



How Does Early Childhood Suspension Relate to Achievement in Reading and Math?

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Executive Summary

Out-of-school (OSS) suspension is a form of student discipline commonly practiced in Georgia public schools, as well as the rest of the United States.¹ Using data from [GA•AWARDS](#), Georgia's longitudinal education data system, this report examines the relationship between out-of-school suspensions during Kindergarten through 3rd grade (K-3) and success in reading/English Language Arts (ELA) and math from 3rd grade through high school. Additionally, the report examines patterns in the incident types which led to K-3 suspensions, as well as the relationship between K-3 suspensions and the count of future out-of-school suspensions in middle and early high school.

This report follows a cohort of students who took the state standardized assessment, the Reading [Criterion-Referenced Competency Test](#) (CRCT), as 3rd graders in 2009-2010. The report then tracks K-3 discipline data, 3rd grade reading and math CRCT scores, 7th grade reading and math CRCT scores, and 9th grade Literature, Algebra I, and Coordinate Algebra [Georgia Milestones](#) End of Course (EOC) scores.² The analysis also tracks out-of-school suspension data for the cohort from 2011 to 2017.

The results of this analysis show that higher counts of K-3 out-of-school suspensions correlate with lower reading/ELA and math proficiency. In other words, the more suspensions a student received during Kindergarten through 3rd grade, the worse they performed on reading/ELA and math CRCT and EOC tests. This pattern held across all race/ethnicity groups, as well as across gender, poverty status, disability status, and English learner (EL) status.³ In addition, students who received higher counts of K-3 out-of-school suspensions were more likely to receive suspensions during 4th-10th grade.

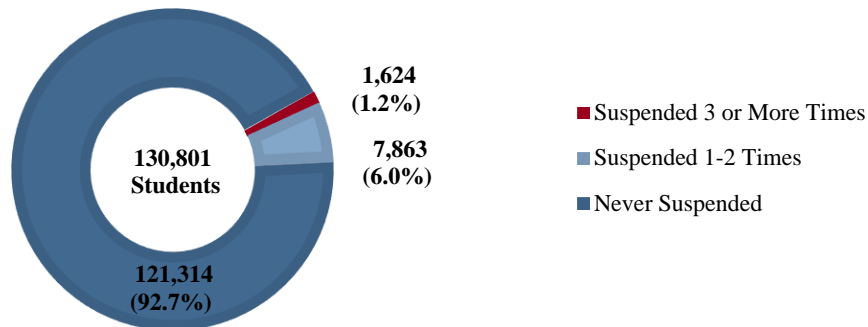
¹ [Positive Behavioral Interventions & Reports \(PBIS\)](#) defines out-of-school suspensions (OSS) as an exclusionary discipline practice in which a student is removed from the school for part of the day or multiple days.

² This report analyzes results for 3rd, 5th, and 7th grade CRCT assessments due to the availability of both math and reading scores for these grade bands in the given years. Beginning with the 2014-2015 school year, Georgia retired the CRCT, replacing it with the Georgia Milestones. Read the Georgia Department of Education's (GaDOE) explanation of the [CRCT](#) and [Georgia Milestones](#) for more information.

³ This analysis excludes subgroups with student counts considered too low (n>15).

Key Findings Include:

- *K-3 Out-of-School Suspensions*
 - Of the 130,801 students in the cohort, 9,487 (7%) were suspended at least once during K-3.
 - 7,863 (6%) of students were suspended 1-2 times during K-3
 - 1,624 (1%) were suspended 3 or more times during K-3.



- Black and multiracial students were suspended at the highest rates, at 14% and 7%, respectively. Asian and Hispanic students were suspended least often during K-3, at rates of approximately 2% and 3%, respectively.
 - Approximately 14% of students with disabilities and 10% of economically disadvantaged students were suspended at least once during K-3. Only 3% of English Learners were suspended during K-3.
 - Male students were suspended at higher rates than female students, with 11% of male students suspended at least once during K-3, compared with only 3% of female students.
- *K-3 Out-of-School Suspensions & Milestones Performance*
 - Students with higher counts of K-3 suspensions were less likely to meet or exceed expectations on 3rd and 7th grade reading and math assessments and were also less likely to earn proficient or distinguished scores on high school math and English EOCs.⁴
- *Out-of-School Suspension during 4th-10th Grades*
 - For all years, students suspended at least once during K-3 were suspended at higher rates in subsequent years than students who were never suspended during K-3. As the count of K-3 suspensions increased, students were also suspended at higher rates throughout 4th-10th grades.⁵

The report's findings are also available in a shareable [infographic](#).

⁴ High School math and EOCs analyzed in this report include Algebra I, Coordinate Algebra, and 9th grade literature.

⁵ For the purposes of this report, an increase in K-3 suspensions is measured as an increase from 1-2 suspensions to 3 or more.

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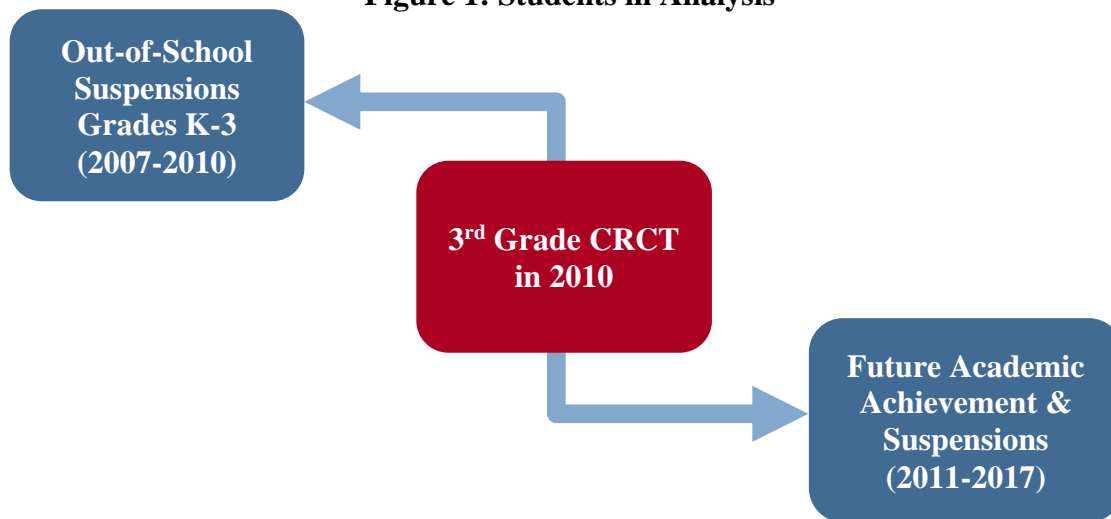
Introduction

Out-of-school (OSS) suspension is a form of student discipline commonly practiced in Georgia public schools, as well as the rest of the United States.⁶ Research shows that certain subgroups of students, such as racial minorities, disproportionately receive out-of-school suspensions than other student subgroups.⁷ Additional research finds that out-of-school suspensions correlate with poor future academic success due to the additional amount of time spent out of school.⁸

Using data from [GA•AWARDS](#), Georgia’s longitudinal education data system, this report examines the relationship between out-of-school suspensions during Kindergarten through 3rd grade (K-3) and success in reading/English Language Arts (ELA) and math from 3rd grade through high school. Additionally, the report examines patterns in the incident types which led to K-3 suspensions, as well as to the relationship between K-3 suspensions and the count of future out-of-school suspensions in middle and early high school.

This report follows a cohort of students who took the state standardized assessment, the Reading [Criterion-Referenced Competency Test](#) (CRCT), as 3rd graders in 2009-2010. The report then tracks K-3 discipline data, 3rd grade reading and math CRCT scores, 7th grade reading and math CRCT scores, and 9th grade Literature, Algebra I, and Coordinate Algebra [Georgia Milestones](#) End of Course (EOC) scores.⁹ The analysis also tracks out-of-school suspension data for the cohort through 2011-2017. Figure 1 breaks down the cohort examined in this analysis.

Figure 1: Students in Analysis



⁶ [Positive Behavioral Interventions & Reports \(PBIS\)](#) defines out-of-school suspensions (OSS) as an exclusionary discipline practice in which a student is removed from the school for part of the day or multiple days. (Massar, McIntosh, Eliason. “Do Out-of-School Suspensions Prevent Future Exclusionary Discipline?” *PBIS.org*, Positive Behavioral Interventions and Supports, 2015.)

⁷ Visit the U.S. Department of Education’s [Civil Rights Data Collection](#) for more information of racial disparities in school suspensions.

⁸ Visit the [Get Georgia Reading Campaign website](#) for more information on the link between K-3 out-of-school (OSS) suspensions and student achievement.

⁹ This report analyzes results for 3rd, 5th, and 7th grade CRCT assessments due to the availability of both math and reading scores for these grade bands in the given years. Beginning with the 2014-2015 school year, Georgia retired the CRCT, replacing it with the Georgia Milestones. Read the Georgia Department of Education’s (GaDOE) explanation of the [CRCT](#) and [Georgia Milestones](#) for more information.

How does Early Childhood Suspension Relate to Academic Achievement?

For the purposes of this analysis, the cohort is split into three groups based on the count of suspensions received during Kindergarten through 3rd grade: never suspended, suspended 1-2 times, and suspended 3 or more times.¹⁰ For each CRCT test, students are further divided into three groups based on proficiency level: does not meet expectations (DNM), meets expectations, exceeds expectations. For high school EOC tests, students are broken into four groups based on proficiency level: beginning, developing, proficient, and distinguished. For out-of-school suspensions during 4th-10th grade, the percentage of total students suspended per school year is calculated and disaggregated by K-3 suspension group.

The results of this analysis show that higher counts of K-3 out-of-school suspensions correlate with lower reading/ELA and math proficiency. In other words, the more suspensions a student received during Kindergarten through 3rd grade, the worse they performed on reading/ELA and math CRCT and EOC tests. This pattern held across all race/ethnicity groups, as well as across gender, poverty status, disability status, and English learner (EL) status.¹¹ In addition, students who received higher counts of K-3 out-of-school suspensions were more likely to receive suspensions during 4th-10th grade.

The report begins with an overview of the 3rd grade cohort of students included in the analysis. The next section presents patterns in K-3 suspension rates and incident types, followed by an analysis of CRCT and EOC performance. Finally, the report analyzes patterns by incident type, as well as how K-3 suspensions correlate with 4th-10th grade suspension rates. The report concludes with a summary of findings.

Overview of Students in the Analysis & 3rd Grade Reading Performance

During the 2009-2010 school year, 130,801 students earned scores on the 3rd grade reading CRCT. Figure 2 shows that over half of students met expectations for 3rd grade reading, while 36% exceeded expectations, and approximately 6% of students did not meet expectations (DNM). As seen in Figure 3, 3rd grade reading performance varied by race/ethnicity, with the percentage meeting or exceeding expectations ranging from around 91% for black students to 97% for Asian students. Similarly, Figure 4 shows how students with disabilities (SWD), economically disadvantaged students, and English Learner (EL) students achieved lower levels of 3rd grade reading proficiency than other student subgroups.^{12,13} Figure 5 shows that the percentage of female students (96%) that met and exceeded expectations on 3rd grade reading slightly surpassed that of male students (93%).

¹⁰ This report divides K-3 suspensions into three groups based on suspension count to better capture the marginal effect of additional suspensions on academic outcomes. Since few students received higher than 3 counts of K-3 suspensions, especially at the subgroup level, K-3 suspension categories range from “never suspended” to “3 or more.”

¹¹ This analysis excludes subgroups with student counts considered too low; n>15. The correlation between higher suspension counts and lower performance held for students with disabilities (SWD) for all assessments but 3rd Grade Reading, in which case the percentage of students who did not meet expectations was nearly equal for both students who were suspended 1-2 times and those who were suspended 3 or more times. See Figure 16 in the appendix.

¹² This report defines students with disabilities (SWD) as students marked as SWD during K-3. Results for students ever flagged during K-12 as having disabilities were also analyzed; however, no significant differences were found.

¹³ This report also gathered assessment results for students who transferred to the Department of Juvenile Justice (DJJ). However, the count of students included in this subgroup was too low to report.

Figure 2: 3rd Grade Reading Levels of Students with 2009-2010 3rd Grade CRCT Scores

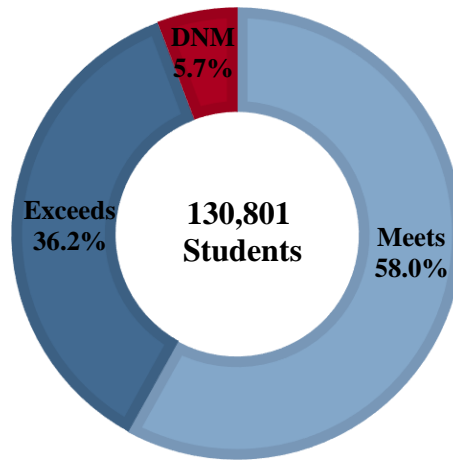
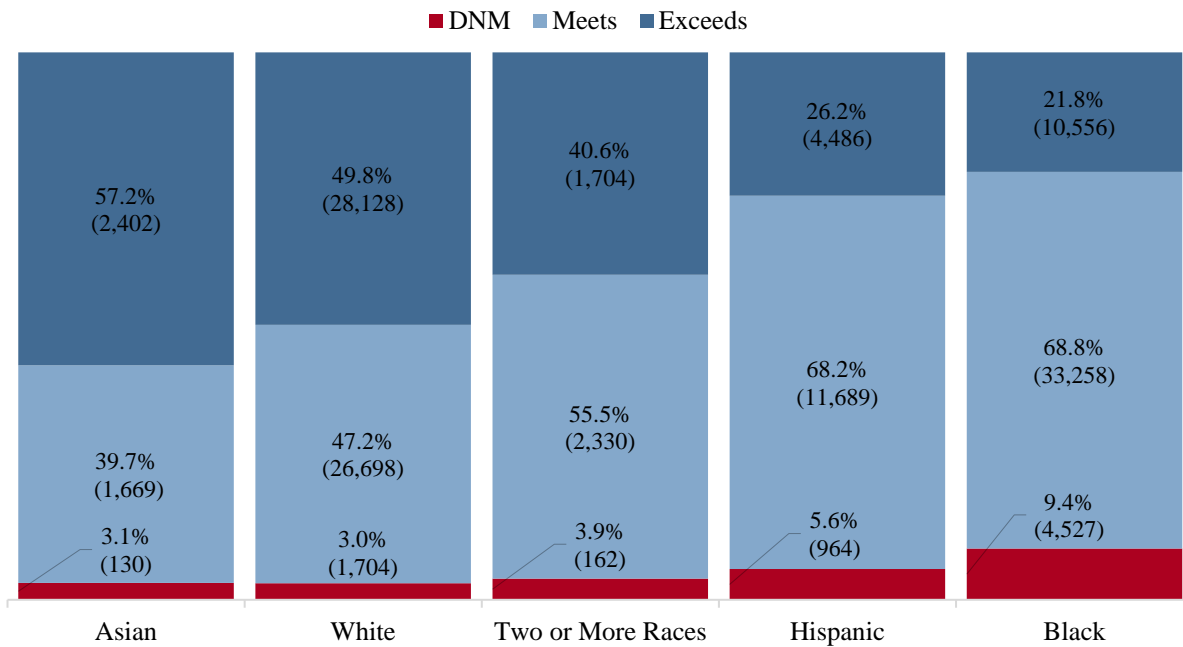


Figure 3: 3rd Grade Reading Performance Varied by Race/Ethnicity¹⁴



¹⁴ See Table 1 in the appendix for a breakdown of 3rd Grade Reading performance by student subgroup.

Figure 4: 3rd Grade Reading Performance Varied by Disability, Economic, And English Learner Status

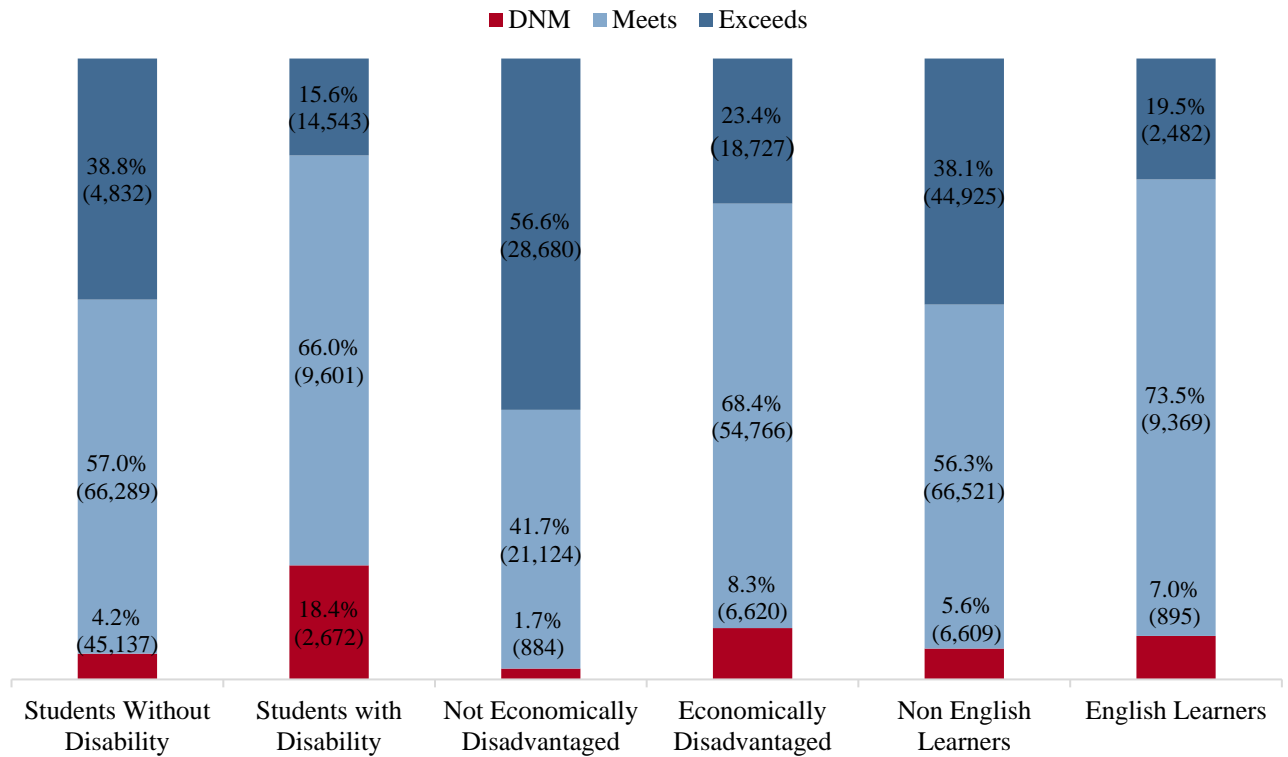
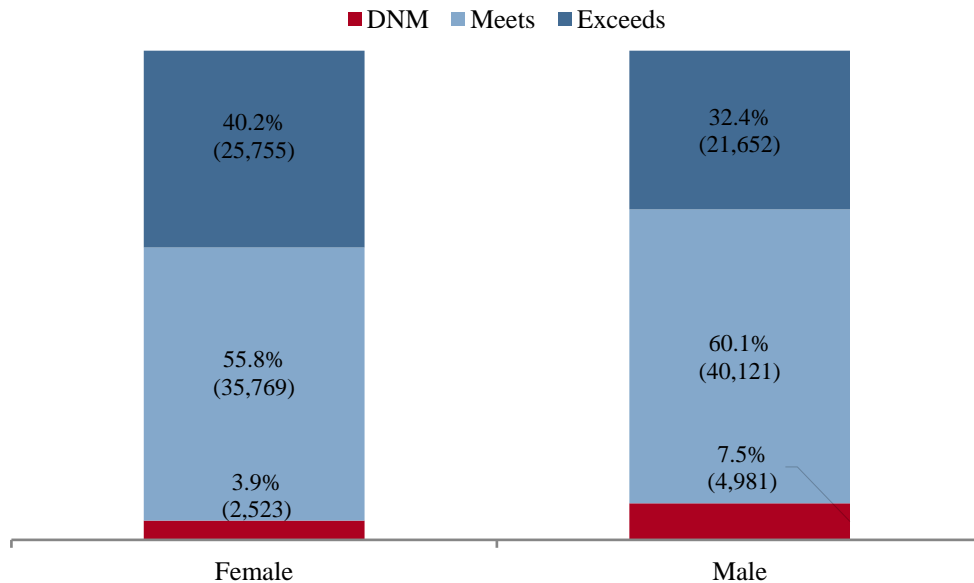


Figure 5: Female Students Outperformed Male Students on 3rd Grade Reading Assessments



Overview of K-3 Out-of-School Suspensions

Of the 130,801 students in the cohort, the majority (121,314 or 93%) were never suspended during Kindergarten through 3rd grade. Six percent of students (7,863) were suspended 1-2 times during Kindergarten through 3rd grade, while 1% (1,624) were suspended 3 or more times.

Figure 6: Within the Cohort, Nearly 10,000 K-3 Students Suspended During 2007-2010

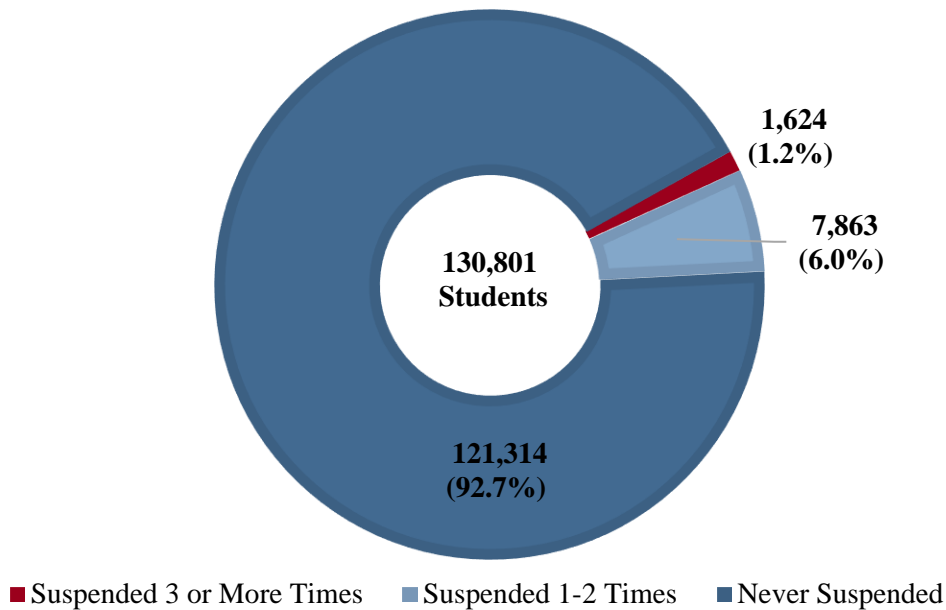


Figure 7 shows that, by race/ethnicity, black and multiracial students were suspended at the highest rates, at 14% and 7%, respectively.¹⁵ Asian and Hispanic students were suspended least often during K-3, at rates of approximately 2% and 3%, respectively. Figure 8 shows that approximately 14% of students with disabilities were suspended at least once during K-3, in addition to 10% of economically disadvantaged students. Only 3% of English Learners were suspended during K-3. Male students were suspended at higher rates than female students, with 11% of male students being suspended at least once during K-3, compared with only 3% of female students.

14% of students with disabilities were suspended at least once during K-3.

¹⁵ This analysis excludes both the categories “Native American or Alaskan Native” and “Native Hawaiian or Other Pacific Islander” since the total count of students suspended in each category equals 15 or less.

Figure 7: Black Students Were More Likely to Be Suspended in K-3¹⁶

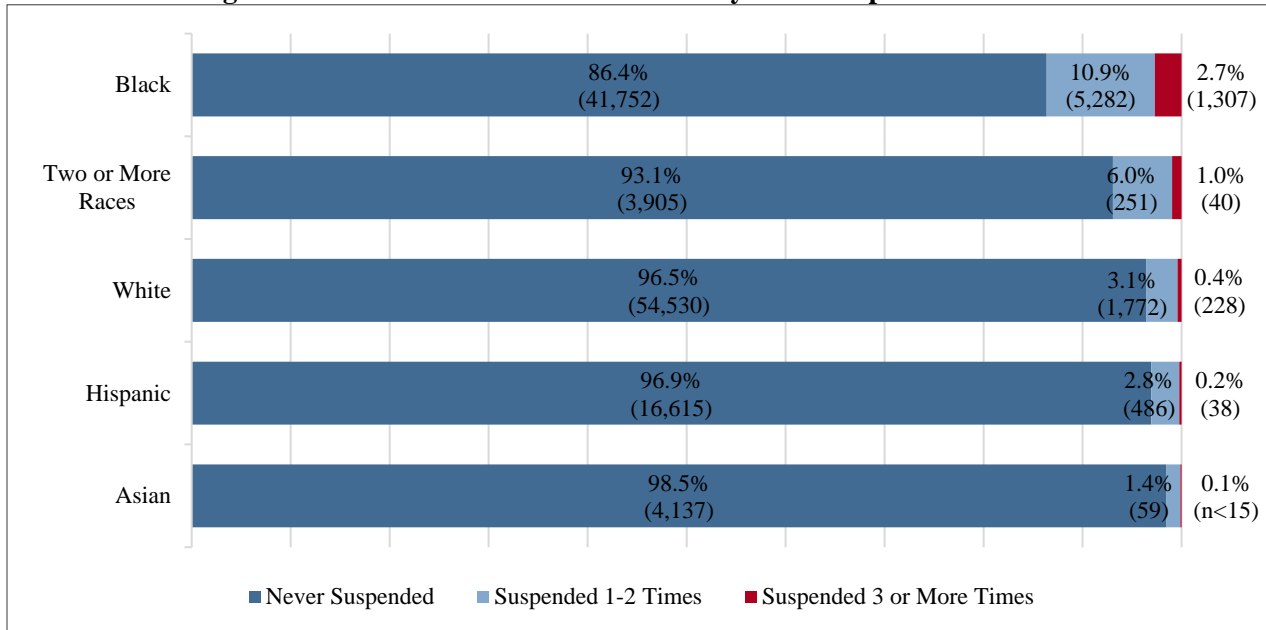
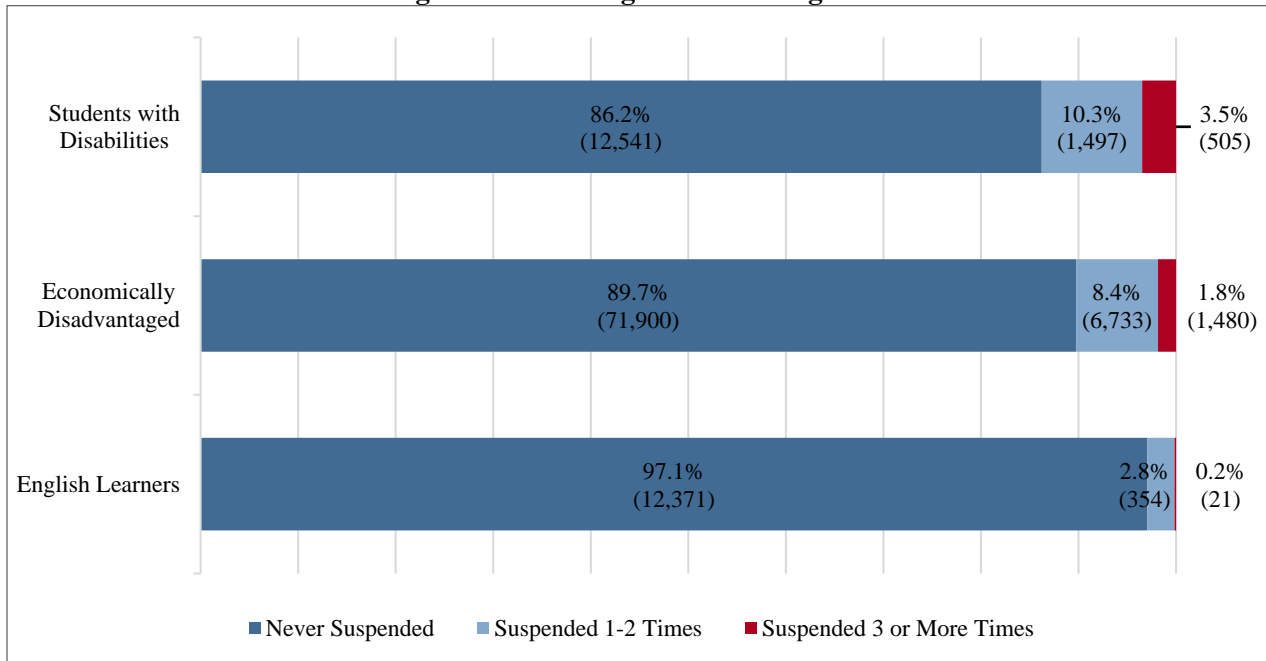
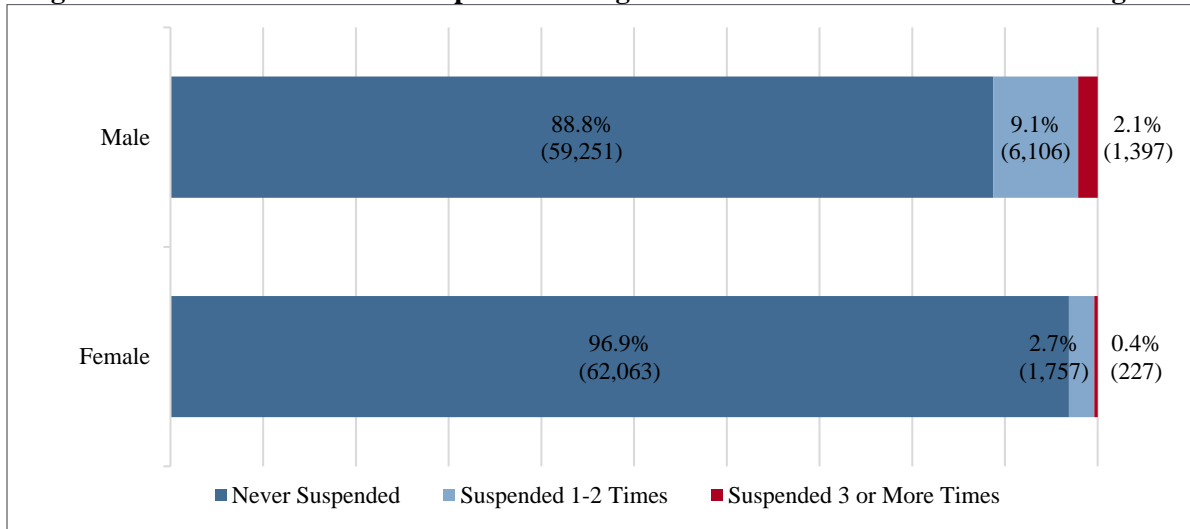


Figure 8: Students with Disabilities and Economically Disadvantaged Students Were Suspended at Higher than Average Rates During K-3



¹⁶ See Table 2 in the appendix for a breakdown of K-3 suspensions by student subgroup.

Figure 9: Male Students Were Suspended at Higher Rates than Female Students During K-3



K-3 Out-of-School Suspensions & Achievement in Reading & Math

Achievement in Reading/ELA

Figures 10 and 11 demonstrate how K-3 suspensions relate to performance on 3rd grade reading (CRCT), 7th grade reading (CRCT), and 9th grade literature (EOC) assessments. Despite the difference in proficiency-level categories on CRCT and EOC assessments,¹⁷ similar trends exist across all three assessments.¹⁸ Students with higher counts of K-3 suspensions were less likely to meet or exceed expectations on 3rd and 7th grade reading assessments and were also less likely to earn proficient or distinguished scores on 9th grade literature EOCs.¹⁹

¹⁷ Third and seventh grade reading CRCT scores are divided into three categories based on reading proficiency: does not meet expectations (DNM), meets expectations, and exceeds expectations. Ninth grade literature EOC scores are divided into four categories based on proficiency: beginning, developing, proficient, and distinguished learners.

¹⁸ Prior to the replacement of the CRCT with Georgia Milestones in the 2014-2015 school year, statewide assessments in Georgia reflected relatively low proficiency standards. The relationship between Georgia Milestones assessments and K-3 suspension rates demonstrated in Figures 10 and 11 reflects the increased proficiency standards of statewide assessments following the retirement of the CRCT. For more information see GOSA's 2016 [press release on proficiency standards in Georgia](#).

¹⁹ Figure 16 in the appendix shows that the relationship between 3rd grade reading performance and K-3 suspensions remains consistent across student subgroups with student counts above 15 in all categories. For all subgroups, at least one count of K-3 suspension correlated with worse performance on 3rd and 7th grade reading/ELA CRCTs and 9th Grade Literature EOCs.

Figure 10: Students Performed Worse on 3rd and 7th Grade Reading (CRCT) as K-3 Suspension Rates Increased

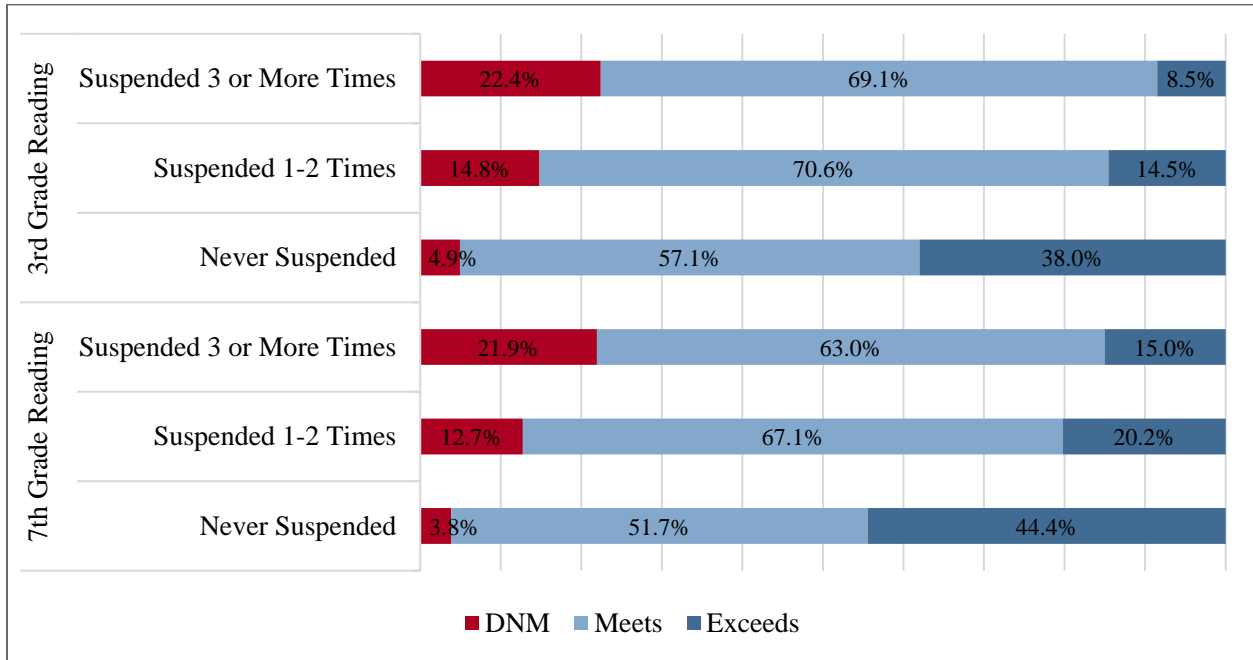
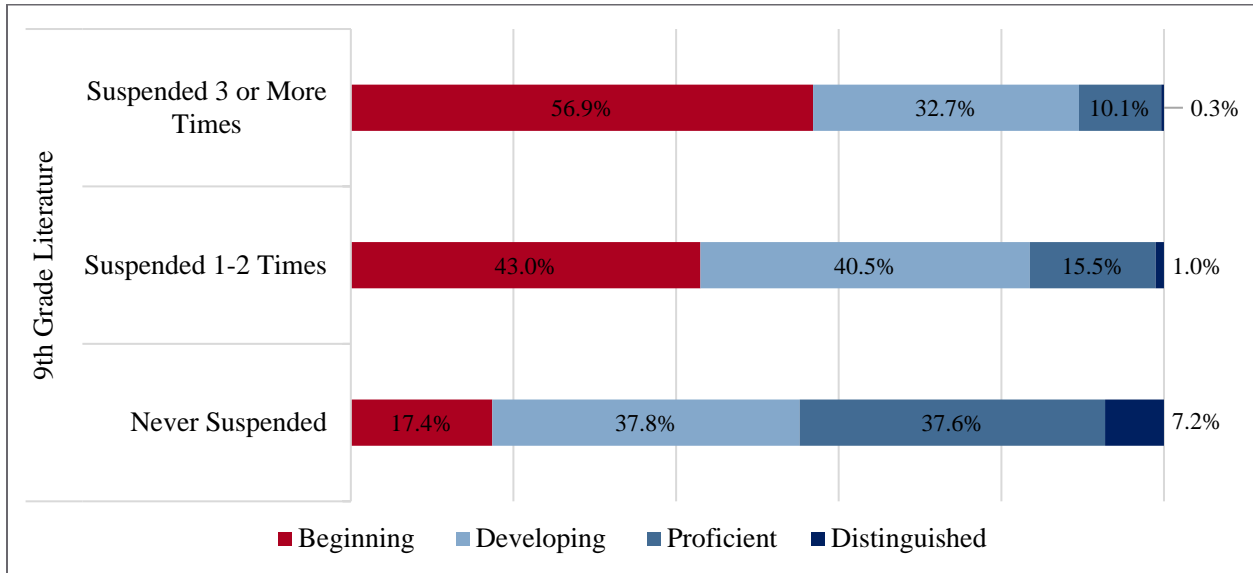


Figure 11: Students Performed Worse on 9th Grade Literature (EOC) as K-3 Suspension Rates Increased



Achievement in Math

Figures 12 and 13 demonstrate how K-3 suspensions relate to student performance on 3rd grade math (CRCT), 7th grade math (CRCT), Algebra I (EOC), and Coordinate Algebra (EOC) assessments. Despite the difference in proficiency-level categories on CRCT and EOC assessments,²⁰ similar trends exist across all three assessments.²¹ Students with higher counts of K-3 suspensions were less likely to meet or exceed expectations on 3rd and 7th grade math assessments and were less likely to earn proficient or distinguished scores on Algebra I and Coordinate Algebra EOCs.²²

Figure 12: Students Performed Worse on 3rd and 7th Grade Math (CRCT) As K-3 Suspension Rates Increased

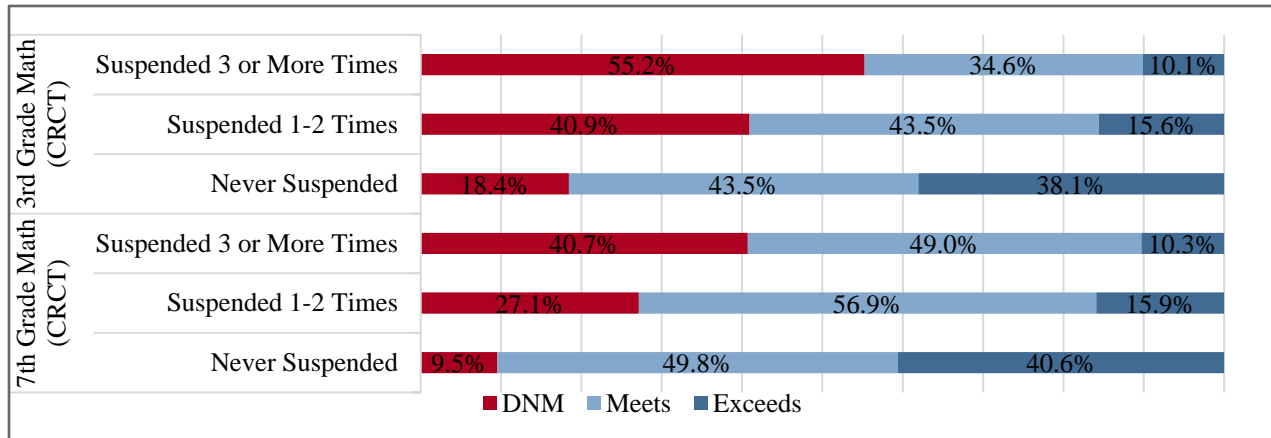
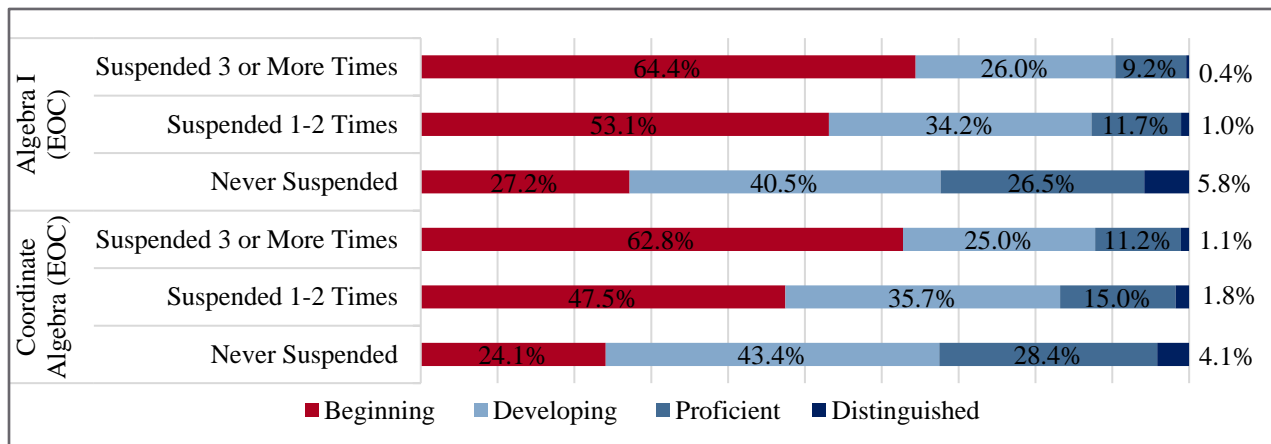


Figure 13: Students Performed Worse on Algebra I and Coordinate Algebra (EOC) as K-3 Suspension Rates Increased



²⁰ Third and 7th grade math CRCT scores are divided into three categories based on math proficiency: does not meet expectations (DNM), meets expectations, exceeds expectations. Algebra I and Coordinate Algebra EOC scores are divided into four categories based on proficiency: beginning, developing, proficient, and distinguished learners.

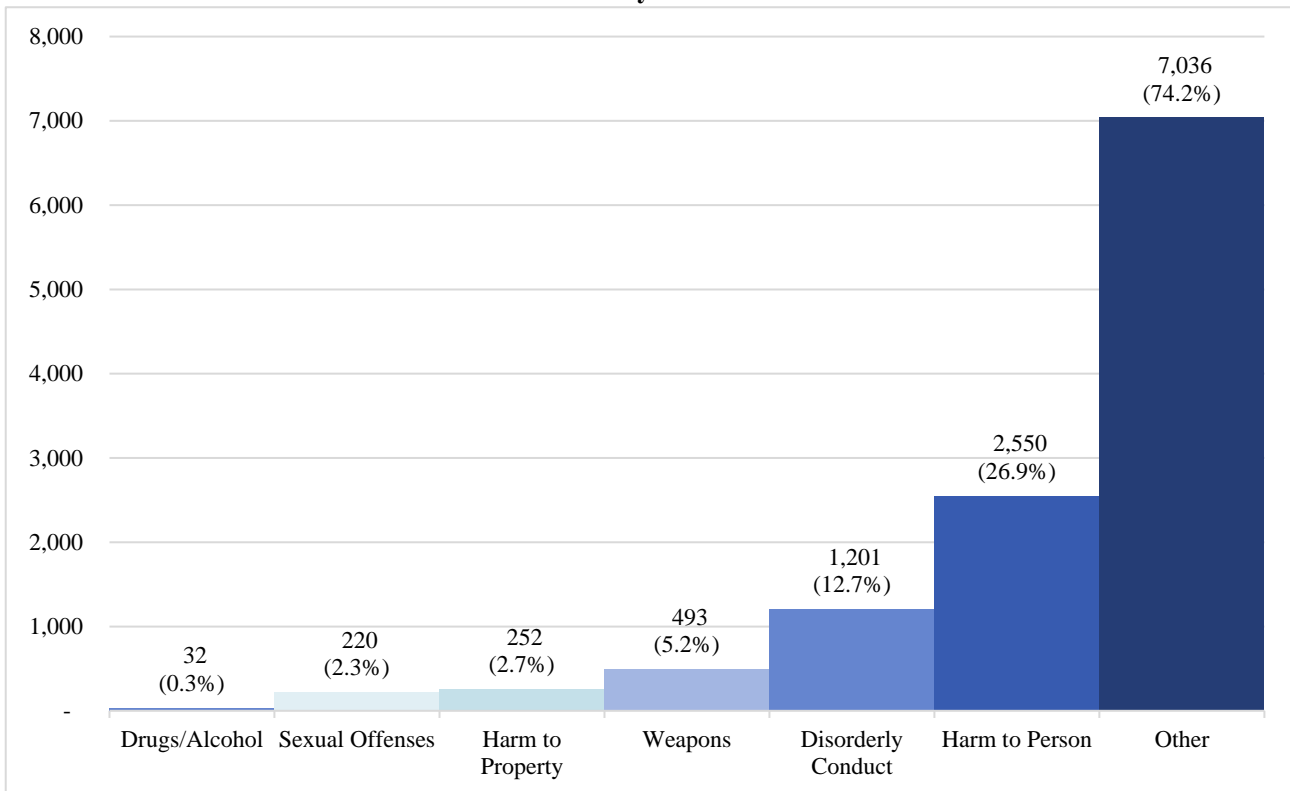
²¹ Prior to the replacement of the CRCT with Georgia Milestones in the 2014-2015 school year, statewide assessments in Georgia reflected relatively low proficiency standards. The relationship between Georgia Milestones assessments and K-3 suspension rates demonstrated in Figures 12 and 13 reflects the increased proficiency standards of statewide assessments following the retirement of the CRCT. For more information see GOSA's 2016 [press release on proficiency standards in Georgia](#).

²² This trend was consistent amongst all subgroups with student counts above 15 in all categories.

Incident Types

Figure 14 shows the count of students suspended at least once during K-3 for each incident type. While a majority (7,036 students, or 74% of suspended students) of K-3 disciplinary incidents fell into an “other” category, K-3 students were most commonly suspended for “harm to person” (2,550 students, or 27% of suspended students) and “disorderly conduct” (1,201 students, or 13% of suspended students).²³ The categories “harm to person” and “disorderly conduct” were followed by “weapons”, “harm to property”, “sexual offenses”, and “drugs and alcohol” in terms of frequency.²⁴

Figure 14: Majority of K-3 Suspensions Involved “Other”, “Harm to Person”, or “Disorderly Conduct”²⁵



²³ The “other” category for the cohort includes the subcategories “other-possession of unapproved items” and “other discipline incident” as defined by the Georgia Department of Education’s [Discipline Matrix Quick Reference Guide](#).

²⁴ The subcategories included within each disciplinary incident type are outlined in Figure 18 in the appendix of this report. For definitions of incident types, please see the Georgia Department of Education’s [Discipline Matrix Quick Reference Guide](#).

²⁵ Percentages reported in Figure 14 refer to the percentage of students suspended during K-3 by incident type. Since a student who is suspended more than once can be cited for multiple incident types, the categories are not mutually exclusive, and a single student can be included in multiple categories. These same patterns hold when disaggregated by 3rd grade reading level.

Suspension Rates during 4th-10th Grade

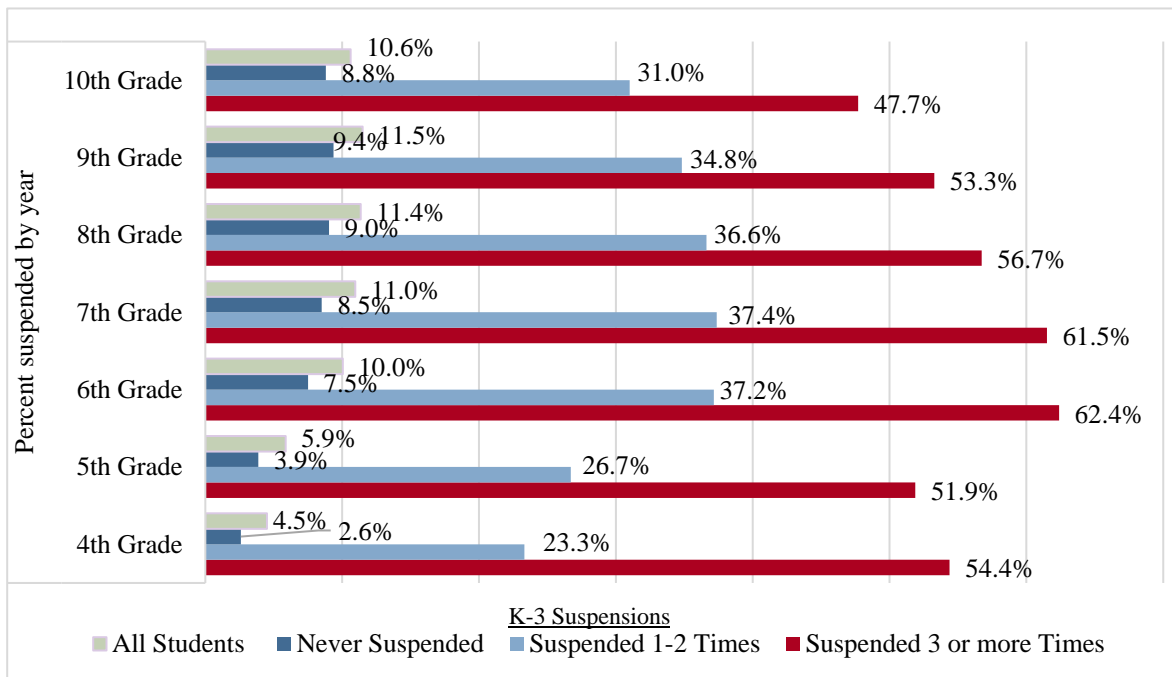
Finally, the students in each K-3 suspension group are followed into 4th-10th grades. Students in this cohort enrolled in 4th grade during the 2010-2011 school year, and 10th grade in the 2016-2017 school year. Figure 16 shows the percentage of students suspended each year, calculated as the count of students suspended, divided by the count of students enrolled that same year.

$$\% \text{ suspended} = \frac{\text{total students suspended}}{\text{total students enrolled}}$$

For each grade level, the percentage of all students suspended is illustrated by the “All Students” bar. For all students within the cohort, suspension rates peaked in 9th grade, at 11.5%, and were lowest in 4th and 5th grades at 4.5% and 5.9%, respectively. Additionally, for all students, the suspension rates in middle (6th-8th grades) and high school (9th-10th grades) exceeded suspension rates in elementary school (4th-5th grades).

Suspension rates for each grade level/school year are then broken down into three categories based on K-3 suspension groups: never suspended, suspended 1-2 times, and suspended 3 or more times. Figure 15 also shows the percentage of students in each K-3 suspension group that were suspended each grade level/school year, from 4th through 10th grades. For all years, students suspended at least once during K-3 were suspended at higher rates in subsequent years than students who were never suspended during K-3. As the count of K-3 suspensions increased from “1-2 suspensions” to “3 or more suspensions”, students were also suspended at higher rates throughout 4th-10th grades.

Figure 15: Students Suspended During K-3 More Likely to be Suspended during 4th-10th grade



Conclusion

This analysis examines a cohort of 130,801 students who earned 3rd grade reading scores on the 2010 CRCT, in addition to out-of-school suspension (OSS) data during Kindergarten through 3rd grade (2007-2010). The analysis follows this cohort into 10th grade and examines the relationship between K-3 suspensions and student performance on reading/ELA and math assessments in 3rd, 4th, 7th, 9th, and 10th grades, as well as K-3 incident type and suspension counts in 4th-10th grades.

Both 3rd grade reading scores and K-3 suspension rates varied by student subgroup. Students with disabilities, black students, male students, and economically disadvantaged students faced higher K-3 suspension rates than other student subgroups. As K-3 suspension rates increased, students performed worse on 3rd, 4th, 7th, and 9th grade reading and math assessments.

Of incident types leading to K-3 out-of-school suspension (OSS), “other”, “harm to person” and “disorderly conduct” appeared most frequently across all 3rd grade reading levels and subgroups. Following this cohort into 4th-10th grades, suspension rates in middle and high school exceeded those of elementary school. Suspension rates were lowest at 4.5% in 4th grade and peaked in 9th grade at 11.5%. When broken down by K-3 suspension group, students suspended at least once were more likely to be suspended each year from 4th-10th grade than were students never suspended during K-3. For more data on K-12 discipline in Georgia, visit GOSA’s [K-12 Student Discipline Dashboard](#).

Appendix

Table 1: 3rd Grade Reading by Student Subgroups

Group	Does Not Meet		Meets		Exceeds		Total
	<i>Number</i>	<i>% of Total</i>	<i>Number</i>	<i>% of Total</i>	<i>Number</i>	<i>% of Total</i>	<i>Number</i>
All Students	7,504	5.7%	75,890	58.0%	47,407	36.2%	130,801
<i>Race/Ethnicity</i>							
Asian	130	3.1%	1,669	39.7%	2,402	57.2%	4,201
Black	4,527	9.4%	33,258	68.8%	10,556	21.8%	48,341
Hispanic	964	5.6%	11,689	68.2%	4,486	26.2%	17,139
Two or More Races	162	3.9%	2,330	55.5%	1,704	40.6%	4,196
White	1,704	3.0%	26,698	47.2%	28,128	49.8%	56,530
<i>Gender</i>							
Female	2,523	3.9%	35,769	55.8%	25,755	40.2%	64,047
Male	4,981	7.5%	40,121	60.1%	21,652	32.4%	66,754
<i>Other Subgroups</i>							
Economically Disadvantaged	6,620	8.3%	54,766	68.4%	18,727	23.4%	80,113
English Learners	895	7.0%	9,369	73.5%	2,482	19.5%	12,746
Students with Disability	2,672	18.4%	9,601	66.0%	2,270	15.6%	14,543

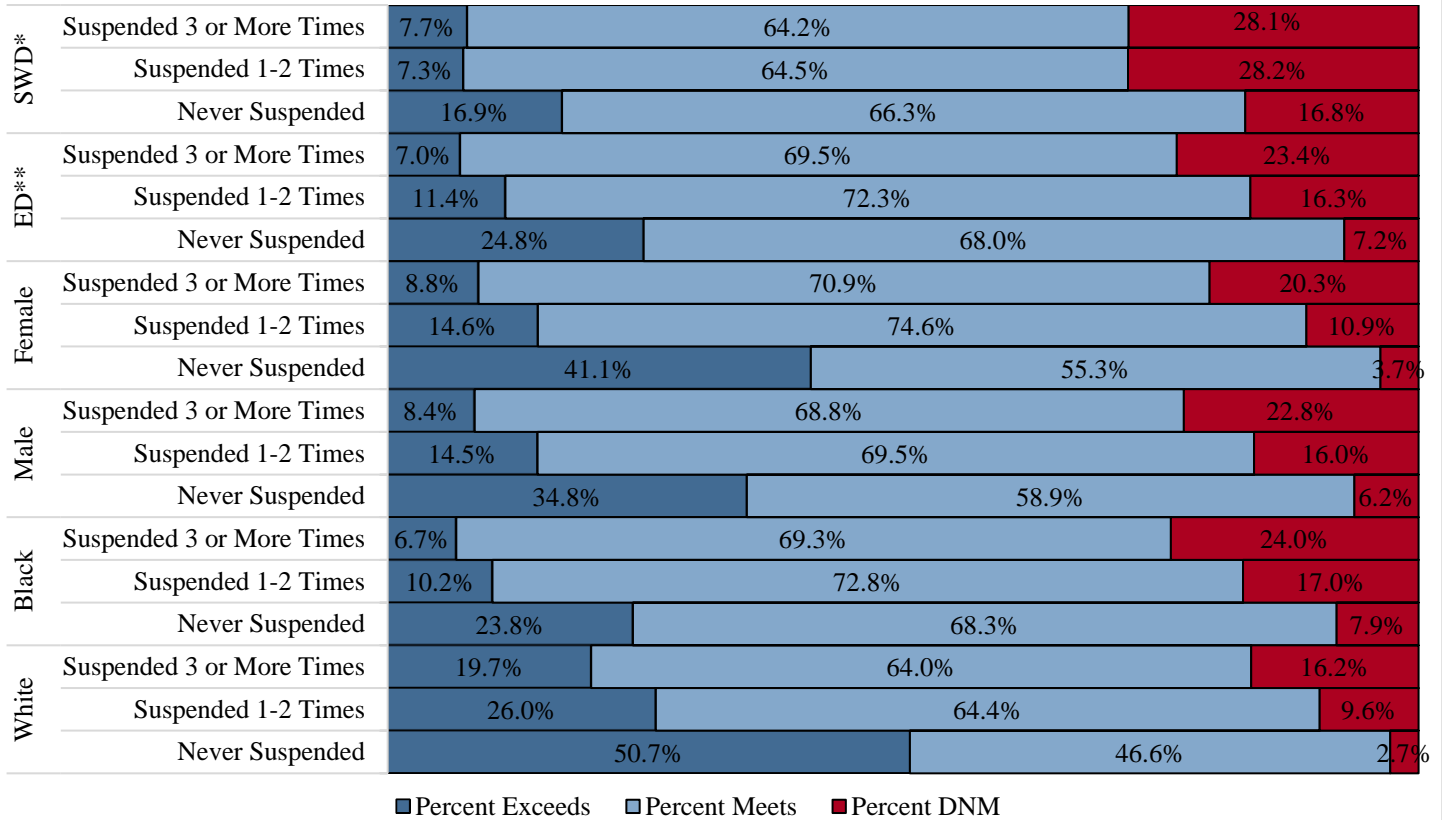
How does Early Childhood Suspension Relate to Academic Achievement?

Table 2: K-3 Suspension Rates by Student Subgroup

Group	Never Suspended		Suspended 1-2 Times		Suspended 3 or More Times		Total
	<i>Number</i>	<i>% of Total</i>	<i>Number</i>	<i>% of Total</i>	<i>Number</i>	<i>% of Total</i>	<i>Number</i>
All Students	121,314	92.8%	7,863	6.0%	1,624	1.2%	130,801
<i>Race/Ethnicity</i>							
Asian	4,137	98.5%	59	1.4%	n<15	0.1%	4,201
Black	41,752	86.4%	5,282	10.9%	1,307	2.7%	48,341
Hispanic	16,615	96.9%	486	2.8%	38	0.2%	17,139
Two or More Races	3,905	93.1%	251	6.0%	40	1.0%	4,196
White	54,530	96.5%	1,772	3.1%	228	0.4%	56,530
<i>Gender</i>							
Female	62,063	96.9%	1,757	2.7%	227	0.4%	64,047
Male	59,251	88.8%	6,106	9.2%	1,397	2.1%	66,754
<i>Other Subgroups</i>							
Economically Disadvantaged	71,900	89.8%	6,733	8.4%	1,480	1.9%	80,113
English Learners	12,371	97.1%	354	2.8%	21	0.2%	12,746
Students with Disability	12,541	86.2%	1,497	10.3%	505	3.5%	14,543

How does Early Childhood Suspension Relate to Academic Achievement?

Figure 16: Across Subgroups, Students Suspended At Least Once During K-3 Perform Worse on 3rd Grade Reading (CRCT)



SWD*: Students with Disabilities

ED**: Economically Disadvantaged

Note: Figure 16 does not report on Asian, Hispanic, Multiracial, or English Learner subgroups due to low student counts in specific suspension categories. For all subgroups, students suspended at least once during K-3 perform worse on 3rd grade reading assessments.

Figure 17: K-3 Disciplinary Incident Categories

Incident Category	Incident Type
Attendance/Dress Code	OTHER - Attendance Related
Attendance/Dress Code	OTHER - Dress Code Violations
Cheating	Academic Dishonesty
Disorderly Conduct	Disorderly Conduct
Drugs/Alcohol	Alcohol
Drugs/Alcohol	Drugs-Except Alcohol
Drugs/Alcohol	Tobacco
Gang Related	Gang Related
Harm to Person	Battery
Harm to Person	Bullying
Harm to Person	Fighting
Harm to Person	Homicide
Harm to Person	OTHER - Student Incivility
Harm to Person	Robbery
Harm to Person	Serious Bodily Injury
Harm to Person	Threat/Intimidation
Harm to Property	Arson
Harm to Property	Burglary
Harm to Property	Computer Trespass
Harm to Property	Larceny/Theft
Harm to Property	Motor Vehicle Theft
Harm to Property	Trespassing
Harm to Property	Vandalism
Other	OTHER - Possession of Unapproved Items
Other	Other Discipline Incident
Repeated Offense	Continuation of Incident
Repeated Offense	Repeated Offences
Sexual Offenses	Sex Offenses
Sexual Offenses	Sexual Battery
Sexual Offenses	Sexual Harassment
Weapons	Other Firearms
Weapons	Weapons/Knife
Weapons	Weapons/Other
Weapons	Weapons-Handgun
Weapons	Weapons-Rifle