Research suggests that suspension is not an effective deterrent and that more should be done to meet the needs of those who are continually suspended.

2

Predictors of suspension and negative school outcomes: A longitudinal investigation

Linda M. Raffaele Mendez

Out-of-school suspension—defined as disciplining students by removing them from school buildings and grounds for a period not to exceed ten school days—is commonly used in schools across the United States. Many students are suspended for minor first offenses rather than for serious infractions according to their school’s interpretation of zero-tolerance policies.

School officials, teachers, and community members generally view a zero-tolerance approach to student discipline, including suspensions, as a positive measure to keep schools safe and secure. Typically missing from the discourse on suspension are the following outcomes, identified as early as 1975 by the Children’s Defense Fund: missed instruction, labeling of suspended students as troublemakers, failure to treat students’ misbehavior as symptoms of other problems, and overrepresentation of minority students among those suspended.1 Studies that examine the impact of out-of-school suspensions on individual students show that this type of discipline seldom deters inappropriate behavior and does not increase school safety.2
Most research pertaining to out-of-school suspensions studies whole school districts and provides portraits, usually by percentages, of students who have been suspended. Few research studies focus on the experiences of individual students who were suspended. In fact, very few research studies investigate how suspended students differ from their nonsuspended peers or how students who are frequently suspended differ from students with fewer suspensions. Few, if any, studies have been conducted that look at relationships. This chapter seeks to fill pieces of this void.

Existing research has shown that out-of-school suspensions often rise dramatically in middle school, starting with sixth grade. Therefore, it is important to focus on predictors of suspensions for sixth grade, typically the first year of middle school.

This longitudinal investigation examines several variables, including student demographics, academics, behavior, self-perceptions, and perceptions of school, that could predict the number of suspensions that students are likely to receive in sixth grade. It also examines the relationship between individual sixth graders’ frequency of suspensions and later outcomes, including high school suspensions and on-time high school graduation. The theory is that in districts that are increasing their use of suspension and expulsion, if there was a high correlation between the frequency of suspensions in sixth grade and school failure later, that strong relationship would lend support to the argument that high use of discipline may be ineffective or counterproductive.

This longitudinal study, based on data from a cohort of students who entered kindergarten in Pinellas County, Florida, in 1989 and whose on-time graduation date was projected to be 2002, was used to investigate these issues. Specifically, this study examines students’ demographic characteristics—race, gender, socioeconomic status, special education classification—and seeks to discover predictors of student suspension rates, as well as the effect of suspension on students’ educational achievement and graduation.

The data set for this study includes student surveys, teacher surveys, demographic information, students’ standardized test scores, and suspension records that span an eleven-year period from grade
2 to grade 12. The findings are consistent with research on over-representation of students of color among those suspended. Here, more than two-thirds of poor black males receiving special education were suspended in sixth grade. The majority of students in this category were suspended two or more times during their sixth-grade year.

The findings demonstrate that certain variables, easily measured in elementary school, are moderate to strong predictors of individual students’ out-of-school suspensions in sixth grade. The findings also predict that students who are suspended frequently in sixth grade are less likely than other students to experience success in high school.

**Research questions**

This study examined three questions:

1. Did different groups of students experience higher suspension rates? Suspension rates were calculated by taking the number of children in each group who experienced one or more suspensions and dividing it by the total number of children in that group. The numbers of students suspended in grades 4 through 12 were also tabulated to put the results of the sixth-grade suspensions in a broader perspective.

2. Which variables best predict the number of sixth-grade suspensions for white students and black students examined separately by racial/ethnic group? The study examined several variables, including self-reported survey responses on self-esteem and delinquent behaviors in grade 2; mean standardized test scores in reading and math in grades 3 through 5; mean teacher ratings of students’ attention, behavior, attitude toward school, and likelihood of school success in grades 3 through 5; mean number of out-of-school suspensions per year in grades 4 and 5; SES (measured by free or reduced-price lunch) in grade 6; and special education classification in grade 6.

A correlational comparison and a multiple regression analysis were conducted. The correlational analysis examined teacher ratings of
behavior for students in grades 3 through 5, out-of-school suspensions administered to students in grades 4 and 5, SES for grade 6, and special education status for students in grade 6. The multiple regression analysis used demographic and school variables as the predictor variables and out-of-school suspensions for students in grade 6 as the criterion variable. Two multiple regression analyses were completed, one for white students and one for black students.

3. To what degree does the number of suspensions experienced by an individual sixth grader relate to each school achievement variable, and do these relationships vary according to students’ race or ethnicity? The variables included mean standardized test scores in reading and math in grades 7 and 8, mean number of suspensions per year in grades 7 and 8 and 9 through 12, and on-time graduation. To answer this question, correlations were computed between out-of-school suspensions in grade 6 and the following variables: academic achievement, out-of-school suspensions in grades 7 and 8, out-of-school suspensions in grades 9 through 12, and on-time graduation. Correlations were completed separately for white students and black students.

Data source

In the fall of 1989, the School District of Pinellas County began the Omnibus Project. All 8,268 students entering kindergarten in 1989 were designated as Omnibus students and followed from kindergarten through grade 12, ending in May 2002. Omnibus students were classified by race as follows: 79 percent white, 19 percent black, and 1.5 percent Hispanic.

Frequency of suspensions and demographics of suspended students

The disaggregated data showed that in the 1995–96 school year, 7,312 (89.45 percent) of the 8,174 students received no out-of-school suspensions. Of students who received suspension, 411 (5.03 percent) were suspended once; 157 (1.92 percent) were suspended twice; 78 (0.95 percent) were suspended three times; 36 (0.44 percent) were suspended four times; 44 (0.54 percent) were suspended five times; 34 (0.42 percent) were suspended six times; and 52 (0.64 percent) were suspended seven or more times. Of the 4 students
who were suspended fourteen times each during the 1995–96 school year, all 4 were black and enrolled in special education classes, 3 were male, and 3 received free or reduced-price lunch. Although this finding is alarming, it may not be a large enough number to draw inferences from, except that it is consistent with the trends in the data for black male special education students.

The analysis further examined students according to gender, race/ethnicity, SES, and enrollment in special education. These factors were correlated with the numbers of students assigned zero, one to two, three to five, six to eight, nine to eleven, and twelve to fourteen suspensions during the 1995–96 school year. The analysis also included an examination of each demographic group in relation to the group’s proportional representation in the total student population. Analysis indicates an overrepresentation of black males who were enrolled in special education and receiving free or reduced-price lunch. Although this group represented less than 5 percent of the total student population, they were 24 percent of all students suspended three to five times, 34 percent of all students suspended six to eight times, 48 percent of all students suspended nine to eleven times, and 56 percent of all students suspended twelve to fourteen times during the 1995–96 school year.

The percentages of students from each demographic group who were assigned one or more suspensions were calculated so that the risk of suspension for each group could be compared (see Table 2.1). The table shows that 66.27 percent of all black males receiving free or reduced-price lunch and special education services were suspended at least once in sixth grade. In comparison, 44.12 percent of all white males receiving free or reduced-price lunch and special education services received at least one suspension. When the reduced-lunch variable was removed, the numbers changed considerably: 13.60 percent of black males who paid for their lunch and were in special education were suspended; 54.29 percent of white males who paid for their lunch and were in special education were suspended. The table also shows that black girls receiving free or reduced lunch (whether they were in special education or general education) were much more likely
### Table 2.1. Percentages of students assigned one or more suspensions, by demographic group

<table>
<thead>
<tr>
<th></th>
<th>Black Students</th>
<th></th>
<th></th>
<th>White Students</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>FL, SP</td>
<td>FL, GE</td>
<td>PL, SP</td>
<td>PL, GE</td>
<td>FL, SP</td>
<td>FL, GE</td>
<td>PL, SP</td>
<td>PL, GE</td>
</tr>
<tr>
<td>Males</td>
<td>66.27%</td>
<td>31.67%</td>
<td>13.60%</td>
<td>22.39%</td>
<td>44.12%</td>
<td>19.14%</td>
<td>54.29%</td>
<td>50.67%</td>
</tr>
<tr>
<td>Females</td>
<td>23.63%</td>
<td>18.91%</td>
<td>.90</td>
<td>.93</td>
<td>12.27%</td>
<td>5.04%</td>
<td>1.85%</td>
<td>1.90%</td>
</tr>
</tbody>
</table>

*Note:* FL = free or reduced-price lunch. PL = paid lunch. SP = special education. GE = general education.

### Figure 2.1. Percentages of students assigned one or more suspensions in each school year

<table>
<thead>
<tr>
<th>Enrollment</th>
<th>Grade 4</th>
<th>Grade 5</th>
<th>Grade 6</th>
<th>Grade 7</th>
<th>Grade 8</th>
<th>Grade 9</th>
<th>Grade 10</th>
<th>Grade 11</th>
<th>Grade 12</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>7,907</td>
<td>8,050</td>
<td>8,174</td>
<td>8,324</td>
<td>8,414</td>
<td>8,673</td>
<td>7,556</td>
<td>6,663</td>
<td>5,830</td>
</tr>
</tbody>
</table>

Grade and Enrollment
than girls in any other demographic group to be suspended at least once.

Figure 2.1 shows the percentages of students in this cohort who have been assigned one or more suspensions in each school year. In this cohort, the percentage of students assigned a suspension peaked in tenth grade, with 20.24 percent of students experiencing at least one suspension that year. The figure also shows that the total student enrollment and the percentages of students assigned suspensions decreased in the last two years of high school.

The downward slope suggests that out-of-school suspension does not work as a deterrent of misbehavior for suspended students or their peers. A logical assumption is that the rapidly declining enrollment after ninth grade should have a concomitant rapid decline in suspensions. Instead, suspension rates of 18 to 20 percent persist after the enrollment decline.

In the late 1990s, many Florida school districts adopted zero-tolerance policies. We can speculate that these policies may explain why the numbers of students in this cohort who were suspended increased 3.7 percent from grade 8 to grade 9 and remained high throughout their high school years.

**Best predictors of the number of sixth-grade suspensions**

Only some of the variables that predict sixth-grade suspensions are shown in Table 2.2. The number of students included in each correlation ranged from a low of 4,058 to a high of 8,082 based on demographic and other information available for individual students. Some student files did not include student surveys and pertinent demographic information; other files contained incomplete information.

The data indicate two variables where the correlation between a predictor variable and the number of out-of-school suspension in sixth grade is in the moderate range and shows a degree of significance: out-of-school suspensions for grades 4 and 5 \((r = .39)\) and teacher ratings of behavior for grades 3 through 5 \((r = -.29)\). These correlations indicate that children with fewer suspensions in grades 4 and 5 and whose teachers in grades 3 through 5 rated
their behavior as “more positive” were assigned fewer suspensions in sixth grade. Teachers in grades 3 through 5 rated students according to the following items: difficulty paying attention in class, student’s attitude toward school, student’s behavior in class, and prediction for student’s future success in school.

The data show two identical predictor variables for white and black students: out-of-school suspensions in grades 4 and 5 and teacher ratings of behavior in grades 3 through 5. These two variables accounted for the greatest proportion (27 percent) of variance for both racial groups. Therefore, adding the other variables did little to improve the predictive value of the model for white or black students.

**Correlations between sixth-grade suspensions and later outcomes**

Correlations between out-of-school suspensions in grade 6 and all outcome variables are shown in Table 2.3, with separate entries for white students and for black students. The table indicates a rela-

**Table 2.2. Correlations among variables that result in best predictors for sixth-grade suspensions**

<table>
<thead>
<tr>
<th></th>
<th>SES</th>
<th>SPEC</th>
<th>READ</th>
<th>MATH</th>
<th>TEACH</th>
<th>OSS</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSS 6</td>
<td>0.19</td>
<td>0.16</td>
<td>-0.22</td>
<td>-0.21</td>
<td>-0.29</td>
<td>0.39</td>
</tr>
</tbody>
</table>


**Table 2.3. Correlations between out-of-school suspensions in grade 6 and all outcome variables**

<table>
<thead>
<tr>
<th></th>
<th>READ 7–8</th>
<th>MATH 7–8</th>
<th>OSS 7–8</th>
<th>OSS 9–12</th>
<th>GRAD</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSS 6</td>
<td>White students</td>
<td>-0.20</td>
<td>-0.24</td>
<td>0.49</td>
<td>0.16</td>
</tr>
<tr>
<td></td>
<td>Black students</td>
<td>-0.22</td>
<td>-0.24</td>
<td>0.59</td>
<td>0.19</td>
</tr>
</tbody>
</table>

tively strong relationship between the number of sixth-grade suspensions and the number of seventh- and eighth-grade suspensions.

Discussion

This study provides important information and data about the misuse and use of out-of-school suspension for commonplace misbehavior by school-age children and adolescents. Proponents of out-of-school suspension frequently argue that so-called get-tough policies, including zero-tolerance policies, make schools safer and create a better learning climate. Sound research does not support this broad claim. The results of this longitudinal study suggest that frequent use of suspension has no measurable positive deterrent or academic benefit to either the students who are suspended or to nonsuspended students. As this research shows, disciplining elementary and middle school students with out-of-school suspension predicts future suspensions and contributes to students’ poor academic performance and failing to graduate on time.

Out-of-school suspension is ineffective because it fails to address issues that cause students to misbehave. This study, which included nearly 150 schools, shows that the majority of the schools do not have problem-solving procedures in place relative to student suspensions. For example, most schools do not have discipline protocols or intervention designs that allow school officials to discern the incipient causes of suspended students’ misbehavior. The schools also lack a discipline process that prevents suspended students from engaging in further discipline infractions once they have returned to school.¹

Such failings in schools’ disciplinary plans are common across the country. Research indicates that more often than not, students who are suspended from school (including those who are suspended repeatedly) do not receive assistance with academic, social, or emotional issues that contributed to the incident for which the student was suspended. Students whose problems are dealt with by punishment alone are unlikely to succeed in school.
School suspension correlates significantly with a host of negative outcomes, including students’ poor academic achievement, grade retention, delinquency, dropping out, disaffection and alienation, and drug use. A study that examined the life histories of twenty-five students with multiple suspensions in one year (two or more for elementary students, three or more for secondary students) showed that 48 percent of the sample had been evaluated for special education services at some point during their schooling, 40 percent had been retained in grade at least once, and 52 percent had been in police custody. Of the twenty-five parents of these students who were interviewed, 72 percent worried that their child would not be successful in life because of educational failure.

Out-of-school suspension is particularly troubling because black students, especially males, are assigned suspensions far more frequently than would be expected according to their proportion of the total student population. A recent study showed that among all suspended students, black students were overrepresented in elementary school and included to an even higher degree in middle school. Research quells the assumption that disciplinary racial overrepresentation represents more frequent misbehavior on the part of black students. Instead, the available evidence indicates that referral bias on the part of school officials and teachers is a more likely explanation.

Demographic characteristics of students with multiple sixth-grade suspensions

For the past thirty years, studies have documented that black males are assigned suspensions more often than their enrollment numbers in the total student population would suggest. Studies also show that students from low-SES homes and those who are in special education are overrepresented in school suspension rates. The study reported in this chapter contributes to an understanding and explanation of these racial overrepresentations by examining sixth-grade students who have been suspended more than once.

The analysis of information and data collected for this study indicates a definite trend for poor black males who are in special
education to be suspended much more often than would be expected given their representation in the overall student population. For example, among students who were suspended three to five times, poor black males in special education accounted for 24 percent of the group but only 4.62 percent of the total student population. For students who were suspended twelve to fourteen times, the suspension rate for poor black males in special education increased to 56 percent. Further investigation is needed to determine the precise special education classifications attributed to black students who have been suspended and to assess the problems and issues these students confront that result in severe discipline, including out-of-school suspension.

The findings from this longitudinal investigation are consistent with other research that has determined that frequent use of suspension is ineffective for improving student behavior. If suspensions were effective, individual students’ repeat suspensions would occur far less often. A troubling question is the reason that many poor black males are classified for special education. Findings from this study indicate that despite having individual education plans that address academic, behavioral, social, and emotional needs, these students frequently are disciplined with out-of-school suspensions for problem behaviors.

This study did not determine the extent to which school officials and staff used interventions prior to administering suspensions with poor black students. The study does indicate that suspensions were not successful in changing these boys’ behaviors. A valid conclusion is that suspension should follow a series of interventions that attempt to remedy the precipitating causes of a student’s misbehavior.

**Predictors of the number of sixth-grade suspensions**

Two variables in this study—number of out-of-school suspensions in fourth and fifth grades combined and teacher ratings of behavior in third through fifth grades—showed a moderate relationship to the number of sixth-grade suspensions assigned to an individual student. This finding has several implications for both policy and practice.
First, the relationship between variables suggests that suspension does not effectively teach most suspended students appropriate behavior. There is an apparent need for better approaches to school discipline, with particular attention given to students suspended in the elementary grades. Based on prior research, Osher, Sandler, and Nelson outlined a three-stage model for preventing violence in schools:

1. Build a schoolwide foundation that includes supporting students’ needs through a positive school climate and support services for students and their families.
2. Intervene early by creating support and services for students at risk for serious academic or behavioral problems.
3. Provide intensive interventions that are coordinated, sustained, and culturally appropriate for students with demonstrated needs.¹³

My previous research indicates that students with chronic behavior problems require intensive interventions that are individually designed according to a functional analysis of their behavior.¹⁴ The analysis should seek to answer questions such as: What is the function or purpose of the acting-out behavior? Is the behavior linked to the student’s academic or social problems? Is the teacher receiving adequate support to manage the student’s behavior?

For students with chronic behavior problems in particular, schools should work with families and community agencies to develop strategies for school-linked and wraparound services and problem-solving interventions. This system might include different school-based intervention strategies to be implemented following a first, second, or third suspension, respectively; specific guidelines to be followed by school personnel when meeting with parents and students following a suspension; and a referral network to connect parents of students with multiple suspensions to support services in the community.

Under the Individuals with Disabilities Act, schools are required to conduct a “functional behavioral assessment” whenever a stu-
dent who is receiving special education services is suspended for ten days or more, or cumulatively in one school year, for similar types of infractions. In many instances, this legal requirement is given short shrift by school officials. In this study, the number of students with functional behavioral assessments who had more than one suspension is unknown.

A second implication of the findings is that teacher ratings of behavior in late elementary school are quite predictive of school outcomes in later years. There are several reasons that this finding may have emerged. First, it could be that teachers in this study accurately and without bias identified students who showed challenging behavior problems in elementary school that continued into middle school. An alternative explanation could be that the teacher ratings reflected some level of bias and resulted in early labeling of certain students as troublemakers. For example, if a student’s third-grade teacher did not have the skills to work with him effectively in the classroom, he may have developed a reputation as having a behavior problem. This could have been communicated to other teachers at the school, as well as to administrators, resulting in early profiling and subsequent disciplinary action for behaviors that in another student might be dismissed. The point here is that because student ratings are based on perceptions, they reflect both the teacher and the student.

When using information from teacher reports, we must consider teacher skills and other factors within the classroom rather than assuming that these ratings reflect unchangeable traits that are internal to the child and would be the same no matter what the ecological context. It certainly seems logical given these findings that teacher ratings of behavior could be used as one early screening tool to determine which students are in need of intensive interventions in late elementary school and in the transition to middle school. Such efforts would logically involve collaboration between school personnel (such as teachers, administrators, school psychologists, guidance counselors, and social workers), community partners (such as social service agencies and physicians), and parents and other caregivers to systematically address the functional
reasons underlying a student’s behavior, taking into careful consideration the ecological context of the behavior as well.

**Later school outcomes related to the number of sixth-grade suspensions**

Findings from this study show the number of suspensions that a sixth-grade student receives has a moderate to strong positive correlation with the number of suspensions experienced in seventh and eighth grades and a moderate negative correlation with on-time graduation. The number of suspensions assigned in grade 6 shows a higher correlation with suspensions in grades 7 and 8 than with suspensions in grades 9 through 12.

A likely explanation for the decrease in correlation with suspensions in grades 9 through 12 is the number of students with multiple suspensions who drop out of high school. Two findings support this explanation. First, the data show that students with more than one sixth-grade suspension are less likely to graduate with their same-age peers. Second, the size of the overall cohort decreased each year after ninth grade. The total number of students suspended decreased as the cohort dwindled from 8,673 students in ninth grade to 5,830 students in twelfth grade. In large part, the declining rate of suspensions in the highest grades is likely to correspond to significant numbers of dropouts.

The primary policy and advocacy recommendation derived from this study’s findings is that early intervention should be tried to prevent suspensions in elementary and middle school. As this study shows, suspension does not deter most students from further misbehavior. Intensive interventions, available early and throughout the grades, are one viable way to change individual students’ troubled trajectories and help them succeed, behaviorally and academically, in school.

**Limitations of the research and future directions**

One limitation of this research is that the relationships between certain variables, like reading and math achievement and the number of out-of-school suspensions experienced in sixth grade, may not have been as easily detected using a correlation or regression analysis. Different research designs could help to shed more
light on specific risk factors for suspension by overcoming some of the limitations of correlation and regression in detecting these relationships.

This study was also limited by the variables in the database. There are other variables, including parent involvement in education, school climate, the quality of student-teacher relationships, and teacher qualifications, that should be explored in relation to the number of out-of-school suspensions that a student experiences. In addition, it would be helpful to know exactly what happens to students with multiple suspensions with regard to eventual high school graduation. In this study, the only information that was available regarding high school graduation was whether the student graduated on time. The database did not contain information on whether a student dropped out or if the student eventually graduated at a later date. Such limitations might be overcome through longitudinal studies that specifically assess a student’s status in school at each grade level of high school, including keeping track of students who drop out.

**Conclusions**

That suspension alone does not change behavior has been known for some time. What this study has shown is that information on suspension rates and from teacher ratings of behavior for students in the late elementary years could help ensure that students at risk of behavioral problems receive higher-quality interventions as they make the transition to middle school. Without such assistance, many of these students are likely to continue to experience behavioral problems, including further school exclusion. Furthermore, research examining the types of services and supports that can make a difference for these students is needed in order to guide intervention efforts in this area.

Suspension does not appear to work as a deterrent to future misbehavior for any group. The data from this large district show that more than two out of every three poor black boys in special education were suspended at least once in sixth grade. The special
education services and supports these students are receiving do not appear to meet their needs.

This disturbing snapshot is particularly disconcerting in the light of recent legislative attempts to eliminate the rights of students with disabilities to have a manifestation determination hearing and a functional behavioral assessment if they have been subjected to repeated suspensions for similar types of misbehavior or if they are about to be subjected to a long-term suspension. The manifestation determination prevents schools from using discipline to exclude students with disabilities from school if the school had failed in significant ways to provide for a student’s educational needs, if the student’s misbehavior was a result of her or his disability, or if the student could not have understood the rule or consequences because of the disability. The functional behavioral assessment requires that the school carefully analyze a student’s behavior and generate a behavioral improvement plan that is likely to reduce or eliminate the problem behavior.

Those in favor of eliminating these due process protections, assessments, and behavior plans have argued that these requirements make students with disabilities much harder to suspend from school. They claim that additional due process for any school code violation creates a double standard that undermines the efforts of school officials to maintain order. Disability advocates argue that without extra protection, students with disabilities increasingly will face removal to alternative schools because of their disability or because the school has failed to provide the necessary and appropriate educational services. The research presented here squarely supports policies that provide more effective early interventions and maintain safeguards against the overuse of school suspension for students with disabilities.

Notes


LINDA M. RAFFAELE MENDEZ is an associate professor in the school psychology program at the University of South Florida.