



# Krezmien, Michael; Camacho, Kristine Suspension and students with high incidence disabilities: Implications of trends over time

Empirische Sonderpädagogik 10 (2018) 2, S. 121-133



#### Quellenangabe/ Reference:

Krezmien, Michael; Camacho, Kristine: Suspension and students with high incidence disabilities: Implications of trends over time - In: Empirische Sonderpädagogik 10 (2018) 2, S. 121-133 - URN: urn:nbn:de:0111-pedocs-160017 - DOI: 10.25656/01:16001

https://nbn-resolving.org/urn:nbn:de:0111-pedocs-160017 https://doi.org/10.25656/01:16001

in Kooperation mit / in cooperation with:

Pabst Science Publishershttps://www.psychologie-aktuell.com/journale/empirische-sonderpaedagogik.html

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# E m p i r i s c h e Sonderpädagogik

# ISSN 1869-4845



# 10. Jahrgang 2018 | Heft 2

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#### Impressum

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#### Verlag:

Pabst Science Publishers Eichengrund 28 D-49525 Lengerich Tel. + 49 (0) 5484-308 Fax + 49 (0) 5484-550 E-Mail: pabst.publishers@t-online.de www.pabst-publishers.de www.psychologie-aktuell.com

#### **Erscheinungsweise:**

4 x jährlich

#### Preise:

(Jahresabonnement: 40,- € Einzelheft: 15,- € incl. MwSt. und Versand)

#### Verlagsredaktion:

Erika Wiedenmann wiedenmann@pabst-publishers.com

#### Herstellung:

Armin Vahrenhorst vahrenhorst@pabst-publishers.com

#### Administration:

Silke Haarlammert haarlammert@pabst-publishers.com

## Druck: KM-Druck, D-64823 Groß-Umstadt

Titelbild: Joseb Smoktun

ISSN 1869-4845 (Printausgabe) ISSN 1869-4934 (Internetausgabe) Empirische Sonderpädagogik, 2018, Nr. 2, S. 121-133 ISSN 1869-4845 (Print) · ISSN 1869-4934 (Internet)

# Suspension and Students with High Incidence Disabilities: Implications of Trends Over Time

# Michael Krezmien & Kristine Camacho

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#### Abstract

This paper presents the findings of a study examining trends in disproportionate disciplinary suspensions of students in one state. The study utilized descriptive data analysis and logistic regression analyses to examine trends in disproportionate suspensions by race and disability categories over 12 years. We found that Maryland had substantially reduced the number of students suspended from 2004 to 2012, with reductions in the numbers of students suspended for all but three groups; the African American OHI group, the Hispanic ED group, and the Hispanic OHI group. However, we found increases in the disproportionality of suspensions for each disability category and for each of the three racial groups. Findings are discussed in terms of equitable discipline for historically marginalized learners.

Keywords: School Suspension, School Discipline, Race, Disability, Emotional Disturbance, Learning Disability

# Schulsuspendierung und Schüler mit Behinderungen: Trends über die Zeit hinweg

#### Zusammenfassung

Dieser Artikel präsentiert die Ergebnisse einer Studie, die Trends in disproportionalen disziplinären Suspendierungen von Schüler/innen in einem US-Staat untersucht. Die Studie nutzt deskriptive Datenanalysen und logistische Regressionsanalysen, um Trends in überproportionalen Suspendierungen nach Rasse und Behinderung über 12 Jahre zu untersuchen.

Wir fanden heraus, dass Maryland die Anzahl der von 2004 bis 2012 suspendierten Schüler/innen erheblich reduziert hatte, wobei die Anzahl der Schüler/innen für alle bis auf drei Gruppen zurückging; die African American OHI Gruppe, die Hispanic ED Gruppe und die Hispanic OHI Gruppe. Wir stellten jedoch fest, dass die Unverhältnismäßigkeit der Suspendierungen für jede Behinderungskategorie und für jede der drei ethnischen Gruppen anstieg. Die Ergebnisse werden im Sinn einer gerechten Behandlung für historisch marginalisierte Lernende diskutiert.

Schlüsselwörter: Schulsuspendierung, Schuldisziplinierung, Ethnie, Behinderung, sozial-emotionale Störungen, Lernstörungen

## Introduction

In the decade following the passage of the Gun-Free Schools Act of 1994, school suspensions increased at alarming rates, disproportionately affecting minority students and students with disabilities. The widespread implementation of zero tolerance policies in the nation's public schools did not result in the expected improvements to school safety (Skiba, 2014). Instead, schools adopted the use of disciplinary suspensions for minor offenses, including truancy (Monahan, Van-Derhei, Bechtold, & Cauffman, 2014). Consequently, the movement toward zero tolerance polices resulted in schools that increased the vulnerability of students who have historically been subjected to unfair and unequal treatment in schools (Skiba, 2014). In particular, African American students and students with disabilities continued to be disproportionately suspended. expelled, detained, and incarcerated (Justice Center & Texas A & M University, 2011). Still, limited research exists on the trends in disproportionate school suspensions by race and disability status over time, despite data to suggest both of these subgroups face disproportionate disciplinary practices. The purpose of this study is to examine trends in suspension practices in one state. Examining suspension trends is important to gain a clear understanding of on-going disciplinary practices and can aid policy makers in determining whether students from marginalized groups continue to face unfair disciplinary practices. This is especially important for students with disabilities who are substantially harmed by removal from educational, social, and behavioral evidence-based interventions.

In 2014, the United States Department of Justice (USDOJ) and the United States Department of Education (USDOE) released a joint letter that advised public schools to move away from zero tolerance policies and practices (USDOJ & USDOE, 2014). The federal government framed the issue within the context of racially disproportionate treatment in school discipline. The letter described the types of disciplinary policies and practices that violated Title IV of the Civil Rights Act of 1964 (USDOJ & USDOE, 2014). In the letter, the federal government provided some examples of progressive disciplinary policies that would counter zero tolerance practices and decrease disproportionate representation of minority students in the suspension and expulsion rolls of public schools. This letter represented an important change in federal guidance regarding zero tolerance policies, and provided substantial guidance to states and to schools regarding racial discrimination with respect to school discipline policies and practices. However, the letter did not address the disproportionate impact that zero tolerance has had on students with disabilities, nor did it provide guidance about potential disciplinary discrimination with respect to students with disabilities. Nonetheless, the letter represented a significant shift away from zero tolerance policies by the federal government and demonstrated a need to investigate recent trends in school suspensions by race and by disability category to provide a longitudinal view of practices.

# Current Research on School Suspensions

There is a substantial body of research examining school suspensions. Much of the research in this area has focused on the relation between race and suspension (Davis Ganao, Suero Silvestre, & Glenn, 2013; Hoffman, 2014; Krezmien, Leone, & Achilles, 2006; Pei, Forsyth, Teddlie, Asmus, & Stokes, 2013; Skiba et al., 2014; Sullivan, Klingbeil, & Van Norman, 2013; Sullivan, Van Norman, & Klingbeil, 2014; Wright, Morgan, Coyne, Beaver, & Barnes, 2014). In these eight studies, African American students were significantly more likely to be suspended than White students. Suspension outcomes for Hispanic students were inconsistent across studies. Authors of some studies have found Hispanic students were more likely to be suspended than White students (Afinson et al., 2010, Zhang et al., 2004). Authors of other studies reported that Hispanic students were less likely to be suspended (Sullivan, et al., 2014) or no more likely to be suspended (Krezmien et al., 2006) than White students.

Other studies have investigated the relation between disability and suspension. Students with disabilities were more likely to be suspended than students without disabilities (Achilles McLaughlin, & Croninger, 2007; Anderson, Howard, & Graham, 2007; Bowman-Perrot et al., 2011; Duran, Zhou, Frew, Kwok, & Benz, 2013; Goran & Gage, 2011; Krezmien et al., 2006; Sullivan, 2014; Sullivan et al., 2013; Vincent Sprague, & Tobin, 2012; Wei, Yu, & Shaver, 2014). Students with emotional disturbance (ED) were significantly more likely to be suspended and their odds of suspension were higher than students from any other disability groups (Achilles et al., 2007; Bowman-Perrot et al., 2011; Goran & Gage, 2011; Krezmien et al., 2006; Sullivan, 2014; Xin et al., 2014). Students with ADHD/Other Health Impairments (OHI) were also more likely to be suspended than peers with learning disabilities (Achilles et al., 2007; Bowman-Perrot, et al., 2011; Duran et al., 2011; Krezmien et al., 2006), and were more likely to be suspended than any other disability category except ED (Krezmien et al., 2006). Students with learning disabilities (LD) were also significantly more likely to be suspended than any other group except students with ED or OHI (Krezmien et al., 2006).

Authors of four studies examined the relationship between risk of suspensions by race and disability status (Achilles et al. 2007; Krezmien et al., 2006; Sullivan et al., 2013; Vincent et al., 2012). Authors of each of the studies reported African American students with disabilities were more likely to be suspended than any other racial/disability group. Authors of two studies (Krezmien et al., 2006; Vincent et al., 2012) also found Hispanic students with disabilities were disproportionately suspended. Authors of four of the studies (Achilles et al. 2007; Krezmien et al., 2006; Sullivan et al., 2013; Zhang et al., 2004) reported African American students with ED had the highest risk of being suspended, although Achilles and her colleagues (2007) found the difference in suspensions disappeared when socioeconomic status and family structure were controlled. Krezmien and his colleagues (2006) also found White, African American, and Hispanic students with an ED, OHI, or LD had higher odds of being suspended from school than students without disabilities from their respective racial groups.

# Trends over Time

Authors of four studies (Afinson et al., 2007; Krezmien et al., 2006; Losen & Martinez, 2013; Zhang et al., 2004) reported on suspension rates over time, with three of those studies focused on the relation between race and suspension. Alfinson and colleagues (2007) found that highest rates of suspension over a four-year span were for African American students, followed by high rates for Hispanic students. Losen and Martinez (2013) reported suspension rates for African American and Latino middle and high school students doubled from the 1972-1973 to the 2009-2010 school years, while suspension rates for White students increased by just 1.1% over the same period. Zhang and his colleagues (2004) found suspension rates increased for African American, Hispanic, and White students from the 1999-2000 to the 2001-2002 school years. Krezmien and colleagues (2006) reported the odds of African American students being suspended increased from 1.6 times the rate of White students in 1995 to 2.5 times the rate of White students in 2003 while the odds of being suspended for Hispanic students remained stable and similar to those of White students over time.

Zhang and his colleagues (2004) found suspensions for students with ED and LD varied across the three years examined (19992002). There were no consistent trends in suspension rates for any of the groups. Only Krezmien and colleagues (2006) examined the odds of suspension by race and disability categories over time. They analyzed three years of data and reported no change in the odds of suspension by race and disability status over time.

#### Purpose and Research Questions

Data analyzed in that study are more than 10 years old. Additionally, that study included an analysis of suspensions by race and disability category for just three years, insufficient for determining long-term trends. Therefore, the purpose of the current study is to examine trends in odds of suspensions by race and disability categories in one state over a 12-year period. This study represents a unique contribution to the field that can help researchers, practitioners, and policy makers to understand suspension practices in one state within the context of the USDOI and USDOE (2014) joint letter that recommended changes to disciplinary policies to eliminate disproportionate suspensions. A clear understanding of current school disciplinary practices can lead to advocacy and policy change to address any remaining issues of disproportionality.

This study was guided by three research questions.

- How have numbers and percentages of suspensions of African American, Hispanic, and White students with and without disabilities in Maryland changed from 2004 to 2015?
- Are there differences in the odds of being suspended by race and disability category?
- Do the odds of being suspended by race and disability category change from 2004 to 2015?

#### Method

We employed descriptive data analysis and logistic regression analyses using existing aggregate data from all public-school students in Maryland from 2004 to 2015 to answer our research questions. The years 2004 through 2015 were selected because Krezmien and colleagues (2006) previously examined data from 2000 through 2003. This study analyzed the data from the 12-year time period to gain a better understanding of suspension practices a decade after the Gun Free Schools Act (1994) and following the three years already examined by Krezmien and colleagues (2006).

#### Participants

Participants for the study were all publicschool students in Marvland. The data were drawn from state-reported records of enrollment, suspensions, and special education services from 2004 to 2015. In 2015, the most recent year, there were 874,514 students enrolled in public schools across the state. In 2015, boys accounted for 51.3% and girls 48.7% of the school population. Students in general education represented 88.7% of the school population. High school students represented 29.1%, middle school students represented 21.7%, elementary students represented 38.2%, and preschool students represented 3.5% of the population. Table 1 displays the percentages of the state public school population by race and by the four disability categories (No Disability, ED, OHI, and LD). The category OHI consists of multiple types of health impairments, but is primarily comprised of students with ADHD. The state was racially and ethnically diverse. Nearly one third of the population was African American, and more than ten percent of the population was Hispanic.

	No Disability	ED	OHI	LD
American Indian	0.26%	0.00%	0.01%	0.01%
Asian	5.81%	0.01%	0.03%	0.87%
African American	29.66%	0.42%	0.93%	4.49%
White	35.35%	0.24%	0.78%	2.96%
Hispanic	13.10%	0.04%	0.17%	4.05%

Table 1: Percentages of Students in State Public School Population by Race and Disability Category in 2015

# Data Source

Suspension data were drawn from state reports of suspensions and expulsions from 2004 to 2015. The number of students suspended (unduplicated suspensions) were extracted from the state report entitled Suspensions, Expulsions, and Health Related Exclusions Maryland Public Schools from 2004 through 2015. Data were transferred electronically from this source into an SPSS database developed by the authors for analysis. One author who did not perform the original data transfer checked each data point for accuracy by comparing each cell of the SPSS file to the original number located in the Maryland state reports. Discrepancies were highlighted and addressed by the two authors by reviewing the data together and determining the correct number that should appear in each cell.

The number of students suspended served as the dependent variable. Data were disaggregated by the three largest racial groups (White, African American, Hispanic) and by three high incidence disability categories (ED, OHI, LD). White, African American, and Hispanic students were selected for inclusion for the following reasons:

- (a) African American students have consistently been identified in research as the most likely to face disproportionate suspension practices;
- (b) research on Hispanic students has identified mixed results with some studies indicating disproportionate suspension

with other studies indicating no such finding; and

(c) White students are the majority group and represent the typical reference category in research. Students with ED, OHI, and LD were selected because they are the categories regarded as high incidence disabilities in the U.S. and because they are groups most disproportionately at risk for suspension.

# Data Analysis

We analyzed the data in three ways. First, we calculated the number of students suspended per 100 students enrolled. Second, we used the logistic regression model to examine disproportionate suspension rates for students by race and disability category. Unduplicated suspensions were used for the logistic regression analyses because these numbers were the only numbers disaggregated by race in Maryland. Suspension was the criterion variable (0 = not suspended,1 = suspended). Race by disability was a categorical variable and was entered as a predictor. Each disability type for each racial group had a unique category. For instance, "White students with learning disabilities" was a distinct category (White LD) with a unique code. There were a total of 12 categories representing each disability category for each racial group. The White ND group was the reference group because it represented the largest group in the population. In the model, each category was compared to the White ND category. Finally, to determine if time (Year) significantly predicted suspensions for each category, we conducted a logistic regression model that included the race by disability categories for 2004 and for 2015. Year was entered as a categorical predictor (0 = 2004, 1 = 2015).

#### Results

#### Numbers and Percentages of Suspensions

Figure 1 displays percentages of students suspended by race for the ED, LD, and OHI disability categories. Percentages decreased from 2004 to 2015 for every group. Percentages were lowest for White students with no disabilities (White ND) and Hispanic students with no disabilities (Hispanic ND), with just over 2% of those groups suspended in 2015. The percentages were substantially higher for Hispanic students with disabilities (White D), and African American students with no disabilities (AA ND). Percentages were highest for African American students with disabilities (AA D). Nearly 16% of those students were suspended in 2015, more than twice the percentage for any other group in 2015, and more than any other group for any year.

We used logistic regression analysis to examine whether Year was a significant predictor of suspension in a model including the 12 Race by Disability categories. We included Suspension (0 = No Suspension, 1 = Suspension) as the criterion and Year (0 = 2004, 1 = 2015) and Race by Disability and the interaction of Year and Race by Disability as predictors to understand if the odds ratios (OR) for suspension for each Race by Disability category changed over time. For Race by Disability as a predictor, White ND was the reference category, and for Year as a predictor, 2004 was the reference category. The overall model was significant,  $(\chi 2 =$ 708,347, p = .041). The *B* coefficient was significant (p < .001) for Year. Table 2 displays the ORs and the lower and upper 95% confidence intervals (CIs) for each Race by Disability category by Year. The OR for the White ED group, White OHI group, Hispanic ED group, and the African American ED, OHI, LD, and ND groups were significant, indicating that the OR increased for



Figure 1. Percentages of students suspended by race and disability.

		OR	Lower Cl	Upper Cl
White	ED	2.04***	1.801	2.3
	OHI	1.51***	1.353	1.686
	LD	1.05	0.954	1.164
African American	ED	1.95***	1.772	2.136
	OHI	1.67***	1.529	1.831
	LD	1.28***	1.195	1.365
	ND	1.31***	1.118	1.538
Hispanic	ED	2.33***	1.634	3.33
	OHI	1.425	0.99	2.052
	LD	0.955	0.81	1.127
	ND	1.08*	1.011	1.149

Table 2: Odds Ratios and Confidence Intervals for Logistic Regression Analysis of Suspension with Race by Disability and Year as Predictors

those groups from 2004 to 2015. The OR for the ED group were about two times higher in 2015 than in 2004 for each racial group in the model that included Race by Disability, Year, and the interaction of the two predictors.

We used logistic regression analysis to examine differences in odds of being suspended for each disability category for each racial group for each year. In each figure, the White ND group is the reference group and does not appear on the graphs. Figure 2 displays the OR of the disability categories for the White group. The ORs were significant (p < .001) for each disability category for each year. The ORs were lowest for the LD group for each of the 12 years. The OR for the LD group was 2.9 in 2004 and 3.0 in 2015. The OR for the OHI group was 3.6 in 2004 and 5.4 in 2015. The ORs were highest for the ED group for each of the 12 years. The OR for the ED group was 8.4 in 2004 and 17.1 in 2015.



Figure 2. Odds ratios of White student suspensions by disability category.

Figure 3 displays the ORs for the disability categories for the African American group. The ORs were significant (p < .001) for each disability category for each year. The ORs were lowest for the AA ND group for each of the 12 years. The OR for the AA ND group was 2.7 in 2004 and 3.6 in 2015. The ORs for the AA LD group were lowest among the three AA disability categories for each of the 12 years. The OR for African Americans with LD was 6.8 in 2004 and 8.7 in 2015. The ORs for the AA LD group were higher than the OR for the White LD group and the White OHI group for each of the 12 years. The ORs for the AA LD group were higher than the OR for the Hispanic ND group, the Hispanic LD group, and the Hispanic OHI group for each of the 12 years. The OR for the AA OHI group was 8.5 in 2004 and 14.2 in 2015. The ORs were highest for the AA ED group for each of the 12 years. The OR for the AA ED group was 13.6 in 2004 and 26.5 in 2015. The ORs for the ED group were higher than the ORs for any disability category in the White group or the Hispanic group for each of the 12 years.

Figure 4 displays the ORs by disability category for the Hispanic group. The ORs were significant (p < .001) for the ED, OHI, and LD categories for each year. The OR for the H ND group were not meaningfully different from the White ND group for any of the 12 years. The trends for the Hispanic groups varied substantially for some years. This group was the smallest group, and therefore small changes in the numbers of suspensions for the Hispanic groups had a larger proportional impact on the OR than similar changes for the White or African American groups. The ORs were lowest for the Hispanic ND group for each of the 12 years. The OR for the Hispanic ND group was 1.05 in 2004 and 1.1 in 2015. The ORs for the Hispanic LD group were lowest among the disability categories for 11 of the 12 years. The ORs for the Hispanic LD group were lower in 2004. The OR was 3.2 in 2004 and 3.0 in 2015. The OR for the Hispanic OHI group was 3.1 in 2004 and 4.5 in 2015. The ORs were highest for the Hispanic ED group for each of the 12 years. The OR for the ED group was 7.0 in 2004 and 23.6 in 2015.



Figure 3. Odds ratios of African American student suspensions by disability category.



Figure 4. Odds ratios of Hispanic student suspensions by disability category.

## Discussion

This study is the first to examine trends in disproportionate suspensions by race and disability categories for an extended period of time (i.e., 12 years). Despite a substantial body of research examining disproportionate suspensions by race and by disability status, only one prior study investigated trends in suspensions by race and by disability category (Krezmien, et al., 2006). However, that study lacked sufficient data to analyze changes in disproportionate suspensions over time. The current study is also unique because we found that historically marginalized students were increasingly disproportionately suspended as overall suspension rates in the state decreased. Particularly troubling were the disproportionate odds of students with LD, ADHD, and ED. The disproportionate removal from school of these groups substantially inhibits their access to evidence based interventions critical for their academic, social and behavioral success. If schools are to respond effectively to the needs of students with disabilities, they must limit or eliminate the use of disciplinary removal from school and implement interventions designed to promote skill development. The increased disproportionate suspensions for these historically marginalized groups were inconsistent with the recommendations from the USDOJ and the USDOE (2014). Our examination of data from 2004 through 2015 must assume that the state has not had adequate time to respond to the recommendations by the USDOJ and USDOE (2014), but our findings suggest disciplinary practices in this state must change in order to align with the federal recommendations.

We found that Maryland had substantially reduced the number of students suspended from 2004 to 2012, with reductions in the numbers of students suspended for all but three groups; the African American OHI group, the Hispanic ED group, and the Hispanic OHI group. We also found that the percentage of students suspended from each group decreased from 2004 to 2015. These decreases were laudable, and demonstrated a substantial improvement in the total numbers of disciplinary suspensions across the state. However, these reductions did not result in decreases in the disproportionality of suspensions of minority students or students with LD, ED, or OHI. In fact, we found increases in disproportionate suspensions for each disability category for each of the three racial groups. The increases in the ORs for students with disabilities, especially for African American student with disabilities, were troubling.

We found that students with disabilities had increased risks of being suspended over time. As overall suspension rates decreased, the ORs for students with ED, OHI, and LD increased. The ORs were highest for students with emotional disturbance across all three racial groups, with students with ED being 17 to 26 times more likely to be suspended than White students with no disabilities. This finding of disproportionate suspension practices of students with ED is consistent with previous findings (Krezmien et al., 2006). Among students with disabilities, the ORs were lowest for students with learning disabilities, although students with learning disabilities in each racial group were more than 3.8 times likely to be suspended than White students without disabilities in 2015. While one might expect that students with ED and OHI had higher risks of being suspended than students without disabilities, the magnitude of the ORs suggested a failure on the part of schools to adequately support students with known behavioral needs. Only 1.7% of White students with no disabilities were suspended in 2015, but more than 27.3% of any student with ED were suspended in 2015. These numbers should be cause for alarm among school and state leaders.

We found that African American students were disproportionately suspended regardless of disability status. This finding is consistent with previous research findings (Krezmien et al., 2006; Skiba et al., 2014; Sullivan, Klingbeil, & Van Norman, 2013; Sullivan, Van Norman, & Klingbeil, 2014). Although the numbers and percentages of African American students with no disabilities decreased from 2004 to 2015, in 2015 those students were 1.2 times more likely to be suspended than their White peers without disabilities than in 2004. In 2015, African American students without disabilities were 3.8 times more likely to be suspended than their white peers without disabilities. In 2015, African American students with LD were 10.8 times more likely to be suspended than their White peers without disabilities, while African American students with OHI and ED were 14 and 26 times more likely, respectively, to be suspended. There is no legitimate rationale for African American students to be disproportionately suspended. There is also no rational explanation for the much higher ORs for African American students with disabilities compared to the ORs for any other group, including African American students without disabilities.

These data did not allow us to determine discriminatory treatment of African American or other traditionally marginalized students. Determining intentional discriminatory treatment requires that a school administer disciplinary policies in a discriminatory manner when the school limits or denies educational services or benefits or opportunities to a student or group of students from a particular race (USDOJ, & USDOE, 2014). However, schools can violate federal law when there is no intent to discriminate, but when implementation of disciplinary policies has an unjustified effect on students of a particular race. This adverse impact may include, but is not limited to:

"instances where students of a particular race, as compared to students of other races, are disproportionately: sanctioned at higher rates; disciplined for specific offenses; subjected to longer sanctions or more severe penalties" (USDOJ & USDOE, 2014).

Our findings may reflect a possible adverse impact on African American students who were significantly more likely to be suspended than White peers regardless of disability category, and may constitute a violation of Title IV of the Civil Rights Act of 1964 (U.S. Department of Justice & USDOE, 2014).

Our findings have important implications for special education researchers and practitioners who must (1) advocate for equity with respect to disciplinary treatment and (2) design alternatives to suspension interventions specifically tailored to the unique needs of students with LD, ADHD, and ED. Some potentially viable approaches include restorative practices, positive behavior interventions and support, and progressive disciplinary policies. However, the field should also develop and implement functionallybased behavior specific interventions that target the types of infractions that typically result in suspensions for students with LD, ADHD, and ED. Considering the guidance form the U.S. federal government, such interventions are critical to prevent disproportionate suspensions which may be regarded as violations of civil rights.

The study has a number of limitations. First, although we were able to analyze trends in suspensions by race and disability categories, we were not able to analyze the types of infractions resulting in the suspensions for those races and disability categories. Consequently, we were unable to understand the nature of the underlying behaviors resulting in suspensions. Second, the data are correlational, and we cannot make any causal inferences about the actions of students, school personnel, administrators, or state leaders with respect to the disciplinary outcomes. Third, the data analyzed in this study represent the final outcome associated with most school misbehavior. We did not have any information about the incident, the location of the incident, or any information about any other school misbehaviors that occurred that did not result in suspensions. As a result, we cannot consider these data to be representative of school climate or school disciplinary practices broadly. Instead, we can only consider the findings within the relatively narrow scope of school disciplinary outcomes resulting in removal from school. Finally, the state level data could not be analyzed by school level. Because suspensions at the primary levels represent a small fraction of the total numbers of suspensions, the current analysis likely underrepresents the trends and disproportionality rates at the middle and high school levels.

# Conclusion

While decreases in the numbers and percentages of students suspended in Maryland are laudable, the corresponding increases in the risks of being suspended for historically marginalized groups is troubling. The increases suggest that school administrators and state department of education officials may not adequately track or analyze trends in suspensions with respect to racial and disability subgroups or that they do not find the disproportionate impact to be a concern. The failures to monitor and/or control the disproportionate impact of suspension practices have resulted in groups of students who may be adversely affected by disciplinary practices in ways that violate federal law. To ensure all students equitably benefit from the decreases in suspensions in Maryland, state leaders and policy makers need to examine and change disciplinary policies and practices that disproportionately affect African American students and students with ED. LD, and OHI. The steps Maryland has taken so far to reduce suspensions have clearly not been sufficient for protecting these historically marginalized groups of students.

#### References

Achilles, G. M., McLaughlin, M. J., & Croninger, R. G. (2007). Sociocultural correlates of disciplinary exclusion among students with emotional, behavioral, and learning disabilities in the SEELS national dataset. *Journal of Emotional and Behavioral Disorders*, 15, 33-45.

- Anderson, K. A., Howard, K. E., & Graham, A. (2007). Reading achievement, suspensions, and African American males in middle school. *Middle Grades Research Journal*, 2, 43-63.
- Anfinson, A., Autumn, S., Lehr, C., Riestenberg, N., & Scullin, S. (2010). Disproportionate minority representation in suspension and expulsion in Minnesota public schools: A report from the Minnesota department of education. International Journal on School Disaffection, 7, 5-20.
- Bowman-Perrott, L., Benz, M. R., Hsu, H., Kwok, O., Eisterhold, L. A., & Zhang, D. (2013). Patterns and predictors of disciplinary exclusion over time: An analysis of the SEELS national data set. *Journal of Emotional and Behavioral Disorders, 21*, 83-96. doi: 10.1177/1063426611407501
- Davis Ganao, J. S., Suero Silvestre, F., & Glenn, J. W. (2013). Assessing the differential impact of contextual factors on school suspension for black and white students. *Journal of Negro Education*, 82, 393-407.
- Duran, J. B., Zhou, Q., Frew, L. A., Kwok, O., & Benz, M. R. (2013). Disciplinary exclusion and students with disabilities: The mediating role of social skills. *Journal of Disability Policy Studies*, 24, 15-26. doi:10. 1177/1044207311422908
- Goran, L. G., & Gage, N. A. (2011). A comparative analysis of language, suspension, and academic performance of students with emotional disturbance and students with learning disabilities. *Education & Treatment* of *Children*, 34, 469-488.
- Hoffman, S. (2014). Zero benefit: Estimating the effect of zero tolerance discipline polices on racial disparities in school discipline. *Educational Policy*, 28, 69-95. doi:10.1177/ 0895904812453999
- Justice Center (Council of State Governments), & Texas A & M University. (2011). Breaking schools' rules: A statewide study of how school discipline relates to students' success and juvenile justice involvement. New York, NY: Justice Center, Council of State Governments.

- Krezmien, M. P., Leone, P. E., & Achilles, G. M. (2006). Suspension, race, and disability: Analysis of statewide practices and reporting. *Journal of Emotional & Behavioral Dis*orders, 14, 217-226.
- Losen, D. J., & Martinez, T. E. (2013). Out of school and off track: The overuse of suspensions in American middle and high schools. Retrieved from: http://civilrightsproject.ucla.edu/resources/projects/centerfor-civil-rights-remedies/school-to-prison-fol der/federal-reports/out-of-school-and-offtrack-the-overuse-of-suspensions-inamerican-middle-and-high-schools.
- Monahan, K. C., VanDerhei, S., Bechtold, J., & Cauffman, E. (2014). From the school yard to the squad car: School discipline, truancy, and arrest. *Journal of Youth and Adolescence, 43,* 1110-1122. doi: 10.1007/s109 64-014-0103-1.
- Pei, L. K., Forsyth, C. J., Teddlie, S. K., Asmus, G., & Stokes, B. R. (2013). Bad behavior, ethnicity, and level of school diversity. *Deviant Behavior*, *34*, 1-10. doi:10.1080/0163 9625.2012.679891
- Skiba, R. J. (2014). The failure of zero tolerance. Reclaiming Children & Youth, 22, 27-33.
- Skiba, R. J., Chung, C. G., Thachok, M., Baker, T. L., Sheya, A. & Hughes, R. L. (2014). Parsing disciplinary disproportionality: Contributions of infraction, student, and school characteristics to out-of-school suspension and expulsion. American Educational Research Journal, 51, 640-670. doi: 10.3102/0002831214541670
- Sullivan, A. L., Van Norman, E. R., & Klingbeil, D. A. (2014). Exclusionary discipline of students with disabilities: Student and school characteristics predicting suspension. *Remedial & Special Education*, 35, 199-210. doi:10.1177/0741932513519825
- Sullivan, A. L., Klingbeil, D. A., & Van Norman, E. R. (2013). Beyond behavior: Multilevel analysis of the influence of sociodemographics and school characteristics on students' risk of suspension. School Psychology Review, 42, 99-114.

- U.S. Department of Justice & U.S. Department of Education (2014). Dear Colleague Letter on the Nondiscriminatory Administration of School Discipline. Retrieved from http:// www2.ed.gov/about/offices/list/ocr/letters/ colleague-201401-title-vi.pdf
- Vincent, C. G., Sprague, J. R., & Tobin, T. J. (2012). Exclusionary discipline practices across students' Racial/Ethnic backgrounds and disability status: Findings from the Pacific Northwest. Education and Treatment of Children, 35, 585-601.
- Wright, J. P., Morgan, M. A., Coyne, M. A., Beaver, K. M., & Barnes, J. C. (2014). Prior problem behavior accounts for the racial gap in school suspensions. *Journal of Criminal Justice*, 42, 257-266. doi:10.1016/j. jcrimjus.2014.01.001
- Wei, X., Yu, J. W., & Shaver, D. (2014). Longitudinal effects of ADHD in children with learning disabilities or emotional disturbances. Exceptional Children, 80, 205-219.
- Zhang, D., Katsiyannis, A., & Herbst, M. (2004). Disciplinary exclusions in special education: A 4-year analysis. *Behavioral Disorders*, 29, 337-347.

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Erstmalig eingereicht: 23.11.2017 Überarbeitung eingereicht: 28.11.2017 Angenommen: 17.12.2017