

IMPACT OF NINTH-GRADE DISCIPLINARY  
ALTERNATIVE EDUCATION PROGRAM ASSIGNMENTS  
ON GRADUATION RATES IN TEXAS

by  
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## Abstract

**Background:** Although many researchers have found connections between exclusionary discipline and negative life outcomes, there is a dearth of research on the specific impacts that assignments to Disciplinary Alternative Education Programs (DAEPs) have on graduation outcomes. This study aimed to add to the literature by exploring the connection between multiple assignments to DAEPs and four-year graduation outcomes for students in Texas. DAEPs are a form of exclusionary discipline that have existed in Texas for years. Students are sent to these programs for a set number of days for violating student code of conduct or the law. These placements can be well longer than a typical in-school or out-of-school suspension. The state legislature in 2019 passed a law to make it easier for schools to place students in DAEPs, yet we do not know the long-term impact of these programs on students. **Purpose:** The goals of this analysis were (a) to understand who is most likely to be suspended or assigned to a DAEP multiple times in the critical ninth-grade year, (b) to examine the relationship between multiple assignments to DAEP and graduation, and (c) to compare the impact of DAEP assignments to the impact of in-school suspension (ISS) and out-of-school suspension (OSS) on four-year graduation rates. **Methods:** This quantitative study used a causal-comparative design to determine how multiple placements at DAEPs impact four-year graduation rates. Graduation outcome data for first-time ninth-grade students who were placed in ISS, OSS, or DAEP once, more than once, and not at all were analyzed. The first analysis investigated the relationship between demographics and multiple assignments to exclusionary discipline. The second analysis considered the proportional

impact of DAEP, OSS, and ISS assignments on four-year graduation rates. **Results:** Students who were assigned to DAEPs have the lowest four-year graduation rates of all disciplined students. Other findings largely echo prior research on the impact of exclusionary discipline on graduation: students who are disciplined have lower rates of graduation. Furthermore, student characteristic—including race, receiving special education services, and socioeconomic status—impact the rate of exclusionary discipline assignments. **Conclusion:** The use of exclusionary discipline, DAEPs in particular, are negatively related to graduation rates. Future work should focus on examining strategies for evaluating disciplinary systems and ensuring they support students' scholastic advancement. Further steps, including implementing positive behavioral systems, were examined to help reach Texas's stated goals.

## Table of Contents

Chapter	Page
Abstract .....	ii
Chapter I Introduction.....	1
Context for Exclusionary Discipline.....	1
DAEPs.....	4
Graduation Rates in Texas .....	6
Theoretical Framework .....	8
Conclusion .....	9
Chapter II Literature Review .....	10
Current Educational Landscape .....	10
The Need for Change .....	10
Prevention .....	19
Restorative Justice .....	20
Multi-Tier Systems of Support .....	21
Threat Assessments.....	22
Trauma-Informed Approaches.....	23
Chapter III Research Design.....	25
Design .....	25
Sampling .....	26
Sample.....	27
Procedure .....	29
Measures .....	29
Analysis.....	30
Chapter IV Results.....	31
Research Question One.....	34
Research Question Two .....	42
Research Question Three .....	56
Chapter V Discussion .....	69
Research Question One.....	70
Research Question Two .....	71
Research Question Three .....	74
Chapter VI Action Plan.....	79
References.....	94
Appendix.....	106

## **List of Tables**

Table	Page
1. Percentage of Four-Year Graduation in Texas by Subgroup, 2015-2018 .....	7
2. STAAR Performance Rates .....	13
3. Ninth-grade enrollment in school years 2011-2014.....	28
4. Stages of Concern .....	86
5. Levels of Use .....	87
6. Tiered Fidelity Inventory .....	88
7. Focus Group Schedule and Questions .....	92

## List of Figures

1. Spectrum of exclusionary discipline used in Texas education. ....	3
2. Enrollment by race/ethnicity, Texas public schools, 2006–2017.. ....	14
3. Average ninth-grade population in Texas by ethnicity. Texas Public Schools, 2011–2015.....	33
4. Number of students disciplined and disciplinary actions in Texas public schools, 2011–2015.....	35
5. Percentage of students disciplined by graduation cohort.....	36
6. Percentage of students disciplined once and more than.....	37
7. Percentage of Discipline Types for Texas Population and Graduating Cohorts. .	38
8. Number of Ninth Grade Students in Exclusionary Discipline by Cohort.....	39
9. Count of students assigned to ISS per cohort 2015-2018 Cohort.....	40
10. Count of students assigned to OSS per cohort 2015-2018 Cohort, Texas Public Schools.....	41
11. Count of students assigned to DAEP per cohort 2015-2018 Cohort, Texas Public Schools.....	42
12. Disciplined Averages in Texas by Ethnicity, Texas Public Schools .....	43
13. Not Disciplined Four-Year Cohort Averages by Ethnicity.....	44
14. Disciplined Four-Year Cohort Averages by Ethnicity.....	45
15. Total Disciplinary Assignments by Ethnicity. ....	46
16. Assignments to ISS Once and More by Demographic .....	48
17. Assignments to OSS Once and More by Demographic.....	49
18. Assignments to DAEP Once and More by Demographic.....	50
19. Economically Disadvantaged, Special Education and At-Risk by Student Population, Disciplined Population, and Cohort.....	51
20. ISS Rates by Economically Disadvantaged, At-risk, and Special Education, Texas Public Schools.....	52
21. OSS Rates by Economically Disadvantaged, At-risk, and Special Education, Texas Public Schools. ....	53
22. DAEP Rates by Economically Disadvantaged, At-risk, and Special Education, Texas Public Schools. ....	55
23. Discipline assignments by gender, Texas Public Schools. ....	56
24. Four-Year Graduation Rates by Not Discipline and Disciplined. ....	57
25. Graduation Rates by Disciplined Once and More. ....	58
26. Graduation Rates by Discipline Type. ....	59
27. Graduation Rates by ISS.....	60
28. Graduation Rates by OSS .....	61
29. Graduation Rates by DAEP .....	62
30. Graduation Rates by Ethnicity for ISS Assignments.....	63
31. Graduation Rates by Ethnicity for OSS Assignments. ....	64
32. Graduation Rates by Ethnicity for DAEP Assignments .....	65
33. Graduation Rates by At-Risk, Economically Disadvantaged, and Special Education for ISS Assignments .....	66
34. Graduation Rates by At-Risk, Economically Disadvantaged, and Special Education for OSS Assignments.....	67

35. Graduation Rates by At-Risk, Economically Disadvantaged, and Special Education for DAEP Assignments.....	68
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## **Chapter I**

### **Context for Exclusionary Discipline**

In the summer of 2019, the Texas legislature passed Senate Bill 2432. This bill allows for students to be assigned to Disciplinary Alternative Education Programs (DAEPs) for threatening statements. Essentially, the law makes it easier for teachers and administrators to send Texas students to DAEPs, a form of exclusionary discipline. Yet, there is ample evidence that shows how exclusionary discipline negatively impacts students' educational outcomes. There is further evidence that African American and Hispanic students are disproportionately impacted by the use of exclusionary discipline, influencing the performance rates of students. Since researchers have been collecting data on student outcomes, there has been a gap between how students of color, specifically African American and Hispanic students, perform compared with White students. Although education reformers spend much time and money trying to decrease this gap in performance, Hispanic and African American students' standardized test achievement has not caught up to that of White students. For students in twelfth grade, achievement between White students and African American and Hispanic students in reading level scores has stayed relatively stable (Musu-Gillette et al., 2019). Some researchers attribute these gaps to the disproportionate referrals that many students of color have to exclusionary discipline in schools (Skiba et al., 2011).

Researchers argue that exclusionary discipline, or the removal of students from their learning environments, worsens outcomes for students of color (Skiba, Arrendondo, & Williams, 2014). Schools suspend and expel African American students at higher rates

than they suspend and expel White students. African American students are 3.8 times more likely to receive one or more out of school suspension than their white counterparts (U.S. Department of Education, 2016). Furthermore, African American students are twice as likely to receive referrals to law enforcement compared to White students (U.S. Department of Education, 2016). African American students are more likely than all other students to experience exclusionary discipline and engage with police through the school system.

African American and Hispanic students miss large amounts of instructional time because they are removed from classrooms so frequently. As more African American and Hispanic students are removed from classrooms, they are missing more instructional time. In the 2015–2016 school year in Texas alone, students lost 822,360 instructional days because of exclusionary discipline assignments, with African American and Hispanic students losing the majority of those days (Losen & Whitaker, 2018). Exclusionary discipline creates a cycle that continuously removes students from instructional spaces.

Exclusionary discipline takes many forms in the current educational landscape, including informal removals from classrooms and formal juvenile justice placements. In some cases, schools use exclusionary discipline to keep other students learning in the classroom. Texas law allows administrators the discretion to suspend students either in school or out of school, or place them in alternative programs, as Figure 1 describes.

Exclusionary Discipline Continuum in Texas				
<b>In-School Suspension</b> Students remain on campus, but usually in a supervised area removed from other students.	<b>Out-of-School Suspension</b> Students are removed from the school environment for a maximum of three days. Students in grade 3 or below can be removed for limited reasons.	<b>Disciplinary Alternative Education Program</b> Students are removed from their home campus to another campus. Teachers must be certified and counseling should be provided.	<b>Expulsion</b> Students are expelled from their regular campus for a year. Students may attend a JJAEP or DAEP in the district or in another district.	<b>Juvenile Justice Alternative Program</b> Students receive education services either pre- or post-adjudication in partnership with the Texas Juvenile Justice Department.

*Figure 1.* Spectrum of exclusionary discipline used in Texas public education. In School Suspension, Out of School Suspension, Disciplinary Alternative Education Program, Expulsion and Juvenile Justice Alternative Education Program are forms of exclusionary discipline that administrators can use to discipline students. Adapted from "Disciplinary Alternative Education Programs," Section 37.008 of the Tex. Educ. Code Ann., 2017 (<https://statutes.capitol.texas.gov/Docs/ED/htm/ED.37.htm>).

Across the nation, states are paying closer attention to the disproportionate rates of African American and Hispanic students experiencing exclusionary discipline, and legislators are promoting alternative approaches for districts. In 2017, twelve state legislatures, including the Texas legislature, proposed 26 bills that would offer alternatives to punitive and exclusionary discipline (Rafa, 2018). Yet the problem persists. Researchers both nationally and statewide have examined the impact of multiple in-school and out-of-school suspensions, but one avenue of exclusionary discipline that needs further exploration is the effect of DAEPs. Due to zero tolerance school safety legislation, placements in DAEPs have grown in number throughout the past 20 years as

a resource for at-risk youth and disruptive students. DAEPs evolved as a resource for longer student removals since there is a three-day limit on assignments to OSS. DAEPs allow students who traditionally would be expelled – and therefore excluded from the education system – to access learning and the curriculum.

### **DAEPs**

The Texas Safe Schools Act of 1995 required districts to create DAEPs to meet the needs of students whom schools remove from classrooms due to behavioral concerns. The state sets out guidelines for mandatory placements in DAEPs, and each district creates its own student code of conduct that guides administrators when making disciplinary choices. Following district policy or state law, administrators assign students a set number of days to attend a DAEP based on their infractions. This assignment typically ranges 30-45 days, with students required to return to their home campus after 90 days. In 2008, the average stay for students across the state of Texas was 27 school days (Fabelo, Thompson, Plotkin, Carmichael, and Marchbanks, 2011). After completing the assigned number of days, students return to their home campus. Texas law under Sec. 37.008 requires DAEPs to meet both the education and behavioral needs of students but leaves the design mostly up to districts and boards (Tex. Educ. Code Ann., 2017). The Texas Education Agency (TEA) has further clarified these rules by providing guidance on accountability measures, clarifying teacher training requirements, and requiring minimal transition procedures for students from DAEPs to their home campuses (Tex. Admin. Code, 2018).

After attending a DAEP for a set number of days, students should return to their home campuses with the skills needed to succeed, but many students return to campus

with the same behaviors and assumptions that got them in trouble in the first place. Students ping-pong back and forth from these alternative campuses to their home campus, disrupting academic and social ties. Previous statewide studies found that students return to DAEPs about 20% of the time (Blackmon, 2016). Furthermore, in a study of two districts in Texas, students of color were more likely to return to a DAEP setting than were White students (Booker & Mitchell, 2011). The impact of DAEP placement extends beyond a student's K-12 school participation. Students who experience multiple forms of exclusionary discipline are even more likely to have negative outcomes in life, like dropping out of school and contacting with the criminal justice system, than those who are assigned just once (Skiba, Arredondo, & Williams, 2014).

School connectedness has been found to be the second most important protective factor to prevent students' risky behavior (Centers for Disease Control and Prevention, 2009). Exclusionary discipline lowers student connectedness to school by removing kids from their learning environments. Students who have higher levels of connectedness to their schools experience less violence and aggression (Wilson, 2004). Current research further shows the potential impacts of this disruption include expulsion, dropping out, involvement in the justice system, poorer health outcomes, and others (Potter, Boggs, & Dunbar, 2017).

Understanding first who is more likely to return to DAEPs multiple times will help target specific policy recommendations that can decrease the disproportionate experiences of students as they transition back to their home campuses. Texas school districts spent \$232 million statewide on DAEP systems during the 2008-2009 school

year (Texas Appleseed, 2012). Increasing the effectiveness of these programs can save Texas' districts millions of dollars that the state can invest in counselors, anti-bias training, or positive behavior intervention systems that aim to decrease the disproportionately negative impact that exclusionary discipline has on students of color (Darensbourg, Perez, & Blake, 2010).

### **Graduation Rates in Texas**

With all the data collected on DAEP programs, little research has covered the impact of placement on graduation rates. Therefore, the research reported here aims to identify and analyze the impact of exclusionary policies on graduation rates and on the youths whose academic experience is changed by them. High school graduation matters for both individuals and society. Recent news has touted the successful growth of graduation rates for students, yet this graduation rate growth has not been equitable across different subgroups of students. Students of color, students with disabilities, and students who qualify for free and reduced meals graduate at lower rates than their counterparts. Students who do not graduate from high school make on average \$10,000 less per year than a high school graduate. Unemployment for high school dropouts is 12%, a third higher than for those with a high school diploma. Furthermore, incarceration rates were 63 times higher for young people who dropped out of high school compared to those with a college degree (Breslow, 2012).

States take the pulse of the efficacy of their education systems by measuring graduation rates, and Texas has created ambitious goals for graduating students. The Texas Higher Education Coordinating Board aims to have 60% of Texans ages 25-34 earn a certificate or degree by 2030. The organization also hopes to increase the

percentage of students completing higher education programs and gaining marketable skills for 21<sup>st</sup> century jobs (Texas Higher Education Coordinating Board, 2017).

Although there has been growth for each subgroup population, at-risk students still graduate at a rate 5% lower than the state average. As shown in Table 1, the gap between

Table 1

*Percentage of Four-Year Graduation in Texas by Subgroup, 2015-2018*

Subgroup	2015 (%)	2016 (%)	2017 (%)	2018 (%)
State Graduation Rate	89.0	89.1	89.7	90.0
African American	85.2	85.4	86.1	86.5
American Indian	86.3	87.4	86.3	85.1
Asian	95.4	95.7	96.0	96.4
Hispanic	86.5	86.9	87.7	88.2
Pacific Islander	88.7	88.0	88.6	86.4
White	93.4	93.4	93.6	93.6
Multiracial	92.1	90.8	91.7	91.4
Economically Disadvantaged	85.6	86.0	86.9	87.3
At Risk	85.0	83.5	83.8	84.9
Special Education	78.2	77.9	77.4	77.9

*Note.* Adapted from “Enrollment in Texas Public Schools,” by Texas Education Agency, 2017 [https://tea.texas.gov/sites/default/files/enroll\\_2014-15.pdf](https://tea.texas.gov/sites/default/files/enroll_2014-15.pdf)

African American and White students has not closed over the past four years.

The graduation rate for students with disabilities has decreased slightly, maintaining the 12% gap between students in special education and the state graduation average. The

same subgroups that experience overrepresentation in exclusionary discipline also experience lower rates of graduation across four years. This study lays out how DAEPs can impact graduation rates for these vulnerable students and how the state can make strides to increase graduation rates for all students.

### **Theoretical Framework**

This research is undergirded by two theoretical understandings. The first is that although race is a social construct, systems like education and the prison system are not unbiased. The research draws from Critical Race Theory (CRT) to help explain that racialized identities as social constructs are informed by historical relationships of privilege and power (Delgado & Stefancic, 1998). This framework recognizes that systems in the United States are not race neutral and asserts that laws and institutions work together to benefit White people while oppressing people of color. Racism, according to CRT, is inherent to our educational context rather than being an unwanted by-product. In the educational context, CRT calls us to analyze both the systemic practices in discipline, testing, and school zoning, while also critiquing curriculum and individual teachers and their practices (Ladson-Billings, 1998). Using this lens for analysis of DAEP attendance allows for a deeper questioning of who is more likely to return to DAEP and what in the system produces that result.

The second theoretical understanding is that students can learn new, prosocial behaviors while in school if the system is structured correctly. Bandura (1997) demonstrated the importance of modeling and reinforcement to students' ability to learn new behaviors. Using his social learning theory, Bandura (1997) argues that there is a mutually impactful relationship between the environment, unique identities of people,



and their behavior. School operates as a space where students can develop the social skills needed to be successful in society when adults use explicit modeling and incentivize positive behavior (Bandura, 1997). Research highlights that if schools want students to change their behavior, adults have to teach the behavior and provide feedback.

## **Conclusion**

In 2019, Texas passed a new law that more easily allows students to be placed in a DAEP for “threatening” a teacher (Swaby, 2019). As the state increases avenues for administrators to utilize DAEPs as a disciplinary tool, educators and legislators must also understand the potential impact that these placements or multiple placements have on students’ futures. Because of the effect that exclusionary discipline may have on students and the lack of analysis on the specific impact of DAEPs, the current study aims to identify the effects on Texas students of multiple placements in DAEPs. Using a cohort model, the study will analyze the rates of multiple placements in DAEPs for first-time ninth-grade students in the 2015, 2016, 2017 and 2018 graduating cohorts. Then graduation rates will be analyzed by students who experienced exclusionary discipline and those who did not.

## **Chapter II**

### **Literature Review**

The specific impacts of DAEPs on students and their school performance are currently understudied. Because of the negative impacts that exclusionary can predict, it is important for the educational community to understand the impact of this unique type of exclusionary discipline. The focus of the research in this chapter is on the general use of exclusionary discipline in school and the juvenile justice system. The following chapter will explore the current landscape through establishing the need for change, exploring the history of DAEPs in Texas, and highlighting the role of implicit bias in decision making. Then the chapter will present research on the long-term impacts of exclusionary discipline on students, including the links to the school-to-prison pipeline and graduation rates. Finally, preventative measures that can help schools are presented. The alternative discipline paradigms for students with behavioral needs are discussed, including trauma-informed care, restorative justice, multi-tiered support approaches, and threat assessments. Implementing these strategies at a statewide level can help decrease the need for exclusionary discipline for all students.

#### **Current Educational Landscape: The Need for Change**

Across the nation, students, school staff, and families are facing hard choices. As concerns rise about the safety of our schools, more and more districts are rethinking their approach to discipline. Twenty years ago, after the Columbine shooting in Colorado, many schools took a zero-tolerance approach. This approach removed students from schools for offenses related to drugs, weapons, or signs of violence in order to prevent future violent behavior. Proponents of this strategy argue that removing disruptive

students will help prevent further disruption and improve classroom climate. However, the researchers through the American Psychological Association's Zero Tolerance Task Force found that zero-tolerance approaches did not make schools safer (Reynolds, Graham, Skiba, Sheras, Conoley, & Garcia-Vazquez, 2008). Concerns about the negative impacts on mental health for students and increased exposure to the juvenile justice system have called into question the efficacy of zero-tolerance techniques. Additionally, the percentage of students who have been in physical fights has stayed constant (Reynolds et al., 2008). Instead of deterring future misbehavior, exclusionary discipline can increase future rates of misbehavior. The legacy of zero tolerance lives on through state policies that allow administrators to choose who will be excluded from learning.

Schools execute zero tolerance through various types of exclusionary discipline, including in-school suspension, out-of-school suspension, placements at DAEPs or expulsion. In the 2013-2014 school year, 2.8 million students nationally experienced at least one suspension (U.S. Department of Education, 2016). In Texas, most students were excluded from their school because of "local code of conduct violations," which can range from disturbing a classroom to fighting. Overall, the use of exclusionary discipline decreased both nationally and in Texas over the past 10 years. The barring of suspensions of younger students and a focus on the racial disproportionality of discipline on a national scale has decreased administrator use of discipline techniques in some circumstances. However, the problem persists.

## **Alternative Education Programs and the State of Texas**

How do DAEPs fit into the exclusionary discipline model? Nationally, alternative education programs (AEPs) began serving more students due to the use of exclusionary discipline in traditional schools. AEPs were created to ensure that students stay on track in their classes, even if they could not attend a traditional school. The U.S. Department of Education defines AEPs as educational providers that aim to “address the needs of students that typically cannot be met in a regular school, provides nontraditional education, serves as an adjunct to a regular school, or falls outside of the categories of regular, special or vocational education” (Porowski, O’Conner, & Luo, 2014). With over half of the districts in the United States possessing an AEP, these campuses operate in medical facilities, juvenile justice centers, community colleges, or traditional schools (Porowski, O’Conner, & Luo, 2014).

Across the nation, enrollment in these alternative schools consists primarily of Hispanic, African American, or Native American students who are also from low-income families. Standards are typically lower for graduation than at traditional schools, so students graduate with little more than their high school diploma. These programs exist to ensure students have access to education, but the overutilization of the programs has a cost for students that attend them (Farrelly & Daniels, 2013).

In Texas, the most common form of AEP is the DAEP, which was authorized by the Texas Safe Schools Act. Every district in Texas either has a DAEP or has a partnership with a private organization to run a DAEP. In their 2009 report on DAEPs in Texas, the Intercultural Development Research Association (2009) found that while attending DAEPs students performed more poorly on statewide standardized assessments

than did the general student population of students in Texas (Cortez & Cortez, 2009).

Almost 10 years later, in the 2016-2017 school year, students in DAEPs still performed at lower rates on state standardized testing than the general student body. A snapshot of two end-of-year test results taken in high school are presented in Table 2. Student test results are generally divided into four categories: did not meet grade level, approaches, meets, and masters. TEA defines approaches as a student who in the next grade level meet standard with the correct interventions. Students who are in the “meets” category are on track for grade level learning. Finally, students who “master” are considered ready for the next grade or course with no academic intervention (TEA, 2019b). As shown in Table 2, the general population of students outpaced students in DAEPs for both math and reading assessments.

Table 2

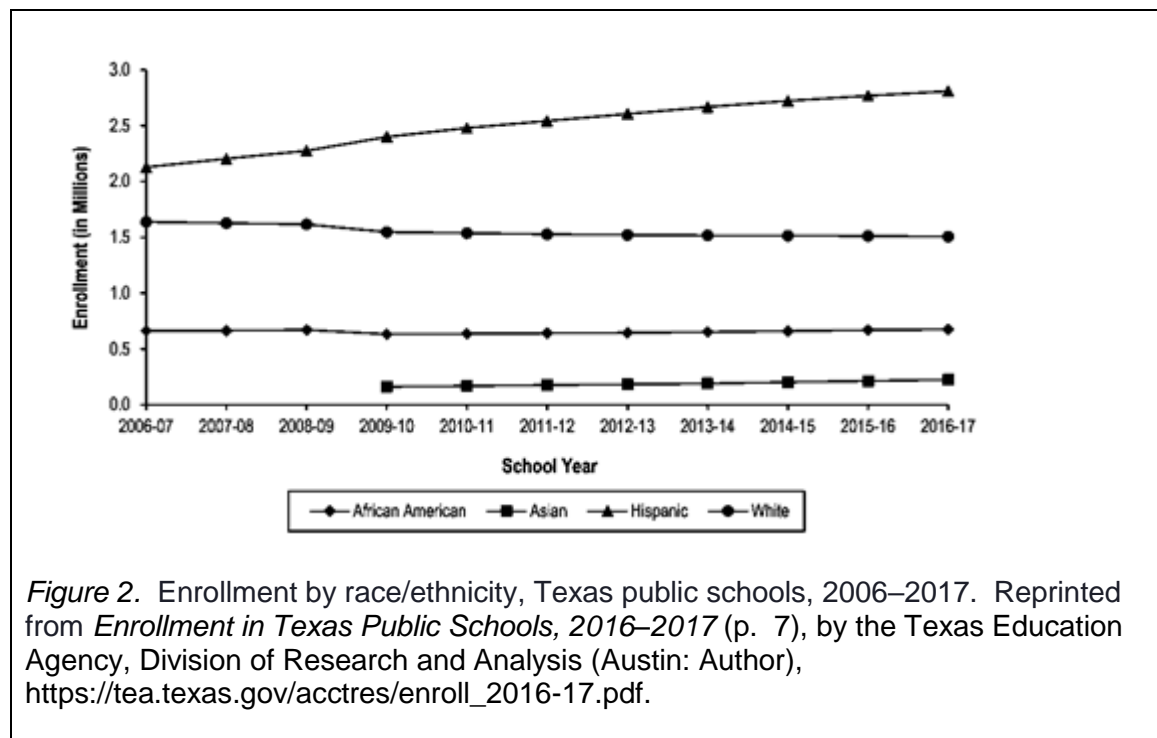
*STAAR Performance Rates 2016-2017*

STARR Standards	DAEP Students (%)		General Students (%)	
	English I	Algebra I	English I	Algebra I
Approaches	27	48	48	56
Meets	14	13	32	26
Masters	1	4	5	13

*Note.* STARR, Performance rates by ninth graders in DAEP and students who were not at DAEPs. Data from “English I and Algebra I: Spring 2017 Performance Report,” from the Texas Education Agency, (<https://tea.texas.gov/texas-schools/accountability/academic-accountability/performance-reporting/texas-academic-performance-reports>)

Because students are typically in a DAEP program for 30-90 days, Texas must ensure that students are getting adequate and appropriate access to education. Without access to rigorous and appropriate education while they are away from campus, students will not be able to transition back to their traditional campus successfully.

To understand who is impacted by exclusionary discipline in Texas, we have to understand the racial and ethnic groups that predominant in Texas school populations. The total enrollment in K-12 public schools 2016-2017 were 5,299,728. Data in Figure 2 demonstrate the demographic breakdown of students enrolled in K-12 programming in 2017. Texas schools reflect a national trend in demographics with a higher percentage of Hispanic students attending school than White students. Over 10 years, the Hispanic and Asian populations in Texas have grown, while White student enrollment has decreased. African American enrollment has remained constant over time.



Although enrollment of economically disadvantaged students has remained between 55% and 60% over the past 10 years, three-fourths of the African American and Hispanic students enrolled in Texas qualified as economically disadvantaged. According to the TEA, economically disadvantaged students are less likely to graduate and more likely to experience exclusionary discipline (TEA, 2019a). Both African American and

Hispanic students are disproportionately represented in In-School Suspension and Out of School Suspension assignments. White students were slightly underrepresented. As referenced earlier in this paper, adverse life outcomes are connected to students' experiences of exclusionary discipline. This overrepresentation is a concern because of the growing population of Hispanic students in Texas schools who will face the variety of effects that come with a disciplinary referral. The disproportionality of students of color in exclusionary discipline points to a broader problem identified in the research: implicit bias.

### **Implicit Bias in Decision Making**

Implicit bias is the unconscious ascription of stereotypes or characteristics to specific groups based on race, class, gender, sexual orientation, or other social identities. Implicit bias differs from explicit bias because many people do not realize that they hold such a bias. It subconsciously affects daily decision making, in personal and professional spheres (Skiba et al., 2011). Since subjective attitudes of administrators influence these disciplinary actions, researchers have used the implicit bias framework to explain why students of color and White students experience discretionary discipline differently.

Federal and state laws guide administrators on how to use the spectrum of disciplinary actions, but school leaders control many decisions about individual student cases. A review of Texas discipline assignments found that 59% of disciplinary actions were discretionary, or not a mandatory assignment (Fabelo et al., 2011). Because most disciplinary actions carried out in Texas are discretionary, administrators decide these placements based on their interpretation of board or district policy (Muldrow, 2016). Suspensions and expulsions for categories like "insubordination" or "willful defiance" do not have clear-cut definitions across cultures and teachers.

In a study of racial threat in schools, Payne and Welch (2010) found that schools with higher percentages of African American students have harsher discipline protocols. In another study by Skiba et al. (2011), researchers found that students of color were more often and more harshly disciplined than were White students for similar behaviors. Because of administrator choices, students in the 2015–2016 school year lost an estimated 11 million days of instruction across the country. Nationally, African American students lost the highest proportion of instructional days, 66 days of instruction per 100 students (Losen & Whitaker, 2018). In Texas, African American students had a higher chance of receiving a discretionary suspension than their White peers (Fabelo et al., 2011). Many academics have used an implicit bias framework to explain disproportionality by identifying the role of subconscious racist attitudes as a factor in disciplinary assignments.

These studies suggest that implicit bias contributes to the overrepresentation of African American students in disciplinary assignments, a predictor for adverse outcomes later in life. Barnes and Motz (2018) found that decreasing implicit bias in school discipline would narrow the gap in arrests of African American and White men by 16%. Because of the power that administrators have in deciding how students should be punished, changing administrator bias can have a positive impact on reducing the school-to-prison pipeline. Research findings highlight the overall status of inequality in discipline in the United States and the imperative need for change. This research is important because of the long-term impacts that exclusionary discipline can have on students.



## **Long-Term Impacts**

**School-to-Prison pipeline**, the school-to-prison pipeline has been used by researchers to describe the connection between exclusionary discipline used in schools and the justice system. Scholars and activists use this term to describe the connection between student disciplinary referral and the justice system (Potter, Boggs, & Dunbar, 2017). Students of color – particularly Hispanic and African American students – are more likely to experience disciplinary consequences, and they will see disproportionate negative outcomes outside of school.

In a statewide study of students in Texas, Fabelo et al. (2011) found that students who are expelled or suspended are three times as likely to be involved in the juvenile justice system (Fabelo et al., 2011). Furthermore, students who had more than one disciplinary action were more likely to have juvenile justice contact. The percentage of students involved in the juvenile justice system increased with the number of referrals that students had. In the study, only 2% of students with no disciplinary records were involved in the justice system, whereas 50% who had eleven or more referrals were (Fabelo et al., 2011). Since multiple disciplinary records increase the chance of negative life outcomes, practitioners should consider alternatives to exclusionary discipline.

**Ninth grade as a predictor of graduation.** How does exclusionary discipline in ninth grade impact graduation? Policy makers, parents, educators, and communities use graduation rates as a measure of the school system's success or failure. High school graduation has become critical for workforce participation, choice of future opportunities, and broader economic development. Researchers have used ninth-grade early warning signs to predict graduation outcomes. Measuring whether students in ninth grade were on

track to have enough credits to progress to the next level predicted graduation rates correctly 80% of the time (Allensworth, 2013). Exclusionary discipline fits into the early indicators through two prongs. The first is attendance. If a student is suspended or placed in a DAEP, they are no longer in their traditional class receiving their grade level appropriate education. Allensworth (2013) found that only 21% of students who miss more than fifteen days of their traditional school in their ninth-grade year graduate, whereas 87% of students who miss less than four days in ninth grade graduate. The researchers found that when educators and administrators were empowered with this knowledge, they made different choices about discipline, helping keep more students engaged in school and learning.

The second way that exclusionary discipline can impact graduation is through disengaging students. Along with attendance, grades, and course credit accrual, longitudinal studies have shown that the use of exclusionary discipline can impact graduation rates. In a longitudinal study of Florida ninth graders, Balfanz, Byrnes, and Fox (2014) analyzed the impact of suspensions on a cohort of ninth graders. They found that after the first suspension in a student's ninth-grade year, an additional suspension increased the odds of dropping out by 20%. They also found that half of the students who were suspended three or more times in their ninth-grade year dropped out (Balfanz et al., 2014). This data implies that exclusionary discipline can play a more profound role in a student's experience beyond being a temporary consequence for specific behaviors.

Decreasing the dropout rates associated with discipline is not just crucial for Texas' goal of graduating more students. Dropouts cost the state millions of dollars a year. One study by Marchbanks et al. (2014) estimated the cost of dropouts associated

with discipline in Texas to cost between \$750 million to \$1.35 billion per cohort of students for their total lifetime. Furthermore, one instance of exclusionary discipline can double the probability of a student being retained. Researchers estimate that grade retention resulting from school discipline costs the state over \$177 million per year (Marchbanks et al., 2014). Though high school graduation rates have increased, they are negatively influenced by the use of disciplinary measures that increase the likelihood of retention and dropping out. One way to increase high school graduation could be decreasing placements in DAEPs in Texas. Few studies have specifically looked at how multiple placements in DAEPs influence graduation rates.

### **Prevention**

Although this problem of practice focuses on DAEP's impact on graduation rates, other interventions must be in place at the district and school level before students reach a disciplinary assignment. What follows are strategies and skills to increase the efficacy and equity in student discipline. To truly shift outcomes, administrators and teachers have to make different choices in student placement. As Allensworth (2013) discusses, using early warning indicators in ninth grade can help schools analyze student performance and risk factors to make better informed decisions when it comes to disciplining students. Systems and tools allow for alternative options to exclusionary discipline. These tools include restorative justice, Multi-Tiered Systems of Support, threat assessments, and trauma-informed approaches.

**Restorative justice.** Restorative justice is a widespread movement in education that began in Australia. Many authors use a variety of definitions for the term. For this paper, restorative justice in schools is the belief in the restoration and repair of relationships rather than the isolation of students. To do this, practitioners of restorative justice in schools use circles to help build relationships in classrooms and to restore relationships after an incident occurs. Restorative programming aims to get students talking about the underlying issue that caused the behavior to find ways to make things right with the harmed party. This approach differs from the traditional approach, which aims to gather facts, determine the student's consequence, and punish the student. Instead, these restorative conversations can look like peer mediation, student conferences, or restitution circles. Multiple studies have found that restorative approaches can help decrease recidivism in juvenile justice settings, although more rigorous research is needed (Rodriguez, 2007; Wilson, Olaghere, & Kimbrell, 2017).

One study conducted in district-wide implementation of restorative approaches suggests that restorative initiatives may be a useful alternative to exclusionary discipline. With each restorative intervention, a student's odds of receiving an office referral or out-of-school suspension in the future decreased (Anyon et al., 2016). In another study of court-involved youth, Bouffard, Cooper and Bergseth (2016) found that even minimal restorative justice intervention was more effective in reducing recidivism rates for youth. Their study suggests that even with minimal investment, mediation through restorative justice can help shape behavior differently than traditional forms of discipline.

**Multi-Tier Systems of Support.** Another intervention that helps decrease the use of exclusionary discipline is the Multi-Tier Systems of Support (MTSS) framework. This framework organizes support into three tiers based on the severity of the intervention. At each level, data is used by a student support team to make decisions about the variety of both academic and behavior supports needed for a student (Freeman, Miller, & Newcomer, 2015). The first level is the universal interventions that all students can access. Components of Tier 1 supports include active classroom management, aligned and appropriate instruction, and organized routines and procedures. This tier also includes social-emotional lessons and strong relationships between students and adults. In an assessment of Tier 1 classroom management, Oliver, Wehby, and Daniel (2011) found that there was a 0.71 positive effect in student performance based on implementation of universal classroom management strategies. The higher the rates of implementation of Tier 1 classroom management, the higher the students performed.

Tier 2 interventions are more intensive and focus on using data to build specific interventions for small student groups that need extra support. These interventions could include mental health or executive functioning groups, self-monitoring systems, or peer support groups. Finally, Tier 3 focuses on providing short-term, individualized, and intensive support for students. This could include support from school psychologists, wraparound services, or specialized schedules. Organizing interventions, incentives, and consequences around these three tiers provides a preventative approach to student misbehavior (Positive Behavioral Interventions and Supports, n.d.).

McIntosh et al. (2018) found that this type of approach can help schools decrease disproportionality in their discipline rates by using data (McIntosh et al., 2018). In their

study, the student support team used referral data to identify the high referral time and area to establish an intervention. This approach helped decrease the disproportionality between African American and White students in referrals. Because MTSS is a framework for the organization of interventions in a school, multiple evidence-based practices align with each tier, which bolsters the effectiveness of instruction and improves behavior.

**Threat assessments.** Threat assessments are an objective way for teachers and school staff to evaluate the level of threat that a student demonstrates and the appropriate consequence level. Generally, threat assessments follow a flow chart of action based on the severity of the case. The first step is to collect information about the harm threatened against others or the student. Next, the team must assess if the threat is a joke or an expression of anger from the student. Once the severity of a threat is established, there is a safety and evaluation plan enacted to ensure that all parties are alerted. The positive impact of threat assessments stems from the assessment of whether the threat is substantial or not and the clear protocol for moving forward if the threat is serious (Owen, Wettach, & Hoffman, 2015).

The impact of this strategy has been studied heavily in Virginia, which mandates the use of threat assessments in public schools. Researchers have found that the strategy decreases the use of exclusionary discipline in schools and decreases racial disproportionality. In a randomized control group study, researchers found that students at schools with threat assessments were more likely to have counseling services or a parent conference. They were overall less likely to experience exclusionary discipline (Cornell, Allen, & Fan, 2012). In another study, Nekvasil and Cornell (2015) found that

over time schools using threat assessments had fewer long-term suspensions and a stronger school climate for students and teachers.

**Trauma-Informed approaches.** Trauma has become a popular topic of conversation in education circles as more educators understand the role trauma plays in affecting behavioral and mental health. According to the National Center for Traumatic Stress Network, trauma is defined as a “frightening, dangerous, or violent event that poses a threat to a child’s life or bodily integrity.” (National Child Traumatic Stress Network, 2018). These events that cause childhood trauma have been organized into nine categories called adverse childhood experiences (ACEs). Examples comprise of both interpersonal and intergenerational trauma, including physical abuse, emotional abuse, racism, and household substance abuse (Sacks & Murphey, 2018). Research shows that 45% of students have experienced ACEs. ACEs are connected to negative physical and mental health outcomes for adults. Also, ACEs can impact the brain development of children and stunt their physical growth (Shonkoff et al., 2012). The research is clear that adverse childhood experiences impact child and adolescent development. Students experiencing traumatic stress are less able to control their impulses and sometimes struggle with memory issues. The heightened state of stress can make them more inclined to fight, misread social situations, and be defiant (National Child Traumatic Stress Network, 2018). These behaviors are the same types of behaviors that can get students suspended or expelled from schools. The importance of ACEs is heightened by the fact that African American and Hispanic students are more likely than their White peers to experience ACEs. These students are also the most likely to be

overly represented in exclusionary discipline. Almost half of students in Texas have experienced multiple ACEs (Sacks & Murphey, 2018).

Because of this, teachers and schools need to be aware of the impact of trauma in students' lives and how they can create environments that help students process their trauma. Multiple studies have followed the implementation of trauma-informed school approaches to improving impulse control in students. Trauma-informed student-based intervention groups have had positive impacts on teacher-student relationships, emotional regulation, and social and academic participation (Mendelson, Tandon, O'Brennan, Leaf, & Ialongo, 2015; Axelsen, 2017). These strategies can be used in classrooms and schools to help combat the negative impacts of exclusionary discipline discussed in this chapter.

## **Conclusion**

This chapter presented research on the current educational landscape in Texas and long-term impacts of exclusionary discipline on students. Four strategies for decreasing dependence on exclusionary discipline were explored. Because of the increased risk of negative life outcomes with multiple experiences with exclusionary discipline, we must understand how multiple assignments to exclusionary discipline impact graduation rates. The following chapter describes the research design of the study at hand.



## **Chapter III**

### **Research Design**

The current study aims to analyze how attending a Texas DAEP once or more in the ninth-grade school year impacts high school graduation rates. Because of the clear connection in prior research between the ninth-grade school year and graduation outcomes, this study will focus only on students' experiences with exclusionary discipline in ninth grade. Understanding the effect of specifically ISS, OSS, and DAEP will create a broader picture of how exclusionary discipline is impacting students. Without clear knowledge of how many students return to DAEPs in a year and the proportional representation by race and class, Texas educators may be perpetuating systems that could harm student development and learning outcomes. Before the state increases access to and use of this disciplinary tool, more information is needed to see how attending DAEPs impacts students. This chapter addresses participants, design, procedure, and data analysis used for this study.

The three research questions explored in this study are as follows:

1. In the 2015, 2016, 2017, and 2018 graduating cohorts, what percentage of students experienced exclusionary discipline (ISS, OSS, or DAEP) once or more than once in their first ninth-grade year?
2. How does ethnicity, gender, at-risk status, special education services, and socioeconomic status impact which students are more likely to experience exclusionary discipline through DAEPs, ISS, or OSS more than once in their ninth-grade year?

3. What impact do single and multiple assignments to a DAEP in ninth grade have on students' four-year graduation rates? Does the impact on four-year graduation rates differ between types of exclusionary discipline?

### **Design**

This quantitative study used a descriptive causal-comparative design to determine how multiple placements at DAEPs impact four-year graduation rates. Data for students who experienced ISS, OSS, or DAEP in ninth grade were analyzed according to ethnicity, at-risk status, gender, special education services, and economic status to evaluate whether these factors change their likelihood of experiencing exclusionary discipline more than once. Furthermore, the researcher compared graduation rates for all subsets of students. Four-year graduation rates of students who were not disciplined, disciplined once, and disciplined more than once in their ninth-grade year were compared using a descriptive causal-comparative analysis. The graduation rates were then compared across types of discipline to highlight the relative impact of the use of each type of exclusionary discipline for first-time, ninth-grade students.

### **Sampling**

Data were drawn from the records of students who began ninth grade in 2011, 2012, 2013, and 2014 and would have graduated in the spring of 2015, 2016, 2017, and 2018. This investigation accessed archival demographic data from TEA's public portal for ninth-grade students during this time period. These data included information on the total number of ninth graders according to ethnicity, gender, economically disadvantaged, special education, and at risk status. Texas defines *economically disadvantaged* as any student who qualified to receive lunch for free or at a reduced cost. Students are *at-risk* if

they fall into a variety of categories. For example, students can qualify as at-risk for not meeting standards on early standardized testing or experiencing homelessness or dropping out of school. Students can also become at-risk if they are assigned to a DAEP in the previous year, showing the potential negative impact of exclusionary discipline. If a student is counted as receiving *special education services*, the student may receive a variety of supports for a wide range of disabilities (TEA, 2007).

Once the general sample of ninth graders was established, discipline data will be accessed from the TEA public discipline data portal. The data illustrated the trends over time of students who experienced exclusionary discipline action over the 2011-2014 ninth-grade school years. These actions could include ISS, OSS, or DAEP placement. Texas tracks two different sets of data for exclusionary discipline: the counts of assignments and the number of students. Because students can be assigned more than once to exclusionary discipline, disciplinary actions are higher than the count of students. Both trends over time will be presented in graph form.

### **Sample**

Because this study aimed to analyze public data from the TEA, this was a sample of convenience. The sample included students who began ninth grade for the first time in late summer of 2011-2014 and were assigned to ISS, OSS, or DAEP during the school year. These years were chosen because the four-year graduation data for this cohort of ninth-grade students is currently available. Over the 2011-2014 school years, there were on average 400,000 ninth-grade students annually in the state of Texas. Table 3 shows the demographic information of the population of ninth graders enrolled by the state of Texas during those years (TEA, 2017b). Over time, every subgroup experienced higher

enrollment figures over the four-year time frame, except for the American Indian population, which decreased by 0.1 of a percentage point. Hispanic student enrollment increased the most during the time frame, with 2% more Hispanic students enrolling in ninth grade in 2014 than in 2011. In the same time, African American stayed constant and Asian student enrollment increased by 1%. Hispanic students increased from 50% of students in ninth grade to 52% of ninth graders in Texas.

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Table 3

*Ninth-Grade Enrollment in School Years 2011–2012 through 2014–2015*

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	2011–2012 (%)	2012–2013 (%)	2013–2014 (%)	2014–2015 (%)
African American	13	13	13	13
American Indian	0.5	0.5	0.4	0.4
Asian	3	3	3	4
Hispanic	50	51	51	52
Pacific Islander	0.1	0.1	0.1	0.1
White	31	30	30	30
Multiracial	2	2	2	2

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*Note.* Data from TEA (2017a).

The actual sample of this study represents all ninth graders, since it is focused on first-time ninth graders who did not or did experience ISS, OSS, or DAEP in their ninth-grade year and either graduated or did not graduate from a Texas school in four years. The information was presented in chart form.

**Procedure**

The procedures included requesting information from the TEA. Specifically, the data requested includes graduation outcomes for students who were in ISS, OSS or DAEP once or more in their ninth-grade year during the school years beginning in 2011, 2012, 2013, and 2014. All first-time ninth-grade student graduation outcomes were requested. These data were disaggregated by race and/or ethnicity, at-risk status, gender, receipt of special education services, and economic status. No personal identifying information was in the data.

**Measures**

In order to understand the status of students with multiple assignments to DAEPs in Texas more fully, the first analysis included the following independent variables: race and/or ethnicity, at-risk status, economic disadvantage status, gender, and disability status. The dependent variable established in the data is the placement of students in a DAEP once and more than once in their ninth-grade year. Demographic information operated as a way to measure the proportional representation of students who have attended DAEPs multiple times in one year.

The second measure is important for the 60 × 30 goals of Texas: graduation rates. Using the same cohort of ninth-grade students, the second analysis used placement in a DAEP, ISS, or OSS once or more as an independent variable. Four-year graduation rates operated as the dependent variable. The measure focused on the potential impact on graduation rates of assigning students to DAEPs in their ninth-grade year.

## **Analysis**

After the data was collected, the rates of students who attended a DAEP once or more in the ninth-grade year were presented. Next, a descriptive causal-comparative design was used to establish whether or not specific demographics determine who is more likely to return to a DAEP. Data were compared by race and/or ethnicity, at-risk status, socioeconomic status, disability, and gender. Demographic data were compared with findings from all students in Texas to show the proportional representation of students who experienced multiple placements at ISS, OSS, and DAEPs. These data were presented in charts to highlight relationships between demographics and multiple ISS, OSS, and DAEP assignments.

To understand the impact of DAEP placements on student graduation, the analysis determined if multiple placements in a DAEP in ninth grade impact four-year graduation rates. The same data for students assigned to ISS and OSS was analyzed to demonstrate the effect of suspensions on graduation rates. This information was presented separately in chart form to indicate the relationship between each type of exclusionary discipline and graduation rates. These data, displayed in graph form, were also separated by demographic characteristics, including ethnicity, at-risk status, receipt of special education, socioeconomic status, and gender. The measures and procedures in this chapter help show the impact of multiple placements in DAEPs on graduation and how this compares with graduation rates of students who have not experienced ISS, OSS, or DAEPs.

## **Chapter IV**

### **Results**

This study aimed to investigate the relationship between DAEP placements for ninth-grade students and four-year high school graduation outcomes. As the state evaluates the use of exclusionary discipline in schools, it is crucial to compare student progression rates across groups of students who experience different types of discipline. This chapter analyzes data provided by TEA that shows four-year graduation outcomes for ninth-grade students who experienced exclusionary discipline. The data is from the 2015, 2016, 2017, and 2018 graduating cohorts of first-time ninth graders. Students in these cohorts were in ninth grade between 2011 and 2014. Only students who stayed enrolled in Texas schools four years after ninth-grade enrollment were included in the data set. The data were used to address the following research questions:

1. In the 2015, 2016, 2017, and 2018 graduating cohorts, what percentage of students experienced exclusionary discipline (ISS, OSS, or DAEP) once or more than once in their first ninth-grade year?
2. How does ethnicity, gender, at-risk status, special education services, and socioeconomic status impact which students are more likely to experience exclusionary discipline through DAEPs, ISS, or OSS more than once in their ninth-grade year?
3. What impact do single and multiple assignments to a DAEP in ninth grade have on students' four-year graduation rates? Does the impact on four-year graduation rates differ between types of exclusionary discipline?

## **Data Provided**

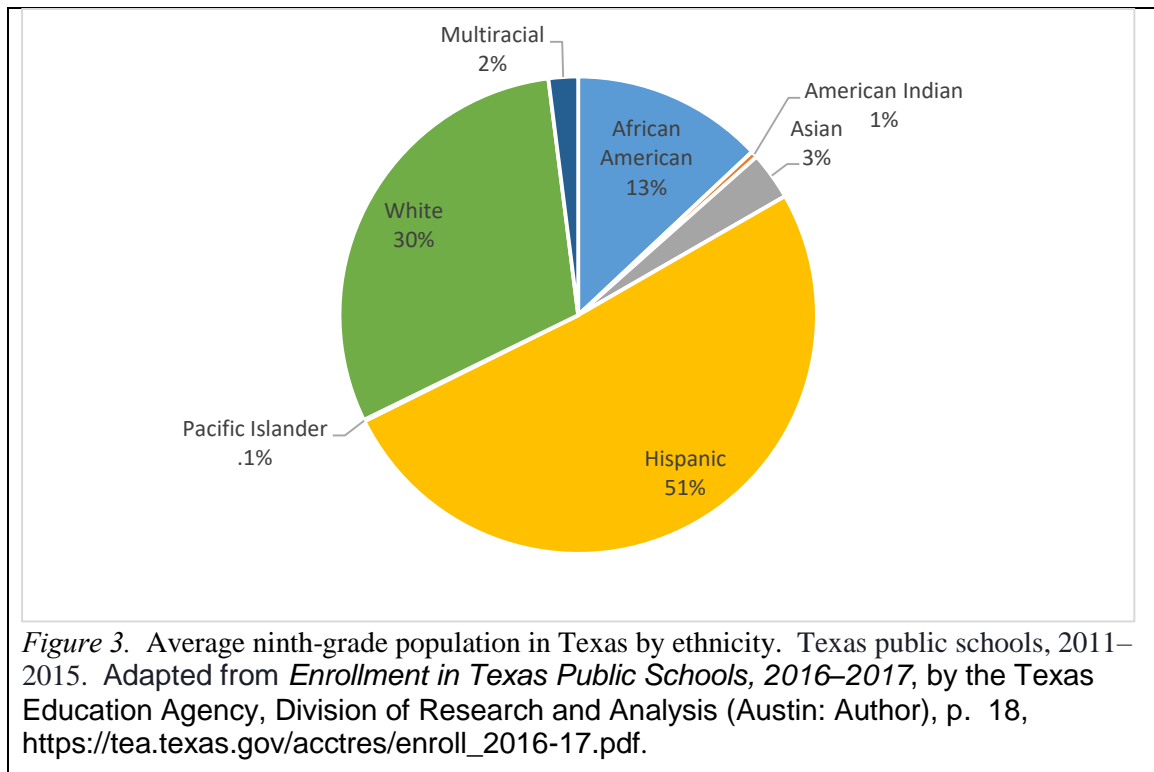
The data set tracked graduation outcomes for 1,669,391 first-time ninth graders who were enrolled as ninth graders in Texas public high schools between 2011 and 2014. The requested data included summaries of four-year graduation outcomes for students who were:

- Not disciplined
- Placed in ISS once
- Placed in OSS once
- Placed in DAEP once
- Placed in ISS more than once
- Placed in OSS more than once
- Placed in DAEP more than once

Students who left the state before their four-year graduation information was captured were not included in the data set. Students who experienced the same discipline category more than once were not counted in the singular category. Furthermore, students who experienced different types of exclusionary discipline were not removed from the data set. The discipline categories, therefore, were not mutually exclusive. The following demographic categories of students were reported in the data: all, at risk, not at risk, economically disadvantaged, not economically disadvantaged, special education, and not special education. Each of the following ethnicity/racial categories were cross-classified by gender: American Indian or Alaskan Native, Asian, Black or African American, Hispanic/Latino, Native Hawaiian, Two or More Races, and White.



In 2011, 393,553 students enrolled in Texas's ninth-grade classes. That figure ballooned to 419,942 students in 2014 (TEA, 2016). For ninth-grade enrollment from 2011 to 2014, Hispanic students made up half of students in Texas and their enrollment increased every year during the timeframe of this study. Additionally, as shown in Figure 3, White students made up about 30% of students, and African Americans made up 13%.



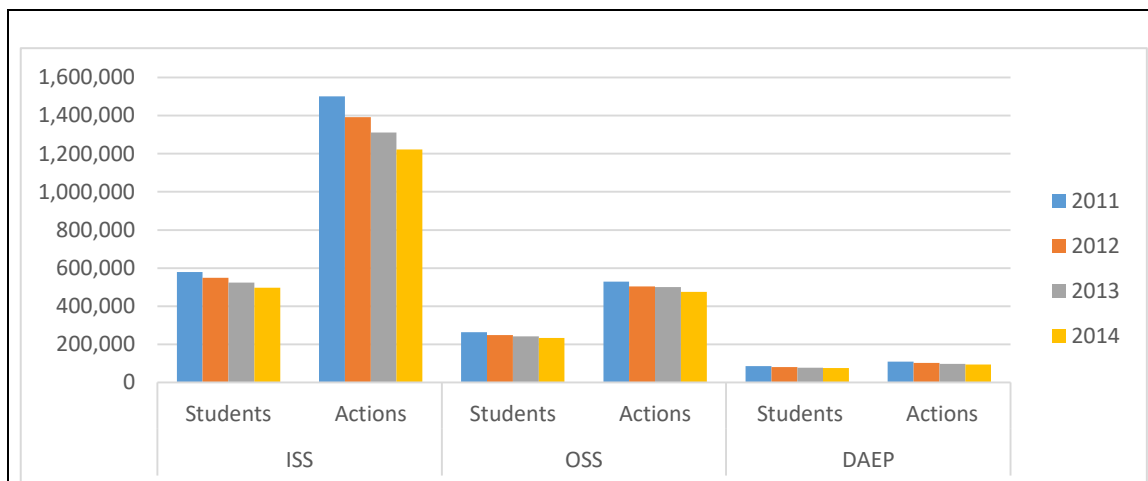
Students who were economically disadvantaged made up around 60% of students, and students receiving special education services made up 9% of ninth graders. As the state becomes more demographically diverse, it is imperative that we consider the disparate impacts that exclusionary discipline can have on all of our students and any disproportional impacts on some of our students.

## Research Question 1

**Texas discipline rates across all grade levels.** The first research question asked what percentages of students experienced exclusionary discipline once or more than once in their ninth-grade year. To provide context for the ninth-grade assignments, this study first explored the frequency of use of exclusionary discipline across all grade levels. Overall, in Texas, between the 2011 and 2014 school years, there were almost 8 million assignments to ISS, OSS, and DAEP, impacting 3.5 million students. An average of 19% or almost one in every five students experienced exclusionary discipline across all grade levels. ISS, the least restrictive form of exclusionary discipline, made up half of the assignments to exclusionary discipline across grade levels and was the most commonly used discipline. OSS was the second most commonly assigned form of discipline followed by DAEP assignments. This was to be expected because as the level of restrictiveness increases, the level of use of the most restrictive discipline generally decreases. Not only was this inverse relationship at work from 2011 through 2014 school years, but also exclusionary discipline – including ISS, OSS, and DAEP – for all grade levels decreased from 928,442 to 777,474 assignments. During this same time period, the population in Texas schools increased.

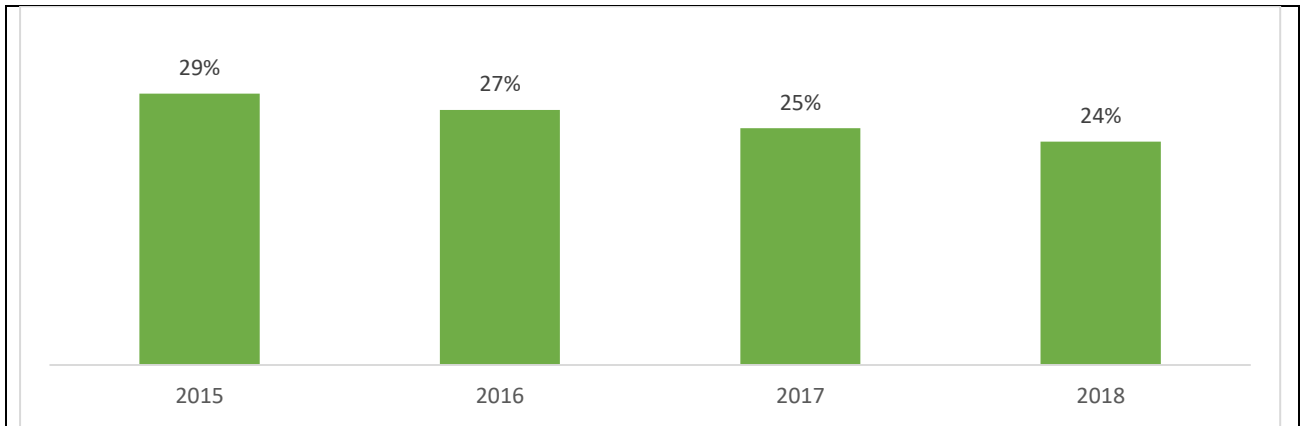
Figure 4 illustrates the trends over time of students who experienced any form of exclusionary discipline action over the 2011–2014 school years. These actions could include suspensions or DAEP placement. The state of Texas tracks two different types of data for exclusionary discipline: the counts of assignments and the number of students. Because students can be assigned more than once to exclusionary discipline, disciplinary actions are higher than the count of students. Over time, student assignments and count

of specific students have decreased for every category. ISS makes up the majority of these disciplinary actions. The second most frequent exclusionary discipline action is OSS, which occurs at half the rate of ISS. DAEP has the lowest rate of assignment out of all three categories for students across Texas.



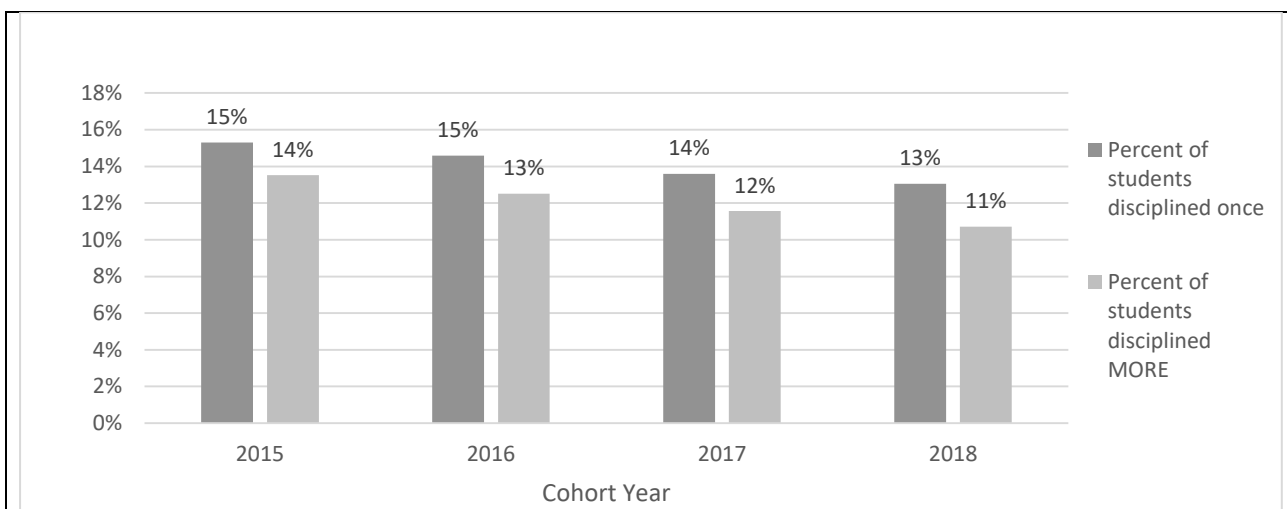
*Figure 4.* Number of students disciplined and disciplinary actions in Texas public schools, 2011–2015. Data from "Counts of students and discipline actions by discipline action groups—PEIMS 2018–2019," by the Texas Education Agency, Division of Research and Analysis, 2017 (Austin: Author), ([https://rptsvr1.tea.texas.gov/adhocrpt/Disciplinary\\_Data\\_Products/DAG\\_Summaries/Download\\_State\\_DAG\\_Summaries.html](https://rptsvr1.tea.texas.gov/adhocrpt/Disciplinary_Data_Products/DAG_Summaries/Download_State_DAG_Summaries.html)).

**Disciplined and not disciplined overall.** Annually, about one in five Texas students across all grade levels experienced some form of exclusionary discipline between 2011 and 2014. For the graduating cohorts, one in four students were disciplined in ninth grade. A higher proportion of ninth-grade students compared to the PK–12 general student population were disciplined. Discipline assignments to ISS, OSS, or DAEP declined from 29% to 24% of ninth graders across the timeframe of this study, as shown in Figure 5.



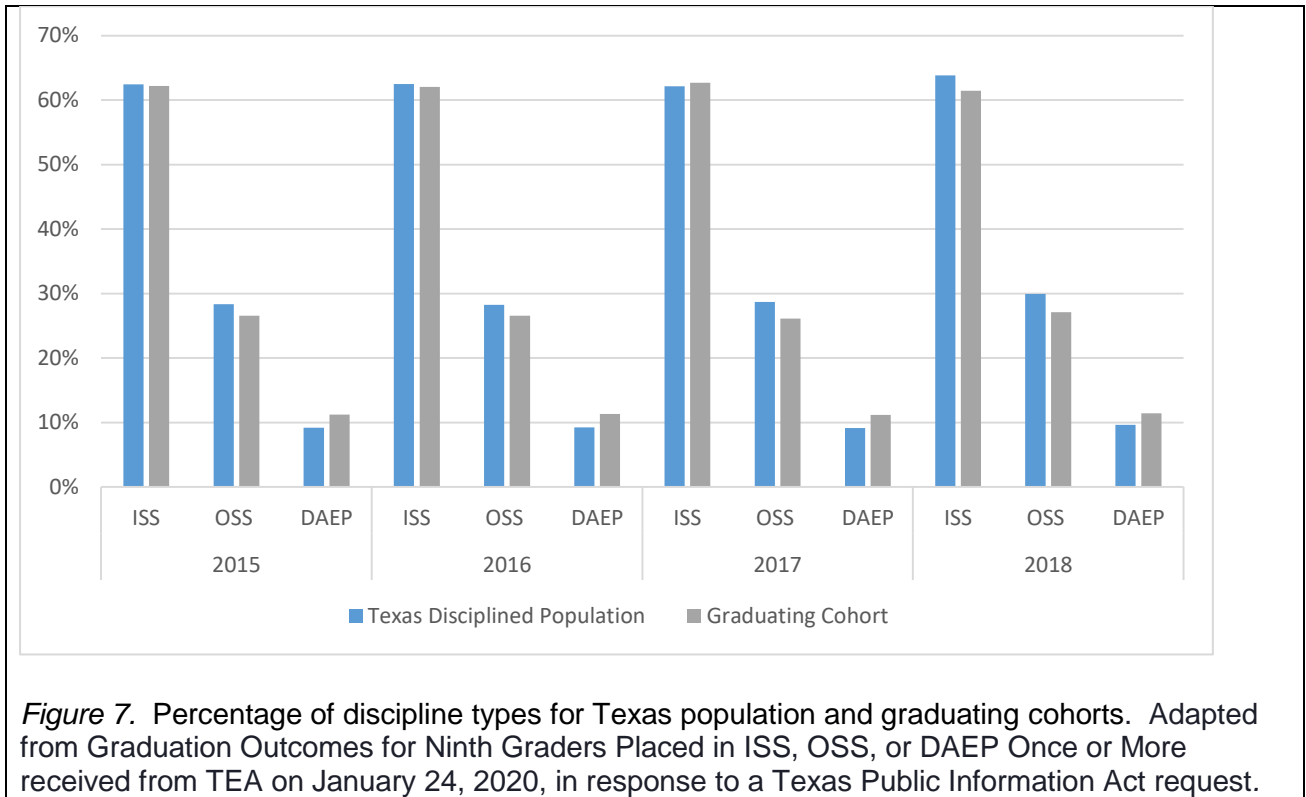
*Figure 5. Percentage of students disciplined by graduation cohort. Adapted from Disciplined Ninth Grade Students received from TEA on January 24, 2020, in response to a Texas Public Information Act request.*

Decreases over time are also seen across disciplinary assignments that students experience once or more than once irrespective of disciplinary action. Specifically, when breaking down the percentage of students who were disciplined in each cohort, a slightly higher percentage of students were disciplined once compared with those disciplined more than once. In Figure 6, of the 27% of students who were disciplined in the cohorts, about 14% of students in the sample were disciplined once and the residual 13% were disciplined more than once. Both percentages decreased over the four-year period.

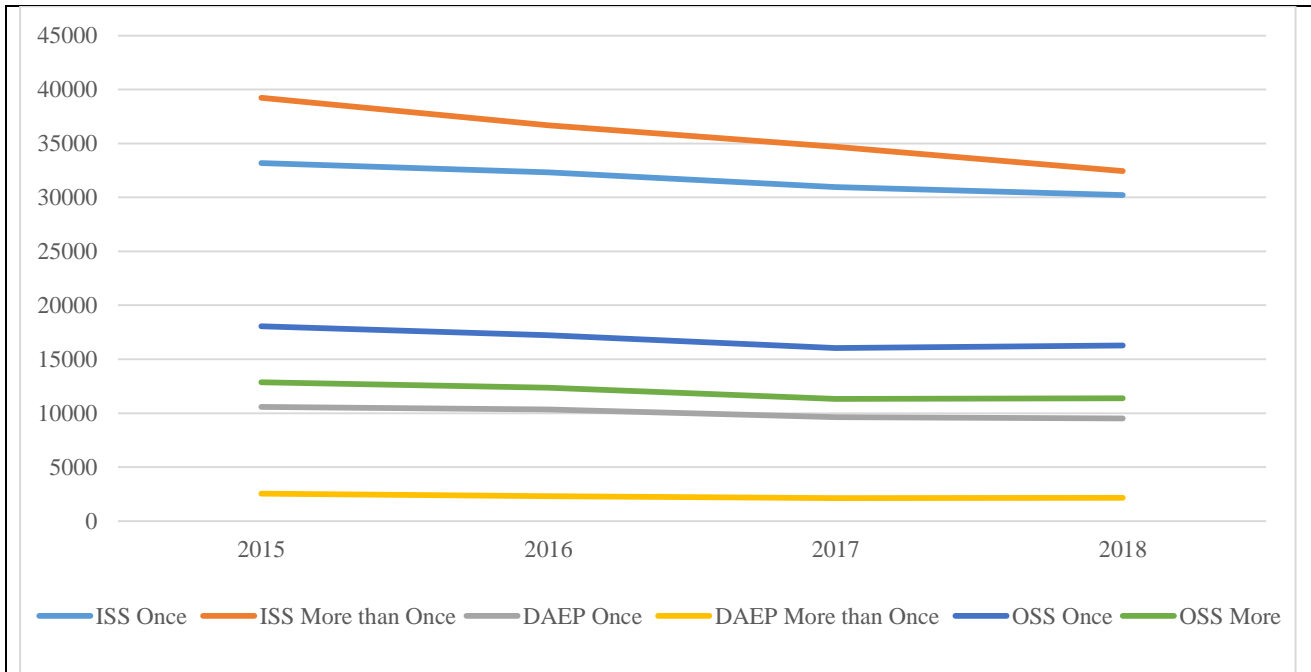


*Figure 6. Percentage of students disciplined once and more than. Adapted from Disciplined Ninth Grade Students Once or More received from TEA on January 24, 2020, in response to a Texas Public Information Act request.*

**Rates of exclusionary discipline in ninth grade.** Similar to the disciplined population across Texas, students in the graduating cohorts were assigned to ISS most frequently. More than 250,000 students received an ISS assignment in the cohorts included in this study. Figure 7 shows the proportional use of the different types of exclusionary discipline for each cohort compared with the assignments for all students in Texas. Ninth-grade assignments to ISS mirrored the rate of general ISS assignments. The rates of OSS for ninth graders in the four-year graduating cohorts were slightly lower than the general rate of OSS assignments in Texas. Finally, DAEP assignments on average made up 9% of exclusionary discipline assignments across all grade levels in Texas schools, but made up 11% of assignments for ninth graders. Ninth-grade students, then, are more likely to be assigned to DAEP than students in other grades.

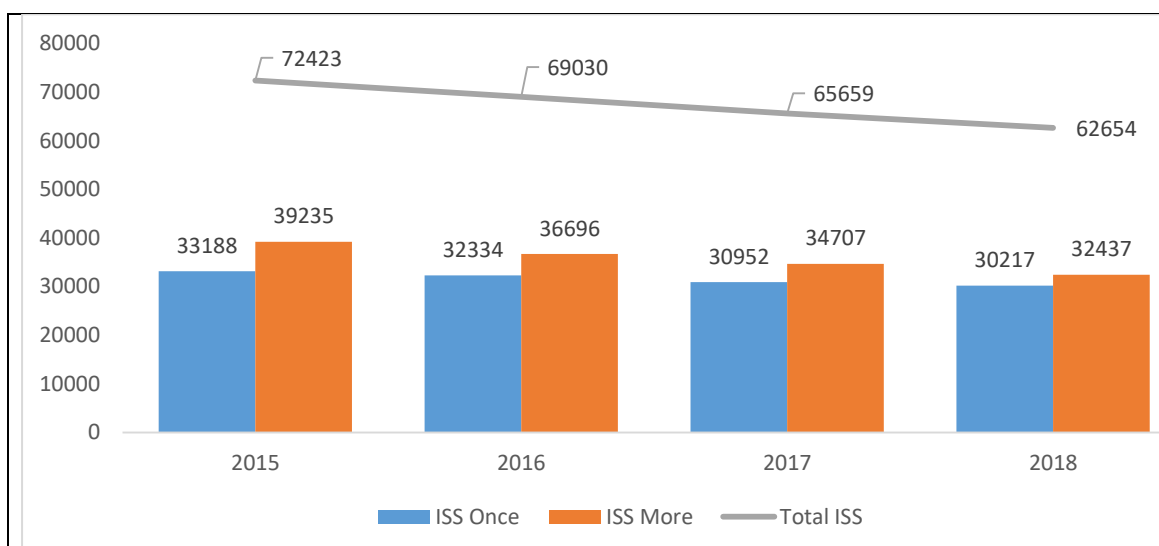


As might be anticipated, the most frequently used discipline type was multiple assignments to ISS. In Figure 8, the rate of assignments by each type of discipline decreases as the assignments get more restrictive. Assignments to DAEP more than once are the lowest type of exclusionary discipline used. Most assignments decreased between the 2015 and 2018 cohorts. Disciplinary assignments decreased while ninth-grade student enrollment increased.



*Figure 8.* Number of ninth-grade students in exclusionary discipline by cohort for 2015, 2016, 2017, and 2018 graduating cohorts. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020, in response to a Texas Public Information Act request.

**Rates of assignments to ISS.** As shown in Figure 9, assignments to ISS decreased by almost 10,000 over the four years. Across the cohorts, an average of 31,672 students were assigned to ISS once per year.

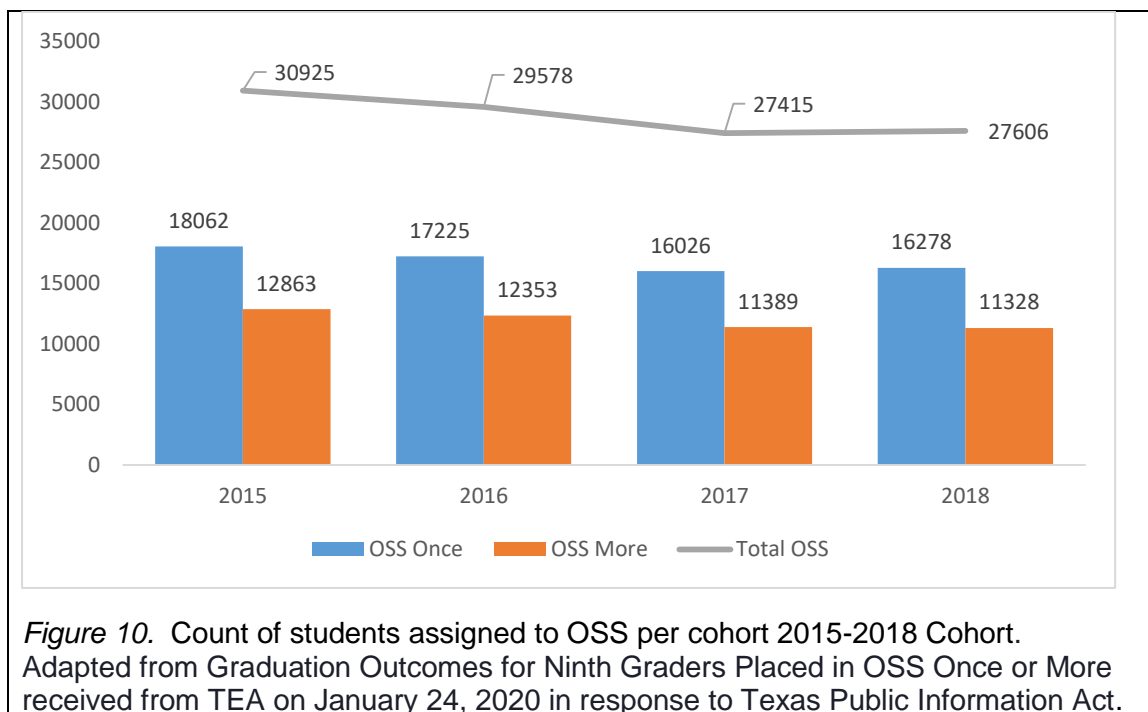


*Figure 9. Count of students assigned to ISS per cohort 2015-2018 Cohort. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS Once or More received from TEA on January 24, 2020, in response to a Texas Public Information Act request.*

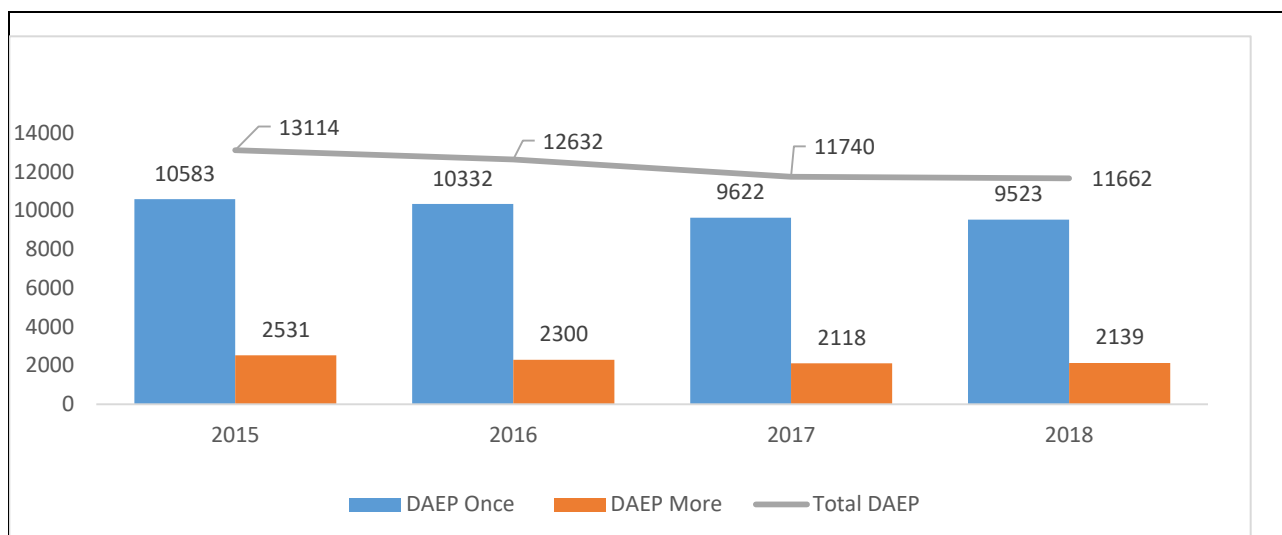
An average of 35,768 students annually were assigned more than once to ISS, the most out of the categories analyzed. The rates of students experiencing ISS more than once decreased the most dramatically over the four-year period, closing the gap between the number of students who had one ISS assignment and those who had more. ISS was the only category of discipline that students were more likely to experience more than once than only once.

**Rates of assignments to OSS.** Across the four cohorts examined, assignments to OSS for ninth graders decreased by about 3,000. Figure 10 shows that a larger number of students were assigned to OSS once than more than once. For OSS assignments, 16,897 students were assigned once per year on average. About 11,983 students were assigned to OSS more than one time per year. Unlike ISS assignments, which were lower for single assignments than for multiple assignments, OSS assignments were dramatically higher for single assignments than for multiple ones.





**Rates of assignments to DAEP.** DAEPs had the lowest number of assignments of the disciplinary categories. Figure 11 shows the decrease in assignments across the cohorts. About 10,000 students were assigned per year to DAEPs once. On average 2,272 students were assigned to a DAEP multiple times, the lowest number of students in any of the discipline categories. There is a large gap between assignments once and more than once for DAEPs. Overall, the patterns mirror the statewide averages that saw decreases in exclusionary discipline across the four-year period.



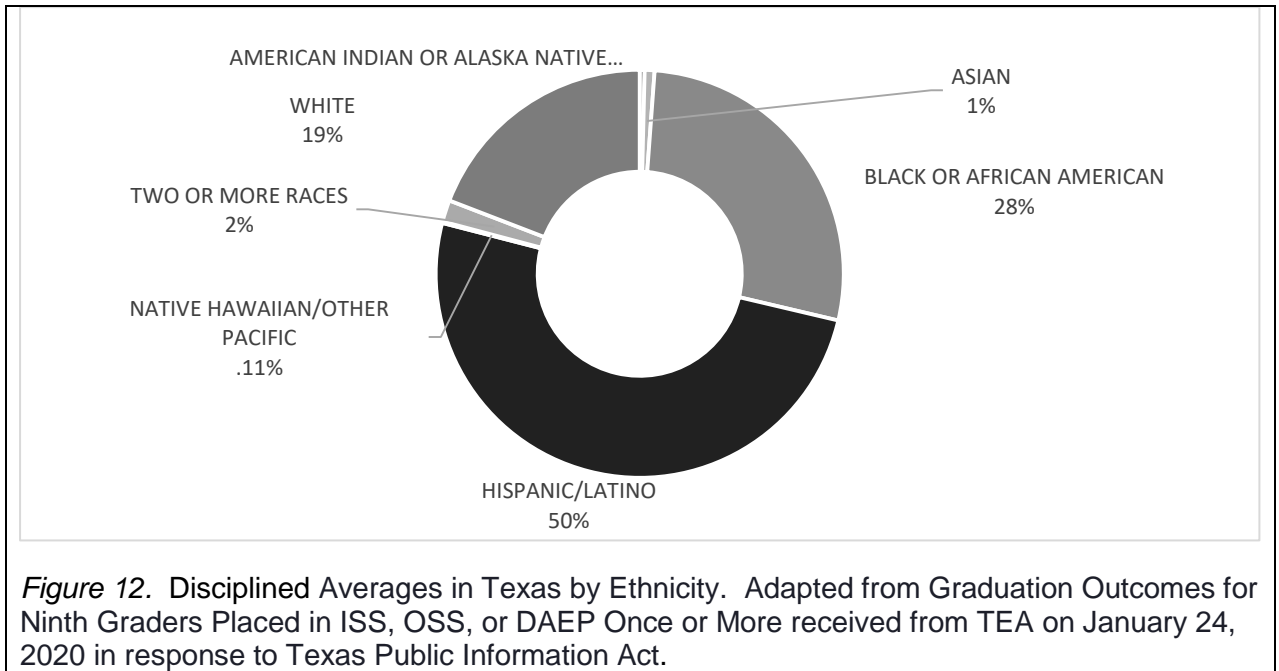
*Figure 11. Count of students assigned to DAEP per cohort 2015–2018 Cohort. Adapted from Graduation Outcomes for Ninth Graders Placed in DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act.*

## Research Question Two

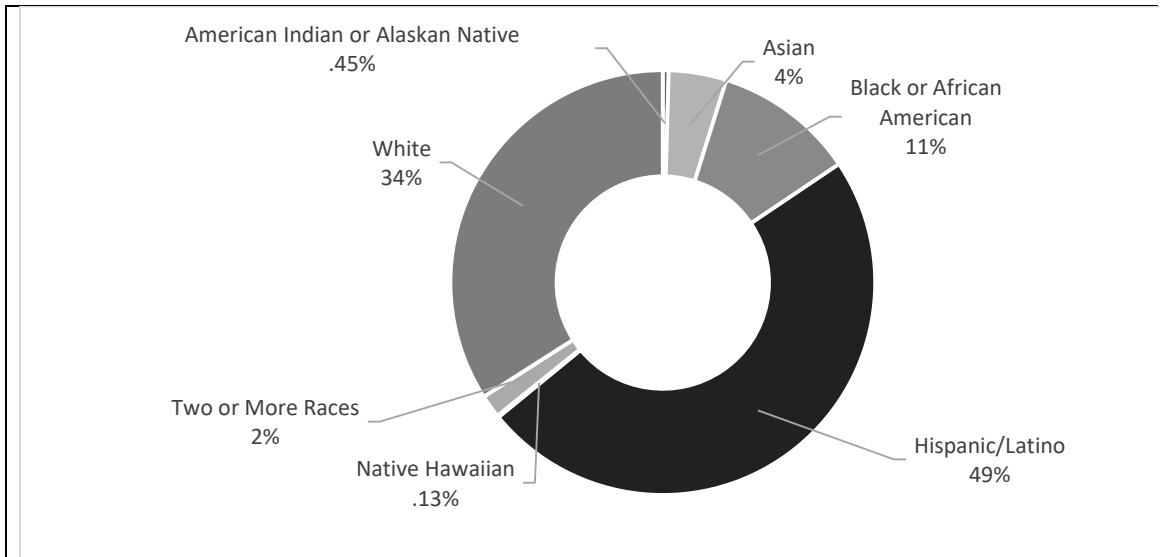
The second research question examined whether there were demographic disparities in assignments to exclusionary discipline. Specifically, this question focuses on whether ethnicity, gender, at-risk status, special education services, and economically disadvantaged status impact the proportional percentage of students assigned to ISS, OSS, and DAEP once or more. To answer this question, total demographic data for each type of exclusionary discipline was aggregated across years to show the difference based on assignment.

**Disciplined and not disciplined by demographic.** Over the four-year period analyzed, Texas schools were comprised of 51% Hispanic students, 30% White students, and 13% African American students. The demographic of students disciplined during these years looks different than the general student population of the state. Figure 12 shows the demographic breakdown of all students disciplined in Texas public schools

between 2011 and 2014. Compared to the general student population in Texas, students with disciplinary assignments were more likely to be African American. Furthermore, students who were disciplined were less likely to be White.

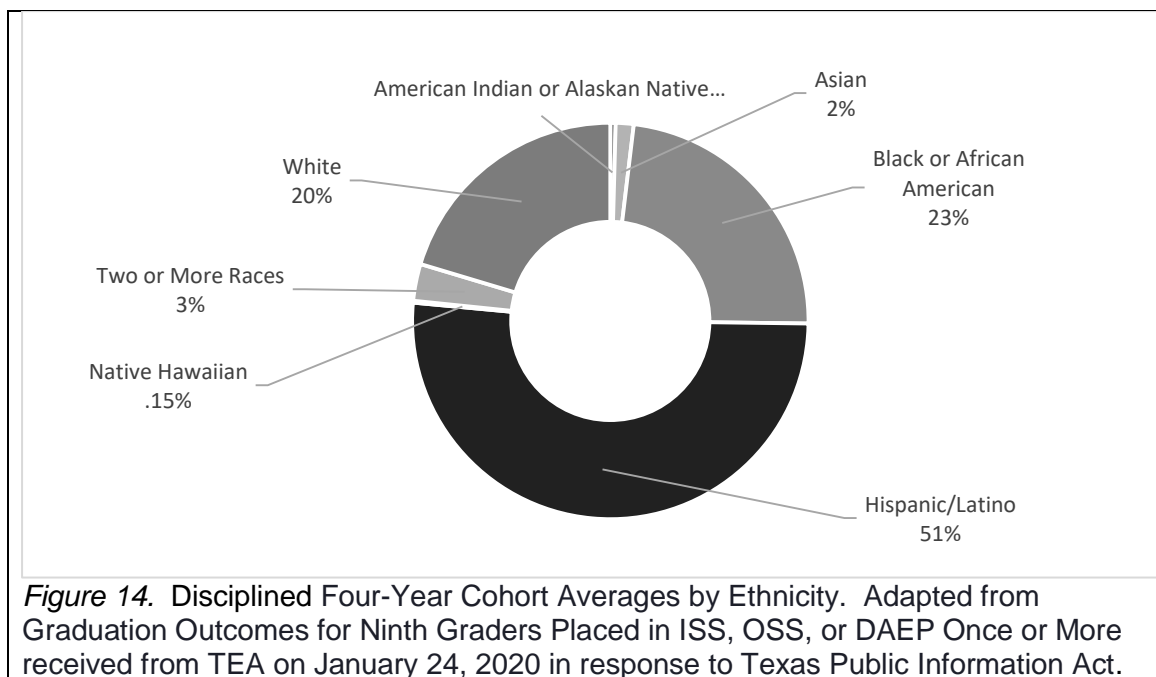


Similar patterns are present in disciplinary data for the ninth-grade cohort. Figure 13 shows the demographic breakdown of students not disciplined in the four graduating cohorts from the data set. White students made up a larger percentage of students who were not disciplined compared to the general enrollment of ninth graders. African American and Hispanic students represented smaller percentages of students who were not disciplined than the general study enrollment.

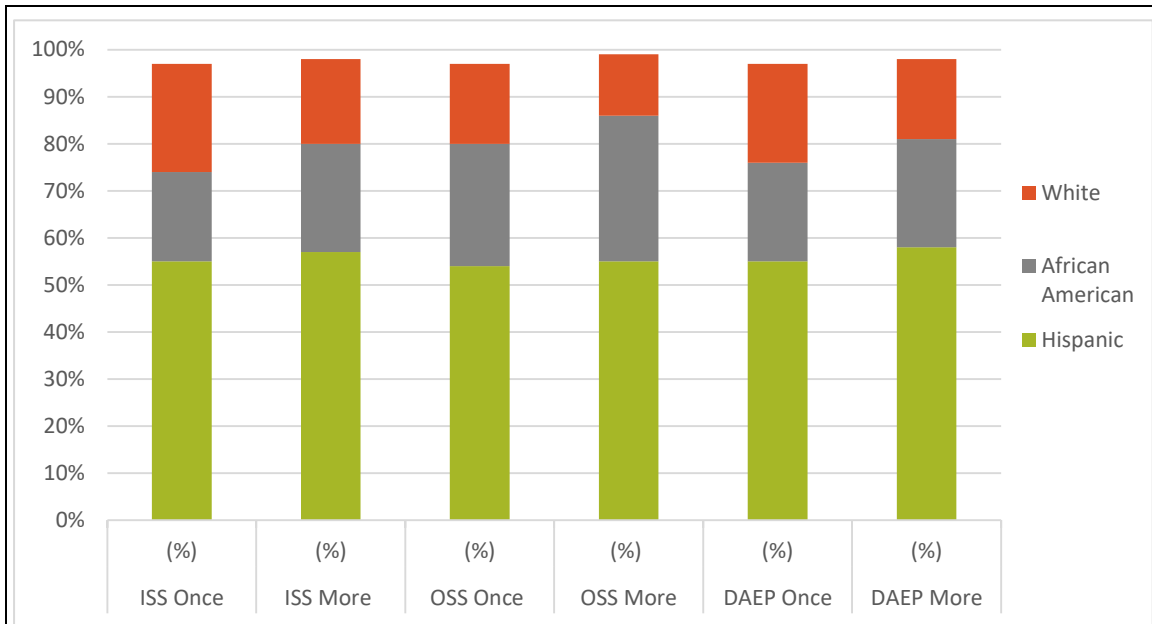


*Figure 13. Not Disciplined Four-Year Cohort Averages by Ethnicity. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act.*

Conversely, when looking at all students in the data set who were disciplined, African American students represented a higher percentage of the population. White and Asian students were underrepresented in the population of students disciplined compared to the percentage of students enrolled. Figure 14 highlights the demographic breakdown of students who received a disciplinary assignment in the ninth-grade cohorts.



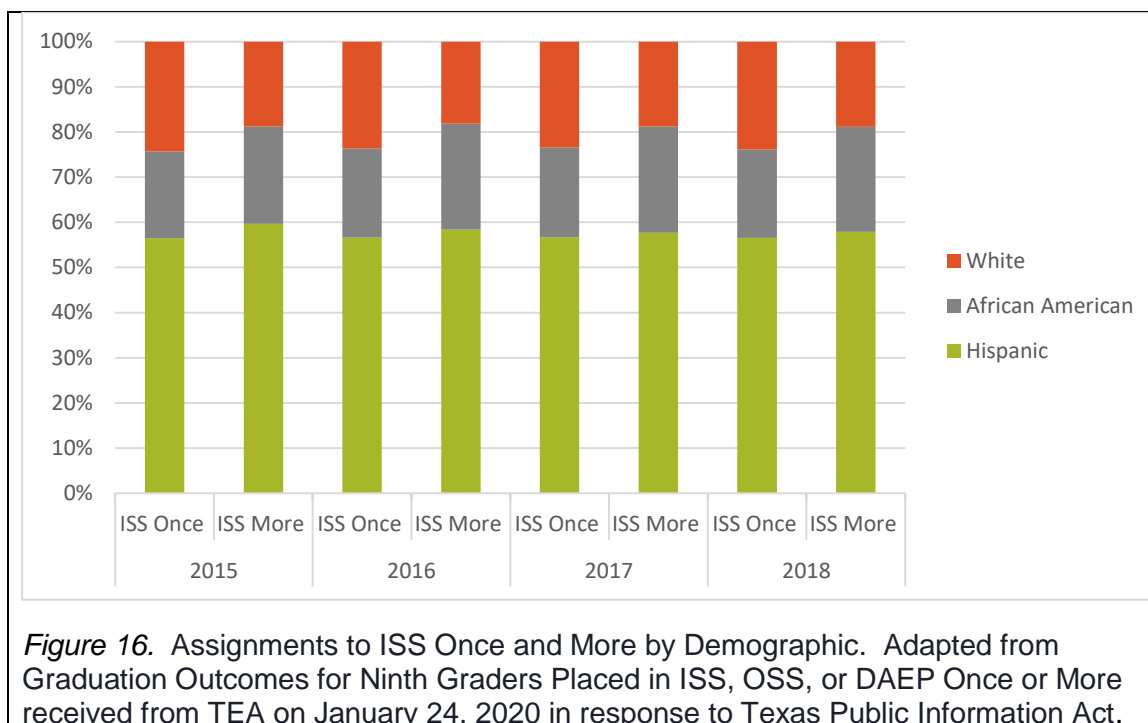
**Assignments by ethnicity.** The following analyses disaggregate ethnicity information. Due to small sub-groups sized for students who identify as Asian, Native Hawaiian, American Indian, and Two or More Races the data presented focus on disciplinary actions for students who identify as African American, Hispanic, and White. To compare percentages of students across ninth grade, Figure 15 shows the percentage of African American, Hispanic, and White students in each type of discipline across the four years. Compared to students who were not disciplined, higher percentages Hispanic and African American students received disciplinary assignments.



*Figure 15. Total disciplinary assignments by ethnicity. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act.*

Overall, White students are less likely to experience more than one disciplinary assignment compared to African American and Hispanic students. While African American students made up 13% of ninth graders, as shown above, African American students made up more than 20% of students disciplined irrespective of discipline category. African American students, then, were overrepresented in every disciplinary category. White students made up 30% of ninth graders in the graduating cohorts but represented 34% of students who were not disciplined. White students were underrepresented in all disciplinary assignments. Hispanic students were slightly underrepresented in the group of students not disciplined and were slightly overrepresented in every discipline category. The following shows the breakdown by ethnicity for each disciplinary category.

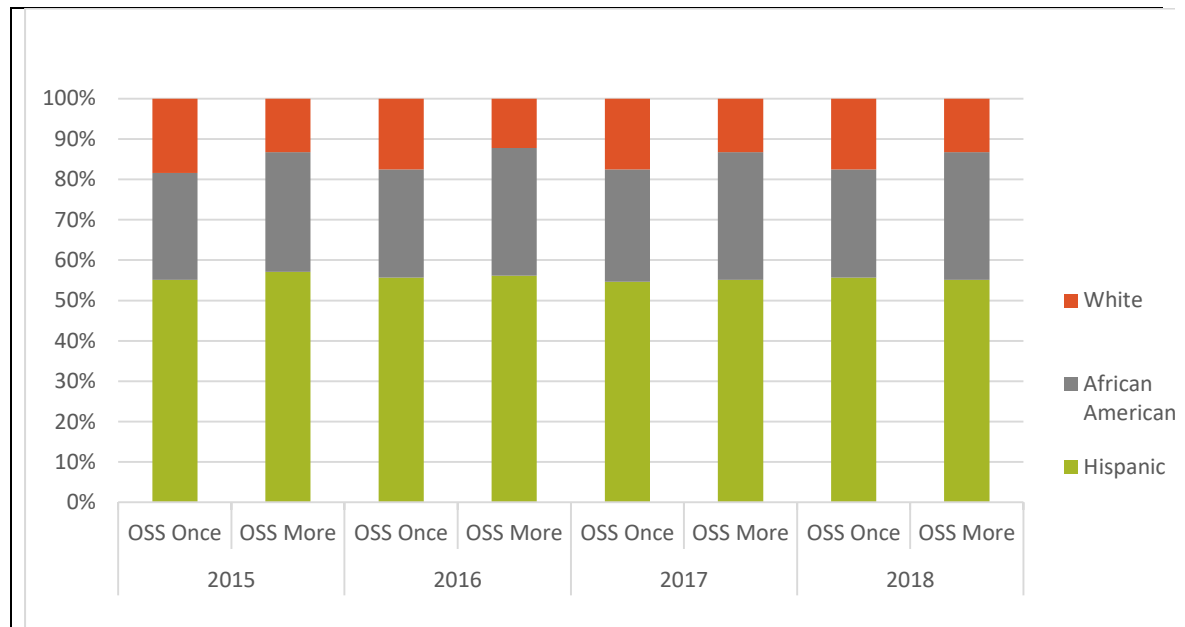
**ISS Assignments by Ethnicity.** ISS is a disciplinary action that keeps students within their school but removes them from learning environments for up to three days in a row. It is the least restrictive form of discipline out of the three analyzed in this study. Figure 16 shows the breakdown of demographic information for students assigned to ISS once and more for each graduating cohort. Because of the small sample of assignments for students who are Native Hawaiian, Asian, American Indian or Alaskan Native, and Two or More Races, a full breakdown of demographic information for each discipline type is included in Figure 16a in the Appendix. The percentage makeup of Hispanic and African American students is larger for assignments to ISS more than once. Hispanic students made up 54% of students assigned to ISS once, but they made up 57% of students assigned more than once. Similarly, African American students made up 19% of students assigned to ISS once and made up 22% of students assigned to ISS more than once. For White students, the opposite is true. White students made up 23% of students assigned to ISS once, but made up 18% of students assigned to ISS more than once.



**OSS by Ethnicity.** OSS requires students to stay home for up to three days in a row and is the second most restrictive form of discipline referenced in this study. Figure 17 illustrates that Hispanic students made up 54% of students in OSS once and 55% of students in OSS more than once. African American students made up a higher proportion of students assigned to OSS once and more than once compared to the student population. African American students made up 26% of students assigned to OSS once, double the percentage compared to their representation of the student population. For multiple assignments to OSS, African American students were overrepresented by a factor of three compared to their proportion of the ninth-grade population. African American students were 11% of the student population but made up 31% of students assigned to OSS more than once. White students made up a smaller percentage of students assigned to OSS once, and this proportion decreased in multiple assignments to

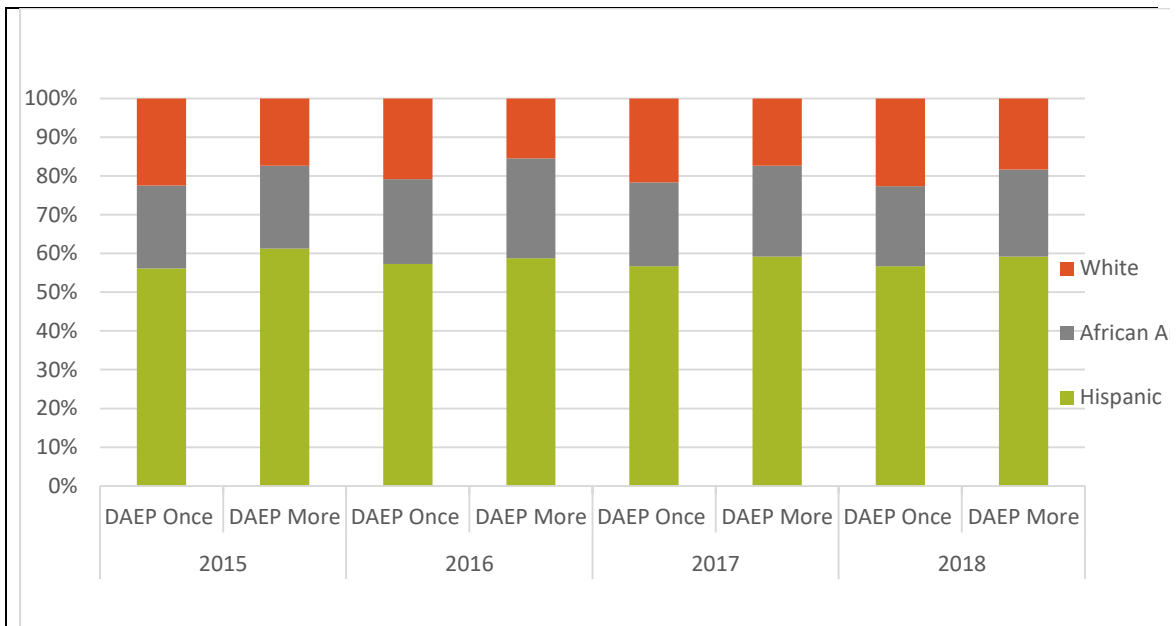


OSS. White students made up 17% of students assigned to OSS once and 13% of students assigned to OSS more than one time.



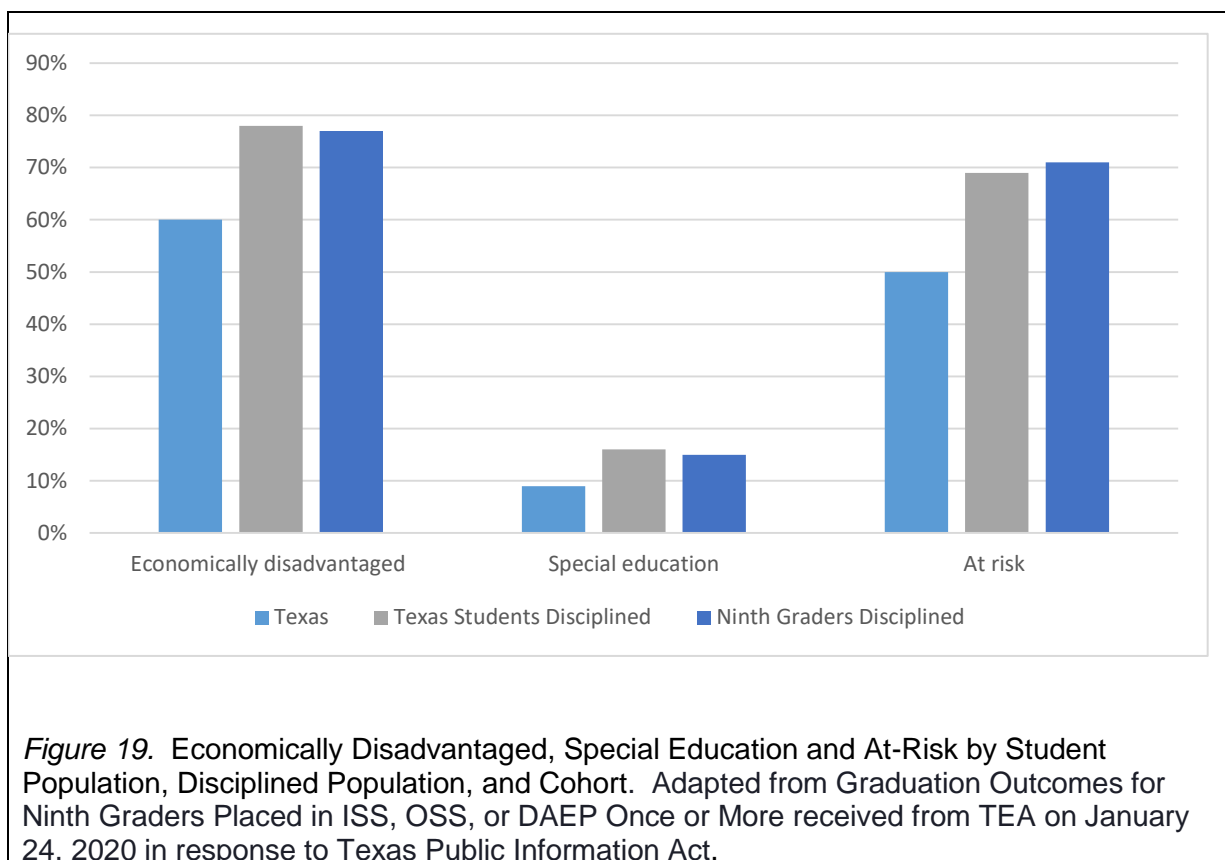
*Figure 17. Assignments to OSS Once and More by Demographic. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act.*

**DAEP by Ethnicity.** DAEP is the most restrictive form of exclusionary discipline addressed in this study. As shown in Figure 18, Hispanic students made up 55% of students in DAEP once and 58% of students assigned multiple times to DAEP. African American students made up about 22% of students assigned to DAEP once or more, double the percentage of the ninth-grade African American population. White students made up a smaller percentage of students assigned to DAEP once, and this proportion decreased in multiple assignments to DAEP. White students made up 21% of students assigned to DAEP once and 17% of students assigned to DAEP multiple times.



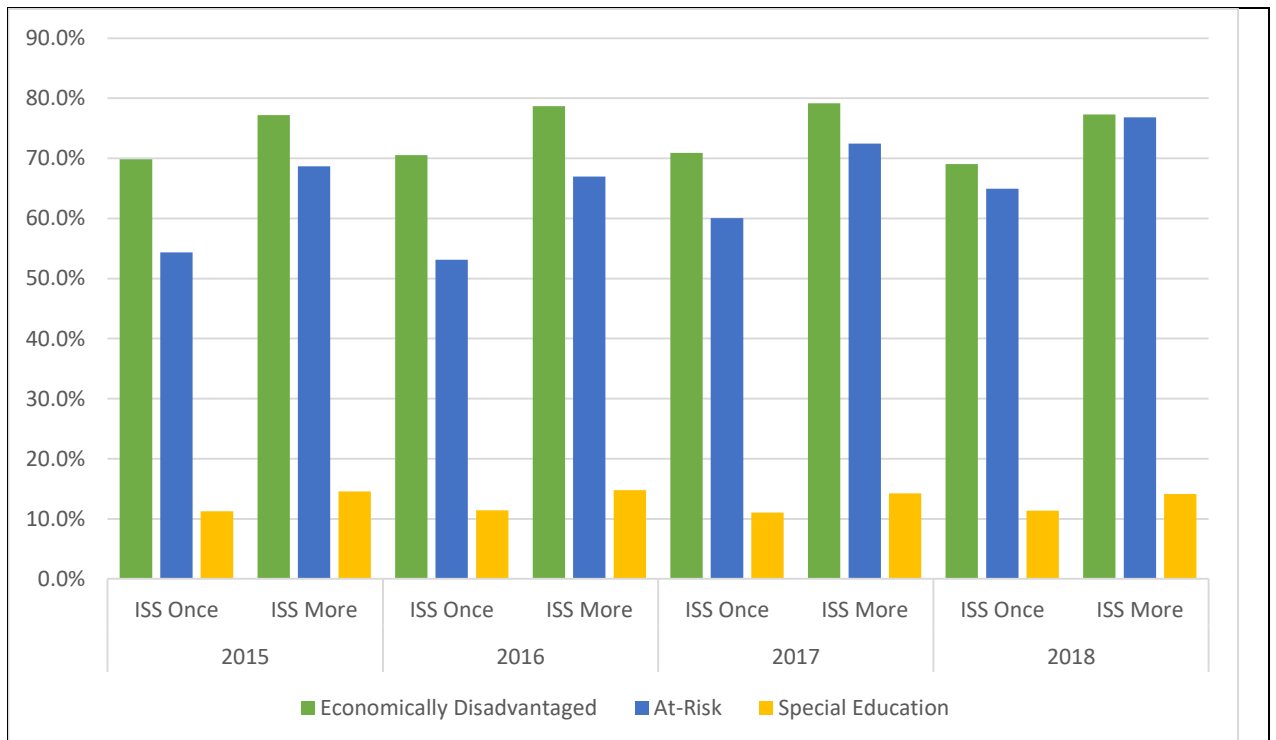
*Figure 18. Assignments to DAEP Once and More by Demographic. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act.*

**Assignments by socioeconomic, at risk, and special education status.** The patterns of the general discipline data reflect what is seen in the overall ninth-grade data. In Texas during the years analyzed, about 60% of students were economically disadvantaged, on average 9% of students were enrolled in special education services, and approximately 50% of students were at risk (TEA, 2016). Figure 19 shows the comparison of students in Texas who were economically disadvantaged, who received special education services, and who were at-risk across all students, the total disciplined population, and the disciplined graduating cohort population.



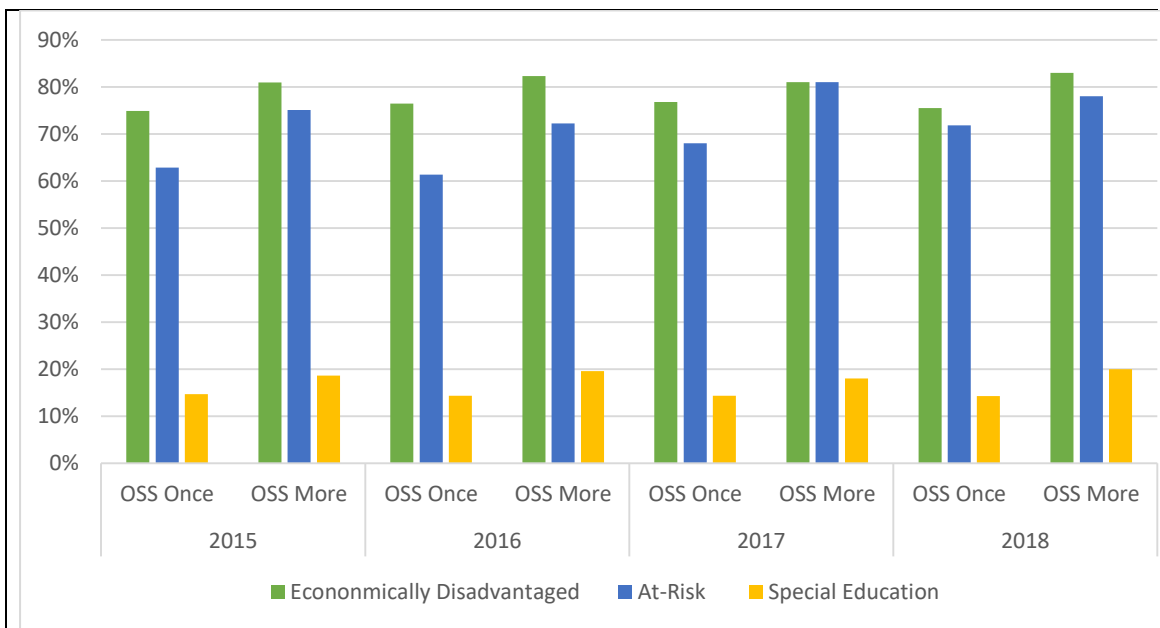
For students disciplined across all grade levels in Texas during the time of the study, 78% of students were economically disadvantaged, 16% received special-education services, and 69% of students were at risk. Like the general population that was disciplined, the four-year graduating cohort analyses showed that 77% of ninth-grade students disciplined were economically disadvantaged, 15% received special-education services, and 71% were at risk. Essentially, the ninth-grade cohort discipline levels were not different than those of the overall disciplined population. However, this contrasts with the breakdown of the total population of students who were not disciplined. Students with disabilities, students at-risk, and economically disadvantaged students were overrepresented in the analyses when compared to the general student population. The following section shows the demographic data by each type of disciplinary assignments.

As stated earlier, students who were economically disadvantaged, at risk, or receiving special education services were overrepresented compared with the general population. The proportion of students in these demographic groups increased when comparing the percentage with one assignment to the percentage with multiple assignments. When comparing ISS once and ISS once and more, students who were economically disadvantaged made up around 70% of students who were assigned to ISS once. As shown in Figure 20, this percentage increased to 78% for assignments to ISS once and more. Similarly, at-risk students made up 58% of students assigned to ISS once and 71% of students who were assigned to ISS once and more. Finally, students receiving special education services made up 11% of students assigned to ISS once and 14% of students assigned to ISS more than once.



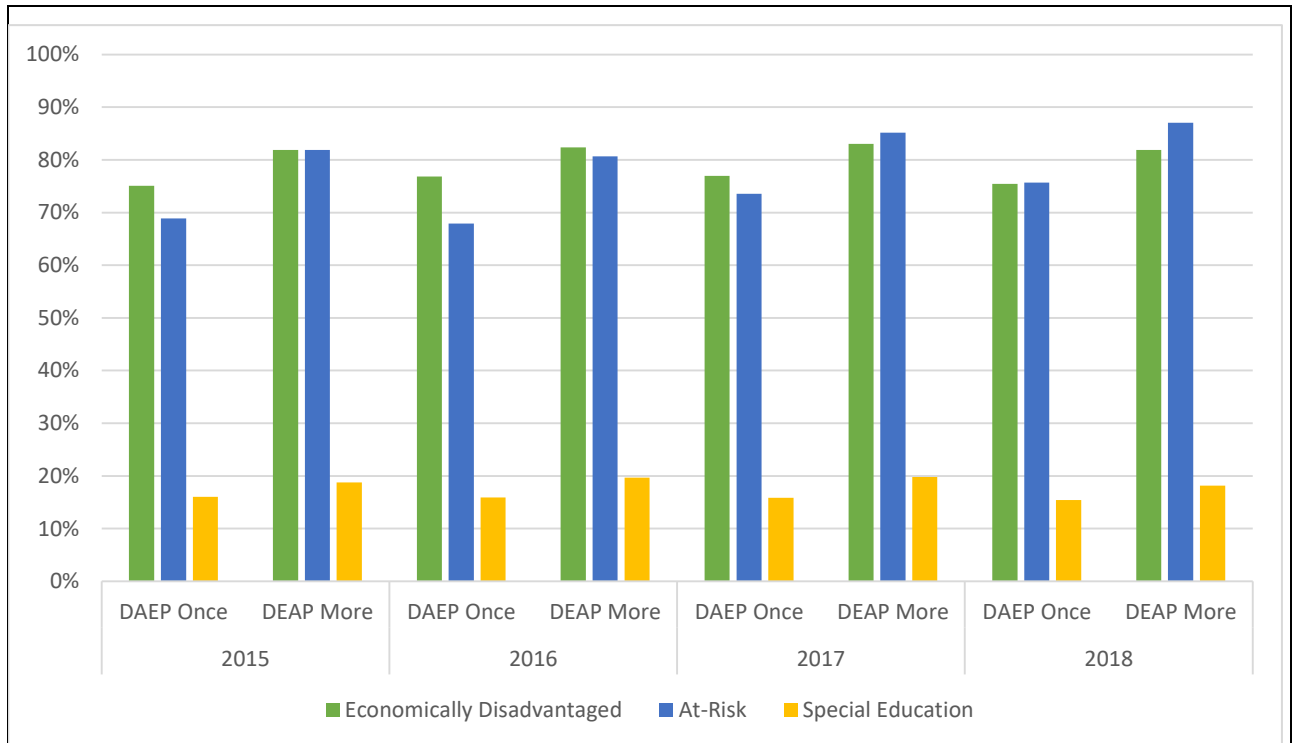
*Figure 20.* ISS rates by economically disadvantaged, at-risk, and special education. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act request.

Students who were economically disadvantaged, at-risk, or receiving special education services were overrepresented compared with the general population in OSS assignments. The proportion of students in these demographic groups increased from one to multiple assignments. When comparing groups with one and groups with multiple OSS assignments, students who were economically disadvantaged composed approximately 76% of students who were assigned to OSS once. As shown in Figure 21, this percentage increases to 82% in multiple assignments to OSS. Similarly, at-risk students made up 66% of students assigned to OSS once and 77% of students who were assigned to OSS multiple times. Finally, students receiving special education services made up 14% of students assigned to OSS once and 19% of students assigned to OSS more than once.



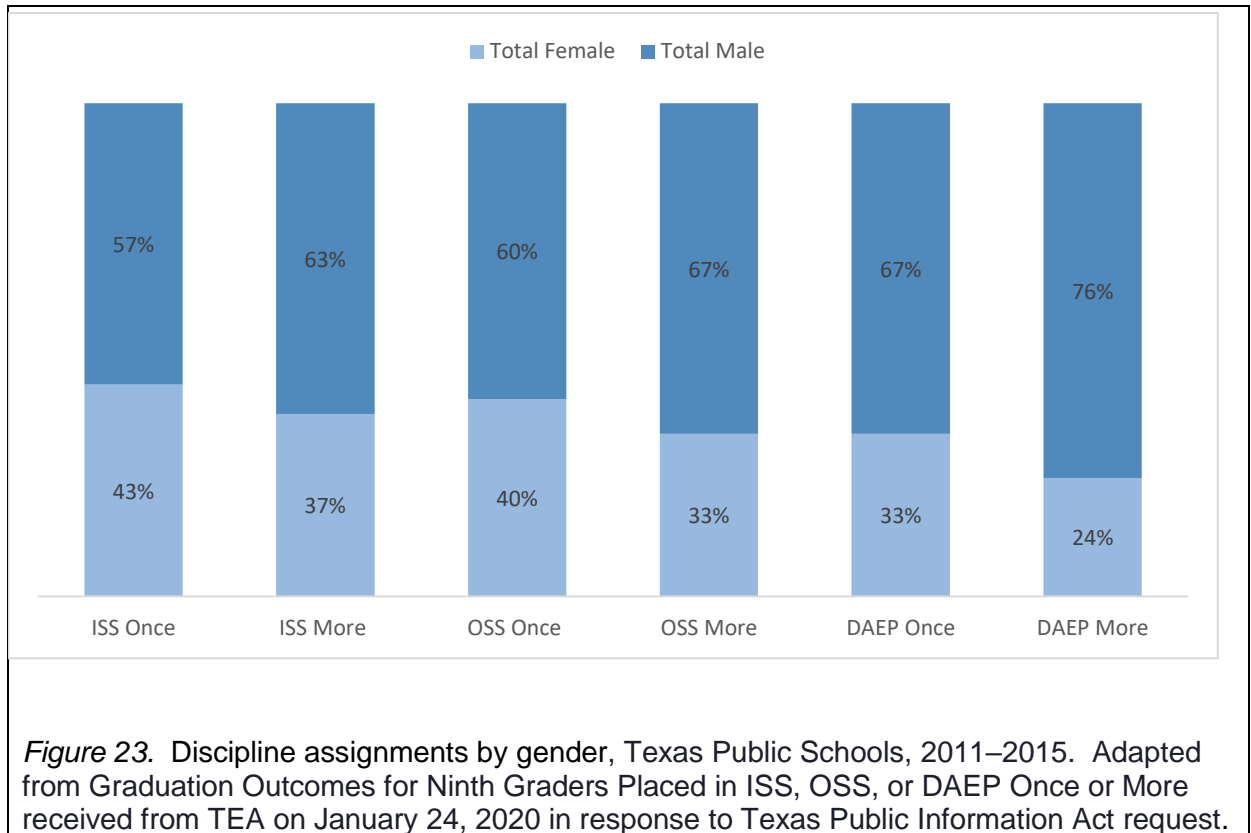
*Figure 21. OSS rates by economically disadvantaged, at-risk, and special education, Texas Public Schools, 2011-2015. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act request.*

Students who were economically disadvantaged, at risk, or receiving special education services were overrepresented compared with the general population in DAEP assignments. Students in these demographic groups were more represented in multiple DAEP assignments than they were in single DAEP assignments. When comparing groups having one and groups having multiple DAEP assignments, students who were economically disadvantaged constituted about 76% of students who were assigned to DAEP once. As shown in Figure 22, this percentage increased to 82% for multiple assignments to DAEP. Similarly, at-risk students made up 71% of students assigned to DAEP once and 83% of students who were assigned to DAEP multiple times. Finally, students receiving special education services made up 16% of students assigned to DAEP once and 19% of students assigned to DAEP more than once.



*Figure 22. DAEP rates by economically disadvantaged, at-risk, and special education. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act request.*

**Assignments by gender.** On average, 48.6% of Texas students identified as female, and 51.4% identified as male. This familiar almost 50-50 split drastically changed when the measure was of students who had been disciplined across the state. Across all grade levels, the gender division that the data showed in those who were assigned to ISS, OSS, or DAEP in Texas was 30% female and 70% male. In the graduating cohort data, there is a higher proportion of male students disciplined as shown in Figure 23. Male students are overrepresented in every category of discipline, but male overrepresentation is more dramatic in multiple assignments than in single assignments. Furthermore, female students are most underrepresented in multiple OSS and multiple DAEP assignments.

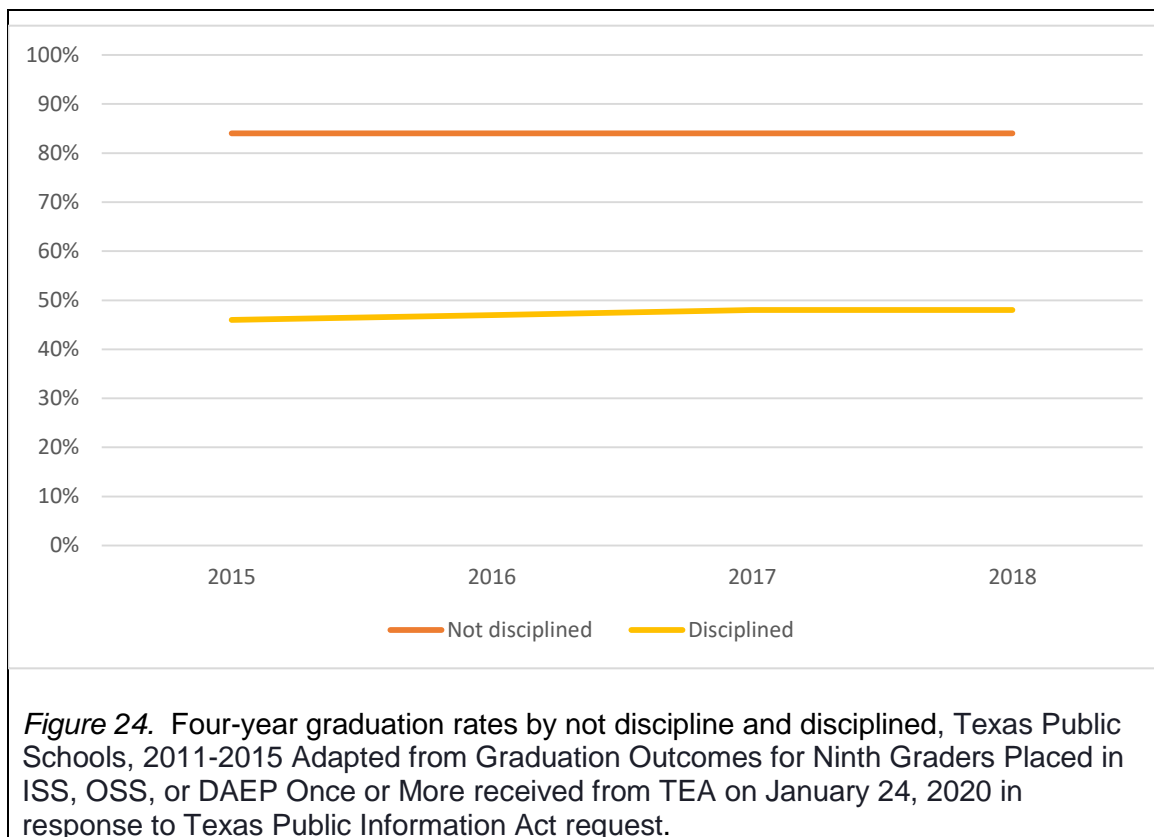


### Research Question 3

The third research question asked about the impact of exclusionary discipline on graduation rates. In Texas, the state average graduation rate over the four years studied was 89%. On average, 86% of students who were economically disadvantaged and 84% of at-risk students graduated in four years. Of all subgroups, students receiving special education had the lowest four-year graduation rate (78%). The following analysis shows the percentage of students who graduated or did not graduate depending on the type of exclusionary discipline they experienced. The data were also disaggregated by demographics to show the varying graduation rate depending on students' demographic data.

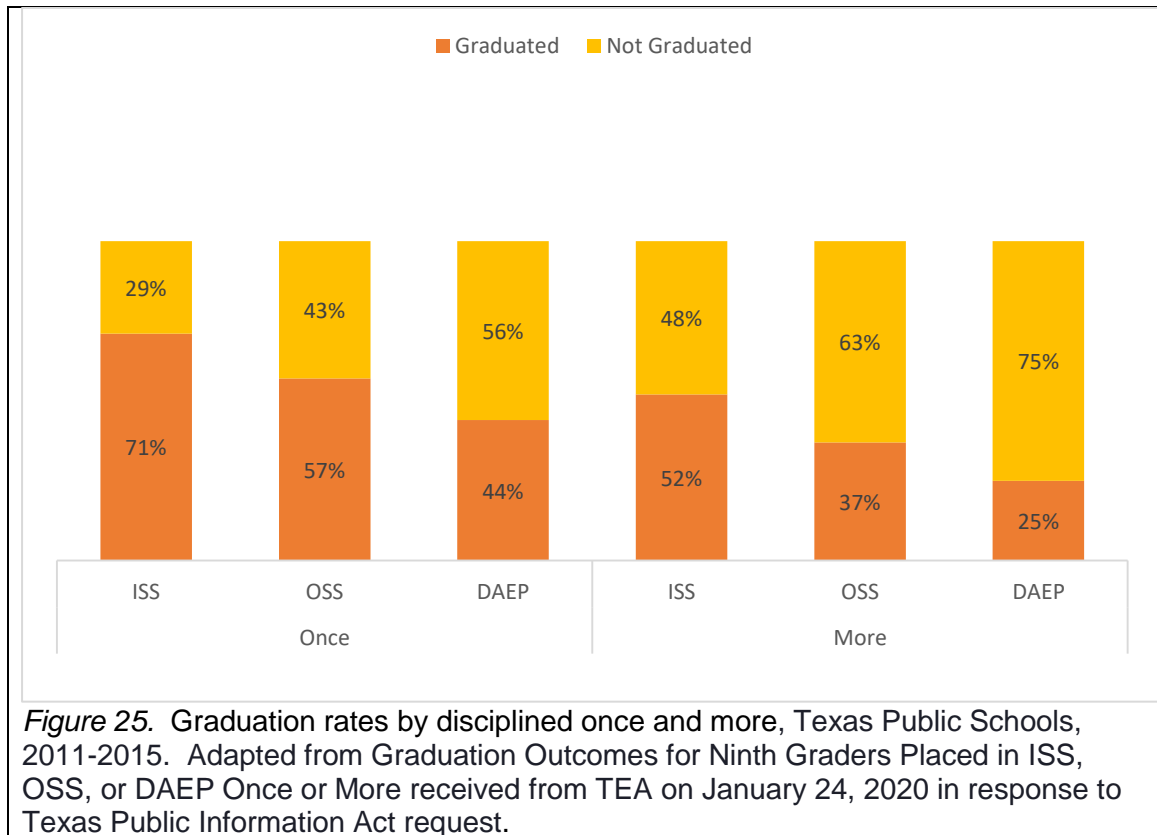


**Graduation rate by discipline or not disciplined.** Students who were not disciplined graduated at higher rates than students who were. Figure 24 shows the difference between the total percentage of students who were not disciplined who graduated and those who were disciplined and graduated. On average 48% of students who were disciplined in the ninth-grade year once or more than once graduated in four years, compared to 84% of students graduating who were not disciplined in their ninth-grade year.



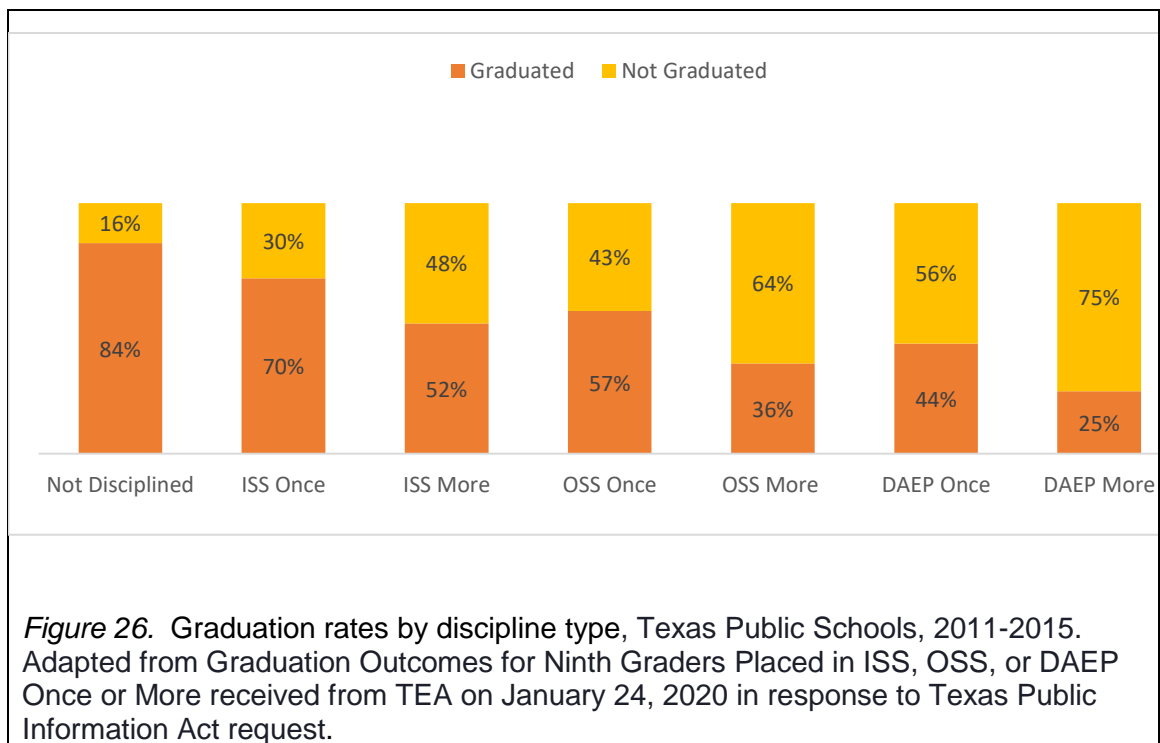
Not only did a higher percentage of students who were not disciplined graduate, more students who were disciplined only once graduated. Figure 25 shows the differing graduation rates for students who experienced a discipline action once and those who experienced an exclusionary disciplinary action more than once. On average, the

graduation rate decreases by 20 points for students who experienced multiple assignments. Students who were assigned to DAEPs had the lowest graduation rates of students who experienced disciplinary actions.

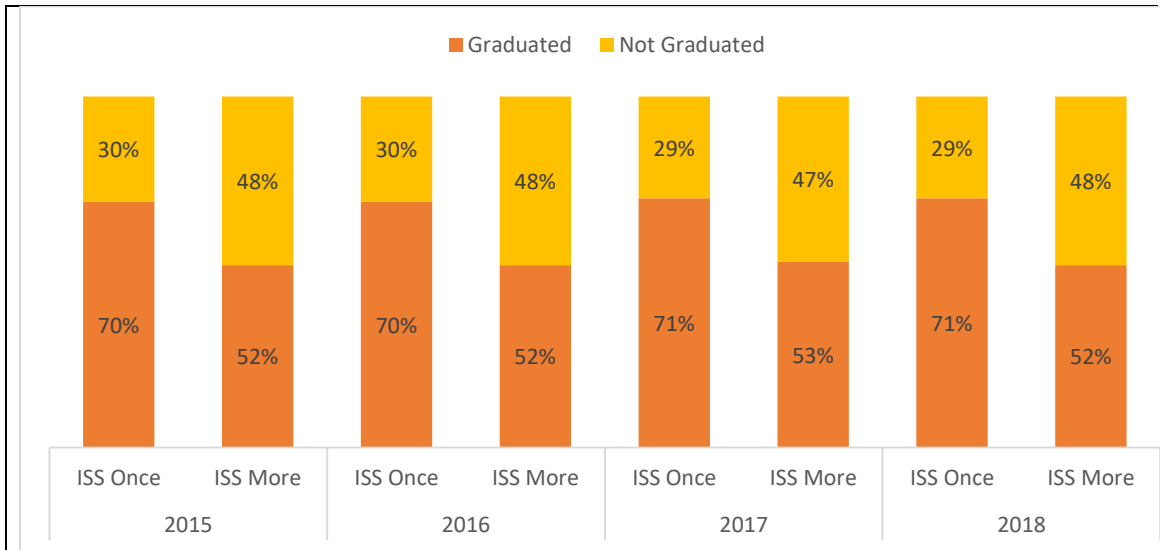


**Graduation rates by types of discipline.** More restrictive types of exclusionary discipline were associated with lower graduation rates. As shown in Figure 26, students who were not disciplined in ninth grade graduated at a rate of 84%, 14 percentage points higher than the lowest rate achieved by those disciplined. More restrictive disciplinary assignments were associated with lower graduation rates. For example, 70% of students who received ISS once graduated in four years compared to 57% of students who experienced OSS once. This percentage drops to 44% for students with one assignment

to DAEP. In their ninth-grade year, students assigned to DAEPs once graduated in slightly lower proportions than those assigned to OSS once (DAEP, 44%; OSS, 57%), and students assigned to DAEPs more than once also were less likely to graduate than their OSS peers (DAEP, 25%, OSS, 36%). Overall, compared with students who are not disciplined at all in their ninth-grade year, students with any exclusionary disciplinary action show lower percentages of four-year graduation.

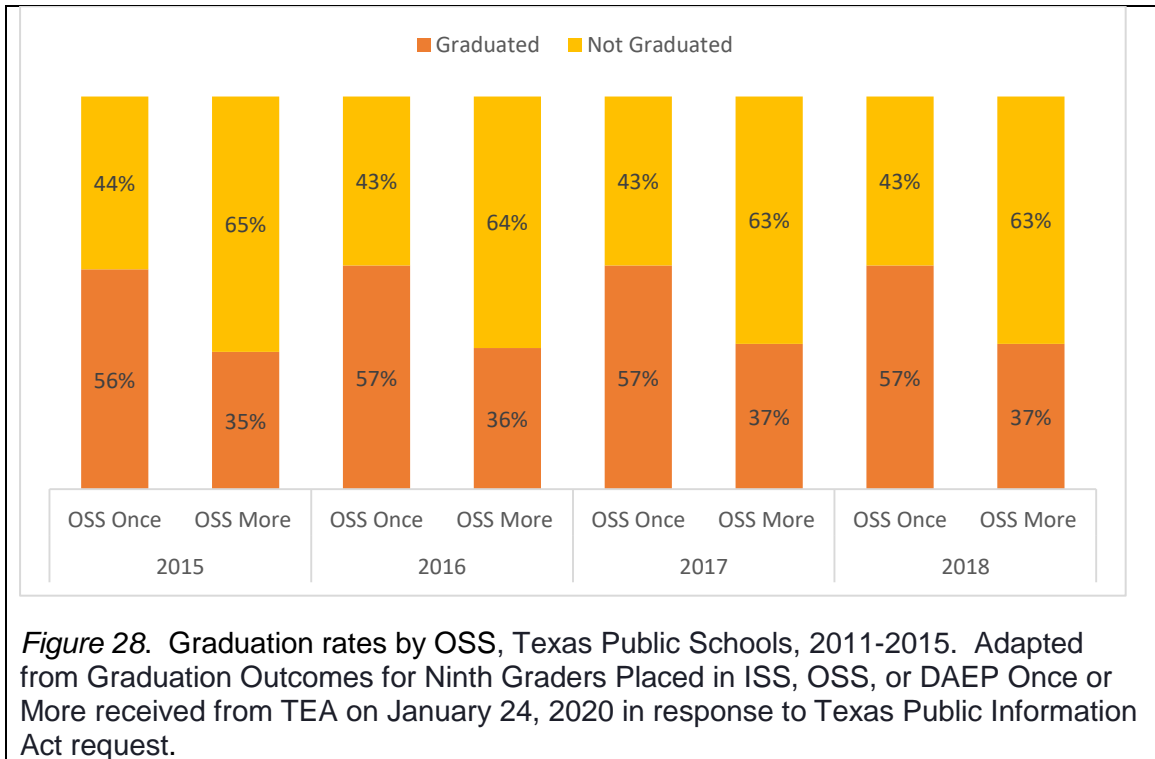


The following section shows the varying rates of graduation by each type of disciplinary action. Of students who experienced ISS once in their ninth-grade year, 70% graduated in four years. For students assigned to ISS multiple times that year, the figure fell to 52%. As shown in Figure 27, graduation rates decreased by almost 20 percentage points between one assignment to ISS to more than one assignment.

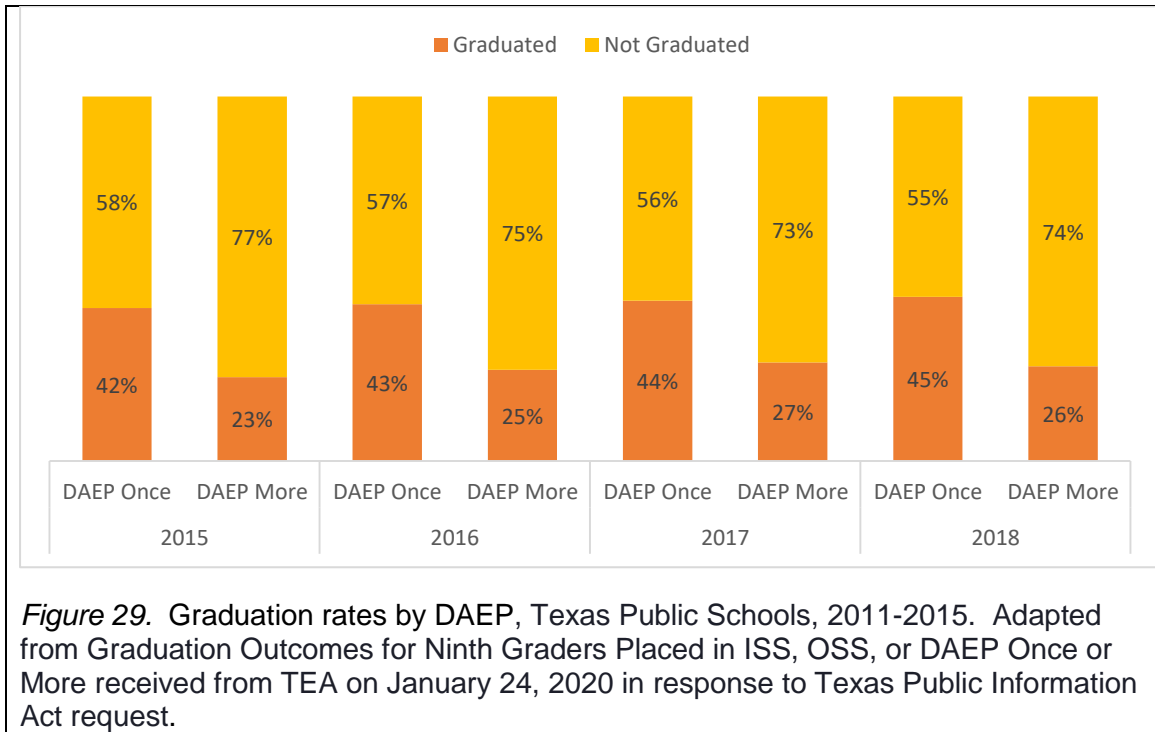


*Figure 27. Graduation rates by ISS, Texas Public Schools, 2011-2015. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act request.*

As stated above, the more restrictive the disciplinary action, the lower the graduation rates. The graduation rates decreased for students who experienced OSS. Figure 28 shows that of students who experienced OSS once in their ninth-grade year, 56%–57% graduated in four years. For students assigned to OSS multiple times that year, that drops as much as 21 percentage points to 35%–37% across the four-year cohorts.



Finally, when looking at students who were placed in DAEPs, only an average of 44% of students who attended a DAEP once in their ninth-grade year graduated in four years. This number is nearly halved for students who attended a DAEP more than once, with only an average of 24% of those students graduating in four years. With each cohort, the graduation rate for students in every type of exclusionary discipline rose slightly, though not consistently.



**Graduation rate by demographic and discipline.** Across the state of Texas, Asian, White, and multiracial students had the highest four-year graduation rates—over 90%. Special education students and at-risk students in Texas had the lowest graduation rates, at 78% and 84%, respectively. These rates are considerably different for students who experienced exclusionary discipline. The following analyses show the breakdown of graduation rates by gender for White, African American, and Hispanic students for each type of disciplinary action. Native Hawaiian, Asian, and American Indian or Alaskan Native student populations were each too small to include in the following comparison across all discipline types. Of students who have been disciplined, African American and Hispanic young women have the highest four-year graduation rates across all discipline categories. White students graduated at rates that are a few percentage points lower than the average student across disciplinary actions. The following section reviews graduation rates by disciplinary action and ethnicity.

For students who experienced ISS once and more than once, African American and Hispanic young women had the highest graduation rates. For students assigned to ISS more than once, young Hispanic and White men graduated at lower rates than their counterparts. Overall, Figure 30 shows the four-year graduation rates for students who experienced ISS were lower than those who did not experience any discipline.

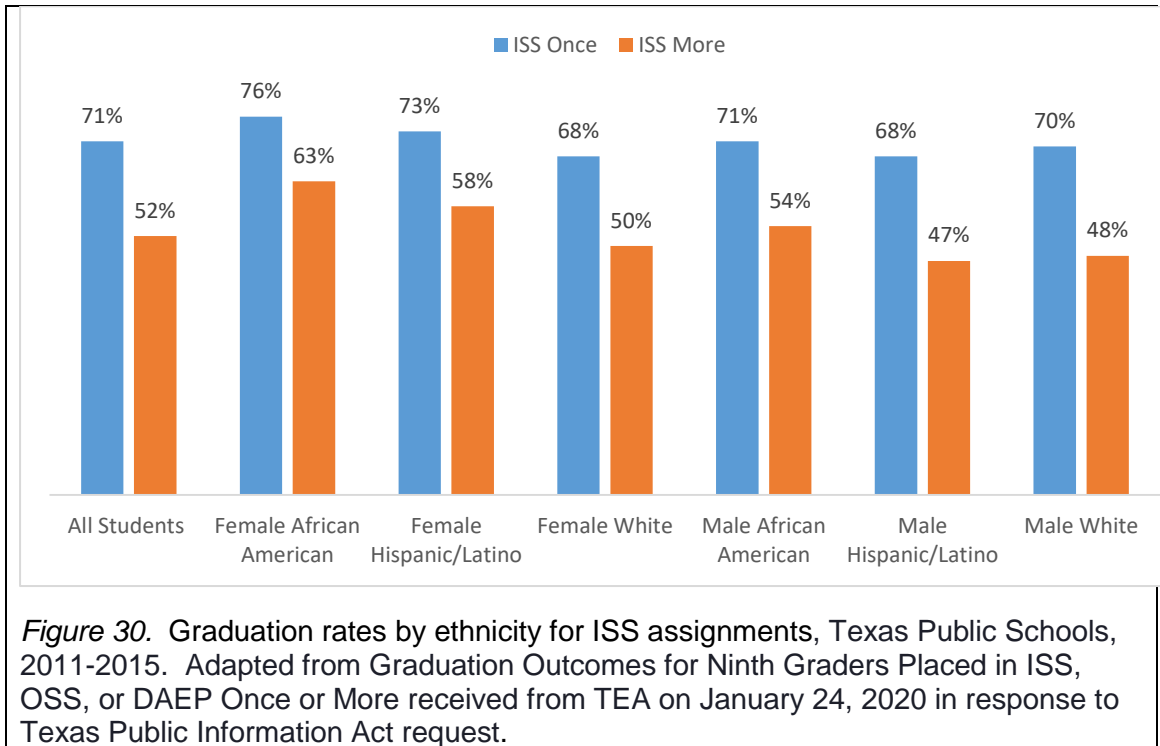
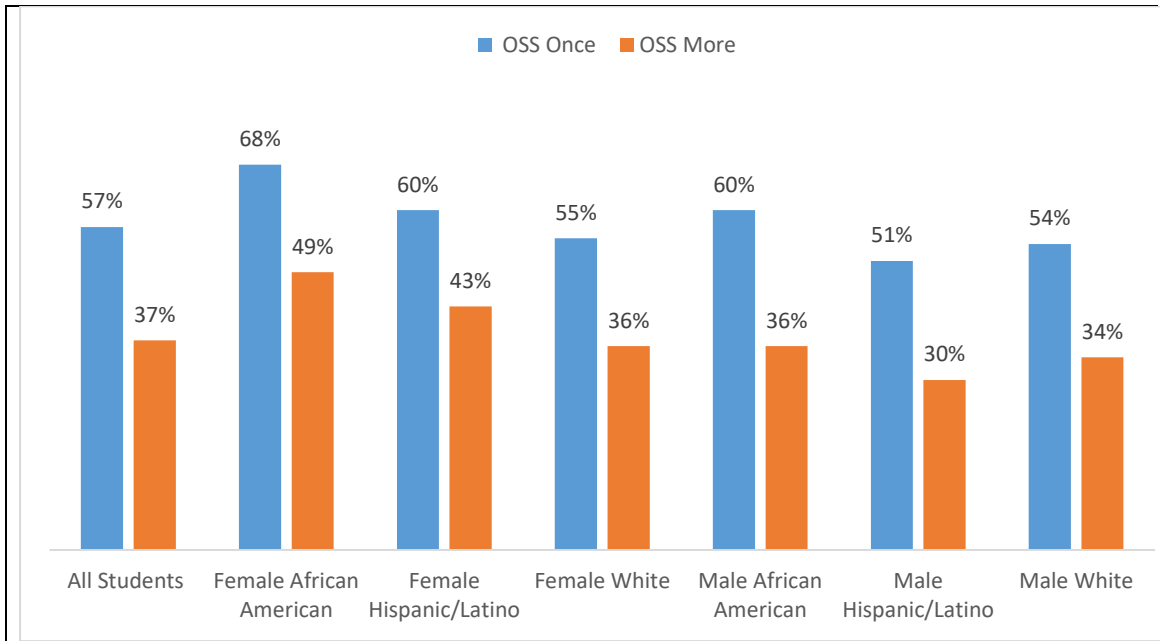


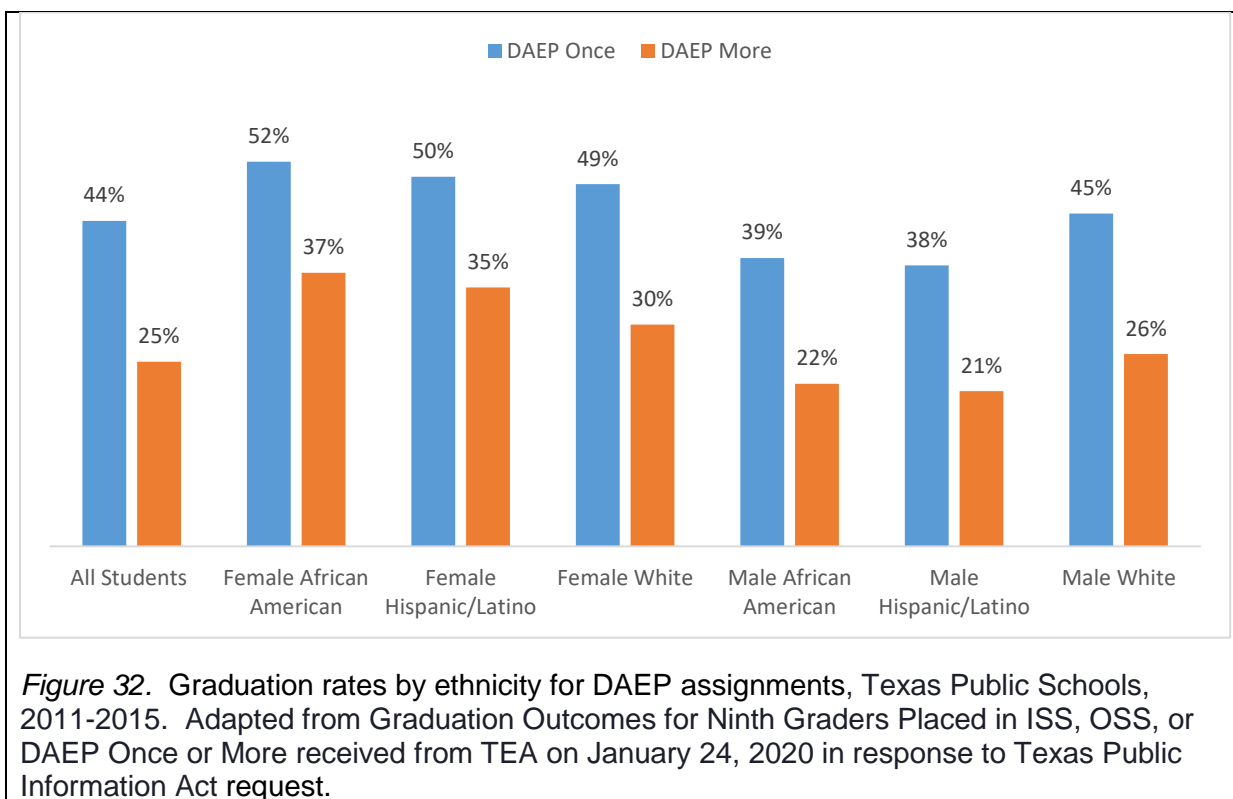
Figure 31 shows by demographic the graduation rate differences between students who were assigned to OSS once and more than once. Of those assigned to OSS, female African American and Hispanic students graduated at higher rates than their counterparts. Young Hispanic and White men had the lowest graduation rates. In fact, only one third of young Hispanic men who were assigned to OSS more than once graduated four years later.



*Figure 31.* Graduation rates by ethnicity for OSS assignments, Texas Public Schools, 2011-2015. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act request.

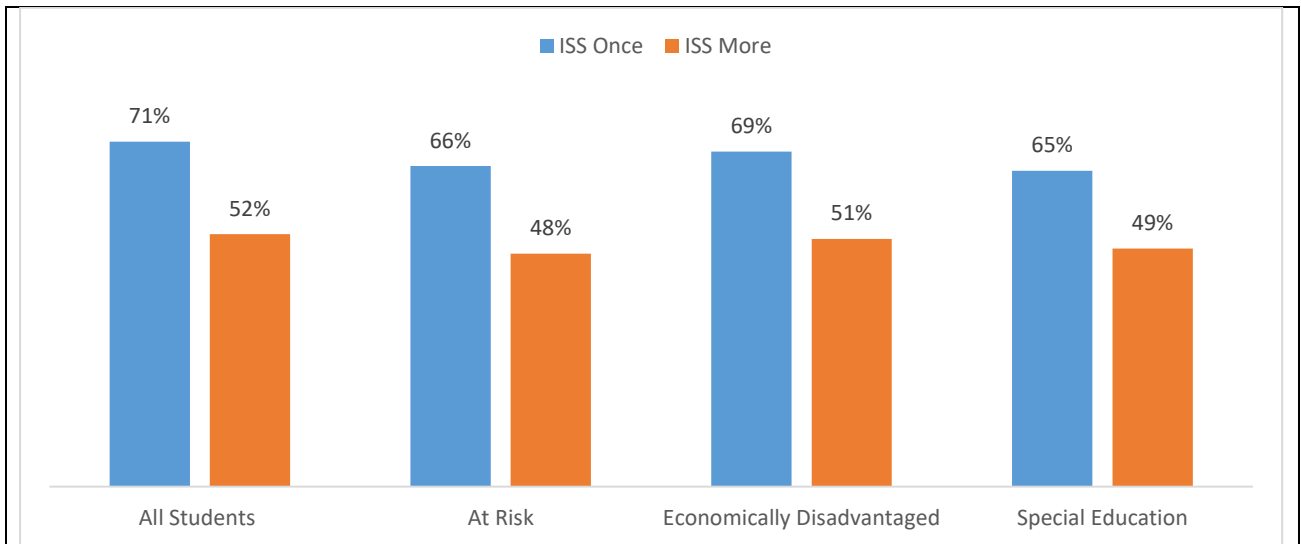
Finally, Figure 32 shows by demographic the differences in graduation rates between students who were assigned to DAEP once and more than once. Again, young African American and Hispanic women had the highest graduation rates compared with their counterparts. Young African American and Hispanic men had the lowest graduation rates of all the groups who experienced DAEPs once or more than once. For all student groups, students who were assigned to DAEP once or more than once in their ninth-grade year had graduation rates lower than those of students assigned either to ISS or OSS.





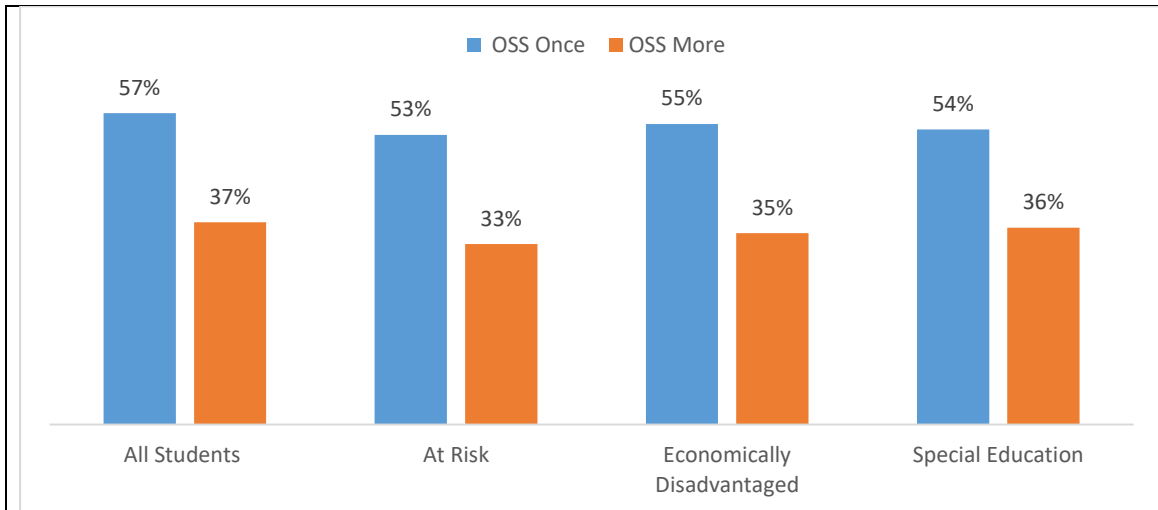
**Graduation rate by at-risk students, economically disadvantaged students, and students enrolled in special education.** As reflected with the general graduation rates, each subgroup's graduation rate decreased when students experienced more restrictive disciplinary assignments. Four-year graduation rates were lowest for students who experienced DAEP more than once. Overall, graduation data by demographic showed a range of outcomes for students depending on the type of exclusionary discipline that students experienced.

Figure 33 shows that for students who experienced ISS, graduation outcomes for students who were at risk, economically disadvantaged or received special education services were lower than outcomes for all students. As mentioned above, students who experienced ISS more than once had graduation rates almost 20 percentage points lower than those who experienced ISS once.



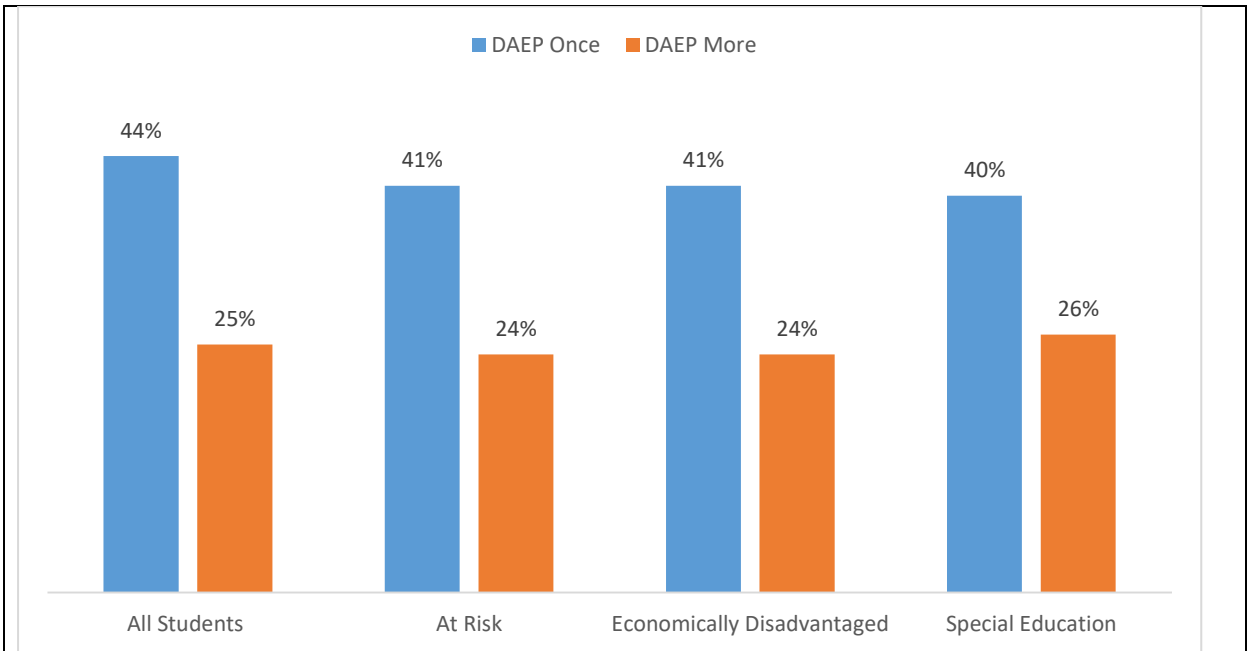
*Figure 33. Graduation rates by at-risk, economically disadvantaged, and special education for ISS Assignments, Texas Public Schools, 2011-2015. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act request.*

A similar pattern can be seen for students who experienced OSS. Figure 34 shows that for students who experienced OSS, graduation outcomes for students who are at-risk, economically disadvantaged or enrolled in special education were lower than for all students assigned to OSS. As mentioned above, students who experienced OSS more than once had graduation rates that were almost 20 percentage points lower than those of students who experienced ISS once.



*Figure 34. Graduation rates by at-risk, economically disadvantaged, and special education for OSS assignments, Texas Public Schools, 2011-2015. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020 in response to Texas Public Information Act request.*

Finally, Figure 35 below shows that students who experienced DAEP and were at risk, economically disadvantaged, or enrolled in special education graduated at generally lower than rates for all students experiencing DAEP assignment. Students who experienced DAEP more than once had lower graduation rates than those who experienced DAEP once by almost 15 percentage points; however, special education students who were assigned to DAEP more than once graduated at a rate one percentage point higher than all students receiving DAEP assignments.



*Figure 35. Graduation Rates by At-Risk, Economically Disadvantaged, and Special Education for DAEP Assignments, Texas Public Schools, 2011–2015. Adapted from Graduation Outcomes for Ninth Graders Placed in ISS, OSS, or DAEP Once or More received from TEA on January 24, 2020, in response to a request through the Texas Public Information Act.*

## Conclusion

This chapter presented multiple ways of analyzing disciplinary data by demographic and four-year graduation rates. Students who were disciplined with exclusionary action were more likely to be male, African American, at risk, low income, or enrolled in special education programming. The more restrictive the form of exclusionary discipline category, the more disproportionality was present in each cohort year. Finally, students who attended DAEPs more than once had the lowest rate of four-year graduation of all forms of exclusionary discipline across all demographics.

## **Chapter V**

### **Discussion**

This study examined rates of exclusionary discipline for ninth-grade students and its impact on four-year graduation rates. It investigated three research questions by analyzing a data set obtained from TEA under the Texas Public Information Act, including summary graduation results of cohorts of students who experienced ISS, OSS, or DAEP once or more than once in their ninth-grade year. The first question explored which students experienced exclusionary discipline once or more than once in their ninth-grade year. The second question investigated if demographic data influenced the likelihood that a student would be assigned to a disciplinary placement. The last research question examined the relationship between assignments to disciplinary placements in a student's ninth-grade year and four-year graduation rates.

The analysis of the data set confirmed prior research on the impact of exclusionary discipline in Texas and offered new insight into the potential effects of multiple disciplinary assignments for ninth-grade students. The findings largely echo prior research on the impact of exclusionary discipline on graduation: students who are disciplined using exclusionary methods have lower rates of graduation. Additionally, this study supports research that shows that race, special education services, and socioeconomic status impact the rate of exclusionary discipline assignments (Texas Appleseed, 2010). The research adds to the literature by showing that students who were assigned to DAEPs, the most restrictive of exclusionary disciplinary actions, had the lowest of the depressed graduation rates associated with the three methods of exclusionary discipline. Students who were assigned more than once to any discipline

assignment were less likely to graduate than others assigned only once. This chapter synthesizes the results and discusses the implications for both practitioners and policy makers.

### **Research Question 1**

The first research question examined what percentages of students experienced exclusionary discipline once or more than once in their ninth-grade year. Although ninth grade has been established as a critical year for high school success (Allensworth, 2013), students in the ninth-grade sample were more likely to be disciplined than were Texas students overall. Between 2011 and 2014, about 19% of students across all grade levels were disciplined compared to 26% of ninth graders. The breakdown of the outcomes showed that about 14% of ninth graders were assigned to any discipline placement once, and 12% were assigned more than once. This means that at least 14% of ninth graders or 234,342 students lost a full day of instruction, and an additional 12% of students lost more than that. With research showing the impact of in-seat learning, the use of exclusionary discipline could be actively challenging the goals of our education system (Vanderhaar, Munoz, & Petrosko, 2014).

The rate of discipline assignments decreased as the restrictiveness of the disciplinary action increased. Just as ISS was the most commonly used method of exclusionary discipline overall in Texas, ISS was the exclusionary disciplinary method used, representing 62% of all discipline assignments. Disciplinary assignments to OSS once and more than once were the second most often used type of discipline. Finally, DAEP once and more than once was used the least often, representing 11% of discipline assignments. This trend in assignments makes sense because of the restrictiveness of

DAEPs. Though DAEP was the least used form of discipline for the general student population overall, it was the form to which ninth-grade students were more likely to be assigned, meaning that proportionally more ninth grade students were sent to a different campus for up to 90 days than were students in other grades. Over the four cohorts, all discipline assignments decreased over time, mirroring statewide patterns.

## **Research Question 2**

The second research question examined demographic disparities in exclusionary discipline. This question focused on whether ethnicity, gender, at-risk status, special-education services, and economically disadvantaged status affected the proportional percentage of students assigned to ISS, OSS, and DAEP once or more than once. As research has shown across the country, race and class matter in an administrator's choice of exclusionary discipline (Skiba et al., 2011). Ninth-grade students who were disciplined were more likely to be African American, Hispanic, and multiracial than were the sample who were not disciplined. White and Asian students were less likely to be disciplined. This reflects research referenced earlier in this paper that emphasizes the statewide and nationwide patterns of overrepresentation for African American and Hispanic students in disciplinary assignments (Fabelo et al., 2011).

African American and Hispanic students, compared to the general population, were overrepresented in receiving ISS, OSS and DAEP assignments both once and more than once in their ninth-grade years. Conversely, White students were underrepresented in every discipline category. Furthermore, African American and Hispanic students made up higher percentages of students with more than one discipline action in their ninth-grade year. Lower percentages of White students had multiple disciplinary

assignments. This reflects previous research showing that African American and Hispanic students are disciplined more harshly and more often than their White counterparts (Fabelo et al., 2011).

Certain types of discipline had higher rates of disproportionality than others. Hispanic students made up 54% of students assigned to ISS once, but made up 57% of students assigned more than once. Similarly, African American students made up 19% of students assigned to ISS once, and made up 22% of students assigned to ISS more than once. For White students, the opposite is true. White students made up 23% of students assigned to ISS once, but made up 18% of students assigned to ISS more than once. For OSS assignments, African American students made up 26% of students assigned to OSS once, double their representation in the overall student population. For multiple assignments to OSS, African American students were overrepresented almost by factor of three compared with their proportion of the ninth-grade population. African American students made up 11% of the student population but made up 31% of students assigned to OSS more than once. White students made up a smaller percentage of students assigned to OSS once, and this proportion decreased in multiple assignments to OSS. For DAEP assignments, Hispanic students made up 55% of students assigned once and 58% of students assigned more than once. African American students made up about 22% of one and multiple assignments to DAEP. White students made up 21% of students assigned to DAEP once and only 17% of students assigned more than once. Out of all discipline categories, OSS assignments had the most disproportionate assignments for African American and Hispanic students.



Students with disabilities, students at risk, and students who qualified as economically disadvantaged were overrepresented in the discipline analyses when compared to the general student population. Students who were economically disadvantaged represent 60% of Texas students, but made up 77% of students disciplined. Students with disabilities were 9% of Texas students, but were 16% of students disciplined. Similarly, at-risk students were 50% of Texas students, but were 69% of ninth graders disciplined. These data highlight the overrepresentation of vulnerable students in ninth-grade discipline rates.

Furthermore, for economically disadvantaged students, at-risk students, or students with disabilities, the more restrictive the discipline assignment, the more disproportionality existed. For example, 14% of students assigned to ISS more than once were students with disabilities, but 19% of students assigned to OSS more than once were students with disabilities. A similar pattern was found when applied to students who were at risk or economically disadvantaged. Higher percentages of students who were at risk and economically disadvantaged were assigned more than once to DAEP and OSS compared with those assigned to ISS. In the groups punished with more than one DAEP and OSS assignment, students receiving special education services were overrepresented by a factor of two compared to their proportion of the general ninth-grade population. Almost 20% of the students in these discipline categories received special education services, emphasizing the need for better programming to support students with behavioral challenges rather than reliance on exclusionary discipline.

Finally, young men were overrepresented in every discipline category. The disproportionality follows the same pattern as other student characteristics discussed

above. Young men made up 73% of students assigned to DAEP more than once, the most disproportional representation of all disciplinary actions. Previous research echoes these patterns in identifying young men rather than young women as more likely to be disciplined with exclusionary methods. In studies of gender and ethnicity combinations, African American young men are overrepresented in every exclusionary disciplinary category, and African American young women are overrepresented in assignments to OSS. More recent research has heightened awareness of the disparate impacts that exclusionary discipline has on African American students, both young men and young women (Losen & Whitaker, 2018). The data show that some students are more likely to be removed from their classroom and school than are others. African American students, students who are economically disadvantaged, students who receive special education services, and students who are young men are more likely to be suspended or sent to a DAEP than their peers. These students are therefore more likely to lose access to educational services due to disciplinary action.

### **Research Question 3**

The third research question examined the impact of types of exclusionary discipline on graduation rates. Students who were not disciplined had higher four-year graduation rates than did students who were disciplined. Of all discipline categories, lower percentages of students graduated than the state four-year average. Students in their ninth-grade year who had only one disciplinary assignment had higher four-year graduation rates than peers who experienced more than one assignment. The percentage of students graduating in four years dropped 20 percentage points from one assignment to more than one assignment across ISS, OSS, and DAEP. The decrease emphasizes the

need to question the use of exclusionary discipline more than once in the same year as a form of behavior intervention.

Students assigned to ISS once had a 71% graduation rate, the highest rate of the discipline categories, and the rate drops to 52% for students who were assigned more than once to ISS. About 57% of students who were assigned to OSS once graduated, and 36% who were assigned multiple times graduated. Compared to students assigned to ISS or OSS once, students assigned to DAEP one time were less likely to graduate. Only 44% of students assigned to DAEPs once graduated in four years. Furthermore, students who were placed in DAEP more than once had the lowest rates of graduation. Only 25% of students assigned to DAEP more than once graduated in four years. These data highlight the potential negative impact that DAEPs can have on students' graduation outcomes and call into question the long-term effects on students of this tool of discipline. After the cohorts that were studied in this project had graduated, the Texas legislature made it easier for teachers and administrators to use DAEPs as a discipline option (Swaby, 2019).

When looking at graduation rate by type of exclusionary discipline and demographic, students across all demographic groups assigned multiple times to DAEPs graduated at the lowest rates. African American young women across all forms of discipline had higher rates of graduation than did other demographic groups, followed by Hispanic young women. Conversely, Hispanic young men had the lowest graduation rates across all forms of discipline, with White male students with the second lowest. Young women have lower dropout rates across the nation than do young men, so this finding is in line with trends in graduation rates by gender (Chapman, Laird, Ifill, &

Kewal Ramani, 2011). However, further research is needed to understand the resiliency and protective factors of young Hispanic and African American women. For at-risk students, economically disadvantaged students, and students with disabilities, graduation rates decreased as the restrictiveness of the disciplinary assignment increased.

Graduation rates for each of these groups were a few percentage points lower than the average of all students for almost every disciplinary category. The data demonstrate that time spent out of the traditional school setting, whether that is through multiple suspensions or up to 90-day assignments to DAEPs, negatively impacts students' long-term academic outcomes.

### **Implications for Practice**

As the student population in Texas diversifies, there is a growing need to address disparities in the use of exclusionary discipline to ensure all students succeed. As shown in the data, students who are disciplined with exclusionary methods in ninth grade have lower rates of four-year graduation. Four-year graduation rates for students assigned to DAEPs are worse than those for any other type of discipline in this study. These findings suggest that students who are disciplined via ISS, OSS, or DAEP in their ninth-grade year should be flagged for extra interventions and drop out preventions to support them in reaching the goal of four-year graduation. To do this, schools can use a MTSS approach, which has shown to decrease referrals, disproportionality, and the use of exclusionary discipline (McIntosh et al., 2018). These early indicator initiatives should be a priority for all stakeholders to consider as Texas aims to reach its ambitious goal of having more students graduate and enroll in post-secondary programming. Furthermore, policy makers should consider the disparate impact that the use of exclusionary discipline can

have on students as they create guidelines, policy, and laws that either promote or hinder the use of these tools in schools.

### **Limitations**

The data set used in this study had several limitations. The first is that exclusionary discipline is one of many factors and variables that impact students' graduation rates. Therefore, this study can only share the percentages of students who graduated or did not graduate. Second, the data set used did not account for students who were assigned to different types of exclusionary discipline in the same year. This means some students may have been counted more than once in the data. Third, the data were shared as a report of averages of students, not individual data points. This data limited the types of analysis available to understand the information.

### **Conclusions and Recommendations for Future Studies**

Although ample research has shown the negative and disparate impacts of exclusionary discipline on students across grade bands, schools are still using these forms of discipline as a means to shape behavior. In 2019, the Texas legislature passed a bill that would make it easier for teachers and administrators to send students who are threatening to DAEPs (Swaby, 2019). As shown in this paper, students assigned to DAEPs in their ninth-grade year had lower rates of graduation than did students experiencing other forms of discipline. Losing weeks of traditional curriculum at their home school unsurprisingly impacts students' achievement. Educators and practitioners should analyze the use of DAEPs, especially in critical years like ninth grade, to assess if it is the best choice for all involved. Time in the classroom matters – alternatives to

exclusionary discipline are needed to ensure students have access to the material they need to succeed.

There is a lack of research around the specific impact that DAEPs have on students. Future research should continue to connect this use of exclusionary discipline to student outcomes. Finally, policy makers should emphasize the need for MTSS because these systems address social-emotional learning, mental and behavioral health, and academics in a tiered delivery of interventions instead of relying on exclusionary discipline (Freeman, Miller, & Newcomer, 2015). The following chapter proposes key actions to implement MTSS that districts can take to decrease the reliance on exclusionary discipline.

## **Chapter VI**

### **Action Plan**

This study showed that students who experience ISS, OSS, or DAEP graduate at lower rates than their peers. As Texas aims to increase graduation rates, schools across the state must examine their use of exclusionary discipline. From the state level, policies and laws should emphasize alternative ways of disciplining students and building proactive measures to protect students. At the district and school level, leaders and principals must implement research-based approaches to organize schools around preventative and developmentally appropriate strategies. One actionable goal of this study is to increase school and district leader awareness and implementation of research-based alternatives to exclusionary discipline. In order to reach this goal, the results of the study should be shared, and to help schools implement MTSS, professional development and technical assistance should be created. An action plan is outlined below.

### **Materials**

**Content.** This research focused on outcomes for students who were assigned to ISS, OSS, and DAEP once and multiple times. The findings in this study highlighted the negative relationship between assignments to exclusionary discipline and four-year graduation rates. Students who experienced ISS, OSS, or DAEP multiple times were less likely to graduate than those who experienced one assignment. Graduation rates were consistently lower for students who experienced OSS and DAEP more than once. Furthermore, special education students, students who are at risk, and African American students disproportionately experienced OSS and DAEP more than once. To decrease

disciplinary assignments and disproportionality in discipline, districts and schools should implement positive behavioral systems (Sugai & Horner, 2009).

### **Format**

**Policy brief.** One format for sharing the findings from this research study is a policy brief. Because the Texas legislature recently passed a law that made assignments to DAEP easier, a policy brief that includes research and policy recommendations could help connect policy makers to the impacts of their policy decisions. Furthermore, the brief will explain for practitioners the potential negative impacts of using exclusionary discipline and the implications for their work. This policy brief could be shared with advocacy organizations, TEA, school boards, and key staffers to inform decision making in regard to exclusionary discipline.

### **Professional Development Opportunities**

**Focus of learning.** Along with policy briefs, professional learning opportunities will help schools build capacity to reduce the use of exclusionary discipline in schools. The content covered during professional development will include an overview of MTSS. MTSS works as an umbrella to organize intensity of interventions for students both academically and behaviorally. Response to Intervention and Positive Behavioral Interventions and Supports are standard tiered systems of support that have been implemented across the country and have a strong research base. The training provided will focus on Positive Behavioral Interventions and Supports, which through its work has shown improved student outcomes and lower rates of referrals to exclusionary discipline (Sugai & Horner, 2009). The implementation of this framework for behavior has been shown to reduce the use of exclusionary discipline by offering positive alternatives that



rely on behavioral science. The framework organizes interventions into three tiers based on the intensity of need. The critical components of this approach include a focus on evidence-based interventions, data-based decision making, problem-solving protocols, and a team-based approach. The three tiers of support allow states, districts, and schools to strategically align their support to match the needs of students using data and resources available (Freeman, Miller, & Newcomer, 2015). The training will be anchored in the Tiered Fidelity Inventory (TFI), which is a reliable, valid, and usable tool for schools to measure their implementation of tiered behavioral systems (McIntosh et al., 2017). Although schools and districts in Texas are not required to implement positive behavioral systems, the content will help educators implement the components at their campuses.

**Presentation Process.** The structured learning opportunities will blend in-person training, technical assistance, and online modules to assist educators in implementing positive behavior supports that help all students. The training will focus on how to implement tiered interventions at a school, the foundations of Tier 1 practices, using data intentionally, and creating problem-solving processes for teams. Training will have a layered approach that includes district leadership training, team-based training, and introductory training that can be used to help all stakeholders understand the basic tenets of MTSS (Freeman, Miller, & Newcomer, 2015).

The professional development will take into account the critical tenets of adult learning by focusing on andragogy and the experiential cycle of learning. Andragogy refers to the learning cycle of adults, which is different from the learning cycles of children and adolescents. For adults, there are six assumptions of andragogy: learner self-concept, experience, readiness to learn, problem-centered orientation, internal

motivation, and need to know (Merriam & Bierema, 2013). To ensure that adult learners are engaged throughout the training process, each of the assumptions of andragogy must be identified and addressed. For example, to make sure that professional development addresses the unique needs of teams as they start implementation, attendees will complete a readiness assessment. This assessment will help highlight educators' readiness to learn.

Another aspect of adult learning that the trainings will emphasize is the experiential learning cycle. The cycle emphasizes that it is not just experiences that help us learn, but also the reflection on those experiences that helps us turn our experiences into learning. The four parts of the cycle include concrete experience, reflective observation, abstract conceptualizing, and active experimentation (Merriam & Bierema, 2013). For the concrete experience, role-playing and fishbowls will be used to ensure that learners practice the new skill. The second type of experience is reflective observation or the ability to reflect on and observe our own experiences (Merriam & Bierema, 2013). Intentional questions and purposeful time will be included in each of the trainings to allow educators meaningful reflection. Thirdly, abstract conceptualization enables adult learners to integrate observations into theories they already understand (Merriam & Bierema, 2013). This experience is a component that can get lost during the learning for teachers because they are at the level of implementation. Implementers must incorporate activities that allow the audience to grapple with the theories that drive systems change work to ensure everyone is invested and has time to create connections. Finally, active experimentation focuses on the ability to apply learning to future situations (Merriam & Bierema, 2013). All training must include an action-planning

component that can help educators commit to their work, along with follow-up coaching that will aid in accurate and effective implementation.

Because this change cannot occur from one-off training, professional development will also include technical assistance that helps with the implementation of new systems for schools. Technical assistance is a broad term used to describe multiple strategies to help organizations and individuals build capacity to implement skills learned in training (Katz & Wandersman, 2016). In their synthesis of the literature, Katz and Wandersman (2016) found that effective technical assistance should consist of evidence-based tasks, clearly defined relationships, and an implementation cycle framework. With these components and adult learning theory in mind, the planned technical assistance will include readiness assessment, fidelity walkthroughs, ongoing professional development, coaching, and online booster modules. The intent is to allow a cohort of system leaders to change their behavioral systems in their context.

### **Delivery**

**Audience.** The ideal audience for this professional development includes three levels: teachers, campus leaders, and district leaders. This layered approach to training and coaching will help ensure that there is role clarity, systems integration, and a supportive framework at all levels of the educational system (Freeman, Sugai, Simonsen, & Everett, 2017). Without the layered support, change is unsustainable because the system is not responsive to challenges that leaders face.

Implementation has to start at the district level to ensure there is adequate leadership, accountability, and support (Freeman et al., 2017). Without alignment and agreement of leaders at this level, the change will not be sustainable. District leaders

must commit resources and staffing to ensure schools sustain the changes they are making. There have to be ways for the district to collect fidelity and outcome data for schools that are implementing new systems for behavioral interventions. Without this investment, there will be little change created by just professional development.

The next level of intervention is campus leadership. Campus leaders must be competent in not only their understanding of a tiered intervention model for behavior but also how to coach, manage, and collect data on these systems. Without a clear vision and plan on how to use the tools provided, schools will not reach optimal results.

Furthermore, campus leaders need to understand how these approaches fit into the accountability framework and the support they can receive.

The final level of intervention is in the classroom. Teachers and interventionists have to understand the evidence-based practices that can be employed at each tier of response, how to identify students who need intervention, and how to deliver these interventions to their students. Without teacher buy-in and strategic systems that support interventions at the campus level, the interventions will fail to meet the needs of all students.

## **Assessment**

**Concerns-Based Adoption Model.** There are so many competing priorities in schools due to the academic and social-emotional demands that students and teachers have. To address these priorities, leaders adopt different initiatives that are evidence based. However, many of these programs fail to create the expected outcomes. To assess both the implementation efforts of the MTSS framework and the outcomes of the initiative, a Concerns-Based Adoption Model (CBAM) can be used. The American

Institutes for Research (AIR) utilizes CBAM to help education systems adopt and implement evidence-based interventions (AIR, 2018). This approach takes into consideration the barriers to implementation that typically impede the effectiveness of an intervention. The CBAM approach has three components: Innovation Configurations, Stages of Concern, and Levels of Use.

***Innovation configurations.*** The Innovation Configuration provides a road map for the implementation of the intervention. These maps provide a guide for educators and administrators as they develop the execution of the innovation. These rubrics help educators understand the expectations and create a clear vision of what the interventions would look like in their ideal state.

***Stages of Concern.*** The Stages of Concern component focuses on the concerns that individuals who are implementing the intervention have—the stages rise from being unconcerned to being concerned about self. Then, the concern becomes broader as the focus shifts to concern for students or the broader community. Table 4 shows the stage of concern and the description.

Table 4

*Stages of Concern*

Stage of Concern	Typical Statement
0: Unconcerned	"I think I heard something about it, but I'm too busy right now with other priorities to be concerned about it."
1: Informational	"This seems interesting, and I would like to know more about it."
2: Personal	"I'm concerned about the changes I'll need to make in my routines."
3: Management	"I'm concerned about how much time it takes to get ready to teach with this new approach."
4: Consequence	"How will this new approach affect my students?"
5: Collaboration	"I'm looking forward to sharing some ideas about it with other teachers."
6: Refocusing	"I have some ideas about something that would work even better."

*Note:* Reproduced from "Stages of Concern: Concerns-based adoption model" by the American Institutes for Research, 2010 (<https://www.air.org/resource/stages-concern>).

To measure the Stages of Concern, AIR uses a 35-item questionnaire to determine how individuals feel about the particular intervention. Along with the questionnaire, leaders also host focus groups and interviews with staff to create a broader picture of how educators and administrators are implementing the intervention.

***Levels of Use.*** This component of the CBAM measures how the staff is using the intervention. The question protocol allows for insight into how fluent educators are in implementation. The levels move up from nonuse to refining the intervention in a way that better fits their context. To establish the Levels of Use, leaders conduct short interviews with individuals or groups at the level of implementation. Table 5 shows Levels of Use and a typical statement that a staff member would say.

Table 5

*Levels of Use*

Level	Typical Statement
Nonuse	"I've heard about it but, honestly, I have too many other things to do right now."
Orientation	"I'm looking at materials pertaining to the innovation and considering using it sometime in the future."
Preparation	"I've attended the workshop and I've set aside time every week for studying the materials."
Mechanical Use	"Most of my time is spent organizing materials and keeping things going as smoothly as possible every day."
Routine Use	"This year it has worked out beautifully. I'm sure there will be a few changes next year, but basically I will use it the same way I did this year."
Refinement	"I recently developed a more detailed assessment instrument to gain more specific information from students to see where I need to change my use of the innovation."

Note: Adapted from "Levels of Use: Concerns-based adoption model," by the American Institutes for Research, 2018 (<https://www.air.org/resource/levels-use>).

Together, these three layers create a picture of the implementation process for leaders to evaluate their current state. With a clear direction, assessment of utilization, and a snapshot of concerns, this model allows for more thoughtful implementation. These understandings paired with student outcome data like attendance, office referrals, and disciplinary placements can be used to evaluate the effectiveness of both the intervention and implementation. This model can be applied to MTSS as schools attempt to shift their approach to behavioral systems.

**CBAM approach.** Using the CBAM approach, the first step is to identify the innovation configuration. Luckily, the TFI can serve as the road map for the intervention because it identifies what each piece of the intervention would look like at varying

degrees of implementation (Algozzine et al., 2014). Table 6 highlights three of the standards from the TFI that show varying levels of implementation for a behaviorally

Table 6

*Tiered Fidelity Inventory*

Tiers		
0	1	2
1.3 Behavioral Expectations		
School has five or fewer positively stated behavioral expectations and examples by setting/location for student and staff behaviors (i.e., school teaching matrix) defined and in place.		
Behavioral expectations have not been identified, are not all positive, or are more than 5 in number.	Behavioral expectations identified but may not include a matrix or be posted.	Five or fewer behavioral expectations exist that are positive, posted, and identified for specific settings (i.e., matrix) AND at least 90% of staff can list at least 67% of the expectations.
1.4 Teaching Expectations		
Expected academic and social behaviors are taught directly to all students in classrooms and across other campus settings/locations.		
Expected behaviors are not taught.	Expected behaviors are taught informally or inconsistently.	Formal system with written schedules is used to teach expected behaviors directly to students across classroom and campus settings AND at least 70% of students can list at least 67% of the expectations.
1.5 Problem Behavior Definitions		
School has clear definitions for behaviors that interfere with academic and social success and a clear policy/procedure (e.g., flowchart) for addressing office-managed versus staff-managed problems.		
No clear definitions exist, and procedures to manage problems are not clearly documented.	Definitions and procedures exist but are not clear and/or not organized by staff- versus office-managed problems.	Definitions and procedures for managing problems are clearly defined, documented, trained, and shared with families.

*Note.* Adapted from “School-Wide Positive Behavioral Interventions and Supports Tiered Fidelity Inventory,” by Algozzine et al., Office of Special Education Programs Technical Assistance Center on Positive Behavioral Interventions and Supports, 2014 (<http://www.pbis.org>).



focused, positive behavior system that can serve as a guideline for an innovation configuration map. The scale ranges from 0 to 2, with low to no levels of implementation represented by 0 and high levels of implementation indicated by a score of 2. The TFI is used as a walk-through tool, but it can also be used as a self-assessment as districts start to plan their implementation.

After clarifying with leaders the current state and hopeful state of implementation of MTSS, the team takes the next step, which is to understand the Stages of Concern and Levels of Use. First, a presurvey and postsurvey based on Levels of Use and Stages of Concern will be administered. Second, a focus group of select teacher-leaders will be executed. Finally, observations using the TFI will be done at least twice during the year.

### ***Pre- and Postsurvey***

Using a mix of questions from the TFI and Stages of Concern questionnaires, the pre- and postsurvey will evaluate the stage of implementation before the intervention and after. Questions will use a Likert scale to evaluate how strongly participants agree or disagree with statements. Some of the questions will address common barriers to implementation, like time, skill, and support. Below is a sample of statements that incorporate components of the TFI and Stages of Concern.

1. I can identify three to five schoolwide behavioral expectations for my campus.
2. I am preoccupied more with curriculum implementation than positive behavior systems.
3. I have very limited knowledge of Multi-Tiered Systems of Support for Behavior.

4. I would like to understand how my teaching is supposed to change while using an MTSS approach.
5. I am concerned about not having enough time to organize positive interventions for my classroom.
6. I am concerned about how the new classroom expectations will impact my students.

All educators who attended the professional training will receive the survey, with the hope of receiving half of all attendees pre- and post-survey to judge the Stages of Concern for the campuses.

### **Focus Group**

Levels of Use will be evaluated through interviews after the first set of professional development opportunities to assess. Using five levels of focus group questioning from Krueger (2002), the questions in Table 7 will be used with a focus group of teachers to understand where they are in the Levels of Use. Selected participants will include grade-level chairs from a variety of grade levels. To effectively evaluate implementation across the initiative, the focus group will consist of individuals from schools that are from one LEA. The sessions can be held virtually or in person, and should include between ten to fifteen participants.

### **Observations**

The final component of assessing the Stages of Concern and Levels of Use will be school and classroom observations. These observations should be completed at the beginning and end of the year. Using the TFI as a guide, these observations will ideally be completed with a representative from the LEA and a coach. The observations will

evaluate the level of fidelity to the system using the three levels of implementation for each core component.

Usually, the observation includes a school walkthrough, at least three classroom observations, and administrator, teacher, and student interviews. The initial walkthrough looks for critical components like behavior matrix and positive expectations. The classroom observations tally positive praise and specific classroom strategies. The interviews are concise and focus on schoolwide expectations and positive praise systems. Interviews and observations should be done across different grade levels. This information can then be compiled with focus group information, survey data, and students' outcomes to create a clear picture of how the initiative is affecting both outcomes and people.

Table 7

*Focus Group Sample Schedule and Questions*

Questions	Agenda Item or Points for Discussion
Opening	<ul style="list-style-type: none"> <li>• Ice breaker</li> </ul>
Introductory	<ul style="list-style-type: none"> <li>• How have you been involved in MTSS?</li> <li>• What do you see as the most important components of your campus's MTSS system?</li> </ul>
Transition	<ul style="list-style-type: none"> <li>• Tell me about the positive experiences you've had with MTSS?</li> <li>• Tell me about disappointments you've had with MTSS?</li> </ul>
Key	<ul style="list-style-type: none"> <li>• Think back to your experience this past month: what strategies from the list have you used to respond to student misbehavior in your classroom? What was the result of using that strategy?               <ul style="list-style-type: none"> <li>○ Active supervision, positive praise, responses for misbehavior, behavior matrix.</li> </ul> </li> <li>• How often do you use the schoolwide positive praise system in your classroom? Thinking about your overall use of the positive praise system, what would you say has been the biggest result?</li> <li>• Suppose that you were in charge and could make a change to make things better, what would you change to help improve the systems?</li> </ul>
Ending	<ul style="list-style-type: none"> <li>• Out of the following statements, which of these best describes your current experience?               <ul style="list-style-type: none"> <li>○ I have too many other things to do to implement MTSS in my classroom.</li> <li>○ I'm trying to find materials and am hopeful to get started soon on some of the classroom practices.</li> <li>○ I've set aside time to get started next week on a specific strategy.</li> <li>○ I have started to implement a strategy in my classroom, but takes a lot of time.</li> <li>○ I use the MTSS strategies and it has really helped me be successful.</li> <li>○ I have implemented the MTSS strategies and am starting to think about how it can be better.</li> </ul> </li> <li>• Have we missed anything that you would like to discuss today?</li> </ul>

*Note.* MTSS, Multi-Tiered Systems of Support, Focus Group Questions. Adapted from *Designing and Conducting Focus Group Interviews*, by Richard Krueger, 2002 (<https://www.eiu.edu/ihec/Krueger-FocusGroupInterviews.pdf>).

## **Conclusion**

The goal of professional development for schools is to increase the skills and abilities of teachers to implement effective strategies under an MTSS approach. To evaluate the implementation of professional learning, CBAM presents a model to allow for a multifaceted approach to understanding the implementation process. With a clear vision through the Innovation Map, understanding of individual concern, and a snapshot of the Levels of Use through the focus group, the scope and sequence of development can be more responsive to the needs of educators.

To improve the rates of exclusionary discipline in Texas schools, leaders must build new systems for educators to better respond to student need. MTSS can aid districts in organizing interventions and data to support every student. Through training, coaching, and assessments, this model can improve professional learning, organizational implementation, and student outcomes to create a school system that uses exclusionary discipline less and improves outcomes for all students.

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## Appendix

The population of Native Hawaiian and American Indian or Alaskan Native students was too small to include in the following comparison. Students who were Asian and Two or More Races were underrepresented compared to the ninth-grade population.

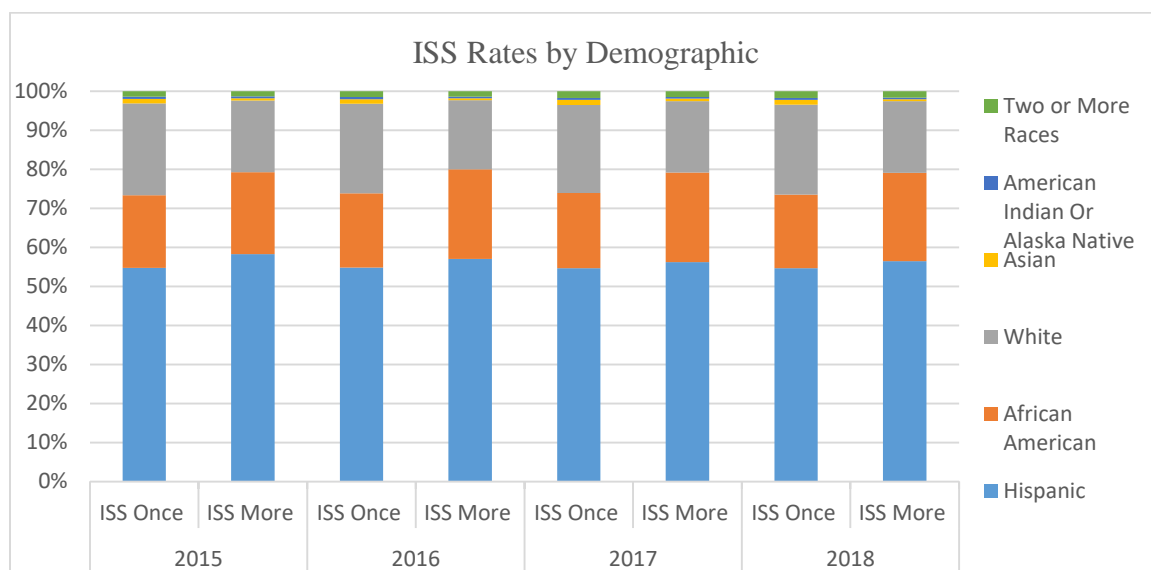


Figure 16A. ISS Assignments by Ethnicity Including Two or More races.

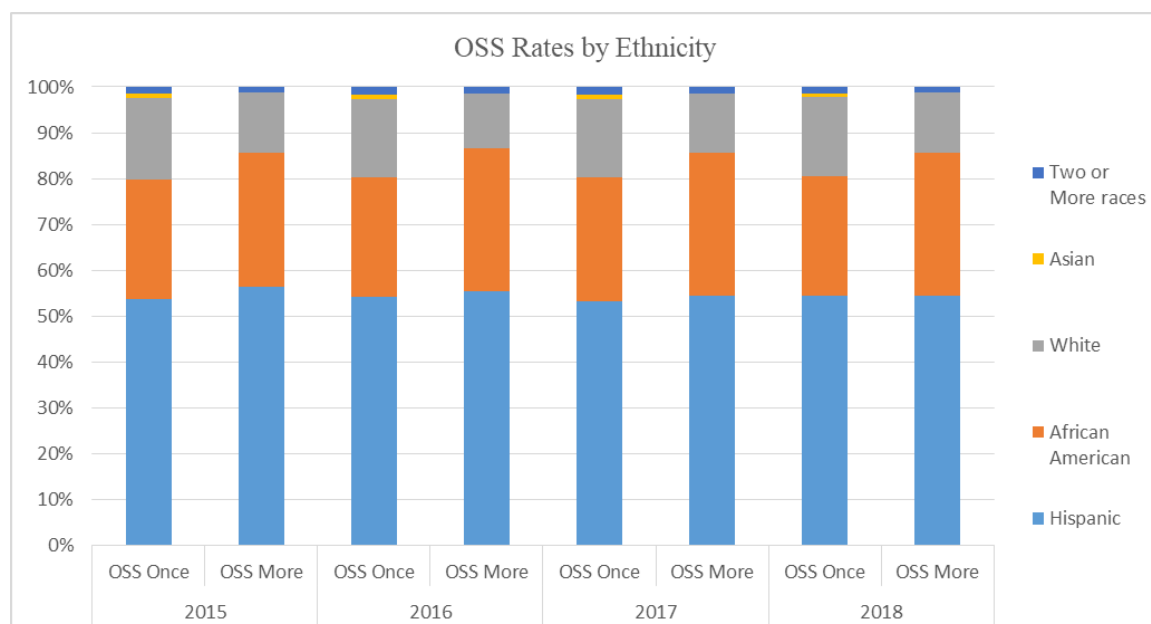


Figure 17A. OSS Assignments by Ethnicity Including Two or More races.

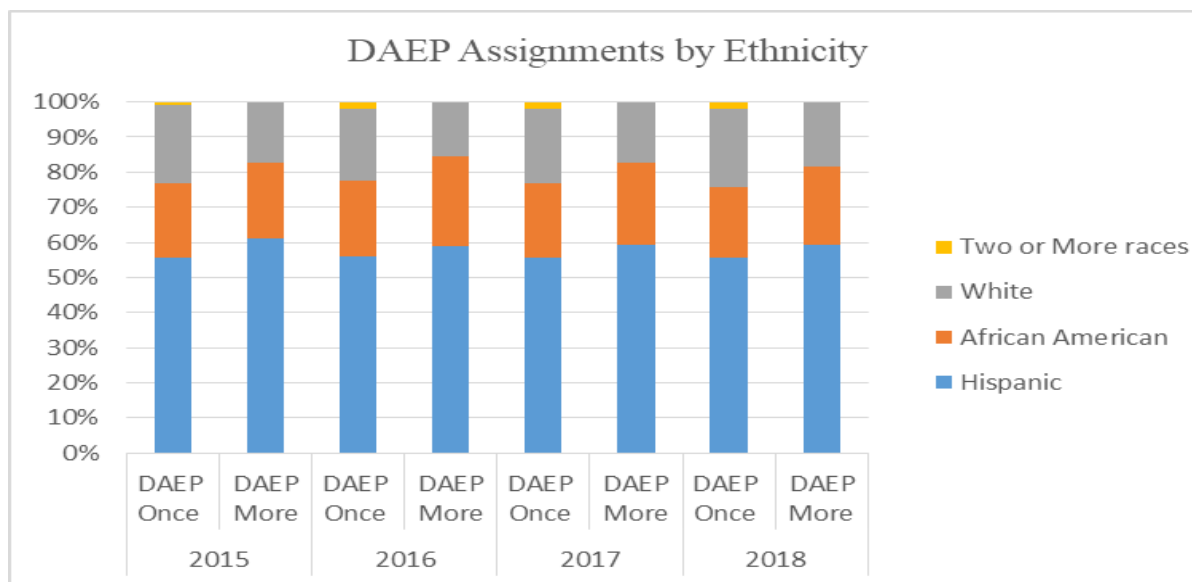


Figure 18A. DAEP Assignments by Ethnicity Including Two or More races.