triangulation and crystallization (Glesne, 2003). However, one of the challenges to qualitative research methodology is the fact that scientific standards by which quantitative research has long been evaluated are ill-suited and inadequate for the purpose of assessing qualitative research (Yin, 2003). Furthermore, in quantitative research validity is often

reproducible. Whereas, in qualitative research the exploration of social phenomena is challenging to replicate (Creswell, 2007).

To ensure trustworthiness and quality of the findings, I employed various qualitative strategies. Credibility will be addressed through member-checking by sharing the transcribed interview transcripts with all participants. (Lincoln & Guba, 1985). By having focus group and individual interview data, the similar yet distinct characteristics of each method will be for triangulation to inform credibility (Guba, 1981; Shenton, 2004). Transferability will be addressed by providing a description of the contextual factors and the school as an organization (Guba, 1981).

Moreover, descriptive statistics will also be used to corroborate this phenomenological research, and it will serve to demonstrate that minoritized students not only from similar comprehensive high schools but also with similar backgrounds, similar AP course offerings have very different student achievement outcomes in comparisons to white and Asian students.

CHAPTER FOUR

QUANITATIVE RESULTS

The first research question will be answered using descriptive statistics accessed through the California Department of Education. The first research question is as follows: Do high schools with similar characteristics have different student achievement outcomes? The answer to the first research question will be revealed through a series of data tables. The tables focus on comparing the AP exam passage rates of various high schools located in the Inland Empire. Thirty-six comprehensive high schools from eight unified school districts located in the Inland Empire will be analyzed for any emerging themes in regards to the first research question (RQ 1). The Inland Empire is located in Southern California, and includes two public universities, and also consists of 12 community colleges that serves approximately 200,000 students that have poor student achievement outcomes Moreover, for every 1000 high school freshmen entering into a four-university in the region only 151 will complete a bachelor's degree at a California public university compared to 225 high school freshmen also entering into universities statewide (Complete College America, n.d.).

Table 1. Comprehensive High Schools Resource Characteristics

District	School	Total Enroll	FRL %	Inexp. Teachers %	Aver Class Sizes	Black Enroll %	Latino Enroll %	# AP Class
San Ber	Pacific High	1237	91.4	26	25	15.2	73.5	17.0
San Ber	San Bernardino High	1573	92.6	24	19.8	10.1	80.4	12.0
Alvord	Hill Crest High	1736	59.3	12	22.9	6.2	62.7	13.0
Alvord	La Sierra High	1842	75.9	2	21.2	4.7	78	19.0
Riverside	Arlington High	1918	71.0	1	24.1	5.3	71.2	15.0
Colton	Colton High	1956	83.8	11	20.5	2.6	92.6	14.0
San Ber	San Geronio	1977	86.1	14	23.6	11.9	74.0	21.0
Corona Norco	Norco High	2034	42.8	1	27.1	2.5	47.7	18.0
Fontana	Jurupa Hills	2035	83.3	16	21.2	3.8	88.4	9.0
Moreno Valley	Vista Del Lago	2063	80.9	8	24.6	14.5	73.3	14.0
Colton	Grand Terrace High	2114	69.7	14	23.7	10.3	66.8	13.0
Fontana	Kaiser	2132	81.5	8	21.4	7	86.5	21.0
Alvord	Norte Vista High	2144	86.7	5	23	1.4	91.0	8.0
Redlands	Redlands East Valley	2154	54.8	11	24.3	6.5	49.9	16.0
Riverside	Ramona High	2154	80.0	2	24.4	4	79.8	10.0
Redlands	Citrus Valley High	2168	54.2	7	24.1	6.9	52.0	16.0
Moreno Valley	Canyon Springs High	2226	74.3	7	23.9	15	64.1	15.0
Fontana	AB Miller High	2229	85.2	10	20.4	6.9	87.2	16.0
Riverside	John W. North	2294	77.9	7	23.7	11.6	71.4	15.0
Colton	Bloomington High	2322	82.5	13	19.9	3.1	90.3	18.0

Redlands	Redlands High	2325	51.3	2	23.7	5.8	38.8	11.0
Moreno Valley	Moreno Valley High	2338	89.3	11	24	11.0	80.1	16.0
Rialto	Wilmer Amina Carter	2385	73.5	12	23.7	16.4	72.6	17.0
Fontana	Summit High	2408	68.0	7	22.5	9.8	74	14.0
Rialto	Eisenhower High	2419	84.8	12	23.3	8.8	87.3	13.0
Fontana	Fontana High	2475	92.4	17	20.5	2.1	94.6	18.0
Riverside	Poly High	2607	58	7	27.8	6.3	59	19.0
Corona Norco	Corona High	2626	64.4	3	26.3	2.5	72.4	18.0
Moreno Valley	Valley View	2629	72.2	9	23.8	15	66.6	16.0
San Ber	Arroyo Valley High	2663	92.5	27	26.7	5.6	89.3	18.0
Rialto	Rialto High	2764	83.3	8	23.4	5.6	89.2	16.0
San Ber	Cajon High	2928	75.7	17	24.4	15.5	65.7	N/A
Corona Norco	Centennial	3108	52.7	10	28.3	9.1	57.6	20.0
Riverside	Martin Luther King Jr. High	3178	35	4	28.4	8.2	35.8	18.0
Corona Norco	Santiago High	3738	28	4	27.5	4.4	36.9	20.0
Corona Norco	Eleanor Roosevelt High	4398	38.7	12	28.5	12.2	45.5	23.0

Note. 2018 California Department of Education.

According to Table 1, each of thirty-six comprehensive high schools were first analyzed by their total enrollment characteristics. Two high schools from the Corona-Norco Unified School District CNUSD were identified for having the following types of enrollment student populations: Eleanor Roosevelt had 4,398 and Santiago had 3,738. In regards to the state average of 22 for class sizes

both comprehensive high schools were found to exceed the state average. However, both CNUSD comprehensive high schools were found to far exceed the state average of 12 AP course offerings. Data from Table 1. also revealed that Eleanor Roosevelt high school had 12% of their teaching staff classified as inexperienced teachers. Whereas, Santiago high school only had 4% of their teaching staff classified as inexperienced teachers. Eleanor Roosevelt had a higher percentage 38.7% of their students that received free-reduced lunch priced meals in comparison to Santiago high school which only had 28% of their students that received free-reduced lunch priced meals. More importantly, these two CNUSD comprehensive high schools had relatively similar minoritized students African American and Latino populations.

The next set of comprehensive high schools that had relatively similar enrollment student populations were the following: Martin Luther King High 3,178, Centennial High 3,108, and Cajon High 2,928. All three of these comprehensive high schools were also found to exceed the state average of 22 for class sizes. Moreover, Centennial high school from the Corona-Norco Unified School District, and Martin Luther King High school from the Riverside Unified School District had the highest-class size averages of 28 students per class. Centennial and Martin Luther King High schools far exceeded the state average for the number of AP course offerings. However, no data pertaining to AP course offerings for Cajon high school was made readily available during the course of this research study. More importantly, Martin Luther King high school had the

fewest number of teachers that were classified as inexperienced 4%. Whereas, Cajon high school from the San Bernardino City Unified School District had the highest number of teachers that were classified as inexperienced 17%.

Centennial high school had 10% of their teaching staff that was classified as inexperienced. In regards to the free-reduced lunch priced meal program Cajon high school had the highest percentage 75.7% of students that received free-reduced lunch priced meals, and Centennial high school had 52.7% of students that received free-reduced lunch priced meals. Whereas, Martin Luther King high school only had the fewest number of students that received free-reduced lunch priced meals. More importantly, Cajon high school had a higher percent of minoritized students and Centennial high school had the second highest percentage of minoritized students in relation to total enrollment. However, Martin Luther King high school was found to have the least amount of minoritized students.

The next set of comprehensive high schools that had relatively similar enrollment student populations were the following: Rialto High 2,764, Arroyo Valley High 2,663, Valley View High 2,629, Corona High 2,626, and Polytechnic High 2,607. Polytechnic High and Corona High schools were the only two comprehensive high schools found to have a slightly significant higher-class size averages in relation to the state's class size average of 22. Equally important, is that all of these comprehensive high schools have far exceeded the state's average of 22 for AP course offerings. However, Arroyo Valley high school from

the San Bernardino City Unified School District has one the highest percentage of teachers that are classified as inexperienced 27%. In addition, all of these comprehensive high schools have more than half of their student populations receiving free-reduced lunch. More specifically, Arroyo Valley high school has 92.5% on the free-reduced lunch program, and Rialto high school has 83.3% of its students also on the free-reduced lunch priced meal program. Four of the five comprehensive high schools listed above have exceptionally high minoritized student populations with the exception of Riverside Polytechnic high school which has lowest percentage of minoritized students at 59%.

The next set of comprehensive high schools that had relatively similar enrollment characteristics were the following: Fontana High 2,475, Eisenhower High 2,419, and Summit High 2,408. These three comprehensive high schools had no significant differences in relation to the state's class size average of 22. Moreover, all of these three comprehensive high schools exceeded the state's average of 12 for AP course offerings only Fontana High had the highest AP course offering with 18 in comparison with the two other comprehensive high schools. Eisenhower High and Fontana High had relatively the same number of teachers that were classified as inexperienced and they ranged between 10% to 12%. Summit High from the Fontana Unified School District had the least number of teachers that were classified as inexperienced 7%. In regards to the free-reduced lunch priced meal program the following two comprehensive high schools Fontana High and Summit High had the exact same amount of students

receiving free-reduced lunch which was 68%. Whereas, Eisenhower High had the highest amount of students receiving free-reduced lunch at 84.8%. More importantly, these three comprehensive high schools have an overwhelming presence of minoritized students. Fontana High has a minoritized student population of 94.6%, Eisenhower High has a minoritized student population of 87.3%, and Summit High has a minoritized student population of 74%.

The next four comprehensive high schools with relatively similar enrollment characteristics were the following: Wilmer Amina Carter High 2,385, Moreno Valley High 2,338, Redlands Senior High 2,325, and Bloomington High 2,322. All of these four comprehensive high schools had no notable differences in relation to the state's class size average of 22. More importantly, all of these four comprehensive high schools also have far exceeded the state's average of 12 (AP) course offerings. It is also important to note that Bloomington High School from the Colton Joint-Unified School District offers the most AP courses with 18 and Wilma Amina Carter High offers the second highest AP course offerings at 17. Whereas, Redlands Senior High school has the lowest AP course offerings at 11. In regards to the classification of inexperienced teachers the following three comprehensive high schools: Wilmer Amina Carter High, Moreno Valley High, and Bloomington High all have above 10% of the teachers that were classified as inexperienced. However, Redlands Senior High had the lowest number of teachers that were classified as inexperienced. Moreno Valley High had the highest number of students on the free-reduced lunch program, and

Bloomington High also had the second highest amount 82.5% of students on the free-reduced lunch program. It is also important to note that Redlands Senior High had the fewest number of students on the free-reduced lunch program. Moreover, Bloomington High was found to have one of the highest minoritized student populations 90%, and Moreno Valley High had the second highest amount of minoritized students 80.1%. Wilmer Amina Carter High had the third highest amount of minoritized students. In contrast, Redlands Senior High had the fewest amount of minoritized students.

The next set of comprehensive high schools with relatively similar enrollment characteristics were identified as the following: John W. North 2,294, AB Miller High 2,229, and Canyon Springs High 2,226. Class sizes among the different comprehensive high schools found no notable differences between the state's class average size of 22. More importantly, the data revealed that all three of these comprehensive high schools exceeded the state's average of 12 for AP course offerings. AB Miller High from the Fontana Unified School District had one of the highest AP course offerings of 16 in comparisons with the two comprehensive high schools listed above. In regards to classification of inexperienced teachers all three comprehensive high schools also had no notable differences and had a range between 7% to 10% with AB Miller High having the highest number of teachers classified as inexperienced 10%. These three comprehensive high schools had an overwhelming percentage of students that were on the free-reduced lunch program, and AB Miller High school had one

of the highest percentage of students on the free-reduced lunch program 85.2%. In regards to minoritized students AB Miller was found to also have one of the highest minoritized student populations 87.2%, and John W. North High also had the second highest minoritized student populations with 71.4%.

The next set of comprehensive schools with relatively similar enrollment characteristics were identified as the following: Citrus Valley High 2,168, Redlands East Valley 2,154, Ramona High 2,154, Norte Vista High 2,144, Kaiser High 2,132, and Grand Terrace High 2,114. Class size averages among the six different comprehensive high schools noted no significant differences in comparison with the state's class size average of 22. The data revealed that two of the six comprehensive high schools listed above had AP course offerings that were below the state's average for AP course offerings which is 12. More specifically, Norte Vista High from the Alvord Unified School District had only 8 AP course offerings, and Ramona High from the Riverside Unified School only offered 10 AP courses. Although Grand Terrace High only offered 13 AP courses it was still above the state's AP course offerings of 12. Moreover, Citrus Valley High and Redlands East Valley both from the Redlands Unified School District had the exact same AP course offerings 16. Kaiser High from the Fontana Unified School District offered the most AP courses which was 21. In regards to the classification of inexperienced teachers the data revealed that Grand Terrace High from the Colton Joint Unified School District had the highest number of teachers that were classified as inexperienced 14%. Whereas, Ramona High had

the least number of teachers that were classified as inexperienced 2%, and Norte Vista High also had 5% of their teachers classified as inexperienced. Although Norte Vista High had one of the highest percentage of students that were on the free-reduced lunch program 86.7%, Ramona High 80%, and Kaiser High 81.5% also had a significant number of students that were on the free-reduced lunch program. In contrast, Citrus Valley High 54.2% and Redlands East Valley 54.8% both from the Redlands Unified School District had the lowest percentages of students that were on the free-reduced lunch program. In regards to high schools with high minoritized student populations the data revealed that Norte Vista had a significant amount of minoritized students at 91%. Ramona High and Kaiser High also had significant amounts of minoritized students as well. Whereas, Citrus Valley High and Redlands East Valley High had the lowest amounts of minoritized student populations both between 49.9% to 52%.

The next set of comprehensive high schools with relatively similar enrollment characteristics were identified as the following: Vista de Lago High 2,063, Jurupa Hills High 2,035, and Norco High 2,034. Class size averages were relatively the same in comparison to the state's class size average of 22. However, Norco High from the Corona-Norco Unified School District had a class size average of 27.1 which was above the state's class size average. More importantly, the data revealed that all but one comprehensive high school listed above fell below the state's AP course offerings, and that comprehensive high school was Jurupa Hills High which only offered 9 AP course offerings. Norco

High had the most AP course offerings 20, and Vista de Lago High had the second highest AP course offerings 14. Jurupa Hills High had the highest percentage of teachers that were classified as inexperienced 16%. Whereas, Norco High had the lowest percentage of teachers as being classified as inexperienced. In regards to the free-reduced lunch program the data revealed that Jurupa Hills High had the highest number of students on the free-reduced lunch program 83.3%, and Vista de Lago also had the second highest number of students on the free-reduced lunch program 80% as well. Norco had the lowest number of students on the free-reduced lunch program 42.8%. Moreover, Jurupa Hills High had one of the highest minoritized student populations 88.4%, and Vista de Lago had the second highest minoritized student population with 73.3%. Whereas, Norco High had the lowest percentage of minoritized students with 47.0%.

The next set of comprehensive high schools that had relatively similar enrollment characteristics were identified as the following: San Geronimo 1,977, Colton High 1,956, Arlington High 1,918, La Sierra 1,842, and Hill Crest High 1,736. Class size averages among the five comprehensive high schools listed above noted no distinguishable differences in comparison with the state's class size average of 22. More importantly, all of the five comprehensive high schools were above the state's average for AP course offerings with San Geronimo High offering the most AP courses with 21. Whereas, the two comprehensive high schools offering the least amount of AP course offerings were Colton High 14

and Hill Crest High 13. Three out of the five comprehensive high schools listed above were found to have the highest number of teachers as being classified as inexperienced, those schools were the following: San Geronimo High 14%, Hill Crest High 12%, and Colton High 11%. Schools that were identified as having the least amount of experienced teachers were Arlington High 1% and La Sierra High 2%. San Geronimo High had one of the highest amount of students on the free-reduced lunch program 86.1%, and Colton High had the second highest amount of students on the free-reduced lunch program 83.8%. Whereas, Hill Crest High had the fewest number of students on the free-reduced lunch program 59.3%. Equally important, is that Colton High had one of the highest minoritized student populations with 92.6%, and the second highest school that also had a relatively high minoritized student population was La Sierra High with 78%.

The next set of comprehensive high schools that had relatively similar enrollment characteristics were identified as the following: San Bernardino High 1,573 and Pacific High 1,237, and both comprehensive high schools belong to the San Bernardino City Unified School District. Class size averages noted no distinguishable differences in comparisons with the state's class size average of 22. Both of these comprehensive high schools offered AP courses that were equal or above the state's average for AP course offering. However, it is important to note that Pacific High had more AP course offerings than San Bernardino High which had 12 AP course offerings. More importantly, both

comprehensive high schools had exceedingly high amounts of teachers that were classified as inexperienced. San Bernardino had 24% and Pacific High had 26% of their respective teaching staff that were classified as being inexperienced. In addition, both of these comprehensive high schools have a high percentage of their students on the free-reduced lunch program. Moreover, both comprehensive high schools San Bernardino 80.4% and Pacific High 73.4% also have significant amounts of minoritized student populations.

Now that similar resources such as: Total Enrollment, Free-Reduced-Price Meals, Inexperienced Teachers, Class Size Averages, Minority Enrollment, and Number of AP courses Offered among the 36 different comprehensive high schools have been identified we will now look to see if these factors have an effect on overall student achievement. Student Achievement in this research study will not solely be addressed through or by the successful passage of the AP Exam but will also be addressed through or by other factors that are paramount for students to gain entry into the four-year university system. For instance, inherent factors such AP Achievement, and A-G requirements are essential requirements not only for overall student achievement but are the building blocks that provide the foundation for students to succeed in post-secondary education.

Table 2. Corona-Norco Unified School District Advanced Placement
Achievement Disaggregate Data 2015

School	% Total School Enrollment	Ethnicity	% Qualifying Score on AP Exams	% Non-Qualifying Score on AP Exams
Roosevelt High	0.40%	AM IND/AK NAT	0.00%	0.70%
	13.00%	Asian	38.70%	33.20%
	13.30%	Black	8.80%	9.70%
	47.50%	Hispanic NAT HI/PAC	34.50%	43.10%
	6.60%	ISL	0.00%	0.00%
	0.90%	Two or More Races	0.90%	0.00%
	18.20%	White	17.10%	13.40%
Santiago High	0.40%	AM IND/AK NAT	0.00%	0.00%
	8.90%	Asian	22.70%	18.40%
	5.60%	Black	2.50%	6.20%
	35.90%	Hispanic NAT HI/PAC	24.50%	32.50%
	2.40%	ISL	0.00%	0.00%
	0.80%	Two or More Races	0.00%	0.00%
	45.90%	White	50.30%	42.90%
Norco High	0.30%	AM IND/AK NAT	0.00%	0.00%
	2.70%	Asian	3.10%	8.20%
	3.10%	Black	0.00%	1.60%
	45.60%	Hispanic NAT HI/PAC	31.30%	43.90%
	2.20%	ISL	0.00%	0.00%
	0.30%	Two or More Races	0.00%	0.00%
	45.60%	White	65.60%	46.30%
Corona High	0.30%	AM IND/AK NAT	0.00%	0.00%
	3.10%	Asian	3.80%	13.00%
	3.40%	Black	0.00%	1.30%
	72.30%	Hispanic	53.80%	63.30%
	1.50%	NAT HI/PAC	0.00%	0.00%

		ISL		
	0.3	Two or More	0.00%	0.00%
	20.40%	Races		
		White	42.30%	22.50%
Centennial High		AM IND/AK		
	0.30%	NAT	0.00%	0.00%
	9.60%	Asian	34.00%	25.20%
	9.60%	Black	3.80%	12.50%
	55.40%	Hispanic	32.80%	45.10%
		NAT HI/PAC		
	2.00%	ISL	0.00%	0.00%
		Two or More		
	0.30%	Races	0.00%	0.00%
	21.00%	White	29.40%	17.30%

Note. U.S. Department of Education Civil Rights Data.

Table 2. reveals the AP passage rates from the following five comprehensive high schools within the Corona-Norco Unified School District: Eleanor Roosevelt High, Santiago High, Norco High, Corona High, and Centennial High. The two comprehensive high schools that were found to have relatively high minoritized student populations were Corona and Centennial. Whereas, the following three comprehensive sites within CNUSD that exhibited the least amount of minoritized student populations were Norco, Santiago, and Eleanor Roosevelt.

The minoritized student achievement outcomes for Eleanor Roosevelt High school reveal that 34.5% of Latino students received a qualifying score on AP exams, and 43.1% of Latino students did not receive a qualifying score on the

AP exams. Of the students at Eleanor Roosevelt High school 8.8% of African American students received a qualifying score on the AP exams, and 9.7% African American students did not receive a qualifying score on the AP exams. The minoritized student achievement outcome at Santiago High school reveal that 24.5% of Latino students received a qualifying score on AP exams, and 32.5% of Latino students did not receive a qualifying score on the AP exams. Of the students at Santiago 2.5% of African American students received a qualifying score on the AP exams, and 6.2% of African American students did not receive a qualifying score on the AP exams. The minoritized student achievement at Norco High school reveal that 31.3% of Latino students received a qualifying score on the AP exams, and 43.9% of Latino students did not receive a qualifying score on the AP exams. Of the students at Norco High school no information was readily available for passage rates among the African American student population receiving a qualifying score on the AP exams were 0.0%,) and 1.6% of African American students did not receive a qualifying score on the AP exams. The minoritized student achievement outcome for Corona High school reveal that 53.8% of Latino students received a qualifying score on the AP exams, and 63. % of Latino students did not receive a qualifying score on the AP exams. Of the students at Corona High school 0.0% African American students received a qualifying score on the AP exams, and 1.3% of African American students did not receive a qualifying score on the AP exams. The minoritized student achievement outcomes for Centennial High school reveal that 32.8% Latino

students received a qualifying score on the AP exams, and 45.1% of Latino students did not receive a qualifying score on the AP exams. Of the students at Centennial High school 3.8% of African American students received a qualifying score on the AP exams, and 12.5% of African American students did not receive a qualifying score on the AP exams. More importantly, the AP Achievement data among minoritized students from all of these comprehensive high schools within the Corona-Norco Unified School District Unified revealed an inverse proportion regarding AP exam passage rates. More specifically, in this inverse proportion there was a lower percentage of minoritized students who were successful in passing the AP exam, and a higher percentage of these minoritized students who were unsuccessful at passing the AP exam.

Table 3. Redlands Unified School District Advanced Placement Achievement Disaggregate Data 2015

School	% Total School Enrollment	Ethnicity	% Qualifying Score on AP Exams	% Non-Qualifying Score on AP Exams
Citrus Valley High	0.50%	AM IND/AK		
		NAT	0.00%	0.00%
	9.90%	Asian	19.10%	12.90%
	6.90%	Black	4.20%	8.30%
	50.60%	Hispanic	35.10%	44.70%
	0.20%	NAT		
		HI/PAC ISL	0.00%	0.00%
		Two or More		
	3.90%	Races	4.20%	3.00%
	28.10%	White	37.40%	31.10%

Redlands East Valley	0.60%	AM IND/AK NAT	0.00%	0.00%
	5.10%	Asian	13.70%	8.50%
	7.00%	Black	4.70%	6.70%
	46.40%	Hispanic NAT	29.10%	41.20%
	0.50%	HI/PAC ISL	0.00%	0.00%
	3.50%	Two or More Races	3.00%	2.40%
	36.90%	White	49.60%	41.20%
Redlands High	0.30%	AM IND/AK NAT	0.00%	0.00%
	19.20%	Asian	*	29.50%
	6.50%	Black	5.70%	9.10%
	37.70%	Hispanic NAT	17.70%	15.90%
	0.60%	HI/PAC ISL	0.00%	0.00%
	4.10%	Two or More Races	0.00%	19.30%
	31.60%	White	37.80%	26.10%

Note. U.S Department of Education Civil Rights Data.

The data in Table 3. reveals AP passage rates from the three following comprehensive high schools within the Redlands Unified School District: Citrus Valley High, Redlands East Valley High, and Redlands Senior High. Although these three comprehensive high schools from the Redlands Unified School District all had higher enrollment percentages of Latinos in 2015, this specific student population experienced a higher percentage of students not receiving a qualifying score on AP exams at the following two comprehensive high schools:

The minoritized student achievement outcome for Citrus Valley High school reveal that 35.% of Latinos received a qualifying score on the exam, and 44.7% of Latinos did not receive a qualifying score on the AP exam. Of the students at Citrus Valley High school 4.2% of African American students received a qualifying score on the AP exam, and 8.3% of African Americans did not receive a qualifying AP exam score. The minoritized student achievement outcome for Redlands East Valley High school reveal that 29% of Latinos received a qualifying score on the AP exam, and 41.20% of Latinos did not receive a qualifying score on the AP exam. Of the students at Redlands East Valley High school 4.7% African Americans received a qualifying score on the AP exam, and 6.7% of African Americans did receive a qualifying score on the AP exam. The minoritized student achievement outcomes for Redlands High school reveal that 17.7% of Latinos received a qualifying score on the AP exam, and 15.9% of Latinos did not receive a qualifying score the AP exam. Of the students at Redlands High school 5.7% of African Americans received a qualifying score on the AP exam, and 9.1% of African American students did not receive a qualifying score on the AP exam.

However, it is important to note that Redlands Senior High School was the only school that had a slightly higher percentage of Hispanic students that received a qualifying score on AP exams 17.7% in relation to those Latino students that did not receive a qualifying score 15.9%. Similarly, African Americans had an approximate student enrollment at all three comprehensive

high schools within the Redlands Unified School District of 7%. More importantly, at all of the following three comprehensive high schools' African American students had a higher percentage of students who did not achieve qualifying AP exam scores. Although, White and Asian total enrollment at the following three comprehensive schools were below that of minoritized students, White students and Asian American students had lower total enrollments but they achieved better student achievement outcomes than minoritized students.

Table 4. San Bernardino Unified School District Advanced Placement Achievement Disaggregate Data 2015

School	% Total School Enrollment	Ethnicity	% Qualifying Score on AP Exams	% Non Qualifying Score on AP Exams
San Gorgonio		AM IND/AK		
	0.50%	NAT	0.00%	0.00%
	4.10%	Asian	8.80%	8.00%
	14.80%	Black	2.50%	12.40%
	70.50%	Hispanic	83.80%	69.30%
	0.90%	NAT HI/PAC		
	7.40%	ISL	0.00%	0.00%
Cajon High		White	5.00%	10.20%
		AM IND/AK		
	1.00%	NAT	0.00%	0.00%
	2.80%	Asian	0.00%	0.00%
	15.20%	Black	0.00%	0.00%
	63.70%	Hispanic	0.00%	0.00%
	0.90%	NAT HI/PAC		
		ISL	0.00%	0.00%
		Two or More		
	0.90%	Races	0.00%	0.00%
	15.60%	White	0.00%	0.00%

San Bernardino		AM IND/AK		
	0.40%	NAT	0.00%	0.00%
	0.80%	Asian	0.00%	0.00%
	11.20%	Black	3.40%	6.70%
	80.40%	Hispanic	96.60%	89.90%
		NAT HI/PAC		
	0.40%	ISL	0.00%	0.00%
Pacific High		Two or More		
	2.30%	Races	0.00%	0.00%
	4.50%	White	0.00%	3.40%
		AM IND/AK		
	0.30%	NAT	0.00%	0.00%
	1.90%	Asian	0.00%	0.00%
	16.10%	Black	0.00%	14.20%
Arroyo Valley	72.90%	Hispanic	100.00%	79.20%
		NAT HI/PAC		
	0.50%	ISL	0.00%	0.00%
		Two or More		
	2.10%	Races	0.00%	0.00%
	6.30%	White	0.00%	6.7%%
		AM IND/AK		
	0.40%	NAT	0.00%	0.00%
	1.30%	Asian	0.00%	4.10%
	7.00%	Black	0.00%	7.20%
	86.80%	Hispanic	100.00%	88.70%
		NAT HI/PAC		
	1.00%	ISL	0.00%	0.00%
		Two or More		
	1.40%	Races	0.00%	0.00%
	2.10%	White	0.00%	0.00%

Note. U.S. Department of Education Civil Rights Data.

The data in Table 4., reveals the AP examination scores from the following five comprehensive high schools within the San Bernardino City Unified School:

San Gorgonio High, Cajon High, San Bernardino High, Pacific High, and Arroyo High. The majority of these five comprehensive high schools have high percentages of minoritized students. More specifically, Arroyo Valley high has the highest Latino student population of 86.8%, and San Bernardino High has the second highest percentage of Latino students 80.4%. Whereas, the following two comprehensive high schools have an approximate Latino student population of 70%, and Cajon High has the lowest Latino student population of 63.7%. More importantly, all four of these comprehensive high schools with the exception of Cajon High had slightly higher percentages of Hispanic students that received a qualifying score on (AP) exams.

African American enrollment percentages are among the highest in the following three schools: Pacific High, Cajon High, and San Bernardino High. Of the students at Pacific High 16.1% was composed of African Americans, Of the students at Cajon High 15.1% was composed of African Americans Of the students at San Gorgonio 14% was composed of African Americans, and San Bernardino High had an African American composition of 11.2%. Arroyo Valley High has the lowest percentage of African American student enrollment 7%.

More importantly, AP examination passage rates in 2015, among the African American student population were abysmal in all of the comprehensive high within San Bernardino Unified School District. The minoritized student achievement outcome for San Gorgonio High school reveal that 83.8% of Latinos received a qualifying score for the AP exam, and 69.3% of Latinos did not

receive a qualifying score on the AP exam. Of the students at San Geronio High school 2.5% of African Americans received a qualifying score on the AP exam, and 12.4% of African Americans did receive a passing score on the AP exam. It is important to note that no data was readily available for Cajon High's (AP) examination scores or the information was redacted for 2015 academic year.

The minoritized student achievement outcome for San Bernardino High reveal that 96.0% of Latinos received a qualifying score on the AP exam, and 89.9% of Latinos did not receive a qualifying score on the AP exam. Of the African American students at San Bernardino 3.4% received a qualifying score on the AP exam, and 6.7% of African Americans did not receive a qualifying score on the AP exam. The minoritized student achievement outcomes at Pacific High school reveal that 100% of Latinos received a passing score on the AP exam, and 79.2% did not receive a passing score on the AP exam. Of the African American students at Pacific High school 0.0% African Americans received a qualifying score for the AP exam, and 14.2% African Americans did not receive a qualifying score on AP exam. The minoritized student achievement outcomes for Arroyo Valley High school reveal that 100% of Latinos received a qualifying score on the AP exam, and 88.7% Latinos did receive a qualifying score on the AP exam. Of the African American students at Arroyo Valley High school 0.0% of African Americans received a qualifying score on the AP exam, and 7.2% of African Americans did not receive a qualifying score on the AP exam.

San Gorgonio High school had the highest Asian student population 4.10%, and Cajon High school had the second highest percentage of Asian students 2.8%. The other comprehensive high schools had Asian student populations between 0.8% - 2.0%. On the other hand, Cajon High school had the highest White student population 15.6%, and San Gorgonio High school had the second highest student population of White students with 7.4%. The other three comprehensive schools within the San Bernardino Unified School District had a range of White students between 2.1%-6.3%. Although, Arroyo Valley High school had lower percentage of White and Asian students, they had no White and Asian students pass the AP exams. Furthermore, White 0.8% and 4.1% of Asian students from Arroyo Valley High school failed AP exams. Whereas, Pacific High School had a student population of 6.3% of White students, and 1.9% of Asian students. Pacific High and San Bernardino High schools also had none of their White and Asian students pass the AP exams as well. More importantly, in relation to the other high schools San Gorgonio High had higher percentages of both White and Asian student populations, and they also had 5.0% of White and 8.8% Asian students pass the AP exam.

Table 5. Riverside Unified School District Advanced Placement
Achievement Disaggregate Data 2015

School	% Total School Enrollment	Ethnicity	% Qualifying Score on AP Exams	% Non Qualifying Score on AP Exams
John W. North	0.30%	AM IND/AK		
		NAT	0.00%	0.00%
	4.70%	Asian	24.80%	7.70%
	11.10%	Black	8.50%	10.00%
	71.10%	Hispanic	43.40%	70.00%
		NAT		
	0.30%	HI/PAC ISL	0.00%	0.00%
Martin Luther King		Two or		
	1.90%	More Races	3.10%	0.00%
	10.60%	White	20.20%	12.30%
		AM IND/AK		
	0.20%	NAT	0.00%	0.00%
	10.30%	Asian	30.30%	13.90%
	9.30%	Black	9.40%	7.60%
Arlington High	32.20%	Hispanic	17.60%	32.00%
		NAT		
	0.80%	HI/PAC ISL	0.00%	0.00%
		Two or		
	3.30%	More Races	2.00%	1.80%
	43.70%	White	40.70%	44.60%
		AM IND/AK		
Ramona	0.20%	NAT	0.00%	0.00%
	3.20%	Asian	7.40%	5.00%
	6.10%	Black	7.40%	5.00%
	69.80%	Hispanic	57.70%	70.90%
		NAT		
	0.70%	HI/PAC ISL	0.00%	0.00%
		Two or		
	1.50%	More Races	0.00%	1.40%
	18.50%	White	27.50%	17.70%

	2.00%	Asian	8.20%	0.00%
	5.00%	Black	8.20%	2.20%
	76.60%	Hispanic NAT	70.90%	84.90%
	0.20%	HI/PAC ISL	0.00%	0.00%
	1.60%	Two or More Races	0.00%	0.00%
	14.40%	White	12.70%	12.80%
Polytechnic High		AM IND/AK		
	0.50%	NAT	0.00%	0.00%
	3.00%	Asian	8.50%	4.00%
	6.10%	Black	1.70%	3.30%
	57.10%	Hispanic NAT	41.50%	53.50%
	0.40%	HI/PAC ISL	0.00%	0.00%
	1.80%	Two or More Races	1.70%	1.20%
	31.10%	White	46.60%	38.00%

Note. U.S. Department of Education Civil Rights Data.

The data contained in Table 5., demonstrates the total school enrollment, student ethnicities, AP success rates, and AP failure rates from the following five comprehensive high schools within the Riverside Unified School District: John W. North High, Martin Luther King High, Arlington High, Ramona High, and Polytechnic High. Ramona High has the highest percentage 76.6. % of Latino students, and John W. North High has the second highest percentage 71. % of Latino students. Furthermore, John W. North High also has the highest percentage of African American students, and the other comprehensive high schools from RUSD have a range of African American students between 5.0%-

11.0%. Martin Luther King High school has the highest percentage of both White 43.7% and Asian 10.3% students in the Riverside Unified School District.

The minoritized student achievement for John W. North High school reveal that 43.50% of Latinos received a qualifying score on the AP exam, and 70.00% of Latinos did not receive a qualifying score on AP exam. Of the African American students at John W. North High school 8.5% of African Americans received a qualifying score on the AP exam, and 10.0% of African Americans students did not receive a qualifying score. The minoritized student achievement outcomes at Martin Luther King Jr. High school reveal that 17.6% Latino students received a qualifying score on the AP exam and 32.0% of Latino students did not receive a qualifying score on the AP exam. African American students at MLK High school 9.40% of African Americans received a qualifying score on the AP exam, and 7.60% African Americans did not receive qualifying scores. The minoritized student achievement outcomes for Arlington High school reveal that 57.70% of Latinos received a qualifying score on the AP exam, and 70.90% did not receive a qualifying score on the AP exam. Whereas, 7.40% of African Americans students received a qualifying score on the AP exam, and 5.0% of Africans Americans did not receive a qualifying score on the AP exam. The minoritized student achievement outcomes at Ramona High school reveal that 70.90% of Latinos received a qualifying score, and, 84.90% of Latinos did not receive a qualifying score on the AP exam. Whereas, 8.2% of African American students received a qualifying score on the AP exam, and 2.20% of African

American students did not receive a qualifying score on the AP exam. Lastly, the minoritized students at Polytechnic High school reveal that 41.50% of Latinos received a qualifying score on the AP exam, 53.50% of Latinos did not receive a qualifying score on the AP exam.

At John W. North High the number of Latino students achieving a qualifying score on AP exams was 43.4% but the number of Latinos who were unsuccessful at achieving a qualifying score on (AP) exams was 70.%. More importantly, in all of five comprehensive high schools within the Riverside Unified School District the inverse proportion or the percentage of Latinos that fail to achieve a qualifying score on AP exams far surpasses the number of Latinos achieving a qualifying score on AP exams can be clearly seen in the above-mentioned data. In contrast, African American students within RUSD experienced better AP achievement outcome scores in relation to unsuccessful AP achievement outcomes from the following three comprehensive high schools: Martin Luther King High 9.4%, Arlington High 7.4%, Ramona High 8.2%.

More importantly, Asian and White students experienced the best AP student achievement outcomes in relation to unsuccessful AP student achievement outcomes in mostly all of the five comprehensive high schools within RUSD. More specifically, successful AP student achievement outcomes among Asian and White students will now be examined. At John W. North High school 24.8% of Asian American students, and 20.2% White students achieved qualifying scores on AP exams. At Martin Luther King High school 30.3% of

Asian American students and 40.70% of White students achieved qualifying scores on AP exams. At Arlington High school 7.4% of Asian American students, and 27.5% of White students achieved a qualifying score on AP exams. At Ramona High school 8.2% of Asian American students, and 12.70% of White students achieved a qualifying score on the AP exams. At Polytechnic High school - 8.5% of Asian American students and 46.6% of White students achieved a qualifying score on the AP exam.

Table 6. Moreno Valley Unified School District Advanced Placement Achievement Disaggregate Data 2015

School	% Total School Enrollment	Ethnicity	% Qualifying Score on AP Exams	% Non-Qualifying Score on AP Exams
Canyon Springs High		AM IND/AK		
	0.30%	NAT	0.00%	0.00%
	5.00%	Asian	16.00%	11.60%
	17.60%	Black	8.80%	9.60%
	60.30%	Hispanic	61.60%	58.90%
		NAT		
	0.60%	HI/PAC ISL	0.00%	0.00%
		Two or		
Moreno Valley High	1.60%	More Races	0.00%	0.00%
	14.50%	White	13.60%	19.90%
		AM IND/AK		
	0.30%	NAT	0.00%	0.00%
	2.20%	Asian	4.30%	7.70%
	12.70%	Black	0.00%	11.00%
	78.50%	Hispanic	93.60%	79.00%
		NAT		
	1.30%	HI/PAC ISL	0.00%	0.00%
		Two or		
	1.00%	More Races	0.00%	0.00%
	3.90%	White	2.10%	2.10%

Vista del Lago High	0.30%	AM IND/AK NAT	0.00%	0.00%
	4.60%	Asian	7.80%	9.00%
	17.40%	Black	3.90%	9.00%
	69.40%	Hispanic NAT	80.60%	76.90%
	0.60%	HI/PAC ISL	0.00%	0.00%
	1.30%	Two or More Races	0.00%	0.00%
	6.40%	White	7.80%	5.00%
Valley View High	0.40%	AM IND/AK NAT	0.00%	0.00%
	5.30%	Asian	12.90%	12.00%
	15.40%	Black	7.10%	17.40%
	66.30%	Hispanic NAT	67.10%	55.10%
	0.70%	HI/PAC ISL	0.00%	0.00%
	1.20%	Two or More Races	0.00%	0.00%
	10.70%	White	12.90%	15.60%

Note. U.S. Department of Education Civil Rights Data.

The data demonstrates the total school enrollment, student ethnicities, AP success rates, and AP failure rates from the following three comprehensive high schools within the Moreno Valley Unified School District: Canyon Springs High, Moreno Valley High, Vista del Lago High, and Valley View High. All of these comprehensive high schools from the Moreno Valley Unified School District have the following percentages of minoritized students. The minoritized student enrollment for Canyon Springs High was composed of 60.3% Latinos and 17.6% African Americans. The minoritized student enrollment for Moreno Valley High

was composed 78.5% of Latinos, and 12.7% of African Americans. The minoritized student population at Vista del Lago High school was composed of 69.4% of Latinos, and 17.4% of African Americans. The minoritized student enrollment for Valley View High was composed of 66.3% Latino and 15.4% of African Americans.

The disaggregated AP student achievement outcomes for the following MVUSD comprehensive high schools will now be examined. The minoritized student achievement outcomes at Canyon Springs High school reveal that 61.6% Latinos achieved a qualifying score on the AP exam, and 58.9% of Latinos did not achieve a qualifying score on the AP exam. Of the African American students at Canyon Springs High school 8.8% of African Americans achieved a qualifying score on the AP exam, and 9.6% African Americans did not achieve a qualifying score on the AP exam. The minoritized student achievement outcomes at Moreno Valley High school reveal that 93.6% of Latinos achieved a qualifying score on the AP exam, and 79.0% of Latinos did not achieve a qualifying score on the AP exam. Of the African American students at Moreno Valley High school 0.0% African Americans achieved a qualifying score on the AP exam, and 11.0% of African Americans did not receive a qualifying score on the AP exam. The minoritized student achievement outcomes at Vista del Lago High school reveal that 80.6% of Latinos achieved a qualifying score on the AP exam, and 76.9% Latinos did not achieve a qualifying score on the AP exam. Of the African American students at Vista del Lago 3.9% of African Americans received a

qualifying score on the AP exam, and 9.0% of African Americans did not achieve a qualifying score on the pass AP exam. The minoritized students at Valley View High school revealed that 67.1% of Latinos achieved a qualifying score on the AP exam, and 56.1% did not pass AP exam, Of the African American students at Valley View High school 7.1% of African Americans achieved a qualifying score on the AP exam, and 17.4% of African American students did not achieve a qualifying score on the AP exam.

According to the data displayed above it revealed that at Canyon Springs High, Vista del Lago High, Moreno Valley High, and Valley View High schools noted more Latinos experienced a higher proportion of successful AP exam achievement outcomes in comparisons to unsuccessful AP exams. However, AP exam achievement outcomes for African Americans remained an inverse proportion. Meaning that the African American student populations within the MVUSD had a higher proportion of students failing the AP exams rather than passing the AP exams.

Table 7. Fontana Unified School District Advanced Placement
Achievement Disaggregate Data 2015

School	% Total School Enrollment	Ethnicity	% Qualifying Score on AP Exams	% Non-Qualifying Score on AP Exams
Kaiser High		AM IND/AK		
	0.20%	NAT	0.00%	0.00%
	2.60%	Asian	7.50%	2.70%
	7.90%	Black	4.30%	8.00%
	84.20%	Hispanic NAT	86.10%	86.50%
	0.30%	HI/PAC ISL	0.00%	0.00%
	0.40%	Two or More Races	0.00%	0.00%
	4.40%	White	2.10%	2.70%
Fontana High		AM IND/AK		
	0.20%	NAT	0.00%	0.00%
	0.60%	Asian	0.00%	0.00%
	2.90%	Black	0.00%	0.00%
	92.60%	Hispanic NAT	100%	92.20%
	0.40%	HI/PAC ISL	0.00%	0.00%
	0.30%	Two or More Races	0.00%	0.00%
	3.00%	White	0.00%	0.00%
Jurupa Hills High		AM IND/AK		
	0.30%	NAT	0.00%	0.00%
	2.70%	Asian	12.10%	13.90%
	6.20%	Black	0.00%	4.00%
	85.00%	Hispanic NAT	87.90%	82.20%
	0.30%	HI/PAC ISL	0.00%	0.00%
	0.90%	Two or More Races	0.00%	0.00%
	4.50%	White	0.00%	0.00%
Summit High		AM IND/AK		
	0.20%	NAT	0.00%	0.00%

7.00%	Asian	16.90%	13.90%
11.30%	Black	3.20%	11.30%
72.50%	Hispanic NAT	71.30%	65.80%
0.20%	HI/PAC ISL	0.00%	0.00%
1.50%	Two or More Races	1.30%	1.70%
7.30%	White	7.30%	7.40%

Note. U.S. Department of Education Civil Rights Data.

The data contained in Table 7., demonstrates the total school enrollment, student ethnicities, AP success rates, and AP failure rates from the following four comprehensive high schools within the Fontana Unified School District: Kaiser High, Fontana High, Jurupa Hills High, and Summit High. Enrollment percentages for the four comprehensive high schools in FUSD will now be examined. The minoritized student population at Kaiser High school was composed of 84.2% Latinos, and 7.9% African American. The minoritized student population at Fontana High school was composed of 92.6% Latino, and 2.9% African American. The minoritized students at Jurupa Hills High school was composed of 85.0% Latinos, and 6.2% African Americans. Lastly, the minoritized student population at Summit High school was composed of 71.3% of Latino, and 11.3% African American. As the data clearly suggest there are higher percentage of minoritized students that attend these comprehensive high schools within the Fontana Unified School District. Although underrepresented minoritized students

are now considered the majority in most comprehensive public high schools in California their student achievement outcomes are disproportionate in relation to White students and Asian American students.

Disaggregated AP student achievement outcomes among the minoritized student population from the four comprehensive high schools within the Fontana Unified School District FUSD will now be examined. The minoritized student achievement outcomes for Kaiser High school reveal that 86.1% of Latinos received a qualifying score on the AP exams, and 86.5% Latinos did not achieve a qualifying score the AP exams. Of the African American students at Kaiser High school 4.3% of African Americans achieved a qualifying score on the AP exams, and 8.0% of African Americans did not receive a qualifying score on the AP exams. The minoritized student achievement outcomes at Fontana High school reveal that 100% of Latinos achieved a qualifying score on the AP exams, and 92.8% of Latinos did not receive a qualifying score on the AP exams. Of the African Americans students at Fontana High school 0.0% African American received a qualifying score on the AP exams, and 0.0% did not receive a qualifying score on the AP exams. The minoritized student population at Jurupa Hills High school reveal that 87.9% of Latinos achieved a qualifying score on the AP exams, and 82.2% of Latinos did not receive a qualifying score on the AP exams. Of the African American students at Jurupa Hills High school 0.0% African Americans received a qualifying score the AP exams, and 0.4% of African Americans did not receive a qualifying score on the AP exams. The

minoritized student populations at Summit High school reveal that 71.3% of Latinos received a qualifying score on the AP exams, and 65.8% of Latinos did not receive a qualifying score on the AP exams. Of the African American students at Summit High school 3.2% African Americans received qualifying scores on the AP exams, and 11.3% of African American students did not receive qualifying scores on AP exams. In the above mentioned 2015 data regarding AP achievement student outcomes for minoritized students an inverse proportion can be clearly seen. More specifically, the percentages of the number of students of color failing AP exams is higher than the number of AP students successfully passing AP exams.

More importantly, AP student achievement outcomes among White students and Asian American students for all of the four comprehensive high schools within the Fontana Unified School District will now be examined. Of the students at Kaiser High 2.1% of White students passed the AP exams, and 2.7% of White students did not pass AP exams. In addition, 7.5% of Asian American students passed the AP exams, and 2.7% Asian American students did not pass the AP exams at Kaiser High. Of the students at Fontana High 0.0% of White students passed AP exams, and 0.0% of White students did not pass the AP exams. In addition, 0.0% passed AP exams, and 0.0% Asian American students did not pass AP exams at Fontana High. Of the students at Jurupa Hill High 0.0% of White students passed AP exams, and 0.0% of White students did not pass the AP exams. In addition, 12.1% of Asian American students passed AP exams,

and 13.9% of Asian American students did not pass AP exams. Of the students at Summit High school 7.3% of White students passed the AP exams, and 7.4% of White students did not pass AP exams. In addition, 16.9% of Asian American students passed the AP exams, and 13.9% of Asian American students did not pass the AP exams. It is important to mention that only at Summit High and Kaiser High schools did the percentage of Asian students passing AP exams exceeded the percentage of Asian American students that failed AP exams. In regards, to the White students AP student achievement outcomes were very similar to that of the minoritized students in the Fontana Unified School District.

Table 8. Alvord Unified School District Advanced Placement Achievement Disaggregate Data 2015

School	% Total School Enrollment	Ethnicity	% Qualifying Score on AP Exams	% Non-Qualifying Score on AP Exams
Hillcrest High	0.20%	AM IND/AK NAT	0.00%	0.00%
	9.80%	Asian	27.30%	16.00%
	6.80%	Black	2.90%	4.60%
	64.50%	Hispanic	51.10%	59.10%
	0.40%	NAT HI/PAC ISL	0.00%	0.00%
	1.60%	Two or More Races	0.00%	1.70%
	16.70%	White	18.70%	18.60%
La Sierra High	0.50%	AM IND/AK NAT	0.00%	0.00%
	6.40%	Asian	22.70%	15.00%
	4.30%	Black	0.00%	0.00%
	77.90%	Hispanic	69.50%	81.40%
	0.20%	NAT HI/PAC ISL	0.00%	0.00%

	2.00%	Two or More Races	0.00%	0.00%
	8.60%	White	7.80%	3.50%
Norte Vista	0.20%	AM IND/AK NAT	0.00%	0.00%
	1.50%	Asian	7.70%	2.40%
	1.80%	Black	0.00%	1.40%
	90.80%	Hispanic	84.60%	92.40%
	0.30%	NAT HI/PAC ISL	0.00%	0.00%
	0.30%	Two or More Races	0.00%	0.00%
	5.10%	White	7.70%	3.80%

Note. U.S. Department of Education Civil Rights Data.

The data contained in Table 8., demonstrates the total school enrollment, student ethnicities, AP success rates, and AP failure rates from the following three comprehensive high schools within the Alvord Unified School District: Hillcrest High, La Sierra High, and Norte Vista High. Enrollment percentages for the three comprehensive high schools in Alvord Unified School District will now be examined. The minoritized student population for Hillcrest High was composed of 64.5% Latino, and 6.80% of African American. The minoritized student population at La Sierra High school was composed of 77.9% Latino, and 4.3% African American. The minoritized student population at Norte Vista High school was composed of 90.8% Latino, and 1.8% of African American.

Disaggregated AP achievement student outcomes among the minoritized student populations within the three comprehensive high schools in the Alvord

Unified School Districts will now be examined. The minoritized student achievement outcome at Hillcrest High school reveal that 51.1% of Latinos received a qualifying score on the AP exams, and 59.1% of Latinos did not receive qualifying scores on the AP exams. Of the students at Hill Crest High school 2.9% of African Americans received a qualifying score on the AP exams, and 4.6% of African Americans did not receive a qualifying score on the AP exams. The minoritized student population at La Sierra High school reveal that 69.5% of Latinos received a qualifying score on the AP exams, and 81.4% Latinos did not receive a qualifying score on the AP exams. Of the African American students at LA Sierra High school 0.0% African Americans received a qualifying score on the AP exams, and 0.0% did not receive a qualifying score on the AP exams. The minoritized student population at Norte Vista High school reveal that 84.6% Latinos received a qualifying score on the AP exams, and 92.4% of Latinos did not receive qualifying scores on the AP exams. Of the African American students at Norte Vista High school 0.0% of African Americans received a qualifying score on the AP exams, and 1.4% African Americans did not receive qualifying scores on the AP exams. More importantly, at all of the three comprehensive high schools within the Alvord Unified School District once again an inverse proportion can clearly be seen. More specifically, there are higher percentages of students of color failing AP exams rather than successfully passing AP exams.

Disaggregated AP student achievement outcomes for White and Asian students with the Alvord Unified School District are as follows: Of the students at Hillcrest High school 18.7% of White students passed AP exams, 18.6% of White students did not pass AP exams. In addition, 27.3% of Asian American students passed AP exams, and 16.0% of Asian American students did not pass AP exams at Hill Crest High school. Of the students at La Sierra High school 7.8% White students passed AP exams, and 3.5% of White students did not pass AP exams. In addition, 22.7% of Asian American students passed AP exams, and 15.0% of Asian American students did not pass AP exams. Of the students at Norte Vista High school 7.7% of White students passed (AP) exams, and 3.8% of White students did not pass AP exams, In addition, 7.7% Asian American students passed AP exams, and 2.4% of Asian American students at Norte Vista High school did not AP exams. More importantly, AP student achievement outcomes among White students and Asian American students in the Alvord Unified School District were far better in comparisons with Students of Color.

In regards to the 2015 disaggregated Advanced Placement achievement outcomes with these eight school districts involved in this research study it not only revealed that the majority of comprehensive high schools in the Inland empire region are heavily populated with minoritized student populations but it also revealed that minoritized students at some of these comprehensive high schools achieved higher AP exam passage percentage rates rather than AP exam failures. For instance, at Redlands High school 17.70% of Latinos passed

the AP exam, and of the Latino students at San Geronimo 83.88% successful achieved qualifying scores on the AP exam. In addition, 96.60% of Latinos at San Bernardino High school, and 100% of Latinos at Pacific High school also successfully achieved qualifying scores on the AP exam. At Arroyo Valley High school 100% of Latinos achieved qualifying scores on the AP exam.

Within the Riverside Unified School District, the African American student populations achieved a higher percentage of African American students that passed the AP exam rather than failed the AP exam. More specifically, of the African American students at Martin Luther King Jr. High school 9.40% of African Americans achieved qualifying on the AP exam, and 7.40% of the African American students at Arlington High school also achieved qualifying scores on the AP exam. In addition, 8.2% of African American students at Ramona high school achieved qualifying scores on the AP exams.

Within the Moreno Valley School Unified School District, the Latino student populations at all four comprehensive high schools achieved higher AP exam passage rates rather than unsuccessful AP exam rates. More specifically, at Canyon Springs High school 61.60% of Latinos received qualifying scores the AP exam, and at Moreno Valley High school 93.60% of Latinos also received qualifying AP exam scores. In addition, 80.60% of Latinos at Vista de Lago received qualifying scores on the AP exams, and also 67% of Latinos at Valley View High school also passed AP exams.

In the next data set the 2018 AP student achievement outcomes will be examined for each of the thirty-six comprehensive high schools involved in this research study. More specifically, will examine multiple factors or variables that may have the potential to affect the achievement outcomes of minoritized students in the Inland Empire region.

2018 Advanced Placement Achievement Data

Pacific, and San Bernardino

Pacific High and San Bernardino High are two comprehensive high schools that belong to the San Bernardino City Unified School District. Classification of these two schools were based upon two factors: free-reduced-lunch meals program percentages, and total school enrollment. As the data suggests these two comprehensive high schools have relatively similar characteristics: Pacific High school has a total enrollment of 1237, and a 91.4% rate of (FRPM). Pacific High School has a Class Size Average of 25, and a rate of 26% of Inexperienced Teachers. San Bernardino High school has a total enrollment of 1573, and a 92.6% rate of (FRPM). San Bernardino has a Class Size Average of 19.8, and 24% rate of Inexperienced Teachers. More importantly, both comprehensive high schools offer AP courses that exceed the state average of 12 AP. In addition, both comprehensive schools' have class size averages that do not exceed the state's average of 22. However, both of these two comprehensive high schools far exceed the state's average of 12% for inexperienced Teachers.

Furthermore, AP student composition data demonstrates that the majority of minoritized students are enrolled in AP courses at Pacific High and San Bernardino High schools. However, with the exception of only 5%, or half of the African American student population, being enrolled in AP courses at San Bernardino. More importantly, Pacific and San Bernardino High both from San Bernardino City Unified School District in general have lower AP student achievement outcomes in relation to successful AP student achievement outcomes. Pacific High and San Bernardino High also have exceedingly high minoritized student populations, higher amounts of students receiving free-reduced lunch, and higher number of Inexperienced Teachers. However, they still maintain poorer student achievement outcomes in regards to the AP exams.

Hill Crest, and La Sierra

Hill Crest High and LA Sierra High are two comprehensive high schools that belong to the Alvord Unified School District. Classification of these two schools were based upon the following characteristics: free-reduced-lunch meals program percentages, and total school enrollment. As the data suggests these two comprehensive high schools have relatively similar characteristics. Hill Crest High school has a total enrollment of 1736, and a 59.3% rate of (FRPM). Hill Crest High School has a Class Size Average of 22.9, and a rate of 12% of Inexperienced Teachers. LA Sierra High has a total enrollment of 1842, and a 75.9% rate of (FRPM). Hill Crest High school has a Class Size Average of 21.2, and a rate of 2% of Inexperienced Teachers. Although, respectively these two

comprehensive schools have relatively similar enrollment characteristics, they differ in the category pertaining to the free-reduced lunch program.

Currently, both comprehensive schools offer AP courses that are above the state's average for AP course offerings. However, Hill Crest High offers only 13 AP, and LA Sierra High offers 19 AP courses that are readily available for students. Furthermore, AP student composition data demonstrates that the majority or three-fourths of minoritized students are enrolled in AP courses at both comprehensive school sites. AP student achievement outcomes for both of these two comprehensive high schools from the Alvord Unified School District indicate that they both have a higher AP exam failure rate than AP exam passage rate. It is also important to mention that both of these comprehensive high schools have relatively high amounts of minoritized student populations, and high percentages of students on the free-reduced lunch program. Although these two comprehensive high schools exhibit similar characteristics, they also experience similar poor student achievement outcomes with (AP) exams.

Arlington, Colton, and San Gorgonio

Representing three different school districts in the Inland Empire are the following: Arlington High - Riverside Unified School District, Colton High – Colton Joint Unified School District, and San Gorgonio High – San Bernardino City Unified School District. Classification of these three comprehensive high schools were based upon two factors: free-reduced-lunch meals program percentages, and total school enrollment. As the data suggests these three comprehensive

high schools have relatively similar characteristics. Arlington High school has a total enrollment of 1918, and a 71.0% rate of (FRPM), Class Size Average of 24.1, and 1% rate of Inexperienced Teachers. Colton High has a total enrollment of 1956, and a 83.8% rate of (FRPM) Colton High School has a Class Size Average of 20.5, and a 11% rate of Inexperienced Teachers. San Gorgonio High school has a total enrollment of 1977, and an 86.10% rate of (FRPM). San Gorgonio has a Class Size Average of 23.6, and 14% rate of Inexperienced Teachers.

All three of these different comprehensive high schools offer AP courses that are above the state's average for AP course offerings. However, Colton High school is the only comprehensive high school listed above that offers the fewest AP courses but still meets the state's average of 12 for AP course offerings. In regards, to class size averages both Arlington High and San Gorgonio High exceed the state's average of 22 regarding class size averages. More importantly, San Gorgonio High is the only comprehensive high school that exceeds the state's average of 12% for Inexperienced Teachers with 14%.

More importantly, in regards to AP composition the data reveals that the majority or three-fourths of students of color are enrolled in AP courses. AP student achievement outcomes demonstrates for all of these three different comprehensive high schools' data indicates that they all have a higher proportion of students failing AP exams rather than passing AP exams. Equally importantly, all of these three comprehensive high schools' also share exceedingly high

percentages of minoritized student populations, high percentages of students on the free-reduced lunch program, and two of the comprehensive high schools' also have high class size averages but also have exceedingly high percentages of students failing AP exams.

Norco, Jurupa Hills, and
Vista del Lago

Representing three different school districts in the Inland Empire are the following schools: Norco High in Corona-Norco Unified School District, Jurupa Hills High in Fontana Unified School District, and Vista del Lago High in Moreno Valley Unified School District. Classification of these three different comprehensive high schools were based upon two factors: free-reduced-lunch meals program percentages, and total school enrollment. As the data suggests these three comprehensive high schools have relatively similar characteristics. Norco High school has a total enrollment of 2034, and a 42.7% rate of (FRPM) Norco High school has a Class Size Average of 27.1%, and 1% rate of Inexperienced Teachers. Jurupa Hills High school has a total enrollment of 2035, and an 83.3% rate of (FRPM). Jurupa Hills High school has a Class Size Average of 21.2, and a rate of 16% of Inexperienced Teachers. Vista del Lago High school has a total enrollment of 2063, and an 80.9% rate of (FRPM). Vista del Lago has a Class Size Average of 24.6%, and a rate of 8% of Inexperienced Teachers. Although Norco High has relatively the same enrollment characteristics as the other comprehensive high schools it differs in regards to (FRPM) with only 42.8% of its student population receiving free-reduced lunch.

All but one of the comprehensive high schools, Jurupa Hills High, had AP courses offerings that are above the state's average for AP course offerings. Moreover, Norco High offers 18 AP courses, Vista del Lago High offers 14 AP courses. Currently, Jurupa Hills High offers only 9 AP courses, and this is way below the state's average for AP course offerings. More importantly, in regards to AP composition the data reveals that the majority or three-fourths of minoritized students are enrolled in AP courses.

AP student achievement outcomes for Jurupa Hills High and Vista del Lago High indicate that they all have a higher proportion of students failing AP exams rather than passing AP exams. More importantly, Jurupa Hills High, and Vista del Lago not only have a higher percentage of students failing AP exams, but they also have exceedingly high percentages of minoritized student populations, higher percentages of students on the free-reduced lunch program, and higher percentage of inexperienced teachers, case in point, Jurupa Hills High. However, Norco High school has the highest proportion of its students that received a passing (AP) examination score. In contrast, Jurupa Hills High not only had the fewest number of its students tested for (AP) exams but also had the lowest proportion of its students pass (AP) exams. According to the 2018 data provided by the (CDE) it demonstrates that comprehensive high schools like Norco High that have the following characteristics: low percentage (FRPM), higher (AP) course offerings, low percentage of inexperienced teachers and low

minoritized student populations of below 50% experience far better student achievement outcomes.

Grand Terrace, Kaiser, Norte Vista,
Ramona, Redlands East Valley,
and Citrus Valley

Representing five different school districts in the Inland Empire are the following comprehensive high schools: Grand Terrace High in Colton Joint Unified School District, Kaiser High in Fontana Unified School District, Norte Vista High in Alvard Unified School District, Ramona High in Riverside Unified School District, and Redlands East Valley High, and Citrus Valley High in Redlands Unified School District. Classification of these six different comprehensive high schools were based upon two factors: free-reduced-lunch meals program percentages, and total school enrollment. As the data suggests these six comprehensive high schools have relatively similar characteristics

Grand Terrace High school has a total enrollment of 2114, and a 69.7% rate of (FRPM). Grand Terrace High school has a Class Size Average of 23.7, and a 14% rate of Inexperienced Teachers. Kaiser High school has a total enrollment of 2132, and 81.5% rate of (FRPM). Kaiser High School has a Class Size Average of 21.4, and an 8% rate of Inexperienced Teachers. Norte Vista High school has a total enrollment of 2144, and an 86.7% rate of (FRPM). Norte Vista High school has a Class Size Average of 23, and a 5% rate of Inexperienced Teachers. Ramona High has a total enrollment of 2154, and an 80.0% rate of (FRPM). Norte Vista High school has a Class Size Average of 24.4, and 2% rate

of Inexperienced Teachers. Redlands East Valley has a total enrollment of 2154, and a 54.8% rate of (FRPM). Redlands East Valley High school has Class Size Average of 24.3, and a 11% rate of Inexperienced Teachers. Citrus Valley High has a total enrollment of 2168, and a 38% rate of (FRPM). Citrus Valley High school has a Class Size Average of 24.1, and a 7% rate of Inexperienced Teachers.

All the comprehensive high schools mentioned in this specific data set have relatively similar enrollment characteristics. However, Grand Terrace High, Kaiser High, Norte Vista High, and Ramona High shared relatively similar percentages in regards to the free-reduced lunch program. The only exceptions come from Redlands East Valley High and Citrus Valley High both from the Redlands Unified School District have the lowest percentage of students that are receiving free-reduced lunch.

The following comprehensive high schools have the following number of AP course offerings: Grand Terrace (13), Kaiser High (21), Norte Vista High (8), Ramona High (10), Redlands East Valley (16), and Citrus Valley High (16). The state's average for (AP) course offerings is (12), Norte Vista High (8) as well as Ramona High (10) share the fewest (AP) course offerings in relation to their own respective student enrollment. Moreover, Kaiser High (21), Redlands East Valley (16), and Citrus Valley High have the highest AP course offerings in this data set. Colton High offers 1 more AP course above the state's average of (12) for (AP) course offerings.

The disaggregated AP composition percentages among the following comprehensive five high schools will now be identified. Of the students at Grand Terrace High school 55% of Latinos, and 8% of Blacks make up their AP composition. Of the students at Kaiser High school 84% of Latinos, and 8% of Blacks make up their AP composition. Of the students at Norte Vista High – students 90% of Latinos, and 1% Blacks make up their AP composition. Of the students at Ramona High school 77% of Latinos, and 5% of Blacks make up their AP composition. Of the students at Redlands East Valley High 34% of Latinos and, 4% of Blacks make up their AP composition. Lastly, of the students at Citrus Valley High 38% Latinos, and 6% of Blacks make up their AP composition. The only significant differences in regards to AP composition was that Grand Terrace High, Redlands East Valley High, and Citrus Valley High all had a 10% difference in AP composition in relation to their own respective enrollment. More specifically, AP composition or representation in the above mentioned comprehensive high schools was approximately 10% less than their own respective Latino enrollments.

AP student achievement outcomes among the five different comprehensive high schools reveals the following: Grand Terrace High, Kaiser High, Norte Vista High, and Ramona High experience a greater number of students not achieving a minimum AP passing score of a 3. More importantly, Grand Terrace High, Norte Vista, and Ramona High schools not only share that a greater number of students who are not passing the AP exam but they also share

the following similar characteristics: total enrollment, high percentage of students receiving free-reduced lunch, fewest number of AP course offerings, and high minoritized student populations.

Furthermore, Grand Terrace High, has a high percentage of inexperienced teachers 14%, and Kaiser High has the second highest percentage of inexperienced teachers with 8%; however, they are still below the state's average for inexperienced teachers. Although, the majority of comprehensive high schools in this data set share fewest number of AP course offerings, it is important to mention that Kaiser High offers 21 AP course offerings.

In contrast, Redlands East Valley High and Citrus Valley High both from the Redlands Unified School District have very different AP student achievement outcomes than the other 4 different comprehensive high schools. More specifically, Redlands East Valley High, and Citrus Valley High experience a greater number of students successfully passing AP exams rather than failing AP exams. Moreover, Redlands East Valley, and Citrus Valley High have the lowest percentage of students that receive free-reduced lunch, and lowest percentage of minoritized of students. However, Redlands East Valley, and Citrus Valley High both offer 16 AP courses.

According to the 2018 (CDE) data it demonstrates that comprehensive high schools like Redlands East Valley High and Citrus Valley High that have or exhibit the following characteristics: low percentage (FRPM), higher AP course offerings, and that have minoritized student populations of between 50%-60%

experience far better student achievement outcomes. It is also important to note that all but one of the comprehensive high schools in this data set exceed the state's class size average of 22 with the exception Kaiser High school.

Canyon Springs, AB Miller, and North

Representing three different school districts in the Inland Empire are the following comprehensive high schools: Canyon Springs High – Moreno Valley Unified School District, AB Miller High – Fontana Unified School District, and John W. North – Riverside Unified School District. Classification of these three comprehensive high schools were based upon the following free-reduced lunch percentages, and total enrollment characteristics. Canyon Springs has a total enrollment of 2226, and a 74.3% rate of (FRPM). Canyon Springs High School has a Class Size Average of 23.9, and a 7% rate of Inexperienced Teachers. AB Miller High has a total enrollment of 2229, and an 85.2% rate of (FRPM). AB Miller High school has a Class Size Average of 20.4, and a 10% rate of Inexperienced Teachers. John W. North has a total enrollment of 2294, and a 77.9% rate of (FRPM). John W. North has a Class Size Average of 23.7, and a 7% rate of Inexperienced Teaches. The following comprehensive high schools have the following AP course offerings: Canyon Springs High – (15), AB Miller (16), and John W. North (15). The comprehensive schools in this data set have AP course offerings that above the state's average of (12) for AP course offerings.

The disaggregated AP composition percentages among the following three comprehensive high schools will now be identified. Of the students at Canyon Springs 61% of Latinos, and 9% Blacks compose their AP composition. Of the students at AB Miller High 91.0% of Latinos, and 3.0% of Blacks compose their AP composition. Lastly, of the students at John W. North 60% Latinos, and 10% of Blacks compose their AP composition. In addition, AP composition or representation for all the comprehensive high schools listed above are reflective of each high school's minoritized student population. The only exception was at AB Miller High AP composition or representation for African Americans 3.0% was lower than total overall African American student enrollment 6.9%.

These three comprehensive high schools not only share similar enrollment characteristics, similar (FRPM) percentages, similar percentages of minoritized students, but they also share very similar AP student achievement outcomes. Moreover, Canyon Springs High and John W. North High share class size averages that are above the state's average of 22 for class sizes. In addition, all three of these comprehensive high schools also share below the state's average of 12% for inexperienced teachers.

More specifically, AP student achievement outcome data among the following three comprehensive high schools: Canyon Springs High, AB Miller High, and John W. North High reveals that each of these schools have an exceedingly high number of students that do not receive a qualifying AP score of 3. These three comprehensive high schools' not only share high numbers of

students failing AP exams but they also share exceedingly high percentages of students on the free-reduced program, high percentages of minoritized student populations, and higher-class sizes.

Bloomington, Redlands, Moreno Valley,
and Wilmer Amina Carter

Representing four different school districts in the Inland Empire are the following comprehensive high schools: Bloomington High – Colton Joint Unified School District, Redlands High – Redlands Unified School District, Moreno Valley High – Moreno Valley Unified School District, and Wilmer Amina Carter High. Classification of these four different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these four comprehensive high schools may have or exhibit the following characteristics. Bloomington High school has a total enrollment of 2322, and a 82.5% rate of (FRPM). Bloomington High school has a Class Size Average of 19.9, and a 13% rate of Inexperienced Teachers. Redlands High has a total enrollment of 2325, and a 51.3% rate of (FRPM). Redlands High school has a Class Size Average of 23.7, and a 2% rate of Inexperienced Teachers 2%. Moreno Valley High has a total enrollment of 2338, and a 89.3% rate of (FRPM). Moreno Valley High school has a Class Size Average of 24, and a 11% rate of Inexperienced Teachers. Wilmer Amina Carter High school has a total enrollment of 2385, and a 73.5% rate of (FRPM). Wilmer Amina Carter High school has a Class Size Average of 23.7, and a 12% rate of Inexperienced Teacher. Although all four of these comprehensive high schools

share almost the same total enrollment characteristics, they differ in percentages regarding free-reduced lunch. More specifically, Moreno Valley High has the highest (FRPM) of 89.3%, and Bloomington High has the second highest (FRPM) of 82.5%. Wilmer Amina Carter has third highest 73.5% of (FRPM) percentage. Furthermore, Redlands High has the lowest 51.3% of (FRPM) percentage in this data set.

In regards to AP course offerings all comprehensive high schools in this data set with the exception of Redlands High (11) have AP course offerings that above the state's average of (12) for AP course offerings. The disaggregated AP composition percentages among the following four comprehensive high schools will now be identified. Of the students at Bloomington High school 76% of Latinos, and 3% of Blacks compose their AP composition. Of the students at Redlands High school 18% of Latinos, and 6% of Blacks compose their AP composition. Of the students at Moreno Valley High school 85% of Latinos, and 5% of Blacks compose their AP composition. Lastly, of the students at Wilmer Amina Carter High schools 73% of Latinos, and 6% of Blacks compose their AP composition.

Although the following high schools: Bloomington High, Redlands High, have slightly higher Latino student enrollment populations, they have about a 20%-30% difference in the percentage of Latinos represented in AP courses. AP student achievement outcomes are poor in the following comprehensive high schools: Bloomington High, Moreno Valley High, and Wilmer Amina High.

Equally important, is that not only do these three comprehensive high schools' share exceedingly high numbers of students failing AP exams but they also shared high FRPM percentages and high percentages (i.e., above 60%) of minoritized student populations, higher percentages of inexperienced teachers, and higher class sizes. However, Redlands High experienced a higher number of their students passing AP exams. In addition, Redlands High has a lower amount of students on the free-reduced lunch program, and also has lower percentages of minoritized student populations. Furthermore, Redlands High offers only 11 AP courses, and has a class size average of 23.7. According to the 2018 CDE data the implications are that comprehensive high schools like Redlands High that have the following characteristics: low percentage (FRPM), and that have minoritized student populations of below 50% experience far better student achievement outcomes.

Summit, Eisenhower, and Fontana

Representing three different school districts in the Inland Empire are the following comprehensive high schools: Summit High – Fontana Unified School District, Eisenhower High – Rialto Unified School District, and Fontana High – Fontana Unified School District. Classification of these three different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these three comprehensive high schools may have or exhibit the following characteristics. Summit High school has a total enrollment of 2408, and a 66%,

rate of (FRPM). Summit High school has a Class Size Average of 22.5, and a 7% rate of Inexperienced Teachers. Eisenhower High school has a total enrollment of 2419, and an 84.8% rate of (FRPM). Eisenhower High school has a Class Size Average of 23.3, and a 12% rate of Inexperienced Teachers. Fontana High school has a total enrollment of 2475, and a 92.4% rate of (FRPM). Fontana High school has a Class Size Average of 20.5, and 17% rate of Inexperienced Teachers. Although, all of these comprehensive high schools share relatively similar enrollment characteristics, they each have different free-reduced lunch percentages. Furthermore, Summit High has a lower free-reduced lunch percentage in comparisons with the other comprehensive high schools in this data set.

In regards to the number of AP course offerings all comprehensive schools listed above have AP course offerings that are above the state's average of 12 for AP course offerings. More specifically, Fontana High offers the highest amount of AP courses 18, Summit High offers 14 AP course offerings, and Eisenhower High offers the least amount of AP courses 13. The disaggregated AP composition percentages among the following three comprehensive high schools will now be identified. Of the students at Summit High 69% Latinos, and 7% Blacks compose their AP composition. Of the students at Eisenhower High school 85% of Latinos, and 9% of Blacks compose their AP composition. Lastly, of the students Fontana High school 94% of Latinos, and 2% of Blacks compose their AP composition. Overall, minoritized students are fairly represented in AP

courses in relation to minoritized student enrollment percentages at all comprehensive high schools in this data set.

AP student achievement outcomes among the three different comprehensive high schools reveals the following: Eisenhower High, and Fontana High experience a greater number of students not achieving a minimum AP passing score of a 3. More importantly, Eisenhower High and Fontana schools not only share that a greater number of their students are not passing the AP exam. These two comprehensive schools also share very similar total enrollment percentages, high percentage of students receiving free-reduced lunch, fewest number of AP course offerings, and high minoritized student populations, high percentages of inexperienced teachers, and high-class sizes. Although, the majority of comprehensive high schools in this data set share AP course offerings that are all above the state's average it is important to mention that Fontana High offers 18 AP course offerings.

However, Summit High experiences a higher number of their students passing AP exams with a minimum examination score of 3. The implications are that comprehensive high schools like Summit High that have the following similar characteristics: low percentage of students receiving free-reduced lunch (FRPM) at or below 68%, and have fewer inexperienced teachers experience far better student achievement outcomes.

Poly, Corona, Valley View,
and Arroyo Valley

Representing four different school districts in the Inland Empire are the following comprehensive high schools: Polytechnic High – Riverside Unified School District, Corona High – Corona-Norco Unified School District, Valley View High – Moreno Valley Unified School District, and Arroyo Valley Unified School District. Classification of these five different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these five comprehensive high schools may have or exhibit the following characteristics. Polytechnic High has a total enrollment of 2607, and a 58% rate of (FRPM). Polytechnic High school has a Class Size Average of 27.8, and a 17% rate of Inexperienced Teachers. Corona High school has a total enrollment of 2626, and a 64.4% rate of (FRPM). Corona High school has a Class Size Average of 26.3, and a 3% rate of Inexperienced Teachers. Valley View High has a total enrollment of 2629, and a 72.2% rate of (FRPM). Valley View High school has a Class Size Average of 23.8, and a 9% rate of Inexperienced Teachers. Arroyo Valley High school has a total enrollment of 2663, and a 92.5% rate of (FRPM). Arroyo Valley High school has a class size of 26.7, and a 27% rate of Inexperienced Teachers. It is important to mention that Arroyo Valley High has the highest (FRPM) 92.5%, high minoritized student population, highest percentage of inexperience teachers, and high-class size averages. Valley View High has the second highest (FRPM) 72.2%, high minoritized student population, and high-class size averages as well.

In regards to AP course offerings all comprehensive high schools listed above have AP course offerings that are above the state's average of 12 for AP course offerings. Polytechnic High offers the highest amount of AP course offerings 19, Corona High and Arroyo Valley High both offer 18 AP course offerings. Moreover, Arroyo Valley offers the least amount of 18 AP course offerings in this data set. The disaggregated AP composition percentages among the following four comprehensive high schools will now be identified. Of the students at Polytechnic High school 49% of Latinos, and 3% Blacks represent their AP composition. Of the students at Corona High school 64% of Latinos, and 3% of Blacks represent their AP composition. Of the students at Valley View High school 63% Latinos, and 11% of Blacks represent their AP composition. Lastly, of the students at Arroyo Valley High school 88% of Latinos, and 6% of Blacks represent their AP composition. Overall, minoritized students are fairly represented in AP courses in comparison to their student enrollment percentages at all comprehensive high schools in this data set. However, a difference of 10% was noted in AP composition in relation to total Latino enrollment at Polytechnic High school within RUSD.

Arroyo Valley High from the San Bernardino City Unified School District and Valley View High from the Moreno Valley Unified School share almost identical AP student achievement outcomes in that they have a greater number of students failing the AP examination. In addition, both of these comprehensive high schools also share relatively high percentages of students on the free-

reduced lunch program, high minoritized student populations, higher percentages of inexperienced teachers, and high-class size averages. Whereas, Polytechnic High and Corona share slightly better AP student achievement outcomes, and also have lower percentages of students on the free-reduced lunch program. However, both Polytechnic and Corona high schools have exceedingly high class size averages, and still manage to have slightly better AP student achievement outcomes.

Rialto, and Cajon

The next set of comprehensive high schools that will be evaluated will be the following: Rialto High from the Rialto Unified School District, and Cajon High from the San Bernardino City Unified School District. Classification of these two comprehensive high schools were based on free reduced-lunch program meals percentages, and total school enrollment. As the data suggests these two comprehensive high schools may have or exhibit the following characteristics. Rialto High school has a total enrollment of 2764, and an 83.3% rate of (FRPM). Rialto High school has a Class Size Average of 23.4, and an 8% of inexperienced teachers. Cajon High school has total enrollment of 2928, and a 75.7% rate of (FRPM). Cajon High school has a Class Size Average 23.4, and a 17% rate of inexperienced teachers. Cajon High has a slightly larger total enrollment population but have similar (FRPM) percentages. In regards to AP course offerings Rialto High offers 16 AP courses, and this is above the state's

average of 12 for AP course offerings. No data was available for Cajon High school regarding AP course offerings.

The disaggregated AP composition percentages among the following two comprehensive high schools will now be identified. Of the students at Rialto High school 88% of Latinos, and 4% of Blacks represent their AP composition. Of the students at Cajon High school 58% of Latinos, and 10% of Blacks represent their AP composition. AP composition or representation at both comprehensive high schools is relatively proportionate to each school's minoritized student population.

Rialto High from the Rialto Unified School District and Cajon High from the San Bernardino City Unified School District share almost identical AP student achievement outcomes in that they have a greater number of students failing the AP examination. In addition, both of these comprehensive high schools almost share relatively high percentages of students on the free-reduced lunch program as well. The only exception was that Rialto High has a higher minoritized student population. In addition, both Rialto High and Cajon High also have higher than the state's average of 22 for class sizes. However, Cajon High has the highest percentage of inexperienced teachers at 17%, and this far exceeds the state 'average of 12% regarding inexperienced teachers.

Centennial, and Martin Luther King Jr.

Representing two different school districts are the following two comprehensive high schools: Centennial High from the Corona-Norco Unified

School District, Martin Luther King High Jr. from the Riverside Unified School District. Classification of these two different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these two comprehensive high schools may have or exhibit the following characteristics. Centennial High school total enrollment of 3188, and a 52.7% rate of (FRPM). Centennial High school has a Class Size Average of 28.3, and a 10% rate of Inexperienced Teachers. Martin Luther King Jr. has a total enrollment of 3178, and a 35% rate of (FRPM), Martin Luther King Jr. High school has a Class Size Average of 28.4, and a 4% rate of Inexperienced Teachers. In addition, both of these comprehensive high schools have AP course offerings that exceed the state's average of 12 for AP course offerings.

The number of students receiving free-reduced lunch is one of the significant differences between the two schools. More specifically, Centennial High school has a higher number of students that are on the free and reduced lunch program in comparison to Martin Luther King High which has a lower percentage. In addition, Centennial High also has a higher minoritized student population, and higher percentage of inexperienced teachers. However, both comprehensive high schools exceed the state's average of 22 for class size averages.

The disaggregated AP composition percentages among the following two comprehensive high schools will now be identified. Of the students at Centennial

High 44% of Latinos, and 10% of Blacks represent their AP composition. Of students at Martin Luther King Jr. High school 25% of Latinos, and 8% Blacks represent their AP composition. AP composition or representation at both comprehensive high schools is relatively proportionate to each school's minoritized student population.

As far as AP student achievement outcomes Martin Luther King High has a higher number of students passing AP exams. Whereas, Centennial High has a slightly lower number of students passing the AP exams. More importantly, the implications are that schools with a lower percentage of students receiving free-reduced lunch, lower percentages of inexperienced teachers, higher AP course offerings, and lower minoritized student populations perform far better on AP exams, rather than schools with high percentages of students on the free-reduced lunch program, higher minoritized student populations, higher percentages of inexperienced teachers, and higher class size averages. Martin Luther King Jr. High school has a lower amount of students on the free-reduced lunch program, and a lower amount of minoritized students. Thus these factors are believed to have a positive effect on their student achievement outcomes.

Santiago, and Eleanor Roosevelt

Representing one school district are the following two comprehensive high schools: Santiago High and Eleanor Roosevelt both from the Corona-Norco Unified School District. Classification of these two different comprehensive high schools were based upon two factors: free-reduced-lunch program meals

percentages, and total school enrollment. As the data suggests these two comprehensive high schools' may have or exhibit the following characteristics. Santiago High school has a total enrollment of 3738, and a 28% rate of (FRPM). Santiago High school has a Class Size Average of 27.5, and a 4% rate of Inexperienced Teachers 4%. Eleanor Roosevelt High school has a total enrollment of 4398, and a 38.7% rate of (FRPM). Eleanor Roosevelt High school has a Class Size Average of 28.4, and a 12% rate of Inexperienced Teachers. In addition, both of these comprehensive high schools have AP course offerings that far exceed the state's average of 12 for AP course offerings. Santiago and Eleanor Roosevelt both offer 20 AP courses. Although both of these comprehensive high schools have relatively similar enrollment characteristics, they differ slightly in the number of students on the free-reduced lunch program.

The disaggregated AP composition percentages among the following two comprehensive high schools will now be identified. Of the students at Santiago High school 31% of Latinos, and 6% Blacks represent their AP composition. Of the students at Eleanor Roosevelt High school 41% of Latinos, and 11% of Blacks represent their AP composition. AP composition or representation at both comprehensive high schools is relatively proportionate to each school's minoritized student population.

In regards to AP student achievement outcomes Eleanor Roosevelt High has not only has a slightly higher number of students passing AP exams, but also has higher total enrollment, higher minoritized student populations higher

amounts of students on free-reduced lunch program, higher class sizes averages, and higher percentage of inexperienced teachers. More importantly, both of these comprehensive high schools both have exceedingly high AP exam passage rates but Eleanor Roosevelt High has a slightly higher AP exam success rate. Although the implications are that schools with a lower percentage of students receiving free-reduced lunch, lower percentage of inexperienced teachers, and lower minoritized student population perform far better on AP exams than schools with high percentages of students on the free-reduced lunch program.

2018 A-G Student Achievement Data

Next the A-G completion rates will now be examined among the Thirty-Six comprehensive Inland Empire high schools. Comprehensive high schools in this data set were grouped together based upon school enrollment and free-reduced lunch percentages. It is also important to note that the A-G requirements are the minimum eligibility requirements needed by students to attend a four-year educational institution.

Table 9. Inland Empire Comprehensive High Schools A-G
Achievement Student Outcomes

School	Black Enroll %	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Pacific	15.20%	73.50%	28.3% (n = 49)	20% (n = 7)	27.70%
San Bernardino High	10.10%	80.40%	43.1% (n = 91)	16.2% (n = 6)	38.10%

Note. 2018 California Department of Education.

Pacific High and San Bernardino are both comprehensive high schools from the San Bernardino City Unified School District. Classification of these two comprehensive high schools were based upon total enrollment and (FRPM) percentages. Pacific High has a total enrollment of 1237, and a 91.4% rate of (FRPM). Pacific High school has a Class Size Average of 25, AP course offerings of 17, and a 26% rate of Inexperienced Teachers. San Bernardino High has a total enrollment of 1573, and a 92.6% rate of (FRPM). San Bernardino High school has a Class Size Average of 19.8, AP course offerings of 12 and a 24% rate of Inexperienced Teachers.

More importantly, A-G requirements are necessary requirements students' must complete in order for them to enter into a four-year educational institution. Pacific High has an African American enrollment percentage of 15.2%, and Latino enrollment percentage of 73.5%. San Bernardino High – African American

enrollment of 10.1%, and Latino enrollment of 80.4%. The A-G disaggregated data for the minoritized students will now be examined. A-G percentages at Pacific High school revealed that 15.2% of African Americans, and 28.3% of Latinos were A-G eligible. Of the students at San Bernardino High school 16.2% of African Americans, and 43.1% of Latinos were A-G eligible. Therefore, student achievement outcomes in terms of minoritized students completing A-G requirements are low in comparison to their overall total enrollment.

The implications are that comprehensive high schools like San Bernardino High and Pacific high schools with the following characteristics: high percentages of students on the free-reduced lunch program, high minoritized student populations, higher percentage of inexperienced teachers, and low AP course offerings have poorer student achievement outcomes in terms of meeting A-G requirements.

Table 10. Inland Empire Comprehensive High Schools A-G Achievement Student Outcomes

School	Black Enroll %	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Hill Crest High	6.20%	62.70%	44.9% (n = 115)	44.1% (n = 15)	51.30%
La Sierra High	4.70%	78%	40.4% (n = 111)	56.3% (n = 9)	43.30%

Note. 2018 California Department of Education.

Representing two different school districts in the Inland Empire are the following two comprehensive high schools: Hill Crest High from the Alvard Unified School District and LA Sierra High from the Riverside Unified School District. Classification of these two-comprehensive high schools were based upon total enrollment and (FRPM) percentages. As the data suggests these two comprehensive high schools have relatively similar characteristics. The total student enrollment for Hill Crest High is 1736, and they have a (FRPM) rate of 59.3%. Hill Crest High school also has a Class Size Average of 22.9, AP course offerings of 13, and a 12% rate of Inexperienced Teachers. Whereas, La Sierra High school has a total student enrollment of 1842, and they have a (FRPM) 75.9%. Sierra High school also has a Class Size Average of 21.2, AP course offerings of 19, and a 2% rate of Inexperienced Teachers.

More importantly, A-G requirements are necessary requirements students' must complete in order for them to enter into a four-year educational institution. Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following two comprehensive high schools. Of the students at Hill Crest High school 6.2% are African Americans, and 62.7% are Latinos. Of the students at LA Sierra High 4.7% are African American, and 78% are Latinos. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Hill Crest High school reveal that 44.1% of African Americans, and 44.9 of Latinos% completed

their A-G requirements. Whereas, minoritized students at LA Sierra High school had 56.3% of African Americans, and 40.4% of Latinos complete their A-G requirements. Minority student achievement outcomes in terms of A-G requirements are below 50% especially for Latinos in the above data set., Overall A-G requirements for Hill Crest High and La Sierra High schools were at or below 50% as well.

The implications are that comprehensive high schools with the following independent variables or causes: high percentage of students on the free-reduced lunch program, high percentage of minoritized students, class size average at or above the state's average of 12, high percentage of inexperienced teachers, and low AP course offerings experience poor student achievement outcomes.

Table 11. Inland Empire Comprehensive High Schools A-G
Achievement Student Outcomes

School	Black Enroll %	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Arlington High	5.30%	71.20%	49.7% (n = 148)	40.9% (n = 9)	51.70%
Colton High	2.60%	92.60%	18.8% (n = 64)	Redacted	17.30%
San Gorgonio High	11.90%	74.00%	34.9% (n = 110)	28.3% (n = 13)	35.60%

Note. 2018 California Department of Education.

These three comprehensive high schools are from the following school districts: Arlington High from Riverside Unified School District, Colton High from Colton Joint Unified School District, and San Gorgonio from San Bernardino City Unified School District. Classification of these three comprehensive school districts were based upon free-reduced lunch percentages, and total enrollment. The following comprehensive high schools share the following characteristics. The total student enrollment at Arlington High school was 1918, and they had a (FRPM) of 71%. Arlington High school also had a Class Average size of 24.1, a rate of 1% Inexperienced Teachers, and AP course offerings of 15. The total student enrollment at Colton High school was 1956, and they also had a (FRPM) 83.8%, Colton High School had a Class Size Average 20.5, a 11% rate of Inexperienced Teachers, and AP course offerings of 14. The total student

enrollment for San Gorgonio High school was 1977, and they had a (FRPM) rate of 86.1%. In addition, San Gorgonio had a Class Size Average 23.6, a 14% rate of Inexperienced Teachers, and AP course offerings of 21.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following three comprehensive high schools. The minoritized student population at Arlington High school was composed of 5.3% African Americans, and 71.2% of Latinos. The minoritized student populations at Colton High was composed of 2.6% African Americans, and 92.6% Latinos. Lastly, the minoritized student population at San Gorgonio High school was composed of 11.9% African Americans, 74.0% of Latinos. These three specific comprehensive high schools have a relatively significant percentage of minoritized students. Although these comprehensive schools have higher percentages of minoritized students their student achievement outcomes in terms of A-G requirements are poor.

More importantly, A-G requirements are the necessary requirements students' must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Arlington High school reveal that 40.0% of African Americans, 49.7% of Latinos complete their A-G. The minoritized student achievement outcomes at Colton High school revealed that 18.8% of Latinos completed their A-G requirements. However, it is also important to note that no information was readily available for African

Americans A-G rates for Colton High school. The minoritized student population at San Geronimo High school revealed that 34.9% of African Americans, and 28.3% Latinos completed their A-G requirements. Overall, graduates meeting A-G requirements at each comprehensive high schools are as follows: 51.7% at Arlington High, 17.3% at Colton High, and 35.6% at San Geronimo High

The implications are that comprehensive high schools with the following independent variables or causes such as: high percentage of students on the free-reduced lunch program, high percentage of minoritized of students, class size average at or slightly above the state's average of 12, high percentage of inexperienced teachers, and low AP course offerings experience poor student achievement outcomes. However, in this specific data set Arlington High had the highest number of students meeting A-G requirements 51.7%. It is important to note that Arlington High had a lower percent of inexperienced teachers 1%. In contrast, Colton High had the lowest amount of students that met A-G requirements with 17.3%.

Table 12. Inland Empire Comprehensive High Schools A-G
Achievement Student Outcomes

School	Black Enroll %	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Norco High	2.50%	47.70%	6.3% (n = 13)	Redacted	49.00%
Jurupa Hills	3.80%	88.40%	42.5% (n = 164)	32% (n = 8)	43.70%
Vista Del Lago	14.50%	73.30%	37.3% (n = 103)	38.6% (n = 22)	38.90%

Note. 2018 California Department of Education

Representing three different school districts in the Inland Empire are the following comprehensive high schools: Norco High from Corona-Norco Unified School District, Jurupa Hills High from Fontana Unified School District and Vista Del Lago High from Moreno Valley Unified School District. Classification of these three-comprehensive school districts were based upon free-reduced lunch percentages, and total enrollment. The following comprehensive high schools share the following characteristics. Norco High school has a total student enrollment of 2034, and they also have a 42.8% (FRPM) rate. Norco High school has a Class Size Average of 27.1, a 1% rate of Inexperienced Teachers, and AP course offerings of 18, Jurupa Hills High school has a total school enrollment of 2035, and they also have an 83.3% (FRPM) rate. Jurupa Hills High school has a Class Size Average of 21.2, a 16% rate of Inexperienced Teachers and AP course offerings of 9. Vista Del Lago High school has a total student enrollment

of 2063, and they also have 80.9% (FRPM) rate. Vista Del Lago has a Class Size Average of 24.6, an eight percent rate of Inexperienced Teachers 8%, and AP course offerings of 14.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following three comprehensive high schools. The minoritized student population at Norco High school was composed of 2.5% African Americans, and 47.7 % Latinos. The minoritized student population at Jurupa Hills High school was composed of 3.8% of African American, and 88.4% Latinos. The minoritized student population at Vista Del Lago High school was composed of 14.5% of African American, and 73.3% Latinos. These three specific comprehensive high schools have a relatively significant percentage of minoritized students with the exception of Norco High. Although two of these comprehensive schools have higher percentages of minoritized students their student achievement outcomes in terms of A-G requirements are poor.

More importantly, A-G requirements are the necessary requirements students' must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Norco High – School revealed that 6.3% of Latinos completed A-G requirements, and that no information was made readily available for A-G requirements among the African American student population at Norco High. The minoritized student achievement

outcomes at Jurupa Hills High school revealed that 32% of African Americans and 42.5% Latinos completed their A-G requirements. The minoritized student achievement outcomes at Vista Del Lago High school revealed that 38.6% African Americans and 37.3% Latinos completed their A-G.

The implications are that comprehensive high schools with the following independent variables or causes such as: high percentage of students on the free-reduced lunch program, high percentage of minoritized of students, class size average above the state's average of 22, high percentage of inexperienced teachers, and low AP course offerings experience poor student achievement outcomes. However, in this specific data set Norco High has the highest A-G rate in comparison with Jurupa Hills High and Vista Del Lago. More importantly, Norco High has a lower percentage of students on the free-reduced lunch program, lower percentage of minoritized students, higher AP course offerings at 18, and lower percent of inexperienced teachers. The other implications are that comprehensive high schools with a lower percentage of students on the free-reduced lunch program, lower percentage of minoritized students, lower percent of inexperienced teachers, and AP course offerings at or above the states average of 12 experience better student achievement like: A-G requirements, and AP exam scores.

Table 13. Inland Empire Comprehensive High Schools A-G
Achievement Student Outcomes

School	Black Enroll%	Latino Enroll.%	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Grand Terrace High	10.30%	66.80%	30.3% (n = 97)	25.6% (n = 11)	31.10%
Kaiser High	7%	86.50%	53.3% (n = 240)	54.4% (n = 24)	53.70%
Norte Vista High	1.40%	91%	43.5% (n = 185)	Redacted	43.90%
Ramona High	4%	79.80%	52.1% (n = 175)	36.4% (n = 8)	52.80%
Redlands East Valley	6.50%	49.90%	49.8% (n = 112)	42.9% (n = 15)	52.50%
Citrus Valley High	6.90%	52.00%	44% (n = 107)	38.9% (n = 14)	50.20%

Note. 2018 California Department of Education

Representing five different school districts in the Inland Empire are the following comprehensive high schools: Grand Terrace High from Colton Joint Unified School District, Kaiser High in Fontana Unified School District, Norte Vista High in Alvard Unified School District, Ramona High in Riverside Unified School District, Redlands East Valley High and Citrus Valley High from Redlands Unified School District. Classification of these six different comprehensive high schools were based upon two factors: free-reduced-lunch meals program percentages, and total school enrollment.

As the data suggests these six comprehensive high schools have relatively similar characteristics. Grand Terrace High school has a total student enrollment of 2114, a 69.7% (FRPM) rate. Grand Terrace High school has a

Class Size Average 23.7, a 14% rate of Inexperienced Teachers, AP course offerings of 13. Kaiser High school has a total student enrollment of 2132, an 81.5% (FRPM) rate. Kaiser has a Class Size Average 21.4, an 8% rate of Inexperienced Teachers, and AP course offerings of 21. Norte Vista High school has a total student enrollment of 2144, an 86.7% (FRPM) rate. Norte Vista also has a Class Size Average 23, an 8% rate of Inexperienced Teachers, and AP course offerings of 8. Ramona High school has a total enrollment of 2154, an 80.0% rate of (FRPM). Ramona High school also has a Class Size Average of 24.4, a 2% rate of Inexperienced Teachers and AP courses of 10. Redlands East Valley High School has a total enrollment of 2154, a 54.8% (FRPM) rate. Ramona High school also has a Class Size Average 24.3, and 11% rate of Inexperienced Teachers, and AP courses of 16. Citrus Valley High school has a total enrollment of 2168, a 38% rate of (FRPM). Citrus Valley High school also has a Class Size Average 24.1, a 7% rate of Inexperienced Teachers, and AP courses of 16. All the comprehensive high schools mentioned in this specific data set have relatively similar enrollment characteristics. However, the following comprehensive high schools (i.e., Grand Terrace High, Kaiser High, Norte Vista High, and Ramona High) share relatively high percentages of students on the free-reduced lunch program. The only exceptions come from Redlands East Valley High, and Citrus Valley High both from the Redlands Unified School District have the lowest percentage of students that are on the free-reduced lunch program.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following six comprehensive high schools. The minoritized student population at Grand Terrace High was composed of 10.3% of African Americans, and 66.8% Latinos. The minoritized student population at Kaiser High was composed of 7% of African Americans, and 86.5% of Latinos. The minoritized student populations at Norte Vista High school was composed of 1.4% of African Americans, and 91% Latinos. The minoritized student population at Ramona High school was composed of 4% of African Americans, and 79.8% Latinos. The minoritized student population at Redlands East Valley High school was composed of 6.5% African Americans, and 49.9% of Latinos. The minoritized student population at Citrus Valley High – school was composed of 6.9% African Americans, and 52.0% of Latinos.

More importantly, A-G requirements are the necessary requirements students' must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Grand Terrace High School revealed that Grand Terrace High 25.6% of African Americans and 30.3% of Latinos completed their A-G requirements. The minoritized student population at Kaiser High revealed that 53.3% of African Americans and 54.4% of Latinos completed their A-G requirements. The minoritized student population at Norte Vista High school revealed that 43.5% of Latinos completed their A-G requirements. However, A-G data for the African American student population at

Norte Vista High school was not made readily available. The minoritized student population at Ramona High school revealed that 36.4% of African Americans, and 52.1% of Latinos completed their A-G requirements. The minoritized student population at Redlands East Valley High school revealed that 42.9% of African American, 49.8% of Latinos completed their A-G requirements. Lastly, the minoritized student population at Citrus Valley High school revealed 38.9% of African Americans, and 44% of Latinos completed their A-G.

The implications are that for comprehensive high schools' (i.e., Grand Terrace High and Norte Vista High) with following types of independent variables or causes such as: high percentage of students on the free-reduced lunch program, high percentage of minoritized of students, class size average above the state's average of 22, high percentage of inexperienced teachers, and low (AP) course offerings experience poor student achievement outcomes.

Furthermore, percentages of students meeting A-G requirements at these two specific school sites are as follows: Grand Terrace 31.0% and Norte Vista High 43.9%. Although Kaiser High had a high percentage of students on the free-reduced lunch program, and higher minoritized student population they experienced the highest percentage of students meeting the A-G requirements 53.7%. In addition, the other implications are that comprehensive high schools with a lower percentage of students on the free-reduced lunch program, lower percentage of minoritized students, lower percent of inexperienced teachers, and AP course offerings at or above the state's average of 12 experience better

student achievement outcomes in terms of A-G requirements. More importantly Redlands East Valley and Citrus Valley High both from the Redlands Unified School District exhibit the abovementioned school characteristics, and they also experienced high percentages of students meeting the A-G requirements.

Table 14. Inland Empire Comprehensive High Schools A-G Achievement Student Outcomes

School	Black Enroll%	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Canyon Springs AB Miller High John W. North	15%	64.10%	52.6% (n =172)	43.4% (n = 33)	52.90%
	6.90%	87.20%	34.2% (n = 136)	22.2% (n = 8)	33.70%
	11.60%	71.40%	45.6% (n = 156)	49.2% (n = 29)	48%

Note. California Department of Education

Representing three different school districts in the Inland Empire are the following comprehensive high schools: Canyon Springs High from Moreno Valley Unified School District, AB Miller High in Fontana Unified School District, and John W. North in Riverside Unified School District. Classification of these three comprehensive high schools were based upon the following free-reduced lunch percentages, and total enrollment characteristics. Canyon Springs High school has a total student enrollment of 2226, a 74.3% rate of (FRPM). Canyon Springs

High school has a Class Size Average of 23.9, a 7% rate of Inexperienced Teachers, and AP courses of 15. AB Miller High school has a total student Enrollment of 2229, and a 85.2% rate of (FRPM). AB Miller High school has a Class Size Average of 20.4, a 10% rate of Inexperienced Teachers, and AP courses of 16. John W. North High School has a total student enrollment of 2294, and a 77.9% rate of (FRPM). John W. North High school has a Class Size Average 23.7, a 7% rate of Inexperienced Teachers, and AP courses of 15.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following three comprehensive high schools. The minoritized student population at Canyon Springs High was composed of 15% of African Americans and 64.1% Latinos. The minoritized student population at AB Miller High was composed of 6.9% of African Americans, and 87.2% of Latinos. The minoritized student population at John W. North was composed of 11.6%, and 71.4% Latinos. Each of these three comprehensive high schools have minoritized student populations above 50%. However, in this specific data set Canyon Springs High has the lowest percentage of minoritized students.

More importantly, A-G requirements are the necessary requirements students' must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Canyon Springs High revealed that 43.4% of African Americans and 52.6% of Latinos completed

their A-G requirements. The minoritized student achievement outcomes at AB Miller High revealed that 22.2% of African Americans, and 34.2% of Latinos completed their A-G requirements. The minoritized student achievement outcomes at John W. North revealed that 49.2% African Americans, and 45.6% Latinos completed their A-G requirements. More specifically, approximately 50% of African American and Latino students were found to have met the A-G requirements at Canyon Springs High and John W. North High. However, AB Miller High was the only comprehensive school that was found to have less than 50% of African American and Latino students meet A-G requirements.

The implications are that for comprehensive high schools like AB Miller High with the following types of independent variables or causes such as: high percentage of students on the free-reduced lunch program, high percentage of minoritized of students, class size average above the state's average of 22, high percentage of inexperienced teachers, and low AP course offerings experience poor student achievement outcomes. This common theme has begun to develop in the majority of these comprehensive high schools within the Inland Empire.

Table 15. Inland Empire Comprehensive High Schools A-G
Achievement Student Outcomes

School	Black Enroll%	Latino Enroll.%	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Bloomington High	3.10%	90.30%	29.7% (n = 121)	33.3% (n = 3)	31%
Redlands High	5.80%	38.80%	41.9% (n = 80)	56.3% (n = 18)	56%
Moreno Valley High	11.00%	80.10%	48.2% (n = 189)	53.1% (n = 26)	48.60%
Wilmer Amina Carter	16.40%	72.60%	46.8% (n = 180)	43.4% (n = 36)	47.50%

Note. 2018 California Department of Education

Representing four different school districts in the Inland Empire are the following comprehensive high schools: Bloomington High from Colton Joint Unified School District, Redlands High in Redlands Unified School District, Moreno Valley High in Moreno Valley Unified School District, and Wilmer Amina Carter High in Rialto Unified School District. Classification of these four different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these four-comprehensive high schools may have or exhibit the following characteristics. Bloomington High school has a total student enrollment of 2322, an 82.5% rate of (FRPM). Bloomington High school has a Class Size Average 19.9, a 13% rate of Inexperienced Teachers, AP courses of 14. Redlands High school has a total school enrollment of 2325, a 51.3% rate of (FRPM). Redlands High school has a Class Size Average of 23.7, a 2% rate of Inexperienced

Teachers, and AP courses of 16. Moreno Valley High school has a total student enrollment of 2338, and an 89.3% rate of (FRPM). Moreno Valley High school has a Class Size Average 24, a 11% rate of Inexperienced Teachers, and AP courses of 16. Wilmer Amina Carter High school has a total school enrollment of 2385, and a 73.5% rate of (FRPM). Wilmer Amina Carter High School has a Class Size Average 23.7, a 12% rate of Inexperienced Teachers, and AP Courses of 17.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following six comprehensive high schools. The minoritized student population at Bloomington High was composed of 3.1% of African Americans, and 90.3% Latinos. The minoritized student population at Redlands High was composed of 5.8% of African Americans 5.8%, and 38.8% of Latinos. The minoritized student population at Moreno Valley High school was composed of 11.0% of African Americans and 80.1% of Latinos. The minoritized student population at Wilmer Amina Carter High school was composed of 16.4% of African American, and 72.6% of Latinos. All of these comprehensive high schools have exceedingly high percentages of minoritized students with the exception of Redlands High.

More importantly, A-G requirements are the necessary requirements students' must be complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Bloomington High

revealed that 33.1% of African Americans, and 29.7% Latinos completed their A-G requirements. The minoritized student achievement outcomes at Redlands High revealed that 56.3% of African Americans and 41.9% of Latinos completed their A-G requirements. The minoritized student achievement outcomes at Moreno Valley High indicated that 53.1% of African Americans, and 48.2 % Latinos completed their A-G requirements. The minoritized student achievement outcomes at Wilmer Carter Amina High school indicated that 43.4% African Americans, and 46.8% Latinos completed their A-G requirements. Approximately 50% of African American and Latino students were both found to have met the A-G requirements at only one of the above-mentioned high school's and that was Moreno Valley High. However, Redlands High was found to have almost 60% of African American students meet the A-G requirements, and Wilmer Amina Carter High also had approximately 50% of Latino students meet A-G requirements. More importantly, Bloomington High was the only comprehensive school that was found to have less than 50% of African American and Latino students meet A-G requirements.

The implications are that for comprehensive high schools like Bloomington High school with following types of independent variables or causes such as: high percentage of students on the free-reduced lunch program, high percentage of minoritized of students, class size average above the state's average of 22, high percentage of inexperienced teachers, and low AP course offerings experience poor student achievement outcomes. This common theme is

prevalent among the majority of these comprehensive high schools within the Inland Empire.

Table 16. Inland Empire Comprehensive High Schools A-G
Achievement Student Outcomes

School	Black Enroll %	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Summit High	9.80%	74%	52.9% (n = 208)	56.3% (n = 36)	54.80%
Eisenhower High	8.80%	87.30%	42.5% (n = 184)	48.9% (n = 22)	42.20%
Fontana High	2.10%	94.60%	54% (n = 278)	66.7% (n = 8)	55%

Note. 2018 California Department of Education

Representing three different school districts in the Inland Empire are the following comprehensive high schools: Summit High from Fontana Unified School District, Eisenhower High in Rialto Unified School District, and Fontana High in Fontana Unified School District. Classification of these three different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these three comprehensive high schools may have or exhibit the following characteristics. Summit High school has a total enrollment of 2408, and 66% rate of (FRPM). Summit High school has a Class Size Average 22.5, a rate of 7% of

Inexperienced Teachers 7%, and AP courses of 14. Eisenhower High school has a total enrollment of 2419, and 84.8% rate of (FRPM). Eisenhower high school has a Class Size Average 23.3, a 12% rate of Inexperienced Teachers, and AP courses of 13. Fontana High school has a total enrollment of 2475, and a 92.4% rate of (FRPM). Fontana High school has a Class Size Average of 20.5, a 17% rate of Inexperienced Teachers, and AP courses of 18.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following three comprehensive high schools. The minoritized student population at Summit High school was composed of 9.8% of African Americans and 74% Latinos. The minoritized student population at Eisenhower High was composed of 8.8% of African Americans and 87.3% Latinos. The minoritized student population at Fontana High school was composed of 2.1% of African Americans, and 94.6% Latinos. More importantly, all of these comprehensive high schools have high minoritized student population percentages, and also have over 50% of students on the free-reduced lunch program.

Equally important, is that A-G requirements are the necessary requirements that students must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Summit High school indicated that 56.3% African Americans, and 52.9% of Latinos completed A-G requirements. The minoritized student achievement

outcomes at Eisenhower High school indicated that 48.9% of African Americans, and 42.5% Latinos. The minoritized student population at Fontana High revealed that 66.7% of African Americans, and 54% of Latinos completed A-G requirements. Moreover, Summit High as well as Fontana High had over 50% of both African American and Latino students meet the A-G requirements. Eisenhower almost had 50% of African American students meet the A-G requirements. However, Eisenhower High had less than 50% of its Latino student meet the A-G requirements. Although the majority of A-G percentages among minoritized students in this specific data were at or near 50% it's still important to remember that only half of minoritized students are successfully completing the A-G requirements.

The implications are that for comprehensive high schools with following types of independent variables or causes such as: high percentage of students on the free-reduced lunch program, high percentage of minoritized of students, class size average above the state's average of 22, high percentage of inexperienced teachers, and low AP course offerings experience poor student achievement outcomes.

Note. 2018 California Department of Education.

Table 17. Inland Empire Comprehensive High Schools A-G
Achievement Student Outcomes

School	Black Enroll%	Latino Enroll.%	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
POLY CORONA HIGH VALLEY VIEW ARROYO VALLEY	6.30%	59%	46% (n = 144)	48.6% (n = 17)	52.10%
	2.50%	72.40%	41.2% (n = 159)	44.4% (n = 8)	45.20%
	15%	66.60%	36.9% (n = 130)	35.4% (n = 34)	39.10%
	5.60%	89.30%	39.6% (n = 196)	40.6% (n = 13)	38.90%

Representing four different school districts in the Inland Empire are the following comprehensive high schools: Polytechnic High from Riverside Unified School District, Corona High in Corona-Norco Unified School District, Valley View High in Moreno Valley Unified School District, and Arroyo Valley High from San Bernardino Unified School District. Classification of these four different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these five comprehensive high schools may have or exhibit the following characteristics Polytechnic High school has a total enrollment of 2607, and a 58% rate of (FRPM). Polytechnic High school has a Class Size Average of 27.8, a 17% rate of Inexperienced Teachers, and AP courses of 19. Corona High school has a total enrollment of 2626, and a 64.4% rate of (FRPM). Corona High school has a Class Size Average of 26.3, a 3% rate of Inexperienced Teachers,

and AP courses of 18; Valley View High has a total enrollment of 2629, and a 72.2% rate of (FRPM). Valley View High school has a Class Size Average of 23.8, a 9% rate of Inexperienced Teachers, and AP courses of 16. Arroyo Valley High school has a total enrollment of 2663, and a 92.5% rate of (FRPM). Arroyo Valley High school has a Class Size of 26.7, AP courses of 18, and a 27% rate of Inexperienced Teachers.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following five comprehensive high schools. The minoritized student population at Polytechnic High school was composed of 6.3% African Americans, and 59% Latinos. The minoritized population at Corona High school was composed of 2.5% of African American, and 72.4% Latinos. The minoritized population at Valley View High school was composed of 15% of African Americans, and 66.6% Latinos. The minoritized student population at Arroyo Valley High school was composed of 5.6% African American 5.6%, and 89.3% Latinos. It is important to mention that Arroyo Valley High has the highest (FRPM) 92.5%, high minoritized student population, highest percentage of inexperience teachers, and high-class size averages. Valley View High has the second highest (FRPM) 72.2%, high minoritized student population, and high-class size averages as well.

More importantly, A-G requirements are the necessary requirements students' must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be

examined. The minoritized student achievement outcomes at Polytechnic High reveal that 48.6% of African Americans and 46% of Latinos completed A-G requirements. The minoritized student achievement outcomes at Corona High – school reveal that 44.4% of African Americans and 41.2% of Latinos completed A-G requirements. The minoritized student achievement outcomes at Valley View High reveal that 35.4% of African Americans, and 36.9% of Latinos completed A-G requirements. The minoritized student achievement outcomes at Arroyo Valley High school reveal that 40.6% African Americans, and 39.6% of Latinos completed A-G requirements. Moreover, Polytechnic High was found to have nearly 50% of minoritized students meet the A-G requirements. More importantly, Corona High, Valley View High, and Arroyo Valley were found to have lower percentages of students that met the A-G requirements.

The implications are that for comprehensive high schools with following types of independent variables or causes: high percentage of students on the free-reduced lunch program, high percentage of minoritized of students, class size average above the state’s average of 22, high percentage of inexperienced teachers, and low (AP) course offerings experience poor student achievement outcomes in terms of A-G completion.

Table 18. Inland Empire Comprehensive High Schools A-G

Achievement Student Outcomes					
School	Black Enroll %	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Rialto High	5.60%	89.20%	48.1% (n = 231)	33.3% (n = 13)	46.80%
Cajon High	15.50%	65.70%	39.0% (n = 160)	39.2% (n = 40)	41.70%

Note. 2018 California Department of Education

The next set of comprehensive high schools that will be evaluated will be the following: Rialto High from the Rialto Unified School District, and Cajon High from the San Bernardino City Unified School District. Classification of these two different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these two comprehensive high schools may have or exhibit the following characteristics Rialto High school has a total enrollment of 2764, and a 83.3% rate of (FRPM). Rialto High school has a Class Size Average of 23.4, a 8% rate of Inexperienced Teachers, and AP courses of 16. Cajon High school has a total enrollment of 2928, and a 75.7% rate of (FRPM). Class Size Average 23.4, Inexperienced Teacher 17%, and AP courses no data readily available.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following two comprehensive high schools. The minoritized student population at Rialto High school was composed 5.6% of African Americans, and 89.2% of Latinos. Cajon High school was

composed of 15.5% African Americans, and 65.7% of Latinos. Although Rialto High has a higher percentage of minoritized students both schools relatively have similar free-reduced lunch percentages. Cajon High has a slightly larger total enrollment population but have similar (FRPM) percentages.

More importantly, A-G requirements are the necessary requirements students must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Rialto High school reveal that 33.3% of African Americans, and 48.1% of Latinos completed A-G requirements. The minoritized student achievement outcomes at Cajon High school reveal that 39.2% African Americans, and 39.0% of Latinos completed A-G requirements. Moreover, Rialto had nearly 50% of Latino students met A-G requirements, had less than 40% of African American students meet the A-G requirements. More importantly, Cajon High experienced less than 40% of minoritized students that did not meet the A-G requirements. Although Cajon High had a lower minoritized student population and slightly lower free-reduced lunch percentage Rialto High school had better A-G completion rate among minoritized students. Furthermore, they also had a much better overall A-G completion rate.

Table 19. Inland Empire Comprehensive High Schools A-G

Achievement Student Outcomes					
School	Black Enroll%	Latino Enroll. %	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Centennial High Martin	9.10%	57.60%	53.9% (n = 202)	58.8% (n = 40)	62.20%
Luther King	8.20%	35.80%	52.7% (n = 139)	57.6% (n = 34)	60.50%

Note. 2018 California Department of Education

Representing two different school districts are the following two comprehensive high schools: Centennial High from the Corona-Norco Unified School District, and Martin Luther King High Jr. from the Riverside Unified School District. Classification of these two different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these two-comprehensive high schools may have or exhibit the following characteristics. Centennial High school has a total enrollment of 3188, and a 52.7% (FRPM). Centennial High School has a Class Size Average of 28.3, and a 10% rate of Inexperienced Teachers, and AP courses of 20. Martin Luther King Jr. High school has a total enrollment of 3,178, a 35% rate of (FRPM). Martin Luther King Jr. High school has a Class Size Average of 28.4, and a 4% rate of Inexperienced Teachers, and AP courses of 18. In addition, both of these comprehensive high schools' have AP course offerings that exceed the state's average of 12 for AP course offerings. The number of students receiving free-reduced lunch is one of the differences

between the two schools. More specifically, Centennial High has a higher number of students that are on the free and reduced lunch program in comparison to Martin Luther King High which has a lower percentage. In addition, Centennial High also has a higher minoritized student population, and higher percentage of inexperienced teachers. However, both comprehensive high schools exceed the state's average of 22 for class.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following two comprehensive high schools. The minoritized student population at Centennial High school was composed of 9.1% of African Americans, and 57.6% Latinos. Martin Luther King High was composed of 8.2% of African Americans, and 36.9% Latinos.

A-G requirements are the necessary requirements students must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Centennial High school reveal that 58.8% African Americans, and 53.9% of Latinos completed A-G requirements. The minoritized student achievement outcomes at Martin Luther King High school reveal that 56.6% African Americans, and 52.7% of Latinos completed A-G requirements. Moreover, Centennial High and Martin Luther King both had 50% of minoritized students that met the A-G requirements. Although Centennial High had a higher percentage of students on the free-reduced lunch program, and higher percentage of minoritized students, in comparison with Martin Luther

King High, Centennial High achieved an overall higher A-G completion rate than Martin Luther King High.

Table 20. Inland Empire Comprehensive High Schools A-G Achievement Student Outcomes

School	Black Enroll%	Latino Enroll.%	Latinos UC/CSU req. met%	Black UC/CSU req. met%	Grads. UC/CSU req. met%
Santiago High	4.40%	36.90%	63.3% (n = 214)	71.4% (n = 25)	69.20%
Eleanor Rooseve lt High	12.20%	45.50%	53.7% (n = 238)	53.7% (n = 72)	61.20%

Note. 2018 California Department of Education

Representing two different schools from the same district are the following two comprehensive high schools: Santiago High and Eleanor Roosevelt High both from the Corona-Norco Unified School District. Classification of these two different comprehensive high schools were based upon two factors: free-reduced-lunch program meals percentages, and total school enrollment. As the data suggests these two comprehensive high schools may have or exhibit the following characteristics. Santiago High school has a total enrollment of 33738, and a 28% rate of (FRPM). Santiago High school has a Class Size Average of 27.5, and a 4% rate of Inexperienced Teachers, and AP courses of 20. Eleanor Roosevelt High school has a total Enrollment of 4398, and a 38.5%, rate of

(FRPM). Eleanor Roosevelt High school has a Class Size Average of 28.5, and a 12% rate of Inexperienced Teachers, and AP courses of 23.

Disaggregated data reveals the enrollment characteristics among the minoritized student populations for the following two comprehensive high schools. The minoritized student population at Santiago High school was composed of 4.4% of African Americans and 36.9% of Latinos. Eleanor Roosevelt was composed of 12.2% of African Americans and 45.5% Latinos. Both comprehensive high Schools have lower percentage of minoritized students, and also have lower amounts of students on the free-reduced lunch program in comparison to all the other comprehensive high schools in the Inland Empire.

More importantly, A-G requirements are the necessary requirements students' must complete in order for them to enter into a four-year educational institution. The A-G disaggregated data for the minoritized students will now be examined. The minoritized student achievement outcomes at Santiago High school reveal that 58.8% of African Americans, and 63.3% of Latinos completed the A-G requirements. The minoritized student achievement outcomes at Eleanor Roosevelt High school reveal that 53.7% of African Americans and 53.7 % of Latinos completed A-G requirements. Moreover, Santiago High and Eleanor Roosevelt High both had 50% of minoritized students that met the A-G requirements.

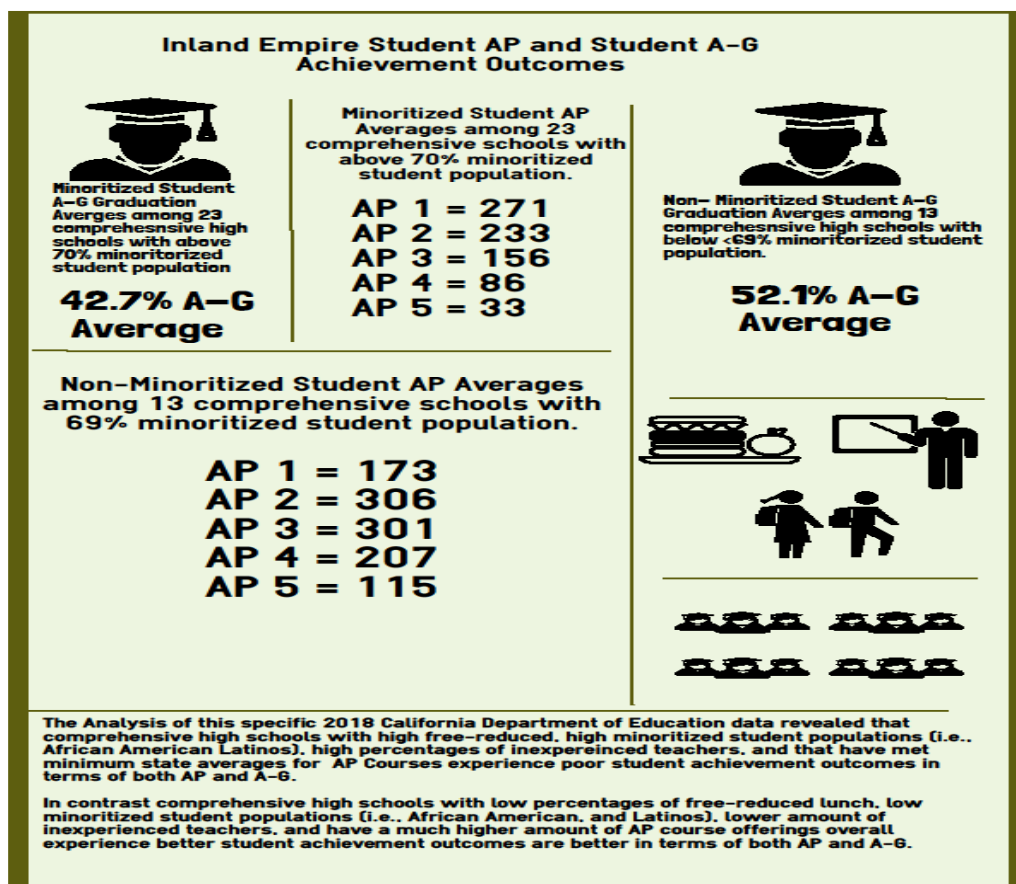


Figure 1. RQ1 Results Summary

In regards to the first research question Do schools with similar characteristics experience similar student achievement outcomes? The data that was used to answer the first research question came from 2018 data provided by the California Department of Education, and also 2015 data that was provided from USDOE Civil Rights Data. Thirty-six schools totaling 8 unified school districts from the Inland Empire were used in this research study. Comprehensive high schools used in this research study were first classified according to

enrollment characteristics, and those schools were placed together to be further investigated regarding student achievement in the terms of AP student achievement and A-G student achievement data.

Common themes that were identified through the analysis of 2015 USDOE Civil Rights Data revealed that an inverse proportion existed for students of color in regards to AP student achievement. More specifically, 2015 Civil Rights Data from all comprehensive high schools located in the Inland Empire revealed that a higher percentage of students of color were failing the AP exam rather than achieving a passing AP exam score of three. Although the majority of comprehensive high schools had higher minoritized student populations. White students and Asian American students had lower student enrollment populations but they had exceedingly higher numbers of students achieving a passing score on AP exams.

It is clear that the quantitative data in this particular research study informed us that a problem exist among the minoritized student populations regarding the successful passage of the AP examination within the thirty-six comprehensive high schools involved in the Inland Empire region. The 2015 data provided by the United States Department of Education Civil Rights, it revealed that for the majority of comprehensive high schools involved in this research that more minoritized students were not achieving qualifying AP examination scores, and that a trending inverse proportion between the institutional resources was emerging. More specifically, the inverse proportion pertains to the fact that a

higher percentage of minoritized students were failing the AP exams, rather than passing the AP examination, and this finding was most prevalent among the comprehensive high schools that had a relatively high minoritized student populations as well as a high percent of inexperienced teachers.

California Department of Education 2018 data was also used to corroborate the implications of high minoritized student populations and high percentages of inexperienced teachers. These combinations will inevitably lead to poorer student achievement outcomes in terms of both AP passage rates and A-G completion rates. In this research study high minoritized student populations will be defined as those comprehensive high schools that have a 70% or above minoritized student population, and above 10% for inexperienced teachers. This 2018 CDE AP student achievement substantiated that minoritized students trending into this inverse proportion where many minoritized students were failing the AP examination rather than passing it.

According to both 2015 and 2018 descriptive statistics it not only revealed that a higher percentage of minoritized students failed AP examinations but it also found three very important variables that were associated with all comprehensive high schools that exhibited poor student achievement outcomes in both AP exam success rates and A-G completion rates as well. Now that quantitative data has supported the growing concern regarding student achievement outcomes among the minoritized student population, I will transition

to share qualitative findings to provide more information about the student concerns.

CHAPTER FIVE

QUALITATIVE RESULTS

Next, common themes identified through 2018 data provided by the California Department of Education regarding AP Student Achievement, this data was based upon the following characteristics: free-reduced price meals, enrollment, class averages, inexperienced teachers, and AP course offerings. The implications from this data revealed that schools with similar enrollment characteristics, low free-reduced price meals, lower percentages of inexperienced teachers, low minoritized student populations (i.e., below 50%) experience greater student achievement outcomes in terms of passage of the AP exam itself. Whereas, schools with similar enrollment characteristics but with higher minoritized student populations, higher percentage of free-reduced lunch, and have a higher percentage of inexperienced teachers experience relatively poor student achievement outcomes in terms of AP exam passage rates.

Demographics of Interview Participants

The second research question was answered through semi-structured interviews with students of color and research question two is as follows: How do Advanced Placement courses prepare Latino and African American students for the Advanced Placement exam? In addition, the third research question was also answered through semi-structured interviews with participants, and research question three is as follows: What are some of the challenges and benefits

students of color experience in AP courses? A total of 13 former AP students participated in this study: three self-identified as Latino males, nine self-identified themselves as Latina females, and one of the participants self-identified as an African American female. The number of years' participants have lived in the Inland Empire are as follows: eight participants have lived in area for 18 years, two of the participants have lived in area for 16 years, one participant has lived in area for 12 years, one participant has lived in area for five years, and one the participants declined to state.

Below is additional information regarding the participants' family background. Carla's mother works as a dental assistant, the father works in business, and has four other siblings. Gina's mother is a house wife, father is a construction worker, and she has three other siblings. Amber's mother is retired, father work status unknown, and has two other siblings. Dolores' mother works in a restaurant, and the father works as landscaper, and has two other siblings. Ruben declined to state the employment for both parents and has three other siblings. Gilbert's mother recently lost employment, father works as a janitor for Stater Brothers', and has two other siblings. Marlena's parents work in a restaurant, and has three other siblings. David's mother is a retail worker, father lives and works in Mexico, and has three other siblings. Yessenia's mother works in editing office, father works in construction, and has two other siblings. Carolina's mother works in a distribution center, declined to state father's place of employment, and has two other siblings. Adriana's mother is a factory worker,

father works in construction, and has one other sibling; Monserrat's mother works place of employment unknown, father works as a plumber, and has three other siblings. Margarita's mother is factory worker, father works in construction, and has two other siblings.

Advanced Placement Journey

Participants were asked about their decision to participate in Advanced Placement and a series of other questions that pertain to Research Question two and Research Question three: How do AP courses prepare Latino and African American students for the AP exam? What are some of the benefits and challenges minoritized students in AP classes experience?

Furthermore, the journey of these former high school students to participate in the Advanced Placement Program will now be explored in greater detail.

Table 21. Participant Data: Former AP Placement Students

Name	Race	Gender	Mother's Employment	Father's Employment	Number of Years Lived in Area	Siblings
<u>Carla</u>	<u>Latina</u>	<u>F</u>	<u>Dental Assistant</u>	<u>Business</u>	<u>18</u>	<u>Four</u>
<u>Gina</u>	<u>Latina</u>	<u>F</u>	<u>House Wife</u>	<u>Construction Worker</u>	<u>18</u>	<u>Three</u>
<u>Amber</u>	<u>African American</u>	<u>F</u>	<u>Mother Retired</u>	<u>Unknown</u>	<u>5</u>	<u>Two</u>
<u>Dolores</u>	<u>Latina</u>	<u>F</u>	<u>Restaurant</u>	<u>Landscaping</u>	<u>18</u>	<u>Two</u>
<u>Ruben</u>	<u>Latino</u>	<u>M</u>	<u>Unknown</u>	<u>Unknown</u>	<u>18</u>	<u>Three</u>
<u>Gilbert</u>	<u>Latino</u>	<u>M</u>	<u>Lost Job</u>	<u>Janitor</u>	<u>18</u>	<u>Two</u>
<u>Marlena</u>	<u>Latina</u>	<u>F</u>	<u>Restaurant</u>	<u>Restaurant</u>	<u>12</u>	<u>Three</u>
<u>David</u>	<u>Latino</u>	<u>M</u>	<u>Retail Worker</u>	<u>Father Works in Mexico</u>	<u>18</u>	<u>Three</u>
<u>Yessenia</u>	<u>Latina</u>	<u>F</u>	<u>Editor</u>	<u>Construction Worker</u>	<u>18</u>	<u>Two</u>
<u>Carolina</u>	<u>Latina</u>	<u>F</u>	<u>Distribution Center</u>	<u>Construction worker</u>	<u>16</u>	<u>Two</u>
<u>Adriana</u>	<u>Latina</u>	<u>F</u>	<u>Factory Worker</u>	<u>Construction Worker</u>	<u>16</u>	<u>One</u>
<u>Monserrat</u>	<u>Latina</u>	<u>F</u>	<u>Unknown</u>	<u>Plumber</u>	<u>18</u>	<u>Three</u>
<u>Margarita</u>	<u>Latina</u>	<u>F</u>	<u>Factory Worker</u>	<u>Construction Worker</u>	<u>18</u>	<u>Two</u>

Carla

At the time of the interview Carla identified as a Latina female. Carla, found out about AP coursework through her high school counselor. More specifically, she stated that high school counselors came to her middle school while she was in the eighth grade to give a presentation about the AP Program. They also told her that if she took AP classes in high school, she wouldn't have to take more classes later on. The fact that she did not have to take more classes later on appealed to her greatly. She stated "So I decided to go into AP without even knowing my coursework or anything". Carla also stated "They just signed us up because they wanted to get more kids in their program for AP." This statement is of paramount importance because the school counselor acknowledged the need to attract more students of color into more challenging curriculum.

Carla, took the various AP courses, including: AP Human Geography, AP World History, and AP Psychology. Her decision to participate in AP coursework was based on the understanding that, if she took AP courses, she would not have to take more courses later on. She stated, "It was more the advantage I guess of taking it, you don't have to take the other classes. So that was like a plus for me and that's what I did". Carla, also stated that she was not really prepared to take AP courses.

In regards to AP test preparation the student stated that the AP teachers had higher expectations than regular general education teachers. Carla's AP

teachers engaged in a practice called Teacher Expectancy Theory, and this theory specifically, states that if the teacher holds high expectations for the student, the student will inevitably rise to the level of the teacher's expectation. However, Carla had a terrible experience during the first AP class she took which was AP Human Geography. More specifically, Carla had absolutely no clue what the class was about, and her AP exam experience for AP Human Geography was also nerve wracking. Carla believed that "It depends on how well that teachers are into their subject that they're teaching. Because I've had teachers where they'll sit in the corner of the class and fall asleep and that's true story at my school." Furthermore, Carla stated: "Everybody has their own way of teaching so what she taught some stuff didn't correlate to the test and some of it did. But it's just so much information. It's just like you have to know everything."

The student experienced several challenges during her experience in AP. For example, lack of important AP information regarding the student's AP Human Geography course. Carla stated:

I didn't even know we were going to take a test at the end because I was new to AP. So, I thought it was just a higher class. I didn't even know we were to take a test. And I ended up taking the test and I didn't do well.

Another challenge that the student encountered with her AP Human Geography course was that it was only offered during zero period at 6:30 am in the morning. Carla stated: "I was already tired and thinking about other stuff like having to do sports. So, it just wasn't a priority nor did I really like it." Carla went on to state

that she probably didn't give as much time effort. Moreover, transitioning from middle school to high school was also a difficult process for her. In regards to her first AP course, AP Human Geography, she stated "I didn't even know we were going to take a test at the end because I was new to AP. So, I thought it was just a higher class." In addition, Carla stated that the teacher gave them an option of either taking the class final or taking the AP exam itself. However, it was unclear when the teacher informed the students that they did not have to take both examinations. After taking her first AP exam for AP Human Geography she did not do very well.

Beyond the possibility of not needing to take other courses, Carla benefited from being challenged academically and learned time management skills. Carla recalled: "I feel like the benefit of it was being able to have more challenges. So, the challenge of it was getting me to think a little bit more deeper into concepts." In regards to time management Carla stated "Actually time management, I thought it was a big thing. The benefit of it because I learned you can't just do everything the class before."

One more important benefit that Carla experienced was that her AP Psychology teacher was always there for her. Carla stated "My AP teacher, she helped me when I would be confused by our counselors or they just wouldn't be there in the mornings when they said they would be there. So, I feel like she gave me the best advice." Although Carla had a bad experience in her first AP course

she found her AP Psychology teacher to be extremely caring and helpful along her academic journey.

Gina

At the time of the interview Gina identified as a Latina female, and her decision to participate in AP coursework was encouraged by her school counselor. Her decision was also based upon her previous year's college preparation coursework, as well as her academic grades, as she had earned straight A's. Gina, also stated that her school counselor told her "Oh you should shoot for something higher. You should take AP courses. You can get college credit and stuff." The encouragement by the institutional agent led to her engaging in challenging coursework. In addition, she had also heard that AP courses were weighted and would increase her GPA. Gina, stated that, ultimately, "if it gets me more recognition for college, then I'll do it". This is what prompted her to take or engage in AP coursework.

Gina, took the following AP courses: AP calculus, and AP Spanish. The student also received encouragement from the International Baccalaureate (IB) coordinator to participate in AP courses, and was also told that by taking AP courses the student would receive more recognition from colleges. In regards to Test Preparation, when Gina was asked if she was prepared for AP courses, she responded: "No not really. I felt like I was just thrown in there, and I just saw the workload, and I was really overwhelmed. I was like "Crap I'm stuck here anyways." So, we just continued." Gina also stated that her AP classes felt like

AP students were being crammed with a lot of information, she recalled: “Yeah, I feel like they tried cramming it all in together way too fast.” It just felt like a big cram-in like “Okay, here, here’s the information and memorize it all.” Gina’s experience aligned with the banking method whereby students do not engage in learning process, merely rote memorization. At the same time, Gina felt like her AP teachers in general provided an adequate academic support system through after school tutoring. Furthermore, Gina stated:

Oh yeah, they were definitely supportive. My AP teachers, anytime I needed help or I needed to talk to them, they were always willing to help me out in my homework, or they found where I was struggling in and they tried working out with me, especially for tests and exams...They would even have afterschool tutoring for the class, whoever needed extra help, like especially for math.

Gina also experienced various challenges previously in AP courses: overwhelmed, heavy workload, stressfulness, lack of sleep, and periods of depression. Gina stated:

It was really stressful. I didn’t get any sleep. I cried for the most part. It was a lot of homework. And then yeah, I kind of regretted it at some points, but then I was like, okay. So yeah it was just really overwhelming, I feel like.

Clearly, Gina placed a lot of effort in the course and had to navigate a stressful process. Gina’s experiences aligned with the other participants as well.

In addition to being stressed because of lack of information regarding the AP examination, Gina stated:

I didn't know what to think of what was going to be on the exam because my first exam, I took the class, and I felt like it had nothing to do with the AP exam. And I was like, I have no idea, so I'm just going to guess on all of these, and I didn't do so well.

Despite struggling and feeling unprepared for the exams, Gina took several AP exams and she successfully passed the AP Spanish Language and AP Spanish Literature exams.

Gina described that being in AP courses provided a distinct advantage by allowing her the opportunity to increase her grade-point-average and to receive more recognition from four-year colleges. Gina also stated that she gained the following benefits from AP courses: discipline, time management skills, and being capable of managing heavy workloads, including homework and studying. Gina stated:

I think it really taught me discipline, and how to manage my time, managing my schedule, how to keep up with homework, knowing how to have a big workload and being able to do this. So yeah, it made college feel a little bit easier.

Therefore, engaging in AP coursework enabled Gina to manage a more highly intensive college-level workload more easily do to the time management skills she acquired from her AP courses.

Amber

At the time of the interview Amber identified as an African American female, and her decision to participate in AP coursework was heavily influenced by the student's school counselor. Amber recalled that her school counselor said:

Oh, you should take some AP classes. You've been doing really good in your classes So far, because I had all A's and she was like, So you should try it out to see how you like it and everything.

Amber only took AP English, and AP United States History. Although she took the AP exams at the end of semester, and she did not do very well. "I thought it was going to be like the test that we took in class and like how the quizzes were, but it was kind of similar but some things were different." However, as far as Test Preparation Amber expressed that her AP teachers were very supportive, and they also provided a substantial amount of encouragement to succeed for each AP student. Amber stated: "I really liked my AP teachers. They were really supportive. They push you to do your best and they were really helpful with whatever you needed." Amber also stated that AP teachers spent a lot more time with students, and found other creative ways to ensure that student succeed.

Amber encountered the following challenges in her AP classes, which included: fast-paced, level of difficulty, and workload. However, Amber noted that because of AP courses, she became a quicker thinker/learner and they provided a challenge. Amber stated "I wanted to take AP courses because I really wanted

to challenge myself because some of the courses I was taking, like regular that you could take, they were kind of too easy for me and I wanted a challenge.”

Dolores

Dolores identified as a Latina female, and her decision to participate in AP coursework was encouraged through school counselors as well as by other students. Dolores believed that by taking AP courses it would greatly assist her getting into college. Dolores took AP Art History, AP Spanish, and AP English. Overall, Dolores did not feel adequately prepared to take or engage in AP coursework.

For Test Preparation Dolores expressed that AP teachers were really helpful. Dolores explained:

They would do activities, and stuff to help us, but also get into our work environment...So we would, for example, my teacher would take a break sometimes, so we'd wouldn't be so stressed...So we would do other things, and then on other days we would do our work.

According to Dolores, AP teachers were not only supportive of the students' academic endeavors but also provided an enormous amount of encouragement. For example, Dolores stated: “Yeah, they were pretty supportive, because they knew everybody could do it. They would always tell us, ‘Yeah it's hard but it's going to be worth it. You're in here for a reason.’”

Moreover, Dolores's previous school counselors conducting their due diligence prior to allowing students to enroll in AP courses. More specifically, due

diligence in terms of academic screening of the student's transcript, and identifying those students who not only had academic potential but those who are were motivated to participate in rigorous academic curriculum. Dolores stated: "My school was like they didn't, I guess, allow you to take the AP course if they didn't think that you were to." In regards to the AP exam itself Dolores explained, "Well, throughout the year, the AP teachers would make the students do work but towards the end of the semester they would guide us through what we should expect on the exam, and what we should study, and just re-going over it."

Similar to other participants, Dolores encountered a challenge with the higher level of rigor and the level of workload. Dolores stated "It was hard to keep up with a lot of work because I took AP classes all together, so it was hard to keep up with the work, but it was manageable." AP courses require more self-regulated learning from the student and when taking multiple AP courses at the same time, students had to negotiate their responsibilities and time commitment.

AP courses not only helped Dolores enter into the university system they also believed the courses would help financially as well because if the student passed an AP exam they automatically receive college credit. Therefore, these students hoped to receive the following benefits: have to take less college level courses, spend less money, and also spend less time to degree completion.

Ruben

Ruben identified as a Latino male. His decision to participant in AP coursework was encouraged by his school counselor and from his AVID teacher.

Ultimately, Ruben made the decision to participate in AP coursework strictly because he told that he would receive college credit and stated: “I was told I’d get college credit for it and just wanted to challenge myself.” Ruben took AP European History, and AP Spanish Language.

He felt like he was prepared to take the AP Spanish Language course but did not feel the same about taking the AP European History course. In regards to Test Preparation, Ruben felt like both AP teachers genuinely cared about their students, and stated: “The first AP class I took, the teacher he actually cared about us learning. It wasn’t just, “Oh, do the work, turn it in. “If you have any questions, just let me know. “And, he’d help us out.” More specifically, Ruben’s AP Spanish teacher was also there ready to help students especially if they did not understand something.

Ruben stated that both AP teachers reviewed AP practice test constantly, and these review sessions helped the AP students tremendously to retain the knowledge required not only to pass the AP course but the AP exam as well. Moreover, Ruben also stated: “We went over.... we did some, what are they called? It was like practice tests. Not necessarily what the AP test was, but just something related to it, so we’d have some knowledge going into the test. However, Ruben only successfully passed the AP Spanish examination and did not do well on the other AP exams. Ruben stated: “I feel if we can prepare kids better for AP, that would be great.” In particular, Ruben encountered various challenges in AP courses, including: the workload, fast-pace, and having less

time for other activities. Ruben stated: “The challenges, were the expectations which required a lot more work than everybody else was doing, and having less time to go out with friends or go out with family.”

However, Ruben explained that he gained various benefits from the AP coursework, which included: time management skills and how to handle a large academic course workload. Ruben stated: “In terms of school, they taught me how to manage my time. They’ve taught me how to take notes, how to ask questions, and how to think critically.” More specifically, the academic rigor of AP courses has prepared Ruben for the academic rigors of college level coursework.

Gilbert

Gilbert identified as a Latino male and his decision to participant in AP coursework was encouraged through friends because they told him that AP courses would inevitably help him with college. Gilbert took the following AP courses: AP Spanish and AP Math. However, Gilbert stated that he was “not a very big fan of math” but that he loved Spanish and he wished he “could have explored it more in greater detail.” He stated: “I decided to take AP courses because I thought it would be helpful and, also, it would be a little more useful for the future.” Gilbert stated that he thought he was prepared for AP coursework but he came to the realization that he was not prepared to handle the academic rigors associated with AP coursework.

In regards to test preparation, Gilbert felt that AP teachers also genuinely cared about students, and stated:

I ended up having one of my AP teachers for about two years. She really developed a care for us and helped us reach higher proficiency levels.

Gilbert goes on state: You can really tell when a teacher cares about their students and education. It's not just you know this and you don't.

More importantly, Gilbert expressed that AP teachers helped students especially him achieve higher proficiency levels. In order to ensure that Gilbert and the rest of the AP students were successful, AP teachers engaged in academic review sessions and made AP students participate in numerous reading and writing activities.

While in AP courses, Gilbert encountered various challenges related to being in AP classes: workload, lack of sleep, and laziness. However, he overcame these barriers, and learned how to be successful. In addition, he also stated that AP courses enabled him to be accepted into a four-year university. Furthermore, in regards to AP benefits Gilbert stated: "It was good, it helped me. It pushed me to know what I can do, It's not just about taking the easy way out." Other added benefits that Gilbert gained from taking AP courses was that he came a better a writer, better student in mathematics, gained a deeper understanding and became a more fluent Spanish speaker.

Marlena

Marlena identified as a Latina female, and her decision to participate in AP highly encouraged by her school counselor. Marlena took: AP World History, AP United States History, AP Language Arts Composition, AP English Literature, AP

Spanish, Language, and AP Spanish Literature. Marlana stated, “I decided to take AP courses because I was hoping I could get college credit and when I started college I’d be ahead, if I had passed the AP exams. But that wasn’t the case.” Like other participants, Marlana invested time in AP courses with the aim of not having to take other courses later. Unfortunately, the participants did not receive adequate preparation for the exam.

For Test Preparation Marlana stated that she wasn’t prepared for all of them, and she goes on to state:

Not all them, just for my AP United States History, and AP World History classes I felt prepared. But for language arts, those courses I feel like they did not prepare us enough. And Spanish I felt like I was prepared because that’s my second language, so I feel like it was easier than those who didn’t speak Spanish.

When asked about AP support from teachers Marlana also stated:

No, I did not feel like they were supportive or they taught us well enough to be prepared. So, they didn’t make us feel confident because most of the work was for the class, not for the AP examination.

Marlana expressed frustration because she invested time and energy in AP courses with the intent to receive college credit. Marlana clarified by providing the following example:

My AP Literature class, she never really taught us the rubric of the AP exam or how the AP exam was going to go. We never took practice AP exams. So, for that class, I feel like we weren't prepared for the AP exam.

In contrast, Marlena stated that her AP United States History and AP World History teachers adequately prepared students. She shared that in both AP courses they would review every week. More specifically, they would focus on a chapter every day and then the next day in class review and lecture about it. Furthermore, they would also take quizzes on Friday about the subject topic/s they had discussed earlier in the week. More importantly, as the AP exam was approaching both of these AP teachers held the following types of academic supports: office hours, afterschool tutoring, and Academic Saturday School. Office Hours is a type of academic support system that is embedded during the school day, and its purpose is to provide academic intervention to students who are struggling with core academic subjects.

Marlena encountered various challenges while taking AP classes. In particular, she shared that the courses were a "waste" of her time and money, the workload was too intense, and she was too stressed. Marlena stated:

Honestly, now with being in college, I think it was just a waste of time and waste money because the first day I didn't apply for the exam fee waiver and I didn't pass the exam, so I got no college credit and it was just a waste of money because now I'm still taking the same courses that I tried so hard to study for in high school.

Because Marlana was enrolled in college, she was able to confirm that she had to take the courses she was trying to test out of, after paying for the tests.

Marlena went on to explain that “The challenge was going home and having to read a whole chapter of a textbook in a whole night. And I never liked reading so it was kind of hard for me.” Upon reflecting on her experience, it was not a manageable expectation for her to take on the workload of so many AP classes at the same time. In regards to the AP exam Marlana also stated when taking her first AP exam, “It was a bit stressful the first time I took it because it was a four-hour exam and that was something I’ve never done.” Having the AP exam be the first time she experienced a four-hour exam spoke to the lack of preparation for the test that she received in her courses. Finally, Marlana stated that AP courses caused her countless hours of studying, limited sleep, and that she lost quality time away family and friends.

Although she was frustrated with the outcome of her AP exams, Marlana did share that she benefited from the courses. She noted that she learned new study skills and she was able to comprehend enormous amount texts in relative short period of time. She explained, “Well it taught me like I said before study skills, knowing myself on how to study, how to highlight...how I like to study and how I best do my work.” Thus, although she did not receive college credit for her exam scores, she was able to apply the developed skills while in her college courses.

David

David identified as a Latino male. His decision to participate in AP coursework was highly encouraged by his school counselors as well as by friends. David took 10 AP courses in: European History, Government, English Literature, English Language Arts, Statistics, Psychology, Physics, Biology, Spanish Language, and Spanish Literature. One of the primary reasons that David made the decision to participate in AP coursework was because he wanted to receive the extra credits offered by the AP Program if he passed successfully the AP examination. Furthermore, David stated that he was not really prepared for taking AP courses and that AP courses were totally different from general education classes. David stated: "But starting high school when I started taking AP classes, it was a big change especially since the majority of the material, you have to teach yourself."

In regards to test preparation, David found that when the teachers were very enthusiastic about their subject matter the class tended to be easier. He stated, "It helps out the students and their attitude towards the subject. But overall, it's been pretty good except for a couple of like teachers here and there." For the most part, David felt that his AP teachers were very supportive and explained:

Yeah, I did feel like a couple were very supportive. Like for example, my AP Spanish Literature teacher. Twice a month she would stay after school for two hours and it was just to get ahead with the materials. We could

finish the material in time for the AP tests. And, so, she did that, so we could have more extra time in the end to prepare for the tests.

In addition, David also stated that some of his AP teachers provided additional academic support:

Well, for some courses we would have extra tutoring outside the class and, sometimes, it was very unusual when it happened during class because they had to get the material through. But that was basically most of the teachers have tutoring after class.

Equally important, David also stated: “I just think that the teacher really does have a big influence on the class. So, if the teacher is putting the extra effort, then the students will also do it, as well.”

Some of the challenges that David experienced in AP courses included: workload and self-regulated learning. The AP courses require a student taking on the responsibility to learn the material, and it falls more upon the individual (i.e., self-regulated learning). David stated that: “Some challenges have been that you do have to make more time at home because a lot of the material again is you need to read it yourself.” Along the same lines, the benefits of taking of AP courses for David included: gaining time management skills, handling increase academic workload, and study skills. David also explained that: “Some benefits is that it does prepare you for college, where you have to teach yourself the material.” Thus, similar to the majority of the participants, although David did not

pass the AP exam and receive college course credit, he gained much-needed skills to navigate college-level courses.

Yessenia

Yessenia identified as a Latina and her decision to participate in AP coursework was highly encouraged or influenced through school counselors. They told Participate 9: “That by taking challenging courses you will have a better chance of getting into harder schools (colleges).” Yessenia took the following AP courses: AP Calculus, AP United States History, and AP Spanish Literature, and she had mixed reviews when asked if she was prepared AP coursework.

Yessenia also stated that AP teachers were very supportive, provided the necessary academic supports, such as accessible tutoring, to ensure students were successful. Challenges that Yessenia experienced were the following: heavy workload associated with AP coursework, and challenging curriculum. Furthermore, Yessenia also stated that a significant difference exists between AP coursework and general education courses which was the workload. However, because of the amount of AP coursework, the student was comfortable with taking college-level work and she also gained a significant amount of knowledge.

Carolina

At the time of the interview Carolina identified as Latina, and her decision to participant in AP coursework was highly encouraged through her school as well as by her AVID teacher. Carolina stated: “Um, it was very recommended by her AVID teacher...So, she told us that it would help us in college and we’ll

transfer the credits if we pass AP exams.” In addition, Carolina took the following AP courses: AP Spanish, AP Government, AP Psychology, and AP United States History. Initially, Carolina stated that she felt confident taking AP courses. Therefore, she wanted to taking AP courses to have challenge and have or gain a deeper understanding.

Carolina described the following regarding test preparation:

Um, with AP classes, you have to take a midterm and then...I mean, a final and then you have to take AP test at the end of the year, and that's what it's like, your final isn't your test score for the AP exam, the exam is like what really matters. So, um, if you're different because you can get an A on the final but you can get, like, a 2 in the AP exam.

Carolina's last statement from the quote above is of paramount importance. Research studies demonstrate that students of color are passing the AP class itself; However, they are typically receiving non-passing AP exam scores of 1 and 2. Carolina's AP Government teacher provided Academic Saturday school sessions as a form of academic support, and he was also very motivating with the students.

Challenges experienced by Carolina included workload, and that the materials they learned in the classroom did not correspond what was on the AP exam itself. Furthermore, she describes the experience of taking the AP exams as horrible, and goes on to state:

I feel like it was just a horrible experience, I only passed like, one or two of them. I did really well on the tests, like I feel like they didn't really prepare us, they should, like know what's on the AP test.

The AP exam experience was horrible for Carolina, she felt that the class did not prepare her for the exam specifically. Carolina stated: "Um, they prepared us for some things on the exam, but I heard they don't actually know what's on the exam, so, they can't really prepare us for something they don't know what's on it." A benefit that she acquired as a result of being in AP Spanish was that she learned the proper way to speak Spanish.

Adriana

At the time of the interview Adriana identified as a Latina and her decision to participate in AP coursework was through her high school counselor as well as teachers. Adriana stated the following reason she also decided to participate in AP coursework: "To get ahead. Get more yeah, get more units and have more credits than students entering into college." Adriana took the following AP courses: AP Psychology, AP Statistics, AP Spanish, and AP Environmental Science, and she also stated that she felt prepared to take AP coursework.

Adriana described one of her AP teachers as supportive and stated: "I do feel I was supported because my AP Stats teacher, she would help me a lot. AP Stats teacher invited me to come in during lunch and encourage me to seek assistance when she struggling academically." In addition, Adriana also felt like her AP teachers wanted her to succeed because they gave her advice in the

form of tips and techniques to be successful in AP courses. However, Adriana did not feel like the AP class work helped nor prepared her to pass the AP exams.

Although coursework did not really help Adriana to take the AP exam she did learn what career path she wanted to go into because of being exposed to AP coursework. Furthermore, Adrianna goes on to state: “Um I feel like they helped me in a way that they kind of made me see that it wasn’t easy to achieve like good grades. Like, it wasn’t as easy as I felt in general high school classes.”

Montserrat

At the time of the interview Monserrat identified as a Latina, and her decision to participate in AP coursework was encouraged through a network of teachers and students. Monserrat stated the following:

When we were freshmen, other students, or even the teachers would tell us it’s a good idea to take an AP class, in order to get credit for college.

You know, it’s a good way to feel like what college classes will be like.

There’s something about the challenge.

These were some of the reasons as to why Monserrat decided to take AP courses.

Monserrat also took the following AP courses: AP Statistics, AP Spanish Language, AP Spanish Literature, and AP Biology. When Monserrat was asked if she was prepared for AP coursework she responded:

At first, I didn't know what to expect, but the teachers were pretty helpful in allowing us to understand the material. But there were some questions that I felt that I didn't understand that well. Like AP Biology, the teacher wasn't the best.

In regards to Test Preparation Monserrat spoke highly about her AP Spanish teacher, and mentioned that the AP Spanish teacher prepared the students well. Moreover, Monserrat stated that her AP Spanish teacher would use the following types of instructional strategies: teacher would mimic AP Test, students would practice with recorder, and reciting essays. On the other hand, Monserat's AP Biology teacher did adequately prepare them for the AP biology test, and the coursework done in the classroom did not correspond with AP Biology exam itself.

More importantly, from taking AP courses Monserrat was able to acquire the following type of skill sets: time management skills, better study skills/habits, and a deeper understanding of the subject matter. Monserrat stated the following:

Yeah, like study habits, because the workload is a lot more. So you have to make sure you build good study habits, time management, and that's something that you can use for, now, and for the rest of your life.

Although Monserrat experienced some benefits from taking AP classes, she also experienced challenges. For example, she had to attend extra meetings that were mandatory, while being physically and mentally exhausted. This was

not only a significant challenge that Monserrat had to learn to overcome but it also became an added stressor. Therefore, Monserrat was only able to pass two AP exams, AP Spanish Literature and AP Spanish Language, but she failed the AP Biology and AP Statistics exams.

Margarita

At the time of the interview Margarita identified as a Latina, and decision to Participate in AP coursework was influenced as well as encouraged through her high school. Margarita goes on to state:

I think, just throughout the school, its really great to get into AP classes. Especially, from a teacher that feels like they see something in you, and feel that you can do the workload and progress from just taking your average class. But, really just push to go into these classes in the first place.

A belief in from a caring adult figure can not only encourage but motivate students especially students of color to take challenging curriculum like Advanced Placement. The first AP course Margarita took was during her 10th grade year which was AP European History, and she had an incredible experience especially with the teacher. Since Margarita had a great experience with AP coursework this prompted her to take more AP courses.

In regards to Test Preparation Margarita stated the following: “Most of my teachers seemed like they didn’t care about what they were teaching. They cared about the lifestyle they had as being a teacher, and the check that came along

with it.” Margarita with conviction stated that “some of her teachers like the teacher lifestyle.” In other words, she believed that having access to a salary career and not having to work summers was the reason why they pursued teaching, not to help students.

Furthermore, she went on to state: “At many points there were frustrations because of that, but I can’t say that with all my AP classes I’ve taken and with all the AP teachers, I know some of them truly miraculous.” While taking AP European History in the 10th grade Margarita understood that AP coursework required a lot of reading and a tremendous amount of comprehensive note taking. Equally important, was that when Margarita took a concurrent enrollment course in American History through her local community college she understood this concurrent enrollment college American History course better, and learned the subject matter faster.

In addition, Margarita stated that “AP teachers just expect so much of you. Whereas, your general education teachers can see how hard you work and see your frustrations and want you to get somewhere a little bit higher and reach a little bit more.” An instructional strategy that Participant’s 13’s AP European History used were read throughs, and engaged in timed writing exercises. Moreover, her AP European History teacher use to hold Academic Saturday schools for tutoring purposes. Reflecting back during her interview, as Margarita was enrolled in UC Berkeley, she stated that AP coursework was just big waste of time as opposed to starting a community college sooner. Another challenge

that Margarita experienced was that her AP Psychology teacher would arrive to class five to 10 minutes late every day. Margarita also stated AP Psychology teacher: “Would look up a power point from online, present it half-ass, and then class would be over in 20 minutes before the end of the day, and that would be it. Grades were based on your binder design.” Obviously, Margarita believed that AP courses did help with the college admissions process, and AP courses enabled her to step out of her comfort zone.

Decision to Participate in AP

Some common themes that were identified through the participants’ responses in regards to their decision to participate in AP coursework revealed that they were highly influenced and/or encouraged by their school counselors. In addition, research participants were also encouraged by their teachers, other school personnel, as well as by other students. It is also important to note that encouragement from school counselors, teachers, and family assisted the minoritized students in this research study to make the decision to participate in AP classes. Minoritized students heavily rely on the on family to help them make informed decision about their future. That is why it is crucial for school counselors to provide an Academic Four-Year Plan to each and every incoming 9th student entering into high school. The Academic Four-Year Plan not only provides information regarding high school graduation requirements but also provides information about A-G requirements as well. Furthermore, the Academic Four-Year Plan serves as an academic road-map that strategically outlines the

academic courses the student will take during each successive year in high school. Also, during this Four-Year Academic Plan meeting information about different programs like the AP, Puente, Up Word Bound, AVID, Dual Enrollment, Concurrent Enrollment, and the Seal of Biliteracy programs are discussed.

More importantly, high school counselor must first identify the academic potential incoming 9th grade students. The identification process of academic potential is first done through not only transcript review but also through analysis of the PSAT8 examination. Moreover, students with above average academic course grades, and those with average or well above average scores on the PSAT8 should be highly encouraged to take rigorous academic coursework through the AP program.

In regards to RQ1, how do AP courses help students of color pass the Exam? First of all, the process begins in intermediate school, all students' not only students of color must be encouraged to honor's level coursework in grades 7 and 8. More importantly, students must take the PSAT8 at the intermediate grade school level to be exposed academic rigor early on, so that they will now the expectations of taking challenging curriculum. Professional educators at the intermediate and secondary levels must not only encourage students towards taking AP coursework but also create academic schedules that prepare students to take academic rigorous courses AP and IB coursework.

Test Preparation

Common themes that were identified by participant responses will now be examined in regards to Test Preparation. A significant finding among the majority of the research participants was that they felt like their AP teacher developed a teacher-student caring relationship, and they also felt like their AP teachers held high expectations for them. These two findings lead us back to the Theory of Transformative Expectations. Essentially, this theory states that if a teacher develops a caring relationship with the student, holds high expectations for their students, recognizes the student's social capital, and incorporates or embeds a social justice component into classroom, the end result will often be that a student will mostly likely respond not only to the teacher in the form of academic engagement but will also respond to the challenges of academic rigor. Other significant findings that the research participants stated was that they felt like their AP teachers had a good understanding about their subject matter. This is also important because often times teachers especially AP teachers will not have an undergraduate degree in the area of the AP subject that they are teaching, and those teachers may only have an added authorization applied to their teaching credential that allows them to teach the AP subject. In regards to test preparation many of research participants felt like these different types of academic support systems such as: afterschool tutoring, encouragement, supportive, academic review sessions, reading activities, writing activities, focus on a chapter every day, in class review, lecture about it, take quizzes academic

Saturday school tutoring, office hours tutoring, enthusiastic teacher, and comprehensive note taking assisted them with the test preparation.

Challenges

Some common themes that minoritized students experienced were the will now be examined. The important significant findings that were the most challenging amongst the research participants workload, stress, and lack of sleeping. Previous research identified sleep deprivation, cognitive withdrawal, self-isolation, and chronic fatigue as stress-related factors that are primarily experienced by AP & IB students (Shaunessy-Dedrick, 2011). This corroborates the experiences of research participants in this study. In addition, the high majority of AP and IB students experience a type of stress called perceived stress (Lazarus & Folkman, 1984), define Perceived Stress as an experience after one's resources to deal with a given challenge are deemed by the individual to be taxed. Some of the research participants also felt like AP courses were waste of time, waste of money, and waste of time away from family and friends. More specifically, some research participants also stated that they felt like taking college courses (i.e, Concurrent and Dual Enrollment) at their local community colleges would have been a better option for many them. College courses taken at a local community college benefit high school students in several ways (a) provides the student with academic rigor (b) they do not have to pass an exam to receive college credit, and (c) they are free to students through school district and local community college have partnership agreement. Other significant finds

identified by research participants include: AP class offering early in morning, lack AP information, AP course did not prepare for AP exam, overwhelmed, depression, fast-paced, and difficulty level.

Benefits

In regards to benefits some common themes were identified amongst the research participants. Research participants identified several benefits that would to assist them with post-secondary education. For instance, if the student successfully passed the AP exam with a 3 or higher then the student will automatically receive college credit, and this will inevitably lead to less time to degree completion. Secondly, the academic rigor that is associated with the AP program helped the students acquire important skills that will inevitably help them become successful in post-secondary education but in life as well. Furthermore, the challenging academic curriculum they received from the AP program even further enhanced their academic skill sets in the areas of: time management skills, critical thinker, better, reader, better writer, and handle a demanding college workload.

CHAPTER SIX

RECOMMENDATIONS AND CONCLUSIONS

I have worked in the educational arena for approximately 10 years. More specifically, five of those years were as a teacher, and the other five years were as a high school counselor. It is troublesome to view first-hand the AP examination scoring data regarding students of color (i.e., African Americans and Latinos). Although more students of color are enrolling in AP courses, access has not kept pace with AP exams scores regarding students of color. More importantly, if by taking AP courses students are not only introduced or exposed to college preparatory curriculum, they are highly recognized by college universities, and are seen as necessary pre-requisites for university admissions. If students of color are enrolling in AP courses at alarming rates but access has not kept pace with AP examination scores this could very well be a social justice issue itself. Therefore, this research study must be analyzed through the lens of the theoretical framework of critical race theory (CRT).

Overview

Previous research studies have been examined regarding AP access among minoritized student populations. For instance, Solorzano (2004) conducted a descriptive quantitative research study to examine the representation of minoritized students in AP classes. Bernard-Brak et. Al, (2011) also conducted a quantitative research study to determine if a correlation existed

between school resources and AP courses availability. The result of the Bernard-Brak (2011) revealed that as the percent of minoritized students on the free-reduced lunch program increased, the percentage of AP course availability decreased. In addition, the Walker and Pearsall (2012) also examined barriers that minoritized students experienced while attempting to access AP courses.

In contrast, previous research studies have also indicated that AP access among minoritized student populations has not kept paced with AP examination passage rates. For instance, Koch et al. (2016) conducted a 16-year study from 1997 through 2012 that used archival data from College Board to determine if access among students of color was an equity concern. However, Koch et.al., revealed that during each year of this research study the number of students of color enrolling in AP courses (i.e., AP English Literature, and AP English Language Art's) increased. More importantly, Koch et. al., also found that as more students of color were enrolling in AP courses each year more of these minoritized students were actually receiving non-passing scores on their AP exams. The Judson and Hobson (2015) exploratory research study also examined the effects between AP access and AP passage rates among minoritized students. More specifically, the Judson and Hobson (2015) research study evaluated the AP participation and achievement over time and compared the following three variables: number of high school graduates, number of AP students, and number of AP exams taken. Although AP growth has been on the upward spiral the percent of students passing the AP exam with a score of 3 or

above has decreased from the 1992 level of 65.5% to the 2012 level of 59.2% (Judson & Hobson, 2015). The Judson and Hobson, 2015 research study indicated from the time period of 1997 through 2012 that Asian American students and White students maintained relatively stable AP pass rates across all AP exams. In contrast, although growth among minoritized students increased every year for the duration of this research study AP passage rates among minoritized students decreased every year.

Summary of the Study

The Theoretical Framework of CRT was utilized to determine if any social injustice practices occurred during the duration of this research study. In addition, to the CRT theoretical framework this dissertation was also guided by the three-following research questions:

1. Do high schools with similar characteristics have different student achievement outcomes?
2. How do Advanced Placement courses prepare Latino and African American students for the AP exam?
3. What are some of the challenges and benefits that students of color experience from taking AP courses?

In regards to the first research question, data was obtained from the United States of Department of Education Civil Rights Data 2015. The data revealed that AP course achievement among the thirty-six comprehensive high schools demonstrated that an inverse proportion existed in the majority of

comprehensive high schools involved in this research study. For the purpose of this research study high minoritized student populations will be classified as those comprehensive high schools that had minoritized student populations at or above 70%. In other words, the results from this research study indicated that the majority of the comprehensive high schools that had large percentages of African American and Latino students had a higher proportion of minoritized students that failed the AP examination. Whereas, White and Asian students had relatively smaller student populations, they often had higher proportions of students who received passing scores on their AP examinations. Overall, White and Asian students also had a lower amount of students who failed the AP examination. Research question 1 (RQ1) will now be examined in greater detail.

Research question 1 (RQ1), was also answered through the 2018 data that was obtained from the California Department of Education regarding AP student Achievement outcomes. In addition, 2018 CDE data was also used to corroborate that comprehensive high schools with similar characteristics also exhibited similar student achievement outcomes in terms of A-G outcomes among minoritized students. Thirty-six comprehensive high schools were involved in this research study, and each comprehensive school was categorized through their student enrollment. For example, Eleanor Roosevelt and Santiago High schools had similar types of student enrollment, and were thus categorized together.

The analysis of this specific 2018 CDE data revealed that comprehensive high schools with high free-reduced lunch percentages, high minoritized student populations, high percentages of inexperienced teachers, and those comprehensive high schools with minimum state required AP courses have relatively have poor student achievement outcomes in terms of AP and A-G student achievement. In contrast, comprehensive high schools with low free-reduced lunch percentages, low minoritized student populations, lower inexperienced teachers, and higher amount of AP courses had relatively better student achievement outcomes in terms of both AP and A-G. Research questions two and three were answered through semi-structured interviews with the participants, and comprehensive note taking.

In response to (RQ2). How do AP courses help prepare minority students for the AP exam? The participants in this research study were former AP students between the ages of 18-19 years old. In regards to (RQ2) common themes that were identified by research participants will now be discussed. A significant finding among the majority of the research participants was that they felt like their AP teacher developed a teacher-student caring relationship, and they also felt like their AP teachers held high expectations for them. These two findings lead us back to the Theory of Transformative Expectations. Essentially, this theory states that if a teacher develops a caring relationship with the student, holds high expectations for their students, recognizes the student's social capital, and incorporates or embeds a social justice component into the classroom, the

end result will often be that a student will mostly likely respond not only to the teacher in the form of academic engagement but will also respond to the challenges of academic rigor. Other significant findings that the research participants stated was that they felt like their AP teachers had a good understanding about their subject matter (i.e., AP class/es). This is also important because often times teachers especially AP teachers will not have an undergraduate degree in the area of the AP subject that they are teaching, and those teachers may only have an added authorization applied to their teaching credential that allows them to teach the AP subject.

In regards to (R2Q) test preparation, many of the research participants felt like the different types of academic support systems provided by AP teachers were not only sufficient to succeed academically but it also demonstrated to the research participants about how much their teachers actually cared for them. More importantly, nearly all research participants felt like their AP teachers developed a teacher student caring relationship. It is also important to note that most of the research participants felt like the AP teachers held after school tutoring, in class reading and writing activities, and review sessions to ensure that AP course material was covered prior to the AP exam. However, some of the research participants also felt that some of the course curriculum for AP classes did not correlate nor pertain to the AP exam itself. For example, Participant 1 also known as Carla stated that what was taught in the class did not correlate to the AP exam itself.

In regards to (RQ3) What were the challenges and benefits that minoritized students experienced? Some common themes that minoritized students experienced will now be examined. Significant findings that were the most challenging amongst the research participants were workload, stress, and lack of sleeping. Previous research identified sleep deprivation, cognitive withdrawal, self-isolation, and chronic fatigue as stress-related factors that are primarily experienced by AP & IB students (Shaunessy-Dedrick, 2011). This corroborates the experiences of research participants in this study. In addition, the high majority of AP and IB students experience a type of stress called perceived stress (Lazarus & Folkman, 1984), define Perceived Stress as an experience after one's resources to deal with a given challenge are deemed by the individual to be taxed. Since AP courses are so demanding in that they require a student to dedicate an enormous amount of time studying per AP course, some of the research participants felt like AP courses were waste of time, waste of money, and waste of time away from family and friends. More specifically, some research participants also stated that they felt like taking college courses (i.e, Concurrent and Dual Enrollment) at their local community colleges would have been a better option for many them. College courses taken at a local community college could benefit high school students in several ways (a) provides the student with academic rigor (b) they do not have to pass an exam to receive college credit, and (c) they are free to students (i.e., in school districts and local community colleges that have partnership agreement). Other

significant challenges identified by research participants included: AP class offering early in morning, lack AP information, AP course did not prepare for AP exam, overwhelmed, depression, fast-paced, and difficulty level.

Others benefits identified by participants in response (RQ3) will be discussed. Research participants identified several benefits that would to assist them with post-secondary education. For instance, if the student successfully passed the AP exam with a 3 or higher then the student will automatically receive college credit, and this will inevitably lead to less time to degree completion. Secondly, the academic rigor that is associated with the AP program helped the students acquire important skills that will inevitably help them become successful in post-secondary education but in life as well. Furthermore, the challenging academic curriculum they received from the AP program even further enhanced their academic skill sets in the areas of: time management skills, critical thinker, better reader, better writer, and the ability to handle a demanding college workload.

Lastly, the use of Infographics was utilized to corroborate this phenomenological research study. Infographics are visual representations of information such as data, that can be easily and effectively conveyed to an audience. It is also important to note that human brains are wired to process visual representations more quickly than a written word (VanderMolen and Spivey, 2017). The use of infographics in contemporary education could be extremely useful not only to the students but to educators a like. For example,

the use of infographics in classrooms could assist students to synthesized large pieces of information, and convey their results or analysis through a visual story. Educational professionals could also use infographics not to visually display student achievement outcomes but to also convey a story through visual depictions.

In this phenomenological research study infographics were used to convey a visual story about minoritized student AP and A-G achievement outcomes in the Inland Empire region. More specifically, the averages of all comprehensive high schools with a minoritized student population above 70% were evaluated for both AP and A-G student achievement outcomes. In contrast, averages of all comprehensive high schools with a minoritized below 70% were also evaluated for both AP and A-G student achievement outcomes. In this research study twenty-three comprehensive high schools were found to have a minoritized student population above 70%. Whereas, thirteen comprehensive high schools were found to have a minoritized student population of below 70%.

Minoritized student AP averages among the twenty-three comprehensive high schools with an above 70% minoritized student population revealed that a higher percentage of minoritized students were unsuccessful at achieving a passing score on the AP exam in relation to those minoritized students who passed the exam. In regards to A-G averages among the twenty-three comprehensive high schools with an above 70% minoritized student population 42.7% were found to have completed A-G requirements.

In contrast, the thirteen comprehensive high schools with minoritized student populations of less than 70% revealed that AP student achievement outcomes among minoritized students experienced higher AP success rates rather than AP failure rates. In addition, A-G averages among these same fourteen comprehensive high schools with a minoritized student population of less than 70% revealed that 52.1% of minoritized students completed A-G requirements.

The analysis of this specific 2018 California Department of Education data revealed that comprehensive high schools with high free-reduced lunch, high minoritized student populations, high percentage of inexperienced teachers, and high school's that offer the state's minimum amount of AP courses experience poor student achievement. Whereas, comprehensive high schools with low free-reduced percentages, low minoritized student population, lower amount of inexperienced teachers, and offer a higher amount of AP courses experience far better student achievement outcomes.

Recommendations for Educational Leaders

It is evident that the Inland Empire region is heavily populated with minoritized students. However, the reflection of the student populations in this region does not correspond with the educational professionals that work in these comprehensive high schools. Nationally, 85% of educators in American are White. Comprehensive high schools within this region must do their absolute best to hire and retain qualified educators that are reflective of the community in which

they serve. So based upon the research findings in this dissertation in order to bolster minoritized student achievement outcomes comprehensive high schools must be willing to engage in the following recommendations: hire and retain qualified teachers, address poverty issues, increase per pupil expenditures, limit AP Out-Field-Teaching, identifying minoritized achievement factors, provide Academic Four- Year Plan for incoming 9th grade students, have AP Informational parent and student nights, advocate for the resurgence of Affirmation Action in regards to higher education, provide the opportunities for 8th grade students to take the PSAT8 exam, provide opportunities to join outreach programs, provide effective academic support systems and mandate all teachers to have high expectation for all students.

While this study has various implications for school leaders and teachers, it also has implications for counselors and how they guide students. It is crucial for school districts to hire asset-based and compassionate high school counselors who are not only competent but who have the best intentions to serve the students. As educators we are entrusted to serve the students and to the parent(s). The implications of this current research study stated that the school counselor was primarily the only individual to provide information regarding the AP program. When providing this information, the counselors only explained that the benefit of taking an AP course was to receive college credit. However, findings revealed that the courses provided students with the opportunity to take gain various skills, including knowing how to manage time and gaining study

skills. As school counselors we must capitalize upon this finding, and provide pertinent information not only about the benefits of the AP exam but also about the college navigation skills that the experience will provide.

In addition, school and district leaders must prioritize hiring enough counselors so that counselors can provide students with proper guidance. In particular, high school counselors can utilize the academic four-year plan. Middle school counselors can help students build a ten-year plan. In such plans, students can learn about the A-G courses and explore any hesitation or fears around academic abilities. In addition, the counselor-student dyad can discuss different school programs, community resources, and school clubs to establish the understanding that a college-going pathway goes beyond academic coursework.

Poverty plagues the community of the Latino population. According to a United States Census Bureau (2011) study regarding poverty among children the following percentages were identified: Latinos (37%), White students (30.5%), and African Americans (26.6%). There are approximately 6.1 million Latino children living in poverty, and two thirds of these Latino children are coming from immigrant parents. Traditionally, low socioeconomic schools primarily serve children who live in poverty, and these educational institutions will often lack funding for academic support systems, academic interventions, and outreach programs to assist the underrepresented minoritized student populations gain access into four-year universities.

Student's performance tends to parallel teachers' expectations and high teacher expectations are associated with high performance. That is why it is absolutely paramount for teachers to utilize The Theory of Transformative expectancy. The Theory of Transformative Expectancy for teachers requires that the teacher must be intentional when conveying his/her expectations of students through four areas of expectancy effects: social capital, academic rigor, ethics of caring, and empowering curriculum. Some studies have shown that expectations may be influenced by students' race or ethnicity, class, and gender and that low expectations are commonly associated with low income and minoritized students. Students will inevitably rise to the level of teacher expectations. Thus, teachers' must have same level of expectations for all students and they must be high expectations regardless of race and ethnicity.

College going behaviors must begin in intermediate or middle school. educators at the intermediate or middle school must begin having the conversation with students about post-secondary options. It is not merely enough to have college T-shirt Wednesday's for all intermediate or middle school students. Educators at the intermediate level must take students as well as parents on college going field trips. More importantly, college going field trips must be tangible for students. For instance, have the students attend a college lecture by a professor or have the students partake in science lab experiment at the university. In addition, parents need to be able to carry on the conversation regarding the aspects of attending a four-year university.

At the intermediate or middle school sites prior to entering into the 9th grade all 8th grade student must be given the opportunity to take the Practice SAT 8 exam (PSAT 8). The purpose of this exam is not only to identify those students that will be successful at taking AP classes their 9th grade year but also to identified the academic strengths and weakness of all students. The PSAT8 can be used as an assessment tool to inform the student of their intellectual abilities. Moreover, it also exposes them to the SAT exam, and they will know what to expect when they actually take the SAT exam in high school.

Communication regarding the Advanced Placement program cannot be emphasized enough. Many high school students are allowed to be informally enrolled into an AP course/s. Often times students will tell their friends to take an AP course/s without really know or comprehending the expectations: such as: academic rigor, excessive amount of time studying, and the academic workload that is associated with the AP program. Communication not only to students but to the parents is paramount and crucial for the academic success of students. One recommendation would be to hold an AP Parent and Student Night, that explains in detail about the AP program, and not the expectations but the benefits as well.

Academic Four-Year Plans for incoming 9th grade students must be done in conjunction with both the student as well as the parent/s. The Academic Four-Year Plan is an essential piece of the puzzle that will inevitably lead to better student achievement outcomes for all students. More specifically, the counselor,

the student and parent/s will be involved in this meeting to first identify a post-secondary goal. The establishment of a goal is paramount not only for post-secondary education but is key for letting the student know what classes will be essential in order for them to fulfill their desire to potentially become a firefighter, nurse, electrician, and carpenter. Without the establishment of a goal first and foremost the student feels much like a circus poodle just jumping through hoops without any direction.

The Academic Four-Year Plan is like a road-map that outlines the academic courses the student will take each year throughout high school. For example, typically a 9th grade student will take the following classes: Math, Science, Language Art's, Foreign Language, Introduction to PE/Sport, and an elective. During the course of an Academic Four-Year Plan the school counselor reviews classes that the student will mostly likely take during each year of high school. More importantly, during this Academic Four-Year Plan meeting the counselor also reviews or informs both the student and parent/s about the different types of programs such as: AP program, Puente Program, AVID, UP Ward Bound Program, Dual Enrollment Program, and Concurrent Enrollment Program. In addition, also review with the student about Career Technical Education Pathways (CTE), the Seal of Biliteracy Programs and other school clubs like Associated Student Body (ASB). This why it necessary that all comprehensive high schools should engage in this form of practice.

The percentage of inexperienced teachers in the Inland Empire region is exceedingly high and teacher professional development training must be available to all teachers to ensure that teachers not only are adequately trained but are appropriately credentialed in the AP subject that they are teaching. More importantly, comprehensive high schools that offer the AP Program must eliminate or reduce the number of Out-Field Teachers especially in urban areas where a high concentration of minoritized students attend. In regards to Out-of-Field Teaching, the majority AP teachers do not have a college major or minor in the AP subject that they are required to teach (Klopenstein, 2003). Moreover, AP teachers are placed in subject content areas (i.e., out-of-field teaching) that are unfamiliar to them, and providing them with essentially no professional development training. Klopenstein stated that 24% of secondary classes in math, sciences, social studies, or language arts were taught by teachers lacking at least a minor in the field in 2000. This notion of out-of-field-teaching by AP teachers is substantially higher in educational institutions that are plagued by poverty, and that also have a high percentage of minoritized students.

Academic support systems must be an inherent building block that ensures not only for Honors, AP and IB students receive additional academic support but also that all students receive the same type and amount of academic support. If comprehensive high schools want to have or portray a college-going cultural then they must also mimic college going behaviors. For example, in college many students will have study groups, and we must mimic these college

behaviors in order to indoctrinate the high school students regarding study behaviors in college. However, we must create the opportunity for all students to have a place where they go to study by themselves or with a study group before and after school. In addition, comprehensive high schools must also create some type of on campus academic support that occurs throughout the normal school day. For example, many schools incorporate an academic intervention called Office Hours. Office Hours is an academic support system that occurs every Tuesday and Thursday after second period during periods 1 through 6, and during Office Hours students are allowed to go to the subject discipline in which they are struggling with. At this Office Hours they receive immediate academic supports.

Next Steps for Educational Reform

The next step for educational leaders is to first acknowledge that there is a problem. There are three “achievement gaps” that must be confronted simultaneously: the one between White students and their Black and Latino counterparts; the one between U.S. students and the students in other parts of the world; and the one between what it took to be prepared for the 20th century and what will be required for adequate preparation in the 21st century (Boykin & Noguera, 2011, p. 6). If true school reform is going to take place in contemporary education it’s time for educational leaders to challenge this notion of the “normalization of failure” that has been allowed to exist in our educational system for far too long.

It is important to note that the Advanced Placement program emerged in a post WWII era. The Sputnik launch of 1957, exacerbated the need for America to develop a rigorous academic curriculum for high school students in the areas of Math and Science. Therefore, the primary intention or target audience for the AP program was to provide the opportunity for White students who lived in suburban American to take rigorous academic curriculum. In contrast, many minoritized students that lived in urban and rural communities were not provided with the opportunity to participate in the AP program. As such, the AP program was created but it exacerbated the lack of access to four-year colleges for students.

During that time, there were two significant situations brewing on the American Homefront during this time. The first issue was segregation in U.S. public schools and the second issue was the emergence of the Cold War. During this time, interest convergence made it so that U.S. leaders could not conquer communism and uphold democratic ideals simultaneously while engaging in discriminatory practicing such as school segregation based on race (Bell, 1980). Nevertheless, access to the AP program was not addressed. Decades later, court cases such as *Williams v. State of California* in 2000 made it evident that Students of Color did not have equal access to AP programs and other college-going resources, in comparison to white students (Powers, 2004). As a result, the AP program expanded access to minoritized students primarily in urban schools. Interest convergence occurred in these situations; interest convergence notes that minoritized populations only achieve civil rights victories only when the

dominate social class interests converge with that of the minoritized populations (Bell, 1979). However, based on the findings of the present study, there is an ongoing need to ensure that the quality of AP courses and, ultimately, the opportunities in schools that enroll a majority of Students of Color are equitable. Instead, findings of the present study reiterate that schools continue to reproduce inequalities and inequities.

The historical and continual reproduction of such inequities speaks to the need of reinstating Affirmative Action Policy in higher educational institutions. Previous research studies have indicated that although minoritized students successfully complete an A-G course pattern they will most likely attend a local community college after they finish high school instead of going to a four-year university. More importantly, minoritized students on average will take much longer than two years to transfer to a four-year university (Bustillos et al., 2017). Most recently, California began the process to overturn Proposition 209, which ended affirmative action with ACA 5; more states should follow suit.

The results in this research study have clearly indicated both with 2015 disaggregated AP student achievement outcomes and with 2018 CDE AP student achievement data that inverse proportion exist for minoritized students. More specifically, the findings indicate that minoritized students more than often fail the AP exams. Previous research studies have also corroborated the results in this research study. Koch et al. (2016) conducted a comparison research study regarding Advanced Placement English Literature and Advanced Placement

Language Composition exam scores. This was a 16-year study from 1997 through 2012 that used archival data from College Board. The results from the Koch et al. study revealed that enrollment of minoritized students in AP classes grew every year. However, growth of minoritized students into AP classes has not kept pace with AP exam passage rates.

A change in policies and practices related to ensuring the quality of AP programs is also needed. College Board along with College professors evaluate the AP teachers' syllabus and deems a syllabus appropriate or not. There has to be more oversight over the AP program to not only ensure effectiveness but to also maintain the integrity of the AP program. In regards to the AP program auditing process the College Board strongly emphasizes that it does not specify which textbooks, or other curriculum material students in AP courses should use nor does it inform or direct AP teachers on how to instruct or present the material (Alyson, 2006). However, if this is the case it is of no wonder why many research participants in this current research study stated that AP material taught in class did not coincide with the AP exam itself. The AP Training Institute for AP teachers is not merely enough based upon the years of AP examination scores for minoritized students. Furthermore, as Manzo (2003) stated, "There are more students who are taking more advanced courses, but their achievement is not increasing which presumes that they are not getting what they need out of those courses" (p. 17).

However, since growth of minoritized students into AP classes has not kept pace with AP passage rates among the minoritized student populations an alternative solution to this issue would be to have minoritized students enroll into Dual Enrollment classes at their local community college. Dual enrollment courses are another alternative for students to take rigorous college preparatory curriculum without having to take and successfully pass an examination to receive college credit. California legislation governs funding as well as student eligibility requirements, and is also in charge of awarding college credit. Much of the policy interest in dual enrollment programs emerges from the notion that this specific program can help strengthen preparation for college, help with the college transition process, and also help with college success for a broad range of students (Golann & Hughes, 2008). Many school districts are partnering with neighboring community colleges to afford this opportunity to all high school students.

The Dual Enrollment Program has a community college professor or a high school credentialed teacher instructing a college level course on partnering school districts high school campus. Dual enrollment courses are typically scheduled for two days a week, and take place after school. Dual enrollment courses vary but may consist of core academic disciplines and electives such as: Math, English, Science, Graphic Design, and Criminal Justices courses. Once a high school student successfully completes a dual enrollment course/s the student will receive 4 units of college credit, and they may also receive up to 15

credits on their high school transcript per semester as well. More importantly, the successful completion of dual enrollment course/s will inevitably increase a student's grade-point average, and this will increase their chances of being competitive for university admission.

Recommendations for Future Research

Based upon the findings of this research study in regards to the high percentages of inexperienced teachers found in the Inland Empire region considerable focus on this issue needs to be addressed. It was discovered that all thirty-six comprehensive high schools in the Inland Empire had an average rate of inexperienced teachers of 10%. There is a need for future studies to examine the implications of not hiring qualified teachers.

Future research studies also need to examine the quality of school programs such the Advanced Placement program. One example of a needed study includes a focus on the audit process of AP programs. The current AP auditing process consist of AP teachers writing their syllabus, and submitting their syllabi to the College Board for academic review. The field would benefit from a study that examines the differences between syllabi developed at underresourced high schools that serve a majority of Students of Color, in comparison to majority white high schools in wealthy areas.

Future research studies should also focus on exploring other options for minoritized students to take challenging and rigorous curriculum and receive college credit as well. Another viable option for all students but especially for

minoritized students is to take advantage of the Dual Enrollment Program. Some schools in the Inland Empire already offer Dual Enrollment courses to comprehensive high school students. More importantly, school districts have partner with their local community college and offer the Dual Enrollment to their high school students free of charge. Dual Enrollment classes are offered twice week afterschool, and students not only have the option to receive 4 units of college credit, they can also accumulate 10 credits on their academic transcript. In turn Dual Enrollment courses are weighted which offers the students the ability to increase their high school grade point average. Unlike the AP classes students must pay to take the AP exam and must also pass the AP exam to receive college credit. There are many benefits to taking Dual Enrollment courses and minoritized students must be given the opportunity to engage in these types of courses.

Limitations of Study

One limitation includes the inability of accessing student-level data to conduct empirical tests using the quantitative data. Student level data would have allowed for statistical analysis that would go beyond descriptive measures. A limitation of this was the sample size. The sample of size in this research study had only 13 participants from different schools in the Inland Empire. Originally, I intended for this study to be a case study and examine the experiences of AP teachers but with limitations in access to a school and a change in district IRB policies, I was not able to do so. Teacher interviews would have also had the

potential to provide various perspectives about the instruction of AP classes. However, the most significant limitation was that only one African American female met the research criteria to participate in this research study. While I aimed to interview at least eight African American students, due to Covid-19 and other limitations in recruitment, I was only able to interview one student. Diversity among research participants would have had the potential to have another varied perspective which would have added value to the study.

Conclusion

The former research participants shared their experiences in AP classes during high school years. Overall, many of the former research participants felt that they benefited from being in AP classes. More specifically, they stated that it enhanced their academic skill sets by taking challenging academic curriculum. For many of them participating in the AP program enabled them to become a better reader, better writer, and it enhanced their critical thinking abilities. Equally important, it taught many of them how to handle as well as manage a heavy academic workload. It is also important to note that these new skills that the research participants acquired as being part of the AP program has helped many of them enter into a four-year university.

The findings are evident that minoritized students are eager and willing to engage challenging academic curriculum like AP classes. Previous research has indicated that AP growth among the minoritized student population has increased over the last several years. However, moving forward we as educators and future

educational leaders must find ways to increase overall academic achievement for minoritized students by first addressing this ideology of the normalization a lack of resources in schools that enroll Students of Color. Too long in contemporary education have we accepted the academic failure by a particular minoritized subgroups. However, it is unacceptable that schools continue to reproduce inequities and engage in marginalizing practices. In particular, it does not matter if an educational institution adopts new textbooks new curriculum, or implement new administration teams. If the normalization of academic failure, in this case through AP exams, is not appropriately addressed then the status quo will inevitably be allowed to continued. Instead, institutional leaders must engage in adequately funding K-12 schools so that Students of Color have access to educational opportunities. K-12 leaders must ensure that educators are trained adequately to work from an asset-based perspective. Until educators and society members prioritize the schooling experiences of Students of Color, we will continue to fail as a society.

APPENDIX A
INSTITUTIONAL REVIEW BOARD
APPROVALS

From: mgillesp@csusb.edu <mgillesp@csusb.edu>
Sent: Thursday, May 30, 2019 2:54:09 PM
To: 002537482@coyote.csusb.edu; Nancy Acevedo-Gil
Subject: IRB-FY2019-265 - Initial: IRB Expedited Review Approval Letter



May 30, 2019

CSUSB INSTITUTIONAL REVIEW BOARD

Expedited Review
IRB-FY2019-265
Status: Approved

Mr. Thomas Gomez and Prof. Nancy Acevedo-Gil
COE - Doctoral Studies
California State University, San Bernardino
5500 University Parkway
San Bernardino, California 92407

Dear Mr. Gomez and Prof. Acevedo-Gil:

Your application to use human subjects, titled "Critical Race Case Study of Advanced Placement In Urban High School: Centralized The Experiences Of African American

And Latino Students" has been reviewed and approved by the Institutional Review Board (IRB). The informed consent document you submitted is the official version for your study and cannot be changed without prior IRB approval. A change in your informed consent (no matter how minor the change) requires resubmission of your protocol as amended using the IRB Cayuse system protocol change form.

Your application is approved for one year from May 30, 2019 through May 30, 2020.

Please note the Cayuse IRB system will notify you when your protocol is up for renewal and ensure you file it before your protocol study end date.

Your responsibilities as the researcher/investigator reporting to the IRB Committee

include the following four requirements as mandated by the Code of Federal Regulations 45 CFR 46 listed below. Please note that the protocol change form and renewal form are located on the IRB website under the forms menu. Failure to notify the IRB of the above may result in disciplinary action. You are required to keep copies of the informed consent forms and data for at least three years.

You are required to notify the IRB of the following by submitting the appropriate form (modification, unanticipated/adverse event, renewal, study closure) through the online Cayuse IRB Submission System.

- 1. If you need to make any changes/modifications to your protocol submit a modification form as the IRB must review all changes before implementing in your study to ensure the degree of risk has not changed.**
- 2. If any unanticipated adverse events are experienced by subjects during your research study or project.**
- 3. If your study has not been completed submit a renewal to the IRB.**
- 4. If you are no longer conducting the study or project submit a study closure.**

Please ensure your CITI Human Subjects Training is kept up-to-date and current throughout the study.

The CSUSB IRB has not evaluated your proposal for scientific merit, except to weigh the risk to the human participants and the aspects of the proposal related to potential risk and benefit. This approval notice does not replace any departmental or additional approvals which may be required. If you have any questions regarding the IRB decision, please contact Michael Gillespie, the IRB Compliance Officer. Mr. Michael Gillespie can be reached by phone at (909) 537-7588, by fax at (909) 537-7028, or by email at mgillesp@csusb.edu. Please include your application approval identification number (listed at the top) in all correspondence.

Best of luck with your research.

Sincerely,

Donna Garcia

Donna Garcia, Ph.D., IRB Chair
CSUSB Institutional Review Board

DG/MG

APPENDIX B
PARTICIPANT RECRUITMENT
FLYER

Advanced Placement

Urban Advanced Placement Programs

A case study of Inland Empire Advanced Placement Programs in the Inland Empire region.

The purpose of this research study is to explore the quality of *Advanced Placement* programs in urban school districts that are located in California's Inland Empire region in Southern California. The primary focus of this research study is to examine the quality AP programs by interviewing students (i.e., African American, and Latino students).

To participate in this study you must:

- **Participants must be 2019 alumni students who took AP courses in Inland Empire High Schools.**
- **Identify as a Latino/Latina Students**
- **Identify as a African American student**
- **Between the ages of 18 and over**

To find out more about this study, please contact:

Principal Investigator: Mr. Thomas Gomez
(951) 440-3843

thomas.gomez@cnusd.k12.ca.us

APPENDIX C

INTERVIEW AND PROTOCOL QUESTIONS

AP Student Interview Questions

1. Tell me about yourself, for example: how long have you lived in the area? What do your parents do? Do you have siblings?
2. Decision to participate in AP
 - a. How did you find out about AP coursework?
 - b. What AP courses have you taken?
 - c. Why did you decide to take AP courses?
 - d. Did you feel prepared to take the courses?
3. Impressions of AP class and Teachers
 - a. How has it been for you to be in AP courses?
 - b. How are AP classes different than other courses?
 - c. Do you feel that you have gained skills or knowledge that you could apply to other areas or in other courses?
 - d. Do you enjoy what you are doing in AP classes? Why or Why not?
 - e. What have been some of the challenges and benefits of taking AP courses?
 - f. Tell me about your AP teachers, do you feel they are supportive of you? Can you give me an example?
 - g. Is your relationship different with your AP teachers than with your other teachers?
4. AP Test
 - a. Have you taken the AP test already? How was that experience?
 - b. How did your courses prepared you for the exam?
5. General educational achievement/motivation/attitude
 - a. What are your goals after high school and why? College?
 - b. Who helped shape those goals?
 - c. How have your high school courses prepared you to meet your goals?
 - d. Who helped you apply to college (or the next step after high school)?
 - e. How would you define success?
6. Is there anything that we have not discussed that you think is important to understand your experiences with learning in AP courses and with the AP exam?

AP Teacher Focus Group Interview Questions

1. Background Information
 - a. Tell me about yourself, for example: How long have you lived in the area?
 - b. How did you decide to be a teacher?
 - c. How did you decide to teach at this high school?
2. Preparation for AP
 - a. What AP courses have you taught and how long have you been teaching AP courses?
 - b. When you were preparing to be a teacher, did you always want to teach AP?
 - c. Did you have to receive additional training or professional development focused on AP?
3. Experience with Teaching AP
 - a. How would you describe your approach to teaching, in general?
 - b. Does your approach in AP courses differ? How so?
 - c. How has your approach to teaching AP courses changed since you first started teaching AP?
4. Perception of AP Students
 - a. How would you describe AP students? Are they different than non-AP students?
 - b. Do you ever have to adapt course content or instruction to meet the needs of your students? What did that entail?
 - c. What resources do you think you need from the district to improve the learning opportunities for AP students?
 - d. In your experience, are students prepared for AP coursework?
5. Experience with AP Test
 - a. What do you think about the AP exams?
 - b. How do you talk with students about the test or prepare them to take the test?
 - c. Over the years, what have you found to be most helpful for students to understand the material or to pass the AP test?
6. Is there anything that we have not discussed that you think is important to understand your experiences with facilitating learning opportunities for students in AP courses?

APPENDIX D
INFORMED CONSENT

Informed Consent

Exploring the Quality of Advanced Placement Programs at Secondary Educational Institutions

PURPOSE: The purpose of the study is to examine the experiences of students and teachers in AP courses at your school site. The study aims to understand the teaching/learning experiences in AP courses and the approaches used to prepare students to take AP Exams.

DESCRIPTION: Students and teachers will be interviewed. To participate, students must be 18-years-old, and must have taken at least one AP course during the 2018-2019 academic year. Students will be interviewed either in person in a location of their choosing or over the phone. If students agree, the interviews will be audio recorded as they take place. Recordings will be transcribed in writing and used in the final version of this study. Teachers will be interviewed as a group at a location of their choosing or individually if they cannot attend the group interview. The interview will be audio recorded as it takes place.

PARTICIPATION: Your participation is completely voluntary and you do not have to answer any questions that you do not wish to answer. You may skip or not answer any questions, and you can freely withdraw from this study at any time.

CONFIDENTIAL: Confidentiality will be maintained throughout and after the research process. Audio recordings and hard copies of transcriptions of participant interviews and journals will be stored in a locked filing cabinet throughout the research process. Computer files will be stored on a password protected computer. Audio recordings and computer files will be destroyed three years after the research has been completed. Hard copies will be shredded three years after the research has been completed.

DURATION: Individual interviews with students will be about 45 minutes. The focus group with teachers will be about an hour.

RISKS AND BENEFITS: There are no foreseeable risks associated with this research. If you are uncomfortable answering any questions, you have the choice not to answer. There are also no foreseeable benefits to you if you participate in the study. If there is funding available, you might receive a gift card.

AUDIO: I understand that this research will be audio recorded. Initials____.

CONTACT: For information pertinent to this research study and your rights as a research subject, or in the event of a research-related emergency, please contact Dr. Nancy Acevedo-Gil at 909/537-5623 or nacevedo-gil@csusb.edu.

RESULTS: Results may be obtained after the completion of this dissertation through the CSUSB Library website. In addition, after the interview is transcribed, you will receive a copy of the transcription via email.

CONFIRMATION STATEMENT: I understand that I must be 18 years of age or older to participate in this study. I have read and understand the consent document and agree to participate in your study.

Signature: _____ Date: _____

You will receive a copy of this form.

APPENDIX E

DEMOGRAPHICS FOR INLAND EMPIRE AND SUMMARY OF

INLAND EMPIRE STUDENT AP AND A-G

ACHIEVEMENT OUTCOMES

Demographics for Inland Empire Region



Two public universities, California State University, San Bernardino, and University of Riverside, California. Inland Empire also has 12 community colleges that serves approximately 200,000 students with poor student achievement outcomes.



Four every 1000 students high school freshmen entering into a four-year university in the region only 151 will complete a bachelors degree at California Public University compared to 225 high school freshmen also entering into universities statewide.

Average High School Resources for Inland empire Region.



23
Class
Size



71%
Free Reduced
Lunch



10%
Inexperienced
Teachers



15%
AP Courses



78%
Minority
Population



Note. Thomas Gomez 2020

Inland Empire Student AP and Student A-G Achievement Outcomes



**Minoritized Student
A-G Graduation
Averages among 23
comprehensive high
schools with above
70% minoritized
student population**

**42.7% A-G
Average**

**Minoritized Student AP
Averages among 23
comprehensive schools with
above 70% minoritized
student population.**

AP 1 = 271

AP 2 = 233

AP 3 = 156

AP 4 = 86

AP 5 = 33



**Non-Minoritized Student A-G
Graduation Averages among 14
comprehensive high schools with
below 69% minoritized student
population.**

**52.1% A-G
Average**

**Non-Minoritized Student AP Averages
among 14 comprehensive schools with
69% minoritized student population.**

AP 1 = 173

AP 2 = 306

AP 3 = 301

AP 4 = 207

AP 5 = 115

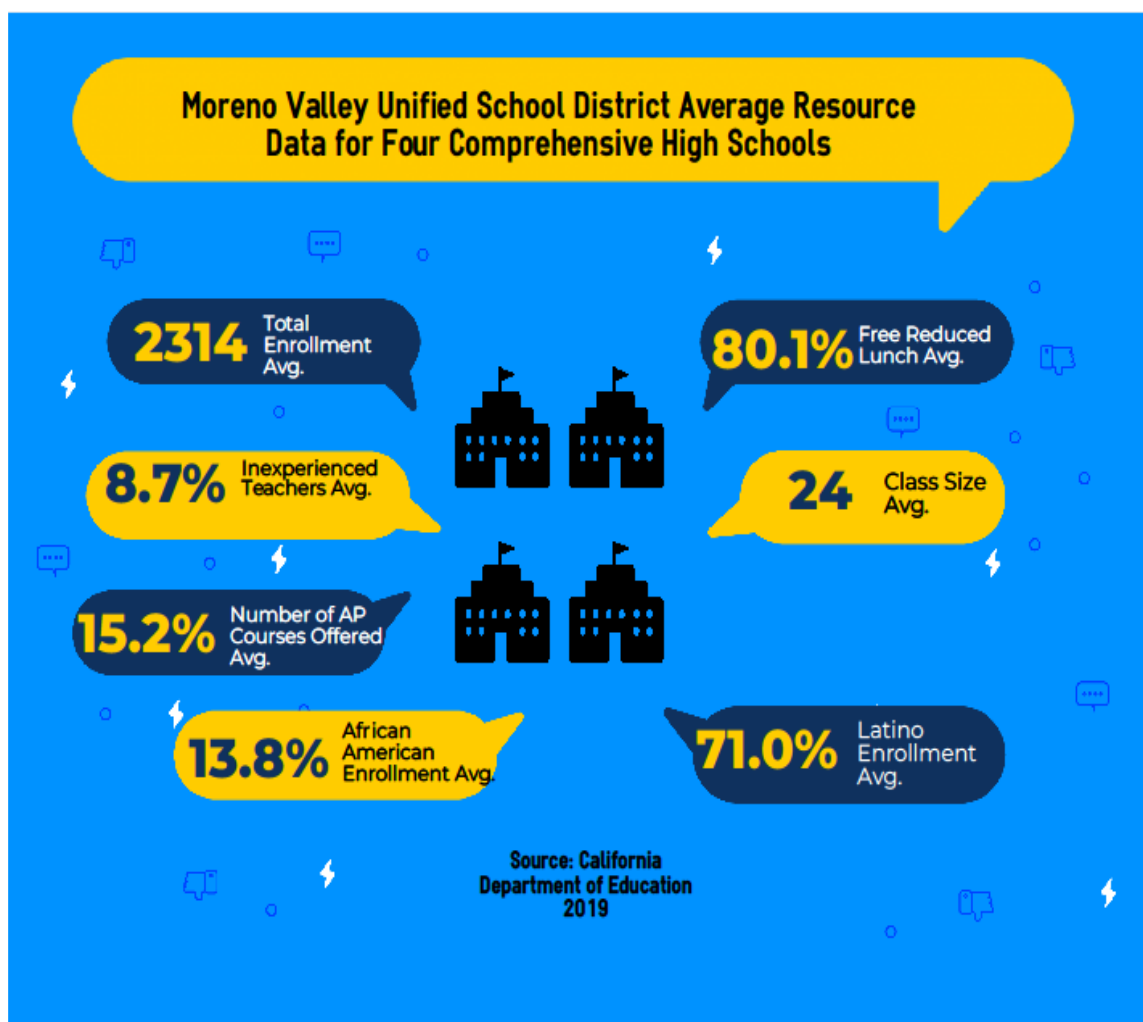


The Analysis of this specific 2018 California Department of Education data revealed that comprehensive high schools with high free-reduced, high minoritized student populations (i.e., African American Latinos) high percentages of inexperienced teachers and have met minimum state average for AP Courses experience poor student achievement outcomes.

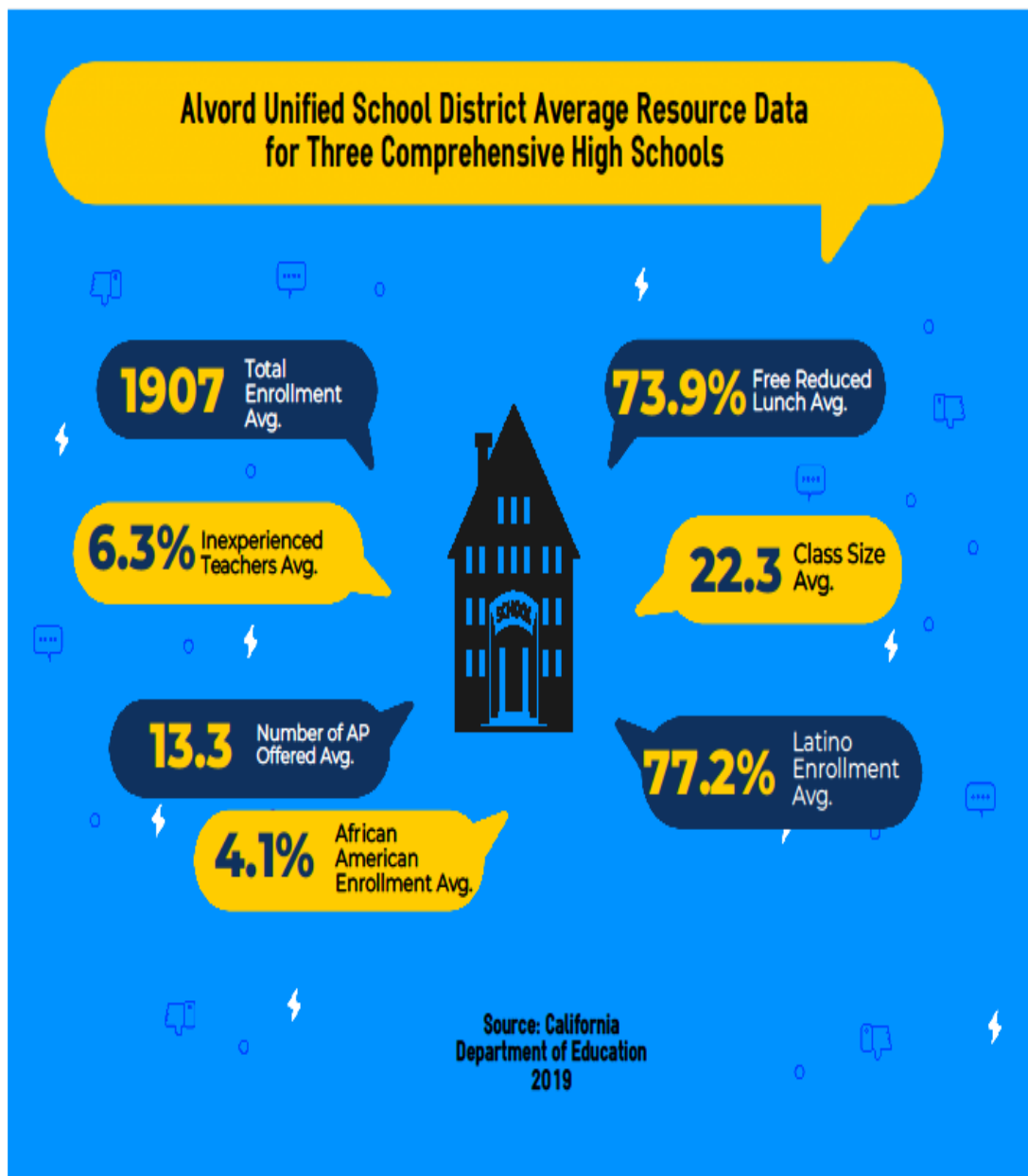
In contrast comprehensive high schools with low percentages of free-reduced lunch, low minoritized student populations (i.e., African American, and Latinos), lower amount of inexperienced teachers, and have a much higher amount of AP courses overall student achievement outcomes are better.

Note. Thomas Gomez 2020

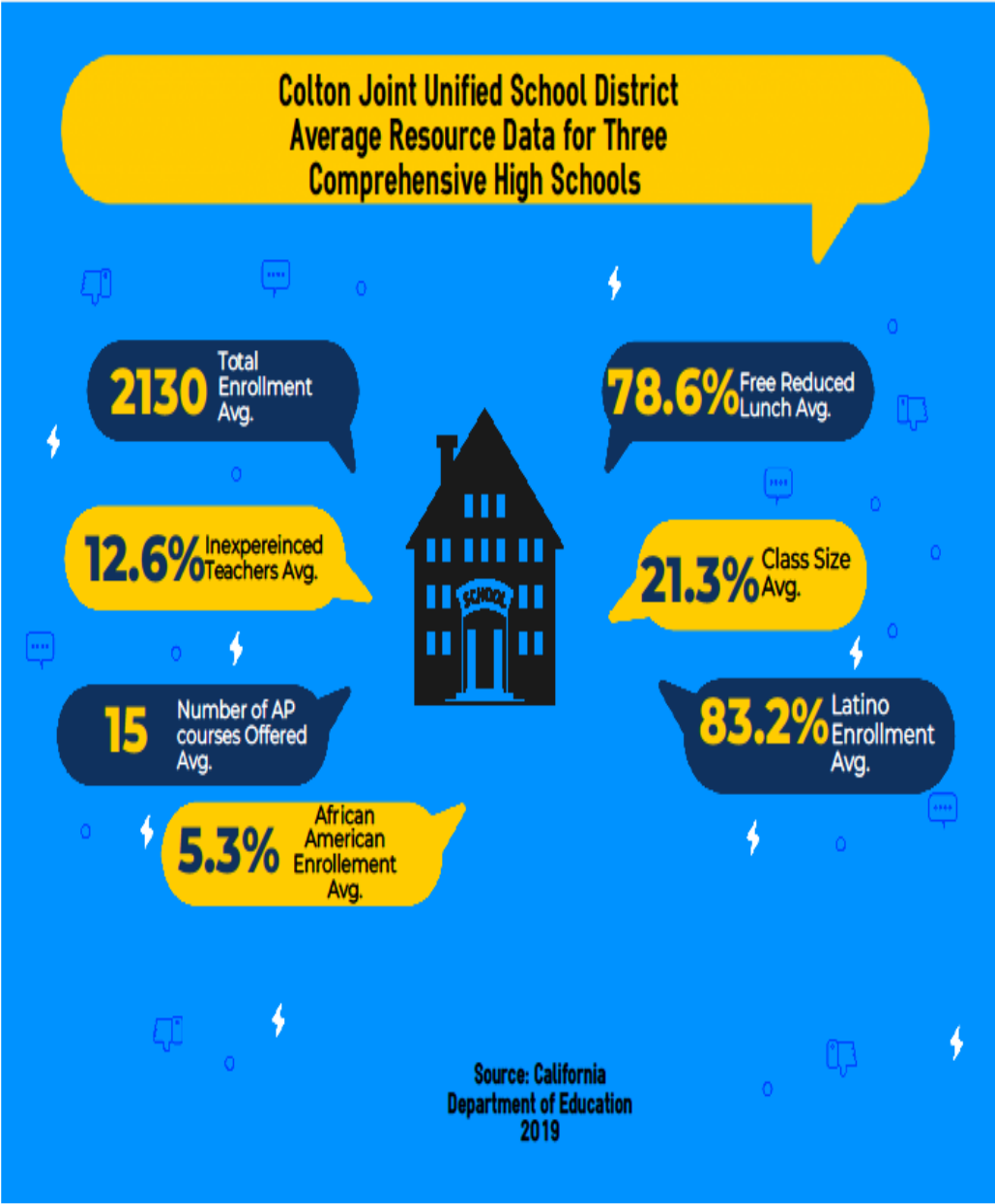
APPENDIX F
RESOURCE DATA AVERAGES FOR EIGHT
SCHOOL DISTRICTS



Note. Thomas Gomez 2020



Note. Thomas Gomez 2020



Note. Thomas Gomez 2020

Corona-Norco Unified School District Resource Data for Five Comprehensive High Schools

3180 Total
Enrollment
Avg.



45.3% Free Reduced
Lunch Avg.

6% Inexperienced
Teachers



27.5 Class Size
Avg.

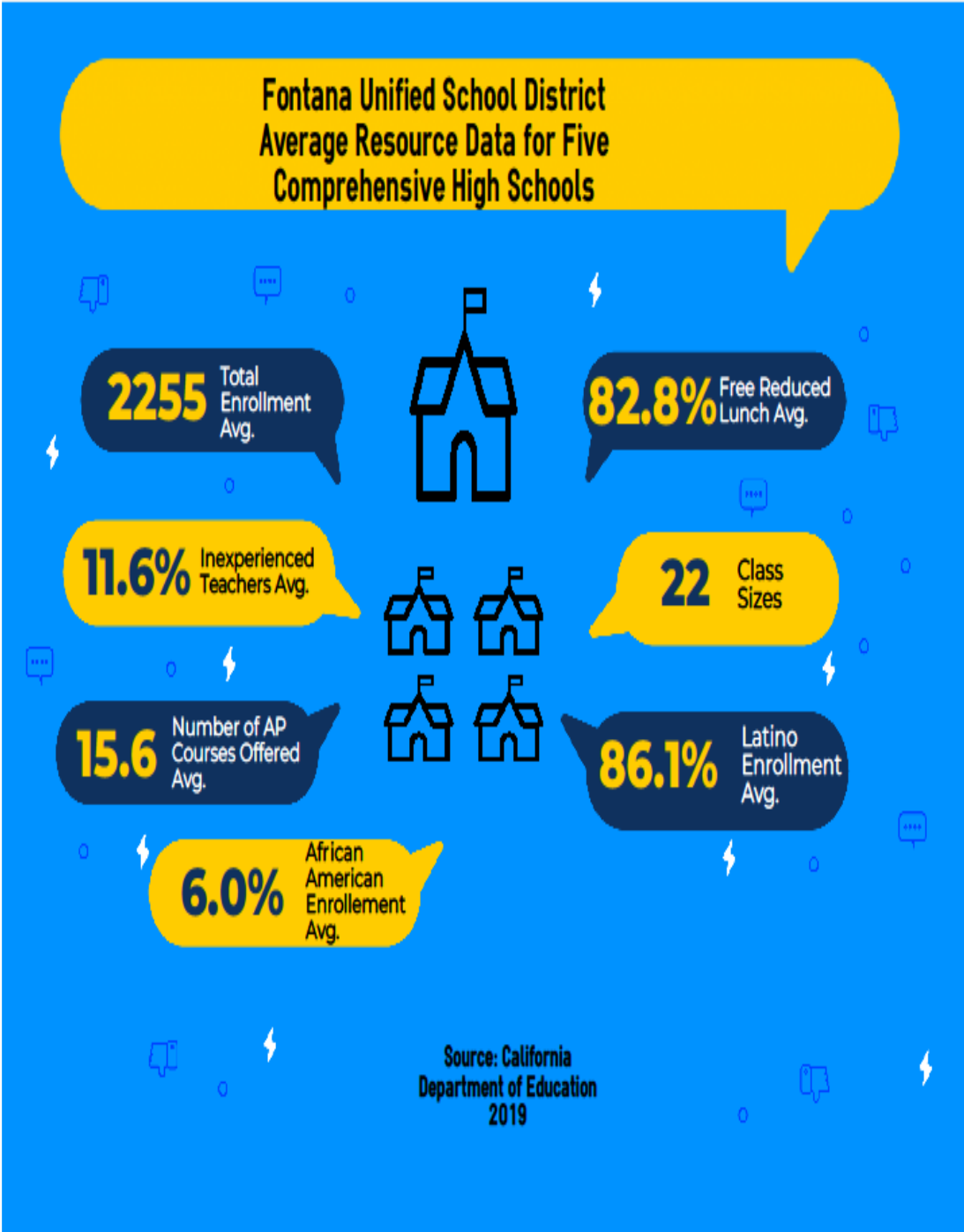
19.8% Numer of AP
Courses Offered
Avg.

6.1% African
American
Enrollment Avg.

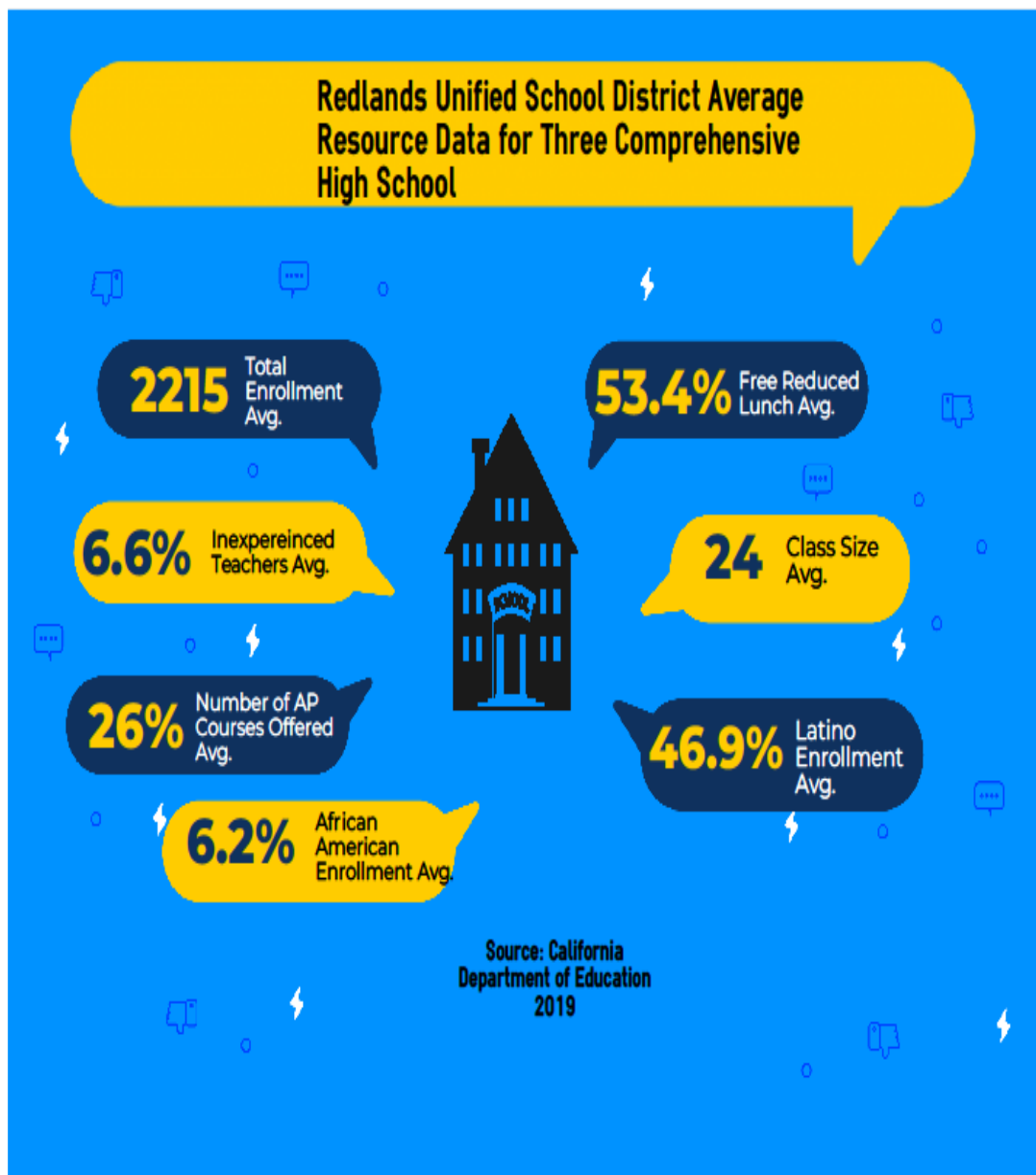
52% Latino
Enrollment
Avg.

Source: California
Department of Education
2019

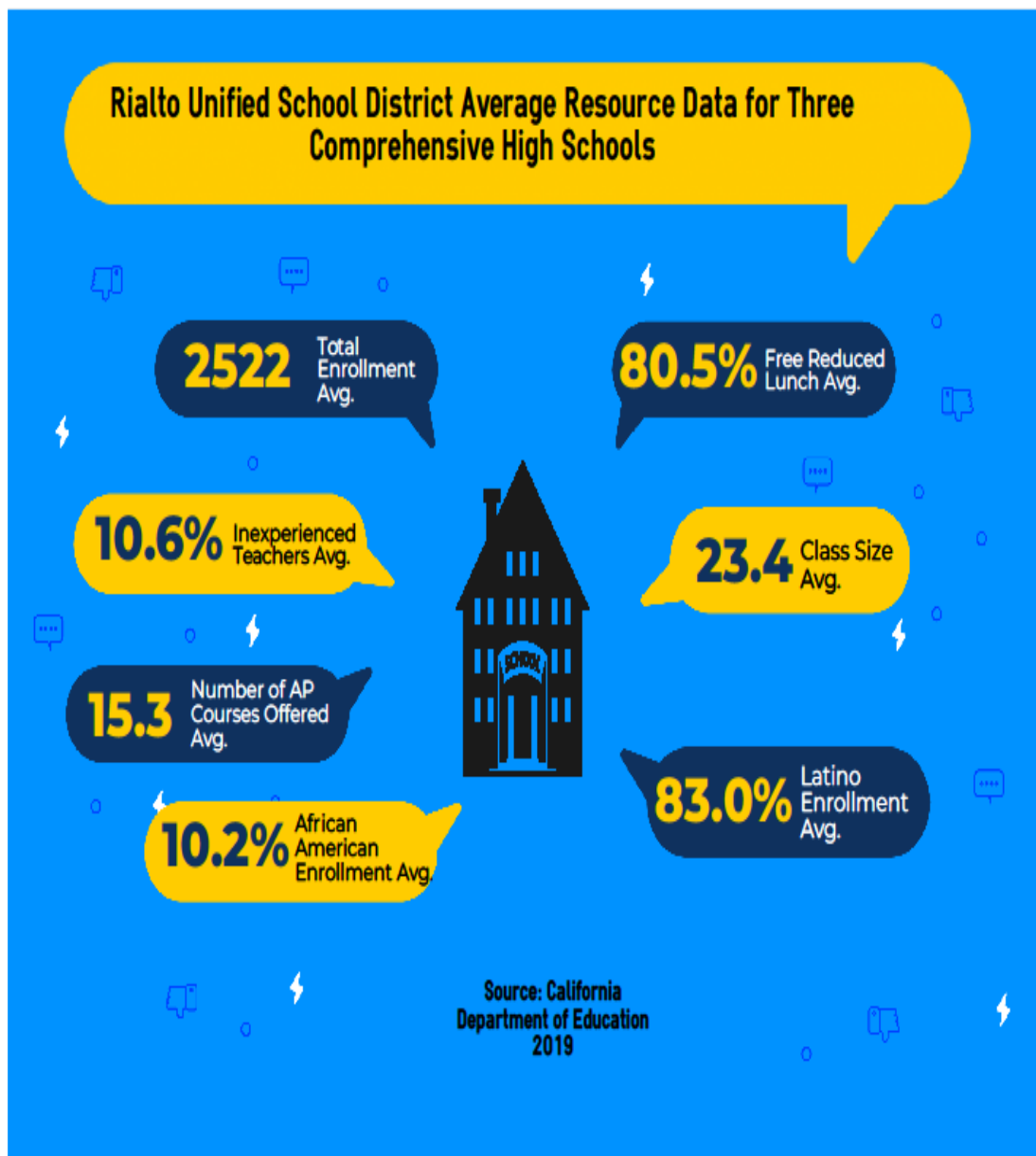
Note. Thomas Gomez 2020



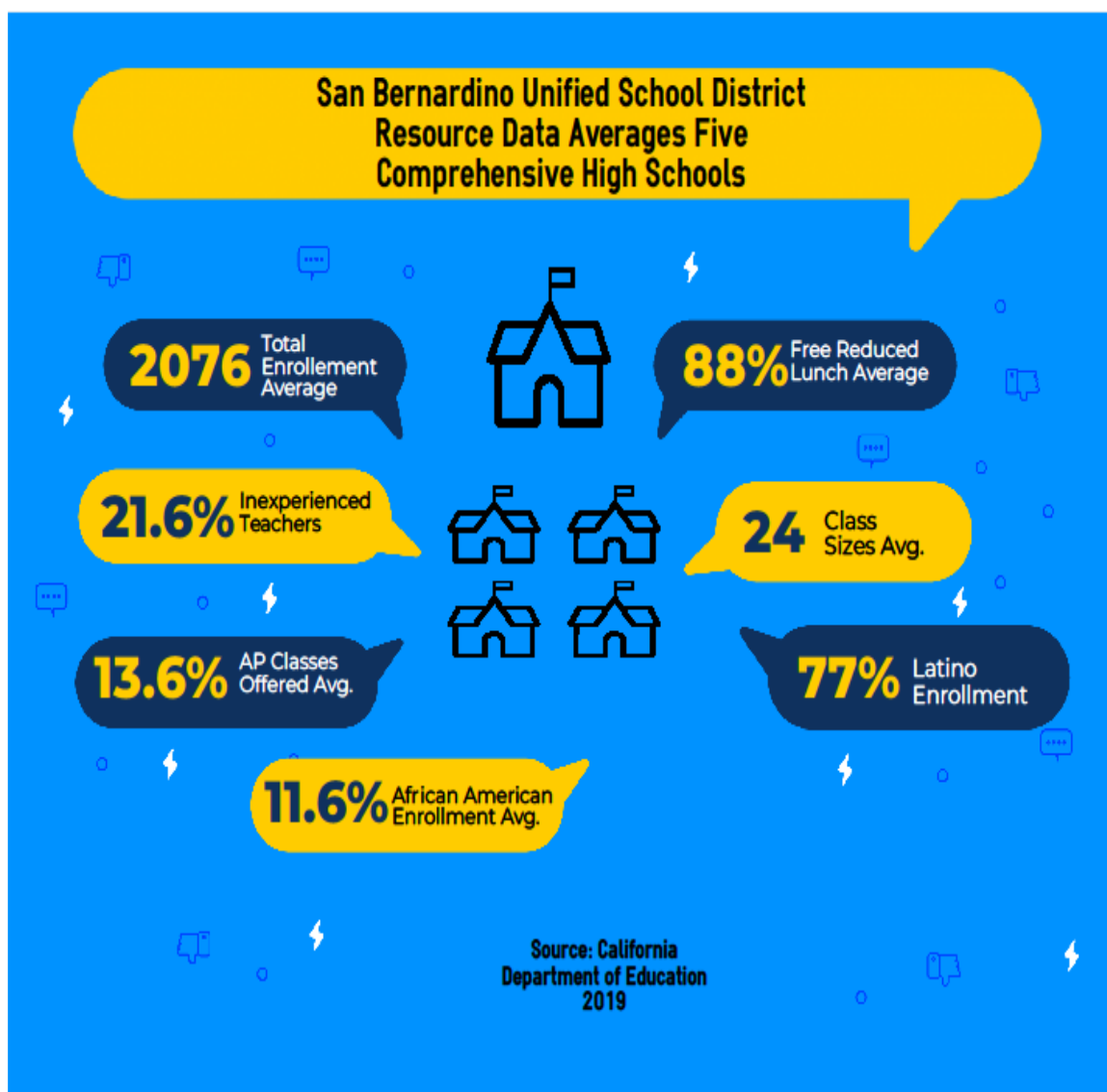
Note. Thomas Gomez 2020



Note. Thomas Gomez 2020



Note. Thomas Gomez 2020



Note. Thomas Gomez 2020

APPENDIX G
DISAGGREGATED AP STUDENT ACHIEVEMENT DATA 2015 U.S.
DEPARTMENT OF EDUCATION CIVIL RIGHTS

**Canyon Springs High School Moreno Valley Unified
School District Diagregated Data U.S. Department of
Education Civila Rights 2015**

Total Enrollment/Ethnicity

**0.30% - AM IND /AK NAT
5.00% - ASIAN
17.68% - BLACK
60.30% - HISPANIC
0.68% - NAT HI/PAC ISL
1.60% - Two or more races
14.58% -WHITE**

In this Inverse proportion there was a lower percentage of minoritized students who were successful in passing the AP exam and a significantly higher percentage of minoritized students who were unsuccessful. Exception Hispanics had slightly higher passage rate. Whites Inverse Proportion.

**Percent receiving a
qualifying score**

**0.00% - AM IND /AK NAT
16.00% - ASIAN
8.80% - BLACK
61.60% - HISPANIC
0.00% - NAT HI/PAC ISL
0.00% - Two or more races
13.60% -WHITE**

**Percent not receiving a
qualifying score**

**0.08% - AM IND /AK NAT
11.60% - ASIAN
9.60% - BLACK
58.90% - HISPANIC
0.00% - NAT HI/PAC ISL
0.00% - Two or more races
19.90% -WHITE**

Note. Thomas Gomez 2020

**Roosevelt High School CNUSD AP Achievement
Disaggregated Data U.S. Department of Education Civil
Rights Data 2015.**

**Total
Enrollment
Ethnicity**

.40% - AM IND/AK NAT
13.00% - ASIAN
13.30% - BLACK
47.50% - HISPANIC
0.90% - Two or more races
18.20% NAT HI/PACISL

In this Inverse proportion there was a lower percentage of minoritized students who were successful in passing the AP exam and a significantly higher percentage of minoritized students who were unsuccessful.

**Percent receiving a
qualifying score**

0.00% - AM IND/AK NAT
38.70% - ASIAN
8.8% - BLACK
34.50% - HISPANIC
0.00% - Two or more races
17.10% - NAT HI/PCISL

**Percent not receiving
a qualifying score**

0.70% - AM IND/AK NAT
33.2% - ASIAN
9.7% - BLACK
43.10% - HISPANIC
0.00% - Two or more races
13.40% - NAT HI/PCISL

Note. Thomas Gomez 2020

**Hill Crest High School Alvord Unified School
District Disaggregated Data U.S. Department of
Education Civil Rights 2015**

Total Enrollment/Ethnicity

**0.20% - AM IND /AK NAT
9.80% - ASIAN
6.80% - BLACK
64.50% - HISPANIC
0.40% - NAT HI/PAC ISL
1.60% - Two or more races
16.70% -WHITE**

In this Inverse proportion there was a lower percentage of minoritized students who were successful in passing the AP exam and a significantly higher percentage of minoritized students who were unsuccessful. Some notable exceptions noted.

**Percent receiving a
qualifying score**

**0.00% - AM IND /AK NAT
27.30% - ASIAN
2.98% - BLACK
51.90% - HISPANIC
0.00% - NAT HI/PAC ISL
0.00% - Two or more races
18.70% -WHITE**

**Percent not receiving a
qualifying score**

**0.00% - AM IND /AK NAT
16.00% - ASIAN
4.60% - BLACK
59.10% - HISPANIC
0.00% - NAT HI/PAC ISL
0.00% - Two or more races
18.60% -WHITE**

Note. Thomas Gomez 2020

**John W. North High School Riverside Unified School
District AP Dissaggregated Data U.S. Department of
Education Civil Rights 2015**

Total Enrollment/ Ethnicity

0.30% - AM IND /AK NAT
4.70% - ASIAN
11.10% - BLACK
71.10% - HISPANIC
0.30% - NAT HI/PAC ISL
1.90% - Two or more races
10.60% -WHITE

In this inverse proportion there was a lower percentage of minoritized students who were successful in passing the AP exam and a significantly higher percentage of minoritized students who were unsuccessful.

**Percent receiving a
qualifying score**

0.00% - AM IND /AK NAT
24.80% - ASIAN
8.50% - BLACK
43.40% - HISPANIC
0.00% - NAT HI/PAC ISL
3.10% - Two or more races
20.20% -WHITE

**Percent not receiving a
qualifying score**

0.00% - AM IND /AK NAT
7.70% - ASIAN
10.00% - BLACK
70.00% - HISPANIC
0.00% - NAT HI/PAC ISL
0.00% - Two or more races
12.30% -WHITE

Note. Thomas Gomez 2020

**Kaiser High School Fontana Unified School District
Diagregated Data U.S. Department of Education Civil
Rights 2015**

Total Enrollment/Ethnicity

**0.20% - AM IND /AK NAT
2.60% - ASIAN
7.90% - BLACK
84.20% - HISPANIC
0.30% - NAT HI/PAC ISL
0.40% - Two or more races
4.40% -WHITE**

In this Inverse proportion there was a lower percentage of minoritized students who were successful in passing the AP exam and a significantly higher percentage of minoritized students who were unsuccessful. Some notable exceptions noted.

**Percent receiving a
qualifying score**

**0.00% - AM IND /AK NAT
7.50% - ASIAN
4.30% - BLACK
86.10% - HISPANIC
0.00% - NAT HI/PAC ISL
0.00% - Two or more races
2.10% -WHITE**

**Percent not receiving a
qualifying score**

**0.00% - AM IND /AK NAT
2.70% - ASIAN
8.00% - BLACK
86.50% - HISPANIC
0.00% - NAT HI/PAC ISL
0.00% - Two or more races
2.70% -WHITE**

Note. Thomas Gomez 2020

**Citrus High School Redlands Unified School District
AP Achievement Disaggregated Data U.S. Department
of Education Civil Rights Data 2015**

**Total
Enrollment/Ethnicity**

0.50% AM IND/AK NAT
9.90% - ASIAN
6.98% - BLACK
50.60% - HISPANIC
0.20% NAT HI
3.90% Two or more races
37.40% - WHITE

In this Inverse proportion there was a lower percentage of minoritized students who were successful in passing the AP exam and a significantly higher percentage of minoritized students who were unsuccessful.

**Percent receiving a
qualifying score**

0.00% AM IND/AK NAT
19.10% - ASIAN
4.20% - BLACK
35.10% - HISPANIC
0.00% - NAT HI
4.20% - Two or more
races
37.40% - WHITE

**Percent not receiving a
qualifying score**

0.00% AM IND/AK NAT
12.90% ASIAN
8.30% - BLACK
44.70% HISPANIC
NO.00% - NAT HI
3.00% - Two or more
races
31.10% - WHITE

Note. Thomas Gomez 2020

**San Geronimo High School San Bernardino City
Unified School District AP Dissaggregated Data U.S.
Department of Education Civil Rights 2015**

Total Enrollment/Ethnicity

**0.50% - AM IND/AK NAT
4.10% - ASIAN
14.8% - BLACK
70.50% - HISPANIC
0.90% - NAT HI/PAC ISL
7.40% - WHITE**

In this Inverse proportion there were a lower percentage of African Americans students who successful passed the AP exam. However, there was a higher percentage of African Americans not receiving a qualifying score. Exception were Hispanics this type inverse proportion did not hold true.

**Percent receiving a
qualifying score**

**0.00% - AM IND/AK NAT
8.80% - ASIAN
2.50% - BLACK
83.50% - HISPANIC
0.00% - NAT HI/PAC ISL
5.00% - WHITE**

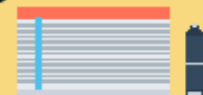
**Percent not receiving a
qualifying score**

**0.00% - AM IND/AK NAT
8.00% - ASIAN
12.40% - BLACK
69.30% - HISPANIC
0.00% - NAT HI/PAC ISL
10.20% - WHITE**

Note. Thoams Gomez 2020

APPENDIX H
COMMON THEMES FOUND FROM RESEARCH
PARTICIPANT INTERVIEWS

Common Themes Found from Participant Interviews



85%

Of Participants stated that decision to participate in the AP program was influenced by School Counselor and Teachers



3.5

Participants AP course average

Challenges & Benefits



Challenges

Some common themes that students of color experienced were the following:
workload,
stress,
lack of sleeping,
waste of time, waste of money,
waste of time away from family and friends,
AP class offering early in morning,
lack AP information,
AP course did not prepare for AP exam,
overwhelmed, depression,
fast-paced, and difficulty level.



Benefits

Some common themes identified by research participants include:
college credit,
less time to degree completion,
time management skills,
critical thinker,
entry into four-university,
better reader,
better writer,
handle college workload,
better at taking comprehensive notes,
better overall student,
acquired new learning skills.



Test Preparation



developed teacher-student caring relationship,
higher expectations,
teacher subject matter understanding,
afterschool tutoring,
encouragement, supportive,
academic review sessions,
reading activities, writing
activities, focus on a chapter every day, in class review,
lecture about it,
take quizzes academic Saturday school
tutoring, office hours tutoring,
enthusiastic teacher, and comprehensive note taking.

Therefore, this is how AP courses help students of color (i.e., African Americans, and Latinos) pass the AP exam.



Note. Thomas Gomez 2020

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