

## Evaluation Brief:

Comparison of office discipline referrals in U.S. schools by population densities: Do rates differ according to school location?

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### **Research Statement and Rationale**

This evaluation brief examines the rate of office discipline referrals (ODRs) for different school-grade levels based on locale. Using a cohort of schools that recorded ODRs over 3-years with the School-wide Information System (SWIS), rates are compared across years for elementary, middle, high school, and K-8/12 grade levels.

The two evaluation questions addressed by this brief are (a) “Based on locale, what is the number of schools with ODRs for each grade level across a 3-year cohort?” and (b) “Based on locale, what is rate of ODRs for each grade level, across each year?” Data descriptions that evaluate school-level demographic information such as geographic “locale” can provide ODR comparison data for school and district staff using SWIS. In addition, these summaries can serve as a foundation for extending evaluation questions in the area school-wide behavior support research and practice.

### **Data Sources**

The data sources for this evaluation brief are (a) the School-wide Information System (SWIS) and (b) the Common Core of Data provided by the U.S. Department of Education’s National Center for Education Statistics (NCES). SWIS is a web-based application that allows school personnel to record, track, and use office referral data to make data-based decisions for behavior support at individual-student, student-group, and school-wide levels (May et al., 2003). The NCES Common Core of Data includes information describing school, student, and staff characteristics for public elementary and secondary schools in the United States, reported annually by state education officials (Department of Education, National Center for Education Statistics, 2006).

### **Data Presentation**

#### *Sample*

The cohort of schools in this report included public schools from any U.S. state if they met the following criteria: (a) used SWIS with integrity<sup>1</sup> to collect ODR data during the entire 3-year span of 2005-06 to 2007-08; and (b) agreed to share their SWIS data, in aggregated form, for research purposes. Preschools, private schools, and alternative schools were excluded from analyses.

These 1,129 schools were classified by grade level and by student enrollment. Grade-level categories included K-6 ( $n = 750$ ), 6-9 ( $n = 213$ ), 9-12 ( $n = 61$ ) and K-8/12 ( $n = 105$ ). Using

data reported to NCES in 2005-06, schools also were categorized into the following five locale categories: large city (population of at least 250,000), mid-size city (between 25,000 and 250,000 residents), and rural (fewer than 25,000). See Table 1 for classification of sample by grade level and enrollment.

Table 1  
*Number of SWIS Schools with ODRs Based on Locale Across a 3-year Cohort*

Locale	Grade level			
	K-6	6-9	9-12	K-8/12
Large city <sup>a</sup>	299	88	17	27
Mid-size city <sup>b</sup>	240	68	16	17
Rural <sup>c</sup>	211	57	28	61
Total	750	213	61	105

*Note.* Metro-centric locale categories are based on 2005-06 NCES data.  
 $n = 1,129$  schools across 2005-06, 2006-07, and 2007-08 academic years.

<sup>a</sup>Population of at least 250,000.

<sup>b</sup>Population of 25,000 to 250,000.

<sup>c</sup>Population less than 25,000.

#### *Rates of ODRs*

ODR rates were calculated for each school by dividing the total number of ODRs by the number of students enrolled for the year. In order to improve comparability across schools with varying school days, this value was then divided by the total number of days for the year and multiplied by 100, thus providing an “average daily rate” of ODRs per 100 students for each school. Only “major” ODRs were included in the analyses (referrals recorded by schools as a result of a “minor” behavior violation are used inconsistently across elementary schools and less commonly by middle and high schools).

Tables 2-4 provide ODR rates for each grade level, classified into NCES school locale categories, for each of the three cohort years.

Table 2  
*Office Discipline Referrals by Locale for 3-year Cohort of 1,129 Schools During 2007-2008*

Locale <sup>a</sup>	K-6	6-9	9-12	K-8/12
	ODR rate $M(SD)$	ODR rate $M(SD)$	ODR rate $M(SD)$	ODR rate $M(SD)$
Large city	.31 (.44)	.70 (.55)	.89 (.86)	.68 (.62)
Mid-size city	.44 (.45)	1.07 (.85)	.77 (.57)	1.02 (1.00)
Rural	.32 (.30)	.85 (.69)	1.16 (1.42)	.60 (.48)
Total	.36 (.41)	.86 (.71)	.99 (1.12)	.69 (.63)

*Note.* ODR rate = ODR per 100 students per day.

<sup>a</sup> Metro-centric locale categories are based on 2005-06 NCES data.

Table 3  
*Office Discipline Referrals by Locale for 3-year Cohort of 1,129 Schools During 2006-2007*

Locale <sup>a</sup>	K-6	6-9	9-12	K-8/12
	ODR Rate <i>M (SD)</i>	ODR Rate <i>M (SD)</i>	ODR Rate <i>M (SD)</i>	ODR Rate <i>M (SD)</i>
Large city	.28 (.26)	.79 (.61)	.84 (.63)	.84 (1.02)
Mid-size city	.47 (.48)	1.17 (.88)	.94 (.86)	1.16 (1.03)
Rural	.34 (.31)	.96 (.76)	1.26 (.94)	.71 (.47)
Total	.36 (.37)	.95 (.75)	1.06 (.85)	.82 (.76)

Note. ODR rate = ODR per 100 students per day.

<sup>a</sup> Metro-centric locale categories are based on 2005-06 NCES data.

Table 4  
*Office Discipline Referrals by Locale for 3-year Cohort of 1,129 Schools During 2005-2006*

Locale <sup>a</sup>	K-6	6-9	9-12	K-8/12
	ODR Rate <i>M (SD)</i>	ODR Rate <i>M (SD)</i>	ODR Rate <i>M (SD)</i>	ODR Rate <i>M (SD)</i>
Large city	.28 (.25)	.88 (.65)	1.20 (.97)	.63 (.57)
Mid-size city	.52 (.70)	1.22 (1.07)	1.09 (.95)	1.18 (.64)
Rural	.36 (.35)	1.17 (.96)	1.25 (.94)	.80 (.58)
Total	.38 (.48)	1.07 (.90)	1.19 (.94)	.82 (.61)

Note. ODR rate = ODR per 100 students per day.

<sup>a</sup> Metro-centric locale categories are based on 2005-06 NCES data.

### Summary of Findings

Across all 3 years observed, suburban locales had the highest ODR rate at the elementary (K-6) and middle school (6-9) level, whereas rural locales had the highest ODRs at the high school level (see Tables 2-4). As with elementary and middle schools, the schools in the K-8/12 category with the highest ODR rates are in mid-sized cities.

Total ODR rates indicate differences from 2005-06 to 2007-08 for all grade levels. Elementary school (K-6) ODR rates are .38 in 2005-06 and .36 in both 2006-07 and 2007-08. Middle schools vary from 1.07 to .95 to .86 for the three years, and high school ODR rates vary from 1.19 to 1.06 to .99 for the same three years. Schools in the K-8/12 category have an ODR rate of .82 in the earlier two years with .69 in 2007-08. Although these differences in the average daily rate of ODRs are apparent across all grade levels, they are less pronounced for elementary schools. When these data are disaggregated into locale categories, these rate differences are apparent for each year, within each locale classification, for all grade levels.

Importantly, even though these analyses were conducted using a 3-year cohort, rates across years are presented as differences rather than reductions. This description allows for varying years of SWIS implementation across schools, a variable not controlled for in these analyses.

## References

Department of Education, National Center for Education Statistics (2006). *Public Elementary/Secondary School Universe Survey Data, 2005-06* [Database]. Retrieved August 20, 2008, and available from Common Core of Data, National Center for Education Statistics Web site, <http://nces.ed.gov/ccd/>

May, S., Ard, W., Todd, A. W., Horner, R. H., Glasgow, A., Sugai, G., et al. (2003). *School-wide information system*. Eugene: Educational and Community Supports, University of Oregon.

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<sup>1</sup> To reduce potential error in the data, several data checks were conducted prior to descriptive analyses which resulted in removal of schools with extreme or outlying SWIS values (e.g., schools sharing SWIS accounts, schools with multiple SWIS accounts, schools where students with ODRs was greater than the school enrollment).