Public Report Methodology Overview

All analyses were conducted using the public use versions of CRDC data for SY 2011–12, SY 2013–14, and SY 2015–16. We then replicated analyses with the restricted-use data. Estimates from the restricted-use data are presented in the report.

The **universe of schools** included in the analysis is K–12 schools, defined as schools that report serving any grade from Kindergarten through 12th grade, or that report being ungraded. This eliminated schools that only provide pre-K. Juvenile justice facilities, special education schools, and alternative schools—as identified by their flags in the CRDC—were excluded from analyses, while charter schools and magnet schools were included. Virtual schools (defined by having "virtual", "electronic", "cyber", or "distance" in their school name) were also excluded from analyses. Ohio is excluded from analyses because districts reported replicating student counts across suspensions and expulsions in SY 2013–14.

Secondary schools were defined using the definition provided by Losen et al. (2015), adapted to include schools with a subset of secondary grades (e.g., 7th and 8th grades, but not 9th grade), and schools with students both in the eligible secondary grades and ungraded students.

We performed subgroup analyses based on racial/ethnic and disability designations. The racial/ethnic subgroup analyses were performed for white students, black students, and Hispanic students. The disability subgroup analyses were performed for students served under the Individuals with Disabilities Education Act (IDEA) and students not served under IDEA. To conduct subgroup analyses that make comparisons between groups (e.g., between white and Hispanic students), we restricted our analyses to those schools serving at least one child in each of the two subgroups examined. The sample of schools varied for each analysis such that schools that serve only white and black (but not Hispanic) students were included in the analysis comparing black and white students, but not in the analysis comparing Hispanic and white students.

We examined the following disciplinary actions: out-of-school suspension (OSS), in-school suspension (ISS), expulsion, corporal punishment, school-based arrests, referrals to law enforcement, chronic absenteeism, mechanical restraint, physical restraint, and seclusion. For each action, we calculated **discipline rates** by dividing the number of students who experienced a disciplinary action by the number of students either in the school or in a subgroup. Rates were calculated at the school level. Discipline rates were top-coded so that schools reporting having more students experiencing a disciplinary action than students were recoded to having a rate of 1.

In the CRDC, the number of students who received either a single or multiple OSS are reported separately and disaggregated by gender and disability status. To calculate the total number of students who received at least one OSS, we added the number of male students without a disability who received a single OSS, the number of female students without a disability who received a single OSS, the number of male students without a disability who received multiple OSS, the number of female students without a disability who received multiple OSS, the number of male students with a disability who received a single OSS, the number of female students with

a disability who received a single OSS, the number of male students with a disability who received multiple OSS, and the number of female students with a disability who received multiple OSS.

Similarly, expulsions were reported separately for expulsions with and without educational services. These two types of expulsions were added for each subgroup (i.e., males without disabilities, females without disabilities, males with disabilities, females with disabilities).

In 2011–12, all states responded to questions about corporal punishment. In 2013–14 and 2015–16, data is missing for states in which this practice is illegal. Data on chronic absenteeism was not collected in the 2011–12 school year. In the public-use file data for 2011–12, restraint and seclusion were not broken down by race/ethnicity, and we have not included this year's data in the analysis for restraint and seclusion. Several schools reported that they provided inaccurate data on specific questions in the 2013–14 school year in the readme file accompanying the public use data. These schools were excluded from relevant analyses.

Discipline disparities, or prevalence gaps, were calculated by subtracting discipline rates between groups *within* schools (e.g., the rate of OSS for black students minus the rate of OSS for white students). Z-tests of proportions were used to determine whether these differences were statistically significant. Because the CRDC is based on actual student records from every public school in the nation—that is, the CRDC contains population data, rather than sample data—it is generally unnecessary to use statistical significance tests to identify a difference between student subgroups when looking at overall trends. However, when looking at differences at the school level, it is important to consider that each school is a sample from the broader population, creating more potential for variation in the underlying propensity for discipline use in a given school. Thus, for this analysis, we used statistical testing to differentiate schools with clear subgroup disparities from schools that had disparities based on random variation. To make this distinction, we subtracted discipline rates between groups within schools (e.g., the rate of OSS for black students minus the rate of OSS for white students) and then used z-tests of proportions to determine whether these differences had less than a 5 percent likelihood of being due to chance (i.e., we can be 95% confident that observed disparities were real disparities). This does mean that, in some cases, real disparities were not identified if populations were especially small (i.e., type II error).

We examined changes in discipline prevalence and discipline disparities over time by subtracting the rate or disparity from the previous year. No statistical test was used here, but the size of change is discussed as substantively meaningful.

For details regarding the authors' methodology, please see

Losen, D., Hodson, C., Keith, M. A., Morrison, K., & Belway, S. (2015). *Are we closing the school discipline gap?* Los Angeles, CA: The Center for Civil Rights Remedies at The Civil Rights Project, UCLA. Retrieved from https://www.civilrightsproject.ucla.edu/resources/projects/center-for-civil-rights-remedies/school-to-prison-folder/federal-reports/are-we-closing-the-school-discipline-gap/AreWeClosingTheSchoolDisciplineGap_FINAL221.pdf