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# Exploring the effects of positive behavioral supports on disciplinary practices in schools and it's potential to mitigate disproportionality in disciplinary outcomes for African American students

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Exploring the Effects of Positive Behavioral Supports on Disciplinary Practices in Schools and  
it's Potential to Mitigate Disproportionality in Disciplinary Outcomes for African American  
Students

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A research project submitted to the Graduate Faculty of

JAMES MADISON UNIVERSITY

In

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for the degree of

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## *Dedication*

I would like to dedicate this research project to my fiancé, Bryant Levy. Thank you so much for all of your hard work through the long days and nights. Thank you for staying awake with me to review my work and for working with me and supporting me through this journey. I love you so much Bryant.

I would also like to dedicate this project to my Dad. I love you so much Dad. Thank you so much for all of your encouraging words and actions. Thank you so much for all of your hard work and support of my dreams.

## **Acknowledgements**

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All of the help that I received while working on this project was needed and greatly appreciated.

## Table of Contents

<b>Dedication</b> .....	ii
<b>Acknowledgements</b> .....	iii
<b>List of Tables</b> .....	vi
<b>List of Figures</b> .....	vii
<b>Abstract</b> .....	ix
<b>Introduction</b> .....	1
History of disproportionality.....	2
<b>Literature Review</b> .....	7
Factors Influencing Disproportionality in Education .....	7
Bias in Evaluation Process.....	8
Poverty .....	8
Factors Influencing Disproportionality in Special Education.....	12
Factors Influencing Disproportionality in Disciplinary Practices .....	15
Emotional Disability .....	17
Multi-Tiered Systems of Support.....	18
Response to Intervention.....	20
Positive Behavior Interventions and Supports .....	21
<b>Methods</b> .....	22
Participants.....	22
Procedures .....	23
Materials .....	24
Analysis.....	26
<b>Results</b> .....	26

<b>Discussion</b> .....	33
Limitations .....	39
Recommendations.....	40
<b>References</b> .....	42
<b>Appendix A</b> .....	50

## List of Tables

Table 1: This table indicates the differences between the percent of ODRs, ISSs, and OSSs for the total population per year.

Year	%ODR	%ISS	%OSS
2011	12	9	16
2012	17	14	29
2013	24	21	30
2014	25	22	33
EOY 2015 Not Fid	16	16	27
EOY 2015 Fidelity	22	19	30

**List of Figures**

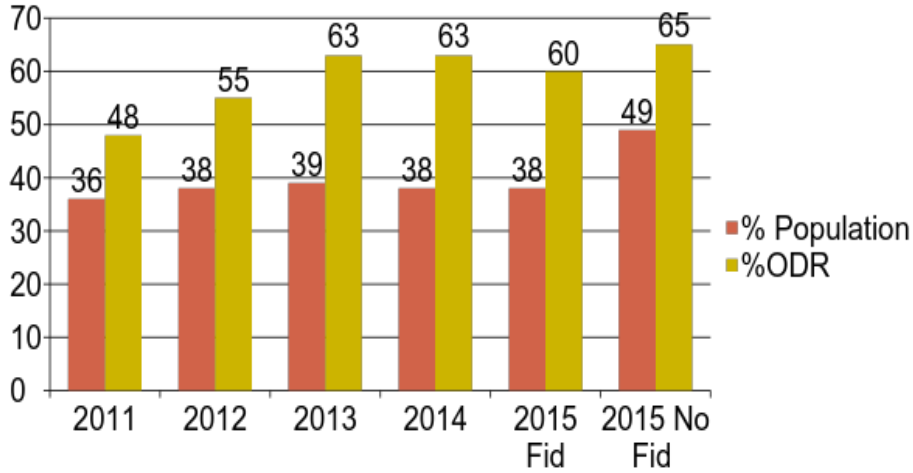


Figure 1: Percent Differences for African American Students by Year and Fidelity Implementation outcome for Office Discipline referrals.

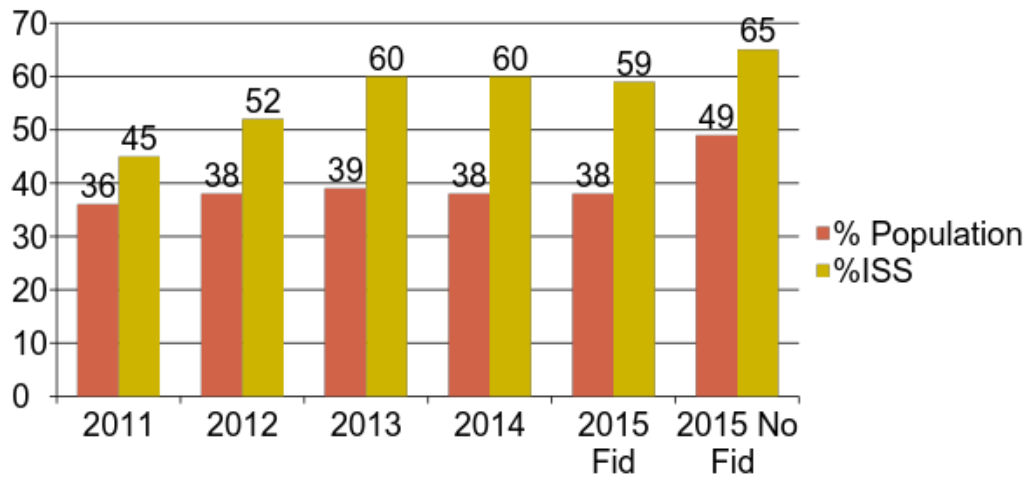


Figure 2:

Percent Differences for African American Students by Year and Fidelity Implementation outcome for Out-of-School suspensions.



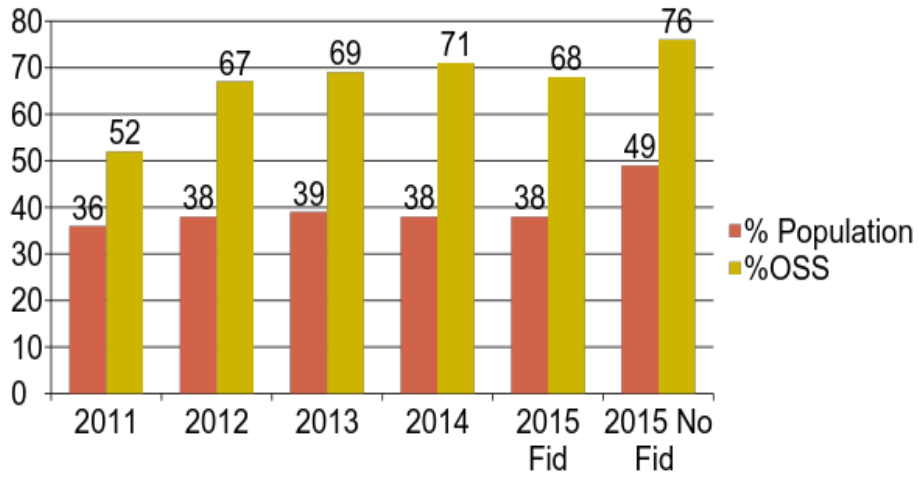


Figure 3:

Percent Differences for African American Students by Year and Fidelity Implementation outcome for Out of School suspensions.

## **Abstract**

Disproportionality in special education and school discipline in the U.S. Education system has been a crucial and complex issue. Research has shown that evidence-based interventions that lie within the positive behavioral interventions and supports (PBIS) framework has been effective in improving educational outcomes for all students. In this study, the author investigated the impact of the School-Wide Benchmarks of Quality, a PBIS fidelity measure, on student disciplinary outcomes. 380 schools presented four years of disciplinary outcome data. Results showed that the PBIS fidelity measure had a modest effect on the overall student disciplinary outcomes but did not address the disproportionate representation of African Americans. Observations of the effects of PBIS on African American student outcomes without the fidelity measure showed similar results. Per the results of this study, PBIS is an important strategy for reducing school disciplinary actions but has not address disproportionality in African American student disciplinary outcomes.

## Introduction

Disparities in the U.S. education system have been a widespread concern since Dunn acknowledged inequities in special education in a 1968 article (Rhodes, Ochoa, Ortiz 2005; Skiba et al., 2005). In the article, Dunn challenged the justification and efficacy of special education for culturally and linguistically diverse students (Rhodes, Ochoa, Ortiz 2005; Skiba, Poloni-Staudinger, Simmons, & Feggins-Azziz, Chung, 2005). These confirmed disparities that disproportionately affect minority students, particularly African American students, have yet to be remedied (Skiba et al., 2008). Over time the inequities against minority students has become a widespread educational issue commonly identified as ‘disproportionality’ and ‘overrepresentation’ in education. Disproportionality is defined as “the representation of a group in a category that exceeds our expectations for that group, or differs substantially from the representation of others in that category” (Skiba et al., 2008, p. 266). Specific areas of disproportionality in education have been primarily evident in special education and school discipline. Disproportionality in special education has been defined as, “the extent to which membership in a given group affects the probability of being placed in a specific disability category” (Oswald, Coutinho, Best, & Singh, 1999, p.198). Special education is recognized as a helpful resource to support student academic growth and create equity in education for disadvantaged students. However, those that are misidentified for special education are actually subject to more harm to their education than good (Gentry, 2009; Hosp & Reschly, 2003). In fact, students who are misidentified are at an increased risk for low self-worth resulting from the stigmatizing effects of being labeled, limited access

to the appropriate academic challenges of the general education curriculum, and low academic expectations (Gentry, 2009; Hosp & Reschly, 2003). The long-term challenges faced by students identified with a disability, have been associated with reduced post-secondary education and employment opportunities (Affleck, Edgar, Levine, & Kortering, 1990). While this is a serious national issue (Bird & Bassin, 2014) and there have been many efforts by educators and the federal government to reduce disproportionality, large disparities within special education still exist with African American students being the most at-risk group. One of the strongest predictors of disproportionality in special education is disproportionality in school discipline (Skiba et al., 2005). Skiba, Michael, Nardo and Peterson (2002) identified disciplinary disproportionality as minority students, largely African American students to be at a greater risk than their majority counterparts to be subjected to higher rates of punitive practices and harsher punishments. Disproportionality in disciplinary practices has been documented as an issue in education since the Children's Defense Fund acknowledged inequities in disciplinary actions in the 1970's (Triplett, Allen, & Lewis, 2014). Research has shown that African American students are more likely than their European American counterparts to be referred to the office, suspended or expelled (Wallace, Goodkind, Wallace, Bachman, 2008) regardless of the type of infraction (Skiba et al., 2011). A high rate of exclusionary practices reduce the time spent in class and has been linked to the increased likelihood of students dropping out of school and being involved in the juvenile justice system ("Racial and Ethnic Disproportionality in Education," 2014).

**History of Disproportionality.** Many of the early arguments against ethnic and racial disparities in the U.S. Education system were held by the parents of African

American students and civil rights activists who asserted that African American students were not receiving the same quality education as their European American counterparts (“Landmark cases: Brown v. Board of Education,” 2006; “NAACP Legal History,” n.d.). Beginning in the 1930’s many lawsuits that fought against racial and ethnic inequality were single victories around the country and did not have widespread impact until the seminal 1954 court ruling of Brown v. Board of Education (Turner, 2015). Brown v. Board of Education was one of the most critical cases in the history of U.S. Education. The court held that racially segregated schools denied students equal protection under the 14th Amendment (Jacob, Decker, & Hartshorne, 2011; Turner, 2015). Although the court order did not immediately filter into many of the segregated schools across the country, it was part of the impetus to desegregate schools and other entities throughout the United States. In some European American communities, integration was carried out without malice but a minority of European Americans showed extreme resistance to change. For example, in 1954, in one Virginia community, racial integration was completely rejected, and resulted in the closing of those community schools for 5 years (Epps-Robertson, 2016). In 1964, Title IV of the Civil Rights Act was passed which prohibited discrimination by race in education (“The United States Department of Justice,” 2015). Integration was a slow but gradual process and by the late 1970’s, most schools across the country were fully integrated (“Landmark cases: Brown v. Board of Education,” 2006).

After integration, the next major issue in education involved the use and outcomes of an educational strategy called ability grouping. Schools implemented ability grouping to support students by placing them in groups that fit their level of academic functioning,

which was determined by their scores on aptitude tests (Dawson, 1987). However, research indicated that ability grouping was not as supportive for student academic growth as it was perceived. Dawson (1987) documented findings that showed that ability grouping did not have significant support for high or low functioning students performing better when placed in academic programs with other students that were not high achievers. Ability grouping evidenced improvement in individual academic subjects, specifically reading and math, but did not have an impact on school-wide success. Researchers also identified that students placed in lower ability tracks had lower academic achievement (Dawson, 1987). Considering this information, it is evident why concerns were raised in regards to minority students being disproportionality placed in lower ability groups. One of the first successful cases that involved questioning the use of aptitude tests to place students in specific ability groups (Jacob et al., 2011) using a system commonly called “tracking” was the *Hobson v. Hansen* case of 1969 (“*Hobson v. Hansen*, 252 F. Supp. 4 D.D.C., 1966,” n.d.; Yettick, *n.d.*). In a legal battle against the Superintendent of Schools and the School Board of Washington D.C. in 1967, Hobson argued that the use of aptitude tests to group students based on ability disproportionately placed African American and economically disadvantaged students in lower functioning classrooms. Hobson also argued that this limited the students’ access to the same rigor and academic challenges afforded to those in the general education setting. Hansen counter-argued that the lower functioning classrooms were actually beneficial to student development (“Yettick, n.d.”). The judge ruled in the favor of Hobson and contended that tracking limited student progress because of limited access to the general education curriculum and lowered education expectations and that tracking resulted in segregating

students by race. The judge further noted that the aptitude tests were normed and primarily applicable to European American middle class students which in-turn resulted in false representation of student abilities when given to economically disadvantaged and African American students (Jacob et al., 2011). In another case involving disproportionality, *Larry P. v. Riles* (1972), the San Francisco School District faced a class action lawsuit filed a claim on behalf of African American students that were being placed disproportionately in educable mentally retarded classes on the basis of IQ test results (Jacob et al., 2011). In 1984, the court ultimately held that IQ tests could not be administered to African American students unless parent permission was obtained. These cases were part of the precursors to the problem of disproportionality being addressed at the national level (Rhodes et al., 2005). In 1975, in what can be considered the most crucial law supporting students with disabilities, the Education for All Handicapped Children Act (EHA) was passed which formally required provisions for students who were identified as handicapped (Rhodes et al., 2005; Harry & Klinger, 2014). In 1990, EHA was revised and renamed, The Individuals with Disabilities Education Act (IDEA). Revisions in 1997 and 2004 served to provide additional supports for students with disabilities. In the 2004 revisions to IDEA, the name was changed to, The Individuals with Disabilities Education Improvement Act (IDEIA) (Jacob et al., 2011). IDEIA laws required all schools receiving federal funds to provide a free and appropriate education to all students identified with a disability between the ages of 3 and 21, as well as support for infants and toddlers identified with a disability. Among many, some of the provisions to IDEIA included developing individualized education programs, establishing a learning environment for students with disabilities to be as involved in the general education

curriculum as possible, safe record keeping, due process, early intervention services and a child find program (Jacob et al., 2011). Although there were many legal provisions added to IDEIA for students with disabilities, disproportionality in education continued to be an issue.

To address the ongoing problem of the overrepresentation of minority students in disability categories, federal mandates required states to implement policies that were proactive and rehabilitative in regards to disproportionality. Specifically, all states that receive assistance under IDEA were required to (1) have policies and procedures in place to prevent undue ethnic and racial disproportionality and (2) to have procedures for the collection and examination of data regarding disproportionality (Albrecht et al., 2012). (3) States were also obligatory to review all appropriate policies, practices and procedures that could contributed to disproportionality and use these funds to provide comprehensive early intervention services, particularly to the group that has been disproportionately identified. Lastly, states were required to (4) utilize evidence-based interventions that promote academic success and improved overall educational outcomes (Albrecht et al., 2012). However, after reviewing the Annual Performance Reports mandated by IDEA, Albrecht, Skiba, Losen, Chung and Middleberg (2012) found that it had been the norm for states to report that no districts had disproportionate representation as a result of inappropriate identification. Subsequently, giving a misleading interpretation that large racial disproportions in special education identification no longer existed (Albrecht et al., 2012).



Previous research shows that many efforts have been considered and implemented in an attempt to reduce disadvantages against minority students. However, disproportionality remains to be one of the most crucial unresolved issues in education. However, careful consideration of previous research suggests that a proactive approach that utilizes a spectrum of evidenced-based academic and behavioral supports has been effective in addressing the challenges associated with reducing disproportionality (Jeffery, McCurdy, Ewing, Polis, 2009; Ryoo & Hong, 2011; “Racial and Ethnic,” 2014).

This study will first present a review of the literature which will include the history of disproportionality in special education and disciplinary disproportionality. Furthermore, it will address research reporting the factors influencing disproportionality and what has been evidenced to be the most promising in approaching the problem of disproportionality.

### **Literature Review**

**Factors Influencing Disproportionality in Education.** Factors contributing to racial and ethnic disproportionality include a lack of consistency in the identification process, bias in assessment instruments, overrepresentation of African American students in special education categories that are typically separated from general education classes and the indirect effects of poverty (“Racial and Ethnic,” 2014; Hosp & Reschly, 2003; Harry & Klingner, 2014). Among those factors, Wiley, Brigham, Kauffman, and Bogan, (2013) identified two of the most commonly researched areas influencing disproportionality which were bias in the evaluation process and the indirect effects of poverty.

**Bias in Evaluation Process.** The first factor identified by Wiley et al. (2013), bias in the evaluation process refers to the process in which students are identified, assessed and determined eligible for special education. Hosp and Reschly, (2003) noted cultural differences to be the main factor contributing to bias in which students are identified. Researchers indicated that, because the primary method in which students are identified for problem behaviors is through teacher reports, and traditionally, teachers do not receive training in cultural responsiveness, students who are culturally different are most at-risk for disproportionate placements (Hosp & Reschly, 2003). This suggests that the evaluation process is significantly different for minority students and that the misidentification of racially and ethnically diverse students due to cultural differences is the most significant factor contributing to disproportionality (Hosp & Reschly, 2003).

**Poverty.** The second main contributor to disproportionality in special education that Wiley et al. (2013) identified was the indirect effects of poverty. Income status was targeted as a factor due to evidence of African American students being disproportionately represented in poverty, and therefore, were considered to be at a disproportionate risk for the indirect effects of poverty (Wiley et al., 2013; Skiba et al., 2008). The indirect effects of poverty are widely considered to negatively impact academic performance and presumably affect the rates of special education for minority groups. However, as evidenced in Skiba et al. (2005), the relationships among poverty, race and special education are complex, and existing research examining the relationships among these three factors has yielded mixed results. Furthermore, although there is a confirmed relationship between poverty and race, the relationship between special education and poverty has not always been as defining (Skiba et al., 2005).

In a study conducted by Wiley et al. (2013), researchers examined the relationship between poverty and Emotional Disability (ED). In the study, researchers reviewed public data from 50 states including Washington D.C. and collected information regarding ED and child poverty representation rates by race. Poverty status was identified as those living on a household income of no more than 21,200 dollars per family of four. Researchers used the child poverty risk index, the child poverty risk ratio, the ED risk index and the ED risk ratio to calculate relationships. The child poverty risk index was defined as the percent of children living in poverty. The child poverty risk ratio was calculated by dividing the child poverty risk index for African American children by the child poverty risk index for European American children. The ED risk index was defined as the percentage of African American students identified as ED by state. The ED risk ratio was calculated by dividing the African American child risk index by the European American child risk index.

In their results, Wiley et al. (2013) found that the percentage of African American students identified as ED negatively correlated with the overall child poverty risk index for African American youth. This means that as child poverty levels increased, African American student representation in special education regarding ED decreased. Next, Wiley et al. (2013) considered the child poverty risk ratio. When the child poverty risk ratio was considered, there was a positive correlation between African American student representation in the ED category and the child poverty risk ratio for African American youth. This means that, as the risk ratios for African American children in poverty increased, so did minority student representation in the ED category. Essentially, African American students at-risk for poverty were at a higher risk of being identified as ED than

European American students at-risk for poverty. Similarly, in a study conducted by Oswald, Coutinho, Best and Singh (1999), researchers found that as poverty increased, African American representation in the ED category decreased. In fact, results indicated that as household income increased so did the identification of African American students as ED. Additionally, researchers found that poverty accounted for the disproportionate representation of African American students identified as having a Mild Intellectual Disability. This was the only factor that predicted special education identification for African American students. In another study exploring inequities in education for children in poverty, Skiba et al. (2005) explored the relationship between poverty and disproportionality in special education for African American students. Researchers compiled special education data from 295 school districts in one state. Among other correlational relationships, researchers explored the relationship between poverty and race, and found that poverty status and race significantly predicted disproportionality. Specific results indicated that separate from race, poverty significantly predicted the disability categories of Intellectual Deficit (ID) and ED. However when race and poverty were considered together, race continued to be a stronger predictor of disproportionality for all disability categories evaluated, which were ED, ID, and Speech/Language Impairment (SL).

Results showed different outcomes for different disability categories. Specifically, poverty was found to predict Mild Intellectual Disability across two studies reported but was not as strong of a predictor as race. In some correlations, results showed no relationship between poverty and ED. Altogether, it is evident that race was found to be a greater predictor for ED and special education identification representation than

poverty, which implies bias in ED identification for African American students. In a study conducted by Harry and Klinger (2014), researchers found bias in the referral process as well as school policy that influenced the disproportionate admittance of culturally diverse students into special education. However, it is important to note that research regarding bias in the identification of students as ED is limited (Wiley et al., 2013) and claims of bias in ED identification should be supported with more research (Oswald et al., 1999). Researchers Oswald et al. (1999) concluded that results regarding the positive relationship between African American students in higher SES communities and high African American ED representation may be reflective of a limited tolerance for “behavioral diversity” among wealthier schools. Although poverty was evidenced to be a weak predictor of special education disability for African American students, it is important to note that poverty does have a serious impact on the mental, emotional and behavioral health of children (Yoshikawa, Aber, & Beardslee, 2012). Researchers Wiley et al. (2013) suggested that there may even be a component of under-identification that influenced the lack of causal relationship between poverty and ED for African American students. They purported that under-identification may be reflective of school systems wanting to keep ED rates low in an effort to reduce disproportionality for African American students (Wiley et al., 2013). However, the notion that schools are purposely not supporting African American students with emotional disabilities in effort to reduce disproportionality is only speculation and is a serious accusation that needs additional research to support the claim. Across all studies, race was the strongest predictor for disproportionality, but it is important to consider that no single factor explains the relationship between education and disproportionality for African American students.

### **Factors Influencing Disproportionality in Special Education.**

Disproportionality in special education is a complex issue. The causes of disproportionality are complex and results from studies examining causality can be inconsistent (Skiba et al., 2005). However identifying factors that influence disproportionality may be helpful in understanding and reducing undue disproportionality. In an intensive 3-year study conducted by Harry and Klingner (2014), researchers sought to find the primary factors contributing to minority student disproportionate representation in special education high-incidence categories. Researchers collected qualitative and quantitative data from 12 elementary schools. Data was collected from general education classrooms, for grade levels kindergarten to 3<sup>rd</sup> grade. The schools in the study were predominantly African American, then Hispanic American, and then European American. Teacher interviews and classroom observations were conducted to collect data as well. In their assessment of the referral process, researchers sought to collect information that could reveal how the referral process contributed to disproportionality in special education. Researchers were able to follow and evaluate the referral process by selecting two classrooms from each school to observe struggling students that teachers were likely to refer to the special education team. Researchers followed each student that qualified for special education for a year after being placed in either special education or general education. They reviewed the referral process at four levels, which included the federal, state, district and local levels. At each level, researchers discovered issues that may have contributed to the overrepresentation of African American students in special education. At the federal level researchers concluded that the mandate that a student be diagnosed with a disability influenced a

search for a disability in order to qualify a student for special education. Researchers also stated that the requirement that a disability is found fuels the notion of intrinsic deficit. Researchers also noted that Response-to-Intervention (RTI) has not had a significant impact on reducing the within deficit belief.

At the state level researchers focused on how high stakes testing impacted low achieving students that were eventually identified as having a disability. Researchers asserted that admitting low achieving students to special education was an incentive to maintain higher school-wide scores on high-stakes testing. Researchers claimed this because test results of special education students on high stakes testing was not included in school-wide performance outcomes. In response to the latter, results indicated that many students were subjected to inappropriate placement. At the state level, researchers also focused on school adequacy. In their results, researchers found that there were inequities in school funding and evidence of the disproportion amount of ill-prepared teachers in urban schools which was also found at the district level. At the district level, results showed that the most high-needs students were assigned the least-prepared teachers. Low quality instruction was most evident in schools with students that had the lowest school readiness. Next, researchers assessed the referral process in individual schools. Results from the individual school level overlapped findings at the state and district levels in regards to teacher preparedness and the inappropriate placement of low-performing students in special education. Overlapping factors included the pairing of the least prepared teachers with the highest need students and the best-prepared teachers were evident in higher performing schools. Higher need schools were also predominantly African American. The problem of placing low-performing students, that do not have a

disability, in special education was most evident in schools requiring the busing of low-income African American students to predominantly European American, high-income schools. Results showed that African American students were disproportionately placed in special education, although in the high-needs school they had not been identified as needing special education.

Additionally, researchers Harry and Klingner (2014), investigated the actual referral process. Findings showed that schools had an outline that complied with federal regulations for a student referral process and the outline also contained a method which protected students from being inappropriately referred to the special education team. Though this process was outlined, it was seldom followed. Many of the referrals were not compliant with the regulations outlined by the schools, and little attention was shown to pre-referral strategies. Many of the environmental factors that may have contributed to the referral were over looked and a push toward testing was regularly carried out as an effective method for identifying a student's areas of need. Researchers concluded that this often continued the theme of intrinsic deficits without serious regard to environmental challenges. Researchers also found a great deal of inconsistencies in the quality of effort given in each team meeting. Overall, results of their study showed that areas contributing to disproportionality were a students' opportunity to learn, the referral and placement process and the quality of special education services. Researchers found that the identified factors contributing to these areas included the teacher's degree of experience or specialty, inappropriate student-teacher ratio, subjectivity in psychological assessment, ineffective administrative policies, pedagogical practices, disciplinary actions and the school curriculum. Additional factors included inappropriate student placement



due to pressures to perform well on high stakes testing which contributed to misidentification, inconsistency in the application of eligibility criteria, and keeping the idea of intrinsic deficit without serious regard to environmental problems. It should be noted that this review was collected from one study that intensely evaluated the factors contributing to disproportionality. Additional review of the literature regarding factors that contribute to disproportionality in special education is needed to support these findings.

**Factors Influencing Disproportionality in Disciplinary practices.** Specific factors that contribute to disproportionality in school discipline include race, a school's lack of preventive practices, individual student academic achievement, school academic achievement and the type of infraction (Skiba et al., 2014). In a study conducted by Harry and Klingner (2014), researchers found at the individual school level, there were many practices and policies that negatively impacted the schools and students with the highest needs. Results from their study specifically showed disparities in schools with a high population of low SES African American students. Suspensions were used at a high frequency. Schools also lacked continuous professional development for teachers and staff to better approach behavioral concerns. When compared to higher income populations, results showed better developed teachers and teacher resources. Students were also held to higher academic expectations.

In a study conducted by Skiba et al. (2002), researchers examined the relationship between African American student representation and disproportionality in student disciplinary outcomes. The sample population included 11,001 middle school

students from 19 middle schools. Boys and girls had approximately even representation with majority African American student representation, 42 percent European American representation, 1.2 percent Latino American representation, .7 percent Asian American and .1 percent Native American. Results from their study indicated that African American students on average had a higher representation in suspensions, expulsions and office discipline referrals. However, females and European American students on average were underrepresented in those areas. Researchers also sought to investigate the impact of income level and race on disciplinary outcomes for African American students and results showed that race was a stronger predictor of disciplinary disproportionality than income.

When searching for differences in the seriousness of infractions, researchers found that African American students were receiving Office Discipline Referrals (ODRs) for more subjective reasons while European American students were received ODRs for more concrete reasons. For example, predominant reasons for office referrals for European American students were described as smoking, exiting without notice, vandalism, and obscene language. Predominant reasons for office discipline referrals for African American students were described as disrespect, excessive noise, threats and loitering. Next, the frequency in which African American students were committing infractions was investigated to determine whether African American students were more troublesome than other racial groups. Researchers found that African American students were not referred for a larger variety of offenses nor more serious offenses than other racial groups, however, African American students were being referred to the office at a higher rate than other racial groups. Altogether, income level and the frequency of

infractions did not account for the disproportionate representation of African American students in suspensions, ODRs and expulsions. However, results showed that ODRs did explain some of the disproportionality in suspensions and expulsions. These findings suggest that many factors influencing disproportionality in disciplinary outcomes start in the classroom with ODRs and the teacher-student relationship.

**Emotional Disability.** African American students have been identified to be most at-risk for being disproportionately identified with a disability label (Harry & Klingner, 2014; Sullivan & Bal, 2013), specifically, Emotional Disability (ED). Zhang, Katsiyannis, Ju and Roberts (2012) researched trends of minority representation in special education categories and found that, between the years of 2004 and 2008, African American students ranked the highest among all races for the categories of Intellectual Disability and Emotional Disability each year. The U.S. Department of Education 37<sup>th</sup> Annual Report to Congress on the Implementation of IDEA (2015) also corroborates evidence that African Americans rank the highest in the ED category.

In a study conducted by Sullivan and Bal (2013) researchers explored factors that predicted special education disability category and special education identification. The sample population included 17,837 students from 39 schools. When exploring the relationship between race and disability category, researchers found that African American students were almost 3 times more likely than other racial groups to be identified as ED and special education in general. However, African American students were less likely to be represented in the low-incidence categories. Separate from race, students who received free or reduced lunch were also at a higher risk for being identified

for ED. Results from the study indicated that students with high suspension rates were significantly more likely to be identified for special education under the category of Emotional Disability. Controlling for suspensions, African American student risk for disproportionate representation in special education decreased from 1.36 to 1.24. Findings from this study indicated that race was the strongest predictor for ED over poverty. This research supports previous studies regarding the relationship between demographic information and special education.

Students identified as ED can be seen as having the most problems with staying in school and staying out of trouble. According to the U.S. Department of Education 37<sup>th</sup> Annual Report to Congress on the Implementation of IDEA, 2015, students identified as ED had the highest number of students being transitioned to an alternative setting due to drugs, weapons or a serious bodily injury and being removed from school by a hearing officer. ED students also had the highest number of students receiving out-of-school suspensions or expulsions and in-school suspensions. Given the statistics revealing the overrepresentation of African American students in the ED category, subsequently, African Americans have been subjected to higher rates of exclusionary practices, such as suspensions and expulsions (“Racial and Ethnic,” 2014). With the subjection to higher rates of exclusionary punishments, African American students have disproportionate opportunities to acquire the same quality of education as their peers (“Racial and Ethnic,” 2014).

**Multi-Tiered Systems of Support.** Interventions that lie within Multi-tiered Systems of Support (MTSS) have provided promising solutions to reducing

disproportionality (“Racial and Ethnic,” 2014). The Multi-tiered system of supports framework originated as a public health model and was adopted by school systems (Cook et al., 2015). The tiers encompass a continuum of evidenced based and data driven interventions (Cook et al., 2015). Although MTSS sounds promising, there have been few studies to report outcomes from efforts, using MTSS, to reduce disproportionality (“Racial and Ethnic,” 2014). Researchers who have reported outcomes from efforts to reduce disproportionality have focused on interventions that aim to mitigate specific behaviors that requisite a referral to special education for behavioral concerns (“Racial and Ethnic,” 2014; Hosp & Reschly, 2004).

The function of MTSS is to continuously gather data to monitor student outcomes throughout the school year. This method of continuous data collection helps to guide educators to provide more targeted interventions and supports for students (Campbell et al., 2013). Provisions that lie within the MTSS framework are evidenced-based, preventive interventions that aim to reduce and minimize mental health problems while encouraging social, emotional, and academic growth among students (Cook et al., 2015). It focuses on targeting and remediating behaviors indicative of social-emotional concerns and teaching appropriate behaviors rather than utilizing punitive measures and removing students from the classroom (Campbell, Rodriguez, Anderson, & Barnes, 2013). MTSS is a framework that is typically comprised of three tiers of supports that become more intense and individualized at each level. Tier 1 supports are typically school-wide supports designed to maintain consistency in school rules and expectations to provide a safe and proactive environment (Campbell et al., 2013). At this tier, the primary goal is to reinforce desired behaviors among all students. Tier 2 interventions are intended to

supplement tier 1 supports for students who have been identified as at-risk. Within the tier 2 interventions, students are usually categorized into groups of students that have similar needs (Campbell et al., 2013). Tier 3 involves the most intense interventions and supports but only for a small percentage of students requiring specialized instruction (Gamm et al., 2012). Tier 3 support is implemented when tiers 1 and 2 do not meet the student's needs and a more specialized curriculum is needed (Gamm et al., 2012).

When employed properly, MTSS has the added likely benefit of addressing the disparities in disciplinary rates among African American students (Gamm et al., 2012). Outcomes from MTSS have also revealed that prevention strategies were beneficial in general education classrooms, reducing referrals to special education, improving teaching skills and student achievement and improving student behavior and attitudes (Ajayi, 2010). Pre-referral interventions also were evidenced to reduce costs due to decreased formal evaluations and inappropriate placement (Ajayi, 2010). In addition, a consensus among researchers suggest that multi-tiered systems of support have been effective in reducing discipline referrals, increasing time for classroom instruction and promoting school-wide academic success ("Racial and Ethnic," 2014).

**Response to Intervention.** Response to Intervention (RTI) utilizes both formative and summative data overtime to evaluate student progress while using prevention and intervention strategies at varying intensities throughout the tiers (McIntosh, Campbell, Carter, & Dickey, 2009). RTI varies from system to system but the framework of three tiers of increasing intensity is consistent throughout and generally includes: (a) a school-wide screening method targeting students that may need increased

support; (b) practicing use of evidenced-based interventions; (c) providing a wide range of interventions through multiple tiers of intensity; (d) ongoing evaluation of all student progress; and (e) assessing student progress to make data-based decisions regarding special education eligibility (McIntosh, Campbell, Carter, & Dickey, 2009). The provisions of RTI strategies traditionally have been for academic concerns but several researchers have suggested a like model for social behavior problems (McIntosh et al., 2009).

**Positive Behavior Interventions and Supports.** A commonly used multi-tiered system of supports in schools is Positive Behavioral Intervention and Support (PBIS). Johnson et al. (2013) identified PBIS as “a framework for creating safe and effective learning environments and cultivating a positive educational environment.” It is important to note that the interventions and supports used in PBIS vary across school systems. After implementing PBIS in a juvenile residential rehabilitation placement, Johnson et al. (2013) found increased rates of school attendance and overall, fewer behavioral incidents. Flannery, Fenning, Kato, and McIntosh (2014) examined the effects of school-wide PBIS on individual student outcomes. Over a 3-year examination period, results showed a significant decrease in problem behaviors in schools that implemented SW-PBIS in contrast to schools that did not. Study results also showed a decrease in office discipline referrals and that increased program fidelity was inversely correlated with problem behaviors overtime.

The history of disproportionality is long and the causes of disproportionality are exceedingly complex but research shows that the expectations of PBIS to help reduce

disproportionality are high. Although disproportionality in special education, as explained earlier in the literature review, is a serious concern and a crucial factor in understanding disproportionality in general, this study will focus on disproportionality in disciplinary practices. This focus was narrowed to disproportionality in disciplinary practices to explore the effects of PBIS on student disciplinary outcomes. The purpose of this study was to examine the impact of the School-Wide Benchmarks of Quality, a PBIS fidelity measure, on African American student disciplinary outcomes. There were three research questions for this study: (1) Does the rate of office discipline referrals (ODR's) decrease for African American students when PBIS is implemented with fidelity? (2) Does the rate of in-school suspensions (ISS's) decrease for African American students when PBIS is implemented with fidelity? (3) Does the rate of out-of-school suspensions (OSS's) decrease for African American students when PBIS is implemented with fidelity? The terms disciplinary action and disciplinary outcomes were umbrella terms used to represent office discipline referrals, in-school suspensions, and out-of-school suspensions.

## **Methods**

### **Participants**

441 PBIS schools from the state of Virginia participated in the PBIS initiative. Schools were recruited by the Virginia Department of Education (VDOE). 380 or 86 percent of the 441 participating schools submitted their end-of-the-year (EOY) school profile and PBIS outcome summary data (OSD). PBIS OSD was collected from the 2011



to 2015 school years. It should be noted that school grade-level range (e.g. kindergarten-12th grade) and school type (e.g. public or private) were not identified for this study. Of the 441 PBIS schools 321 or 76 percent of the schools submitted 2015 middle-of-the-year (MOY) PBIS fidelity outcome measures. In this study, “fidelity may be defined as the extent to which delivery of an intervention adheres to the protocol or program model originally developed” (Mowbray, Holter, Teague, & Bybee, 2003). Results indicating the total number of students by race, type of disciplinary action, and special education status was not collected for this study.

## **Procedures**

All data for this study was drawn from the VDOE. Permission to utilize VDOE outcome summary data was granted through the PBIS data coordinators for the state of Virginia. Secure email and telephone services were used for correspondence of all information and data transferring. Both modes of correspondence were used to discuss information regarding the specific use of VDOE PBIS OSD. Permission to use the PBIS OSD was granted through an email correspondence. Once permission was granted, PBIS OSD was transferred through secure email in the form of a portable document format (PDF). Although no information was considered sensitive, PBIS OSD was kept on a password secure computer. After PBIS OSD was obtained, percentages for African American student representation in the total school population was obtained. The percentages of African American representation in the disciplinary categories of ODR’s, OSS’s, and ISS’s from the 2011 to 2015 school years were collected. The percentage of schools implementing with fidelity for the EOY 2015 school year was collected as well.

The disciplinary action and fidelity outcome information collected was used to interpret the impact of PBIS on disciplinary outcomes. The James Madison University Institutional Review Board (IRB) did not consider this a study involving human subjects and therefore deemed it unnecessary to go under any IRB review.

### **Materials**

The Benchmarks of Quality (BOQ) is a PBIS fidelity measure aimed at helping schools identify areas of success and areas of need. In this study, the BOQ was used to measure each school's fidelity of PBIS implementation at the tier 1 (universal) level. The BOQ is a three step, single-response survey that measures 10 critical areas of fidelity. The 10 critical areas are comprised of 53 items that are rated on a Likert-type scale ranging from 0 to 3. A rating of 0 indicates the lowest score for an item and a rating of 3 indicates the highest score for an item. At the end of the survey, all points are tallied and the total number of points scored is divided by the total number of points possible. The BOQ survey is typically completed in the spring of each year by the individual school's PBIS team coordinator. Step 1 of the survey requires the team coordinator to individually rate each of the 53 items on the survey. In step 2, the coordinator distributes the team-member version of the survey to the individual PBIS team members. In step 3, the PBIS team coordinator gleans the survey responses from each team member and identifies and records areas of discrepancy between the coordinator and the team members. The coordinator also identifies strengths and weaknesses (Scoring Guide: Completing the Benchmarks of Quality (Revised) for School-wide Positive Behavior Support). The team coordinator also convenes a meeting with all PBIS team members to

discuss the results of survey and the team determines what changes, if any, need to be made.

In a study conducted by Cohen, Kincaid, and Childs (2007) an analysis of the BOQ showed solid reliability and validity and offered a more comprehensive measure of PBIS than comparison measures. Internal consistency for the BOQ showed a Cronbach's coefficient alpha of .96 and subscale alphas ranged from .43 to .87. The test-retest reliability was highly correlated with a coefficient alpha of .97 and subscale correlations ranged from .63 to .93. Interrater reliability was highly correlated with an average agreement of 89 percent. Researchers measured concurrent validity of the BOQ to the School-wide Evaluation Tool (SET). Results indicated a moderate correlation of .51. For this study, a cutoff score of 70 percent on the BOQ was used to determine which schools implemented PBIS with fidelity. A cutoff score of 70 is empirically supported as researchers Cohen et al. (2007) found that schools whose BOQ score was 70 percent or higher on average had a higher reduction in ODR's than schools with 69 percent or lower BOQ scores. For this study, 2015 was the only year the BOQ was implemented.

Resulting from limited access, information regarding the materials used to calculate disproportionality for OSS, ISS and ODR rates was not collected for this study. Disproportionality percentage comparisons from year to year were determined by visual discrimination and by multiplying the percentage of African American student representation in the total population for that year by the African American student representation in that specific disciplinary category for that year. After multiplying the

percentages, the percentages could be compared to other years or used for comparisons of fidelity vs. non-fidelity.

### **Analysis**

All data was drawn from the Virginia Department of Education PBIS outcome summary data PDF file. All percentage rate comparisons were calculated through the VDOE PBIS coordinators. Percentage rate comparisons for fidelity were calculated by multiplying the percentage of African American students in the total population by the percentage of African American student representation in the corresponding disciplinary action outcome. All percentage rates were calculated using the composition index. The composition index compares the number of those served in the specific category by a given racial group with the number that group represents in the school population (Skiba et al., 2008).

### **Results**

When interpreting the following results, it is important to note that the data is representative of the percentage of disciplinary actions that were served to an African American student, and not the percentage of African American students who were served with a disciplinary action. This means that it is likely that percentages are also representative of repeat disciplinary actions for a single student or group of students. Another factor to keep abreast when interpreting the following results is that the African American student population is the same for all Figures, and was only repeated across graphs for the ease of visual comparisons.

Figure 1 shows the percentage differences for African American students by year for ODR's, and the fidelity implementation outcomes for ODR's for the 2015 school year. Comparison data shows disproportionality between the African American student population and the African American student representation in ODR's across all years. From the years 2011 to 2015, when African American students represented 36, 38, 39, and 38 percent of the student population, they represented 48, 55, 63, and 63 percent of the ODR's, respectively. The African American student increase in ODR representation over the years was not concomitant with the increases in the African American student population over the years. For instance, from 2011 to 2013, the percentage of ODR's for African American students increased from 48 percent to 63 percent, although there was only a 3 percent population increase from 2011 to 2013. Due to schools using the BOQ in the 2015 school year, the 2015 school year was divided into 2 categories considered: (1) schools meeting the fidelity criteria and (2) schools not meeting the fidelity criteria. From 2014 to 2015, there was a 3 percent decrease in ODR's for schools meeting the fidelity criteria, and a 2 percent increase in ODR's for schools not meeting the fidelity criteria. Although the BOQ reduced ODR rates for schools meeting the fidelity criteria, African American students continued to be disproportionality represented in ODR's in both categories. For example, in the 2015 school year, when African American students represented 38 and 49 percent of the student population, they accounted for 60 and 65 percent of the ODR's, respectively. Additionally, due to the increased population difference, the 2014 school year in which the BOQ was not used, and the 2015 school year in which the BOQ was used and schools did not meet the BOQ fidelity criteria, rates in ODR's were not comparable. However, results showed that schools meeting the

fidelity criteria had a higher percentage of disproportionality than schools that did not meet the fidelity criteria. This showed that higher fidelity scores or scores that met the fidelity criteria did not have a greater impact on the reduction of ODR's.

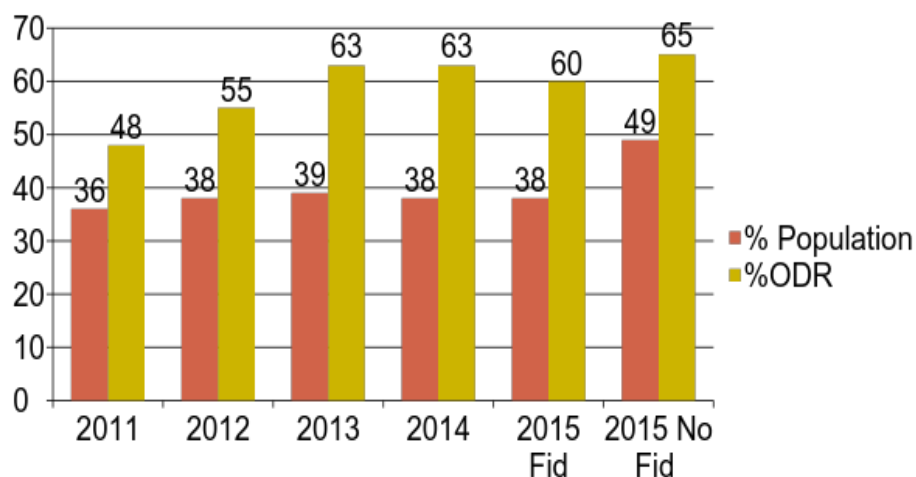


Figure 1: Percent Differences for African American Students by Year and Fidelity Implementation outcome for Office Discipline referrals

Figure 2 shows the percentage differences for African American students by year and fidelity implementation outcomes for ISS. Comparison data showed disproportionality across all years for ISS. For the school years 2011 to 2014, when African American students represented 36, 38, 39 and 38 percent of the student population, they represented 45, 52, 60 and 60 percent of the ISS's, respectively. Similar to results shown in Figure 1 for ODR's, African American students' increase in ISS representation over the years was not concomitant with the increases in the African American student population. Results showed that from 2011 to 2013, the percentage of ISS's for African American students increased from 45 percent to 60 percent despite only having a 3 percent population increase. As in Figure 1, for Figure 2, due to schools using

the BOQ in the 2015 school year, the 2015 school year was divided into 2 categories considered: (1) schools meeting the fidelity criteria and (2) schools not meeting the fidelity criteria. Results showed that there was a 1 percent decrease in ISS's from school years 2014 to 2015 for schools meeting the fidelity criteria. Although there was a 1 percent decrease in ISS's, African American students continued to be disproportionately represented. In the 2015 school year for instance, for schools meeting the fidelity criteria, African American students represented 59 percent of the ISS's, but represented only 38 percent of the student population. In schools that did not meet the fidelity criteria, African American students represented 49 percent of the student population but accounted for 65 percent of the ISS's. When comparing schools from both categories, results showed that from the school years, 2014 to 2015, for schools not meeting the fidelity criteria, there was an 11 percent student population increase, which showed too much variability between the two years to make a fair comparison between ODR rates. However, when comparing the schools that met the fidelity criteria to those that did not meet the fidelity criteria, as in Figure 1, Figure 2 shows that schools meeting the fidelity criteria had a higher percentage of disproportionality than schools that did not meet the fidelity criteria. This showed that higher fidelity scores or scores that met the fidelity criteria did not have a greater impact on the reduction of ODR's.

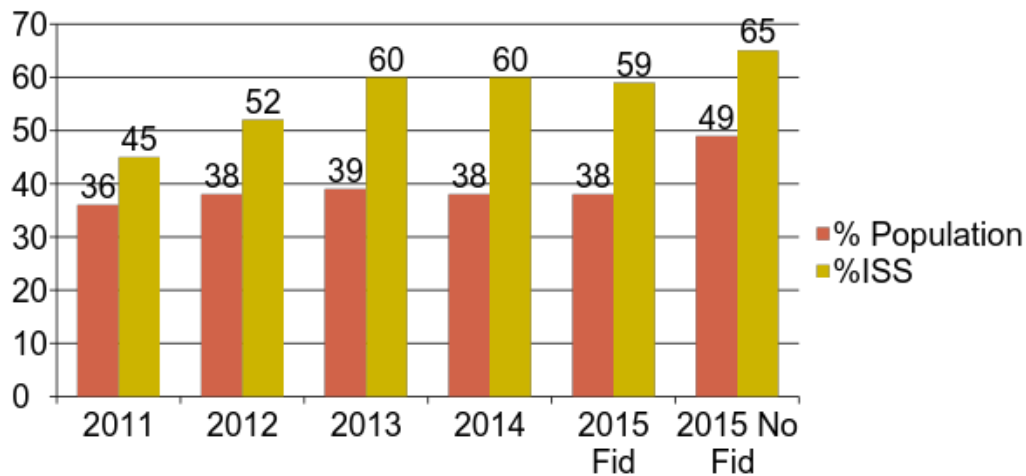


Figure 2:

Percent Differences for African American Students by Year and Fidelity Implementation outcome for Out-of-School suspensions.

Figure 3 shows the percentage differences of OSS's for African American students by school year and fidelity implementation outcomes. Comparison data showed disproportionality across all years; when African American students represented 36, 38, 39, 38 and 49 percent of the student population, African American students represented 52, 67, 69, 71 and 76 percent of the OSS's. From 2011 to 2014, the percentage of ISS's for African American students increased from 52 percent to 71 percent of the ISS's, despite having a population increase of only 3 percent by 2013 and then a 1 percent decrease in population in 2014. There was a 3 percent decrease in OSS's from the school years 2014 to 2015 for schools meeting the fidelity criteria. As in Figure 1 and 2, for Figure 3, due to schools using the BOQ in the 2015 school year, the 2015 school year was divided into 2 categories considered: (1) schools meeting the fidelity criteria and (2) schools not meeting the fidelity criteria. In schools that did not meet the fidelity criteria,



African American students represented 49 percent of the student population but accounted for 76 percent of the OSS's. From the school years, 2014 to 2015, for schools not meeting the fidelity criteria, there was an 11 percent African American student population increase, which showed too much variability between the two years to make a fair comparison. However, unlike Figures 1 and 2, Figure 3 showed that schools implementing PBIS with fidelity had a modestly lower percentage of disproportionality than schools implementing PBIS with fidelity. This means that a higher fidelity score did matter for OSS's.

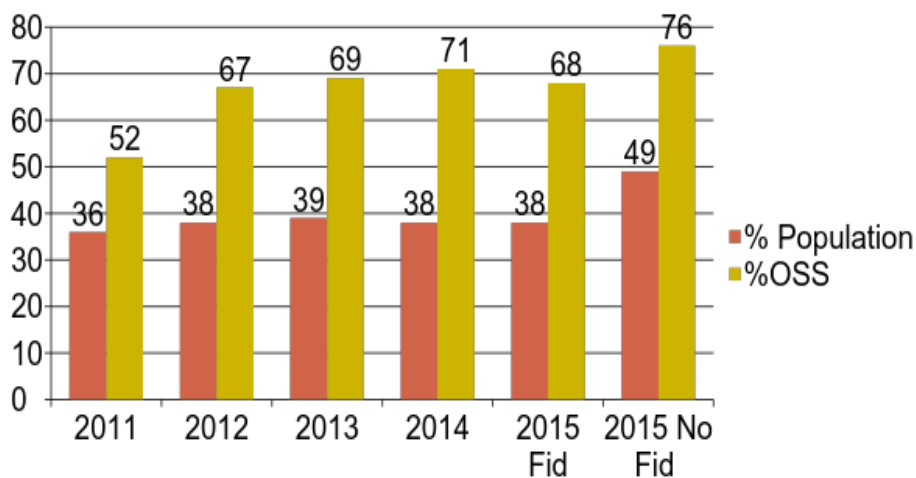


Figure 3:

Percent Differences for African American Students by Year and Fidelity Implementation outcome for Out of School suspensions

Table 1 shows the differences between the percentage of ODR's, ISS's, and OSS's for the total population from 2011 to 2015. Table 1 also shows that differences in

ODR's, ISS's, and OSS's for schools implementing with fidelity and those that did not meet fidelity criteria. Comparison data shows a moderate increase in the percentage of students receiving ISS's and ODR's for the school years between 2011 and 2014. However, from 2011 to 2012, the percentage of OSS's almost doubled and continued to increase one percentage point into the 2013 school year and three percentage points into the 2014 school year. However, there was a decrease in all disciplinary actions from 2014 to 2015 for schools considered meeting fidelity criteria and schools considered not meeting the fidelity criteria. A decrease in disciplinary actions for the total population from 2014 to 2015 means there was also a decrease in disciplinary actions for African American students specifically. However, unlike the total population percentages, for African American students, the percentage decreases in disciplinary actions was only evident for schools meeting the fidelity criteria. In addition, the percentage decreases across all disciplinary actions from the 2014 to 2015 school years for schools meeting the fidelity criteria were smaller. For the total population, the percentage decreases for ISS's and ODR's were larger compared to the percentage decrease in OSS's. The differences in percentage decreases for African American students were highest for ODR's and OSS's with a 3 percent decrease for both disciplinary categories and smallest for ISS's with only a 1 percent decrease. Although there was a decrease in overall disciplinary actions, African American students continued to be disproportionately represented across all disciplinary actions. Therefore, PBIS impacted discipline overall but did not address disproportionality concerns. Additionally, schools with higher fidelity scores or scores meeting the fidelity criteria did not show higher decreases in disciplinary actions than school that had lower fidelity scores.

Table 1: This table indicates the differences between the percent of ODRs, ISSs, and OSSs for the total population per year.

Year	%ODR	%ISS	%OSS
2011	12	9	16
2012	17	14	29
2013	24	21	30
2014	25	22	33
EOY 2015 Not Fid	16	16	27
EOY 2015 Fidelity	22	19	30

### Discussion

The current study explored the effects of PBIS and the PBIS fidelity measure, the BOQ, on OSS, ISS and ODR rates for African American students compared to the total student population in Virginia schools. The research questions explored whether African American students who attended schools that implemented PBIS with fidelity would have lower rates of OSS's, ISS's and ODR's. Results from this study showed that for African American students, only OSS's had lower rates for schools meeting the fidelity criteria when compared to schools not meeting the fidelity criteria. For ODR's and ISS's, lower rates were not evident for schools meeting the fidelity criteria when compared to schools that did not meet the fidelity criteria. Additionally, for the total population, lower rates of disciplinary actions for schools meeting the fidelity criteria were not evident when compared to schools that did not meet the fidelity criteria. Surprisingly, schools that did

not meet the fidelity criteria showed lower rates in disciplinary actions, across all disciplinary actions, for all students except for African American students in OSS. Outside of the research questions, additional findings showed that there were steady increases in disciplinary actions for OSS's, ISS's and ODR's for African American students until the fidelity measure was implemented in 2015. After the fidelity measure was implemented, there were small percentage decreases across all disciplinary actions. However, variability in the African American population size inhibited comparisons between schools not meeting the fidelity criteria and the school year before the fidelity measure was introduced.

The first research question in this study explored whether or not the rate of office discipline referrals was lower for African American students when schools met the fidelity criteria. Results showed to be inconsistent with previous research studies and indicated that schools meeting the fidelity criteria did not have a lower rate of ODR's than schools that did not meet the fidelity criteria. In fact, schools not meeting the fidelity criteria had a lower rate of ODR's than schools that met the fidelity criteria. A possible explanation could be that this study included the factor of race, which was not accounted for in previous studies. Another possible explanation is that 2015 was the first school year the BOQ was implemented. For example, results from this study were consistent with a study conducted by Flannery et al. (2014). Flannery et al. (2014) evaluated the impact of a PBIS fidelity measure called the School-Wide Evaluation Tool (SET) on the rate of ODRs. In that study, researchers found that for schools implementing PBIS with fidelity, a reduction in ODR's was not evident until the second year of implementation. Therefore, in this study, schools may have needed another year to see a significant

difference between schools meeting the fidelity criteria and schools not meeting the fidelity criteria. Another possible explanation is that the fidelity criteria score was too modest. However, Cohen et al. (2007) demonstrated empirical evidence for the effectiveness of a 70 percent cutoff score. In addition, researchers Cohen et al. (2007) compared the BOQ to another PBIS fidelity measure, the School-Wide Evaluation Tool (SET). In the comparison, researchers found that the BOQ measured several critical areas of PBIS that were not measured by the SET, one of which was faculty interest (Cohen et al., 2007). Additionally, results from their study showed that scores from the BOQ on average were 15 points lower than that of the SET, which could be indicative of the BOQ being a more comprehensive measure than the SET. By not having lower rates of ODRs, results from this study suggest that implementing PBIS with high fidelity is not effective in producing lower rates of ODR's. However, previous research shows that schools implementing PBIS as intended and meeting the 70 percent fidelity cutoff score had 3 times the decrease of ODR's after 2 years of implementation when compared to schools that did not meet the cutoff score (Cohen et al., 2007).

The second research question asked whether the rate of in-school suspensions was lower for African American students when PBIS schools met the fidelity criteria. Results showed that in-school suspensions did decrease for schools implementing with fidelity, but ISS's were not found to be lower for schools with higher BOQ scores. At the time of this study, there was only one previous scholarly article identified that examined the relationship between the fidelity of PBIS and in-school suspensions. The paucity of research examining fidelity of implementation in PBIS and the number of in-school suspensions may be due in part to many studies focusing primarily on ODRs, out-of-

school suspensions, and expulsions as a means to measure the effectiveness of PBIS (Skiba et al., 2014). However, one focus of PBIS is to help reduce punitive exclusionary practices overall (Mathur & Nelson, 2013). Therefore, measuring in-school suspensions should be considered when evaluating PBIS fidelity because in-school suspensions are a form of excluding students from the general education setting (Smith, S.C. Bicard, Bicard, & Casey, 2012). In addition, in a past study researchers found that African American students were disproportionately represented in in-school suspension and their disproportionate representation exceeded two times their representation in the overall population (Hilberth & Slate, 2014). This means that African American students are not just at-risk of being disproportionately placed in exclusionary practices through out-of-school suspensions but also through in-school suspensions. Furthermore, the number of in-school suspensions has been noted to be concomitant to the number of office discipline referrals (Smith et al., 2012) and office discipline referrals have been linked to students dropping out of school and harmful long-term consequences of being funneled into the criminal justice system (Flannery et al., 2014). Therefore, in an effort to reduce reactionary, punitive, and exclusionary practices such as in-school suspensions that may have a disproportionate representation of African Americans, and negative long-term consequences, in-school suspensions are a worthy measure of PBIS fidelity. The third research question explored whether the rate of out-of-school suspensions decreased for African American students when PBIS was implemented with fidelity. Results showed a modest reduction in out-of-school suspensions for schools meeting the fidelity criteria when compared to schools that did not meet the fidelity criteria. A modest decrease in OSS's for schools implementing with fidelity is difficult to explain, especially since

reductions in OSS's for schools implementing with fidelity for the total population were modest compared to the total population reductions in ISS's and ODR's. In addition, for the total population, the decreases in OSS's were even lower for schools not meeting the fidelity criteria. Having lower rates of OSS's but not lower rates of ODR's are not supported by previous research, provided there was no decrease in ODR's which generate the ISS's and OSS's (Childs et al., 2016). In a study conducted by Flannery et al. (2014), researchers stated that suspensions are regularly used in high schools and OSS's may have been a target area for high schools to improve on which may have influenced the modest difference in fidelity for out-of-school suspensions in this study. However, this is only a theoretical exploration and does not empirically explain why OSS's were lower even though ODR's were not. Additional research should be conducted to provide empirical explanations as to why OSS's were lower for schools meeting the fidelity criteria.

In a longitudinal study, directly comparable to the current study, researchers Childs, Kincaid, George and Gaye (2016), examined the relationship between BOQ ratings and disciplinary outcomes (ISS's, ODR's, and OSS's) in schools. Researchers examined the PBIS outcome summary data for 248 middle schools, 150 high schools and 724 elementary schools over four years. Results from their study showed that PBIS schools using the BOQ evidenced immediate decreases in ISS's, ODR's, and OSS's overtime. Results at the start of the investigation indicated an even greater decrease in school disciplinary outcomes for schools implementing with a high level of fidelity. However, researchers also found that although schools implementing with high fidelity had lower disciplinary outcomes, the number of disciplinary actions, on average, did not

decrease any faster than schools with lower BOQ scores. Therefore, higher scores on the BOQ were not critical for faster change.

Results in Table 1 showed disciplinary outcomes for the entire student population. There were decreases overtime for disciplinary outcomes for PBIS schools and in-turn, there was a decrease in disciplinary actions for African American students. Results such as these were also found in previous research conducted by Flannery et al. (2013) and Childs et al. (2016) where there were significant decreases in disciplinary actions for the student population. Additionally, Flannery et al. (2013) suggested further research be conducted to determine how PBIS impacts disproportionality. In this study, when the African American student population was accounted for independently for the effects of PBIS, the same pattern of decrease in disciplinary actions was not evident. In fact, there were increases in disproportionality as the years of PBIS continued. As mentioned earlier, this means that PBIS was effective in reducing disciplinary actions overall but not effective in addressing disproportionality in disciplinary actions.

A lack of culturally responsive interventions may explain the continued disproportionality in disciplinary practices for African Americans (Schumann & Burrow-Sanchez, 2010). Another factor that may contribute to disproportionality in disciplinary outcomes for African American students is differences in beliefs about different racial groups. In a study conducted by Harry and Klingner (2014), researchers found that in lower SES communities, some teachers held negative beliefs about families of racially and culturally diverse students. If subjectivity of response to a student infraction and negative beliefs in response cultural differences are common factors that account for



some of the variance in the disproportionate representation of African American students in disciplinary outcomes, then it may be beneficial to start intervention with improving student-teacher relationships. Researcher DeMatthews (2016) asserted that the response to an infraction with a disciplinary action is not a consistent and concise, step by step, judicial process. In actuality, responses to disciplinary infractions involve a series of social interactions that are subjected to teacher and administration interpretations (DeMatthews, 2016). In a study conducted by Gregory et al. (2016), researchers explored the relationship between disciplinary outcomes for African American students and teacher training. Results showed that teachers that received direct training through the teacher-training program had no significant disproportionality in ODRs. Contrarily, teachers that did not receive any training continued to have disparities in the rate of ODRs between African American students and other racial groups. Further investigation into relationship between teacher training and African American student disciplinary outcomes is needed to support culturally competent teacher training as an effective resource to reducing disproportionality. As other studies in addition to this one, race has been a critical component in predicting disproportionality in education over other factors. Teacher-student communication training and increased culturally competent interventions may be resourceful to augmenting the interventions that lie within the PBIS framework and making it an effective strategy in reducing PBIS.

**Limitations.** There were many limitations to consider for this study. First, statewide data was used in this study, which means that data may not be completely accurate (Zhang et al., 2012). This was also evident in the limitations of other studies that used statewide data (Zhang et al., 2012). Additionally, Zhang et al., (2012) mentioned that this may have

produced inaccuracies in the percentages for disciplinary actions. There was also limited access to the data, which made interpretation of the data extremely broad and difficult to use to examine additional correlations. Alongside other descriptive data, the number of schools and students were not included in this study, which also inhibited the development of additional statistical analyses. Due to the school levels not being included in this study, results may have been skewed because of varying school levels. For example, in one study conducted by Bradshaw et al. (2012), researchers found that BOQ scores were on average highest for elementary and middle schools and lowest on average for high schools. This means that without knowing the type of schools implementing with fidelity and those not meeting fidelity criteria, the differences in fidelity implementation could lie in the type of school. Also, there were limited variables to examine. In the future, researchers should consider variables such as school enrollment, types of interventions, school type, assessment of teacher cultural competence and teacher race. Teacher experience and teacher perceptions of students in schools should be considered, given that researchers Harry and Klingner (2014) found that some teachers held negative views of certain groups of students such as poor and culturally diverse students. Additional analyses such as regression should be considered when examining future research such as this. In a regression analysis, researchers could examine predictors of disproportionality in disciplinary outcomes when PBIS is implemented.

**Recommendations.** Research suggests that African American students could benefit from school administration using alternatives to punitive and reactionary practices.

Previous research encourages the utilization of PBIS and increased relationship building with students and their families (Harry & Klingner, 2014). Changing disciplinary practices and policies to reflect a disciplinary system that is proactive and not strictly punitive could assist with reducing disproportionality and improving disciplinary outcomes for all students. As discussed in Racial and Ethnic (2014), the school psychologist's role would include taking steps to improve cultural competency and awareness of racial and ethnic disparities in education by maintaining consistent professional development as well as maintaining consistency in researching these issues, utilizing data-driven problem solving and practicing program evaluation.

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**Appendix A:**

Quasi-Sample Items for the School-Wide Benchmarks of Quality

<b>Important Features of the Benchmarks of Quality</b>	<b>Feature Items</b>
<b>School-Based Team</b>	1. Administrative support for PBIS implementation
	2. Monthly scheduled meetings
	3. Build and cement a direct action plan
<b>School-Wide Engagement and Receptivity</b>	4. School-based team are abreast on various issues around the school
	5. School-based team participates in overseeing goals of the team
	6. Annual feedback is obtained