

## NERD\$ DOCUMENTATION

State specific documentation files can be accessed [HERE](#).

### Limitations:

Because the Every Student Succeeds Act (2015) did not prescribe a uniform accounting procedure for expenditures but instead assigned the responsibility to each state, there are differences in how states compute per pupil expenditures, categorize various expenditures, and make decisions on inclusions/exclusions. Additionally, some states allow for some flexibility in how expenditures are categorized, so there may even exist some differences across districts within a state (e.g., for site-based portions of the spending). To that end, comparisons across states and districts should use the normed variable (*pp\_total\_norm\_NERDS*). The normed variable is modeled after the [Interstate Financial Reporting criteria](#) where choices about inclusions/exclusions reflect those outlines for F33's Total Current Expenditures and reflects the most common reporting choices made across states.

### Flags:

If a school has a "1" in the *flag\_NERDS* variable, our validation checks identified a concerning financial value for the school. We check for unusual values, simple calculation errors and consistency with prior year/other financial data. A flag does not necessarily mean the value is incorrect; it simply means the value appears inconsistent when checked against related figures reported in other datasets. Schools that are flagged have financial data appears implausible given prior year reported expenditures, or with missing data point(s). **User should be cautious when comparing figures for flagged schools with the raw data variables within the district or districts within the state.**

If a school has a "1" in the *flag\_F33* variable, our validation checks identified concerning values for its district (thereby raising a concern for all schools in the district). We check for unusual values and consistency with the district's federally defined total current expenditures in the Census Bureau F33. A flag simply means the expenditures when summed across schools in a district are inconsistent with the sums reported for the district in the F33, it does not necessarily mean every school value is incorrect.

### Variable Creation:

In some states, variables were created, signified by a suffix "*\_operational\_state*". These calculations are often simple sums or differences. When included, these are described in the state's codebook.

School total variables (*schooltot*, *schoolfed*, *schoolstloc*) are created by multiplying the corresponding per-pupil amount by enrollment.

District financial variables (*distexclu*, *disttotwexclu*, *disttot*) are occasionally calculated by summing the school exclusions within each district when the state provides a school exclusion amount. The school exclusion amount (*schoolexclu*) is retained in the dataset.

### Missing or Non-Applicable Data:

Zeros in this dataset are true zeros, as reported by the state. State or NCES symbols to denote missingness (for example - ½) are replaced with "NA"s.

"NRD" indicates no reported data i.e., the state did not report data for this school in the data file

## Normed FY19 Data in the NERD\$ Dataset for Cross-State Comparisons

Starting with FY19, the Every Student Succeeds Act (ESSA) required each state to gather and post school-by-school expenditure data. But for this first year of data reporting, differences in state accounting practices and enrollment count procedures complicate cross-state comparisons. So, to enable cross-state comparisons with FY19 data, NERD\$ provides an adjusted (normed) per-pupil expenditure total (labeled ***pp\_total\_norm\_NERDS***).

The norming adjustment involves two steps:

**STEP 1:** Ensure that financial sums include comparable expenditure categories, particularly in states that have excluded expenditures for activities like transportation, food services, etc. or included atypical expenditures like those that don't involve day-to-day school operations.

**STEP 2:** Adjust for differences in the way states count enrollment in the denominator of the per-pupil expenditure figure (e.g., attendance count vs membership).

ESSA School-by-School Expenditures Per Pupil Total ( <b><i>pp_total_raw</i></b> )	+	District Specific Adjustment Per Pupil ( <b>DSAPP</b> )	×	State Enrollment Adjustment Factor ( <b>SEF</b> )	=	NERD\$ Normed Per-Pupil Total ( <b><i>pp_total_norm_NERDS</i></b> )
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The normed variable (***pp\_total\_norm\_NERDS***) includes these two adjustments described below:

**Note that both norming steps preserve all spending differences between schools within a district. Neither adjustment will affect either the ranking or the magnitude of differences in expenditure figures between schools in the same district.**

For each of the adjustments (described more fully below) we compare expenditures and enrollments to more well-established federal collections of standardized variables.

### STEP 1: Comparable Expenditure Data

The goal here is to make sure that each state and district's financial sums include comparable expenditure categories. For a standardized set of categories, we chose those expenditure categories included in the "Total Current Expenditures" variable in NCES F33 (***TCURELSC***). With that reference figure defined for each district, the norming process establishes a per-pupil adjustment for all the schools in a district such that once adjusted, the sum of the normed school expenditures matches the federal NCES F33 district-by-district expenditure totals.

We start by summing the school-by-school expenditures (***schooltot\_raw***) in each district to create an expenditure sum for each district.

Because some states did not report financial data on all schools, we designed two norming procedures to establish district specific adjustment (DSA). These procedures are defined below and applied on a district-by-district basis.

**1a. No Missing Schools:** We use this approach for each district where the state reports expenditures for every school included in the NCES universe of schools for that district. We create a district-specific adjustment as the difference between total current expenditures reported by the NCES and the sums of state-reported school-by-school expenditures.

NCES F33 Total Current Expenditures ( <b><i>TCURELSC</i></b> )	—	District Sum of School-by-School Expenditures	=	District Specific Adjustment ( <b>DSA</b> )
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We create a **per-pupil expenditure figure** for the difference in recorded expenditures by **dividing the difference in expenditures above by total enrollment for that district**. We use the NCES published enrollment (***V33***) for that district, for use in the **DSAPP**

$$\frac{\text{District Specific Adjustment (DSA)}}{\text{F33 Total Enrollment for the District (V33)}} = \text{District Specific Adjustment \$ Per Pupil (DSAPP)}$$

We create this figure for every district in the state. We then add **DSAPP** to each school's per-pupil expenditures in the district, so as not to alter the state's reported variations in school-by-school expenditures.

1b. **Missing schools:** We use a per-pupil approach for each district when state-reported figures are missing for one or more schools listed in the NCES universe of schools.

We compute the District Specific Adjustment Per Pupil (**DSAPP**) as the difference in a district's per-pupil expenditures using the state's school-by-school figures and NCES F33.

$$\frac{\text{NCES F33 Total Current Expenditures (TCURELSC)}}{\text{F33 Enrollment (V33)}} - \frac{\text{Sum Total School Expenditures (schooltot_raw) for all schools in a district}}{\text{ESSA Enrollment (enroll_raw)}} = \text{District Specific \$ Per Pupil (DSAPP)}$$

#### STEP 2: Enrollment Count Adjustment

The goal here is to adjust for differences in the way states count enrollment, norming to the standardized NCES "membership count" (which can be a larger number than enrollment counts based on attendance counts). For states that **use an attendance count as their enrollment metric** in the denominator of the per pupil expenditure figures, we adjust all school figures in a state with a fixed adjustment factor based on the NCES Common core of Data for enrollments. For states that used membership as their enrollment metric, we do not make any adjustment for enrollment (in other words, their statewide enrollment adjustment factor is 1). *Note: The following states used attendance count as their enrollment metric in FY 19 data: AL, AR, HI, MO, KS, TX and TN.*

To compute the **statewide enrollment adjustment factor (SEF)** we divide the enrollment figure included in the ESSA school-by-school expenditures (*enroll\_raw*) by the total enrollment from NCES Common Core of Data (*ncesenroll*).

$$\frac{\text{Total Enrollment as reported in the ESSA School-by-School Expenditures for the State (enroll_raw)}}{\text{Total NCES Enrollment for the State (ncesenroll)}} = \text{Statewide Enrollment Adjustment Factor (SEF)}$$

#### **Additional notes**

##### **Schools not normed:**

- Any schools within a district that received the *flag\_f33*
- Any schools in districts with suppressed values in the NCES F33
- Any schools without school spending data with the indicator NRD or NA or schools that reported \$0 in expenditures

**Any feedback or questions:** Please reach out to [nerds@georgetown.edu](mailto:nerds@georgetown.edu).