Title: Calculating State-Level Grade Retention Rates

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Despite agreement that grade retention matters to life outcomes, there is not a measure which is both valid and reliable to accurately quantify grade retention rates by state, year, and racial/ethnic group. Until now, researchers have relied on three measures: statistics gathered from state education agencies, self-reported retention data from the October supplement to the Current Population Survey (CPS), and a proxy estimator called Below Modal Grade (BMG). Each of these measures has significant weaknesses.

First, it is impractical to rely on administrative data gathered by and from state education agencies. There is no regular data source that provides these data at any consistent interval for each state. Because it is a voluntary process, not every state makes this information public. Even of those states that do provide grade retention data, not all explain clearly how they aggregate the data from individual districts. Further, those state education agencies that do report grade retention rates may not all calculate those rates consistently. Rose et al (1983) attempted to collect state-level data for the 1979-1980 school year and found that only 15 states had collected retention information. Frederick and Hauser (2008) and Hauser et al (2007) also use state-level retention data, although data were only available from 29 states and the District of Columbia for any span between the 1977-1978 school year and the 2004-2005 school year.

Using the CPS is also not an effective way of measuring grade retention. The October supplement which asks specifically about grade retention is available only every 3 years, which does not allow for consistent measurement over time. Moreover, the data available can only be compared across regions, rather than states. Given that educational policies vary mostly by state, comparison across regions is not amenable to understanding the relationship between educational policies and grade retention rates. Additionally, the October supplements do not provide a large enough sample size to compare grade retention rates across racial/ethnic groups. Because retention may have different consequences for members of different groups, it is important to be able to accurately quantify the differences in rates between racial/ethnic groups at the state level.

The BMG technique, originally called age-grade retardation, attempts to account for some of these problems in measurement, but also has significant weaknesses. BMG is a proxy, using data from the annual October supplement to the CPS to measure grade retention by observing changes in the enrollment of children below the modal grade level for their age from one year to the next. Recently, BMG has been used consistently (Shepard and Smith 1989; Hauser et al 2004; Hauser et al 2007). This measure is useful because of its ability to measure changes in rates over time. However, it does not account for interstate migration and does not allow for comparisons by state. Researchers have been able to use the BMG technique to note different retention rates by race/ethnicity (Hauser et al 2004). However, this technique still does not allow for calculating rates at the state level and for racial/ethnic groups within states.
**Purpose / Objective / Research Question / Focus of Study:**
*Description of the focus of the research.*

Using the Common Core of Data, the Private School Universe Survey, and population estimates from the United States Census Bureau, we will attempt to develop a new measure of grade retention rates by grade, year, and state, and for racial/ethnic groups within grade, year, and state.

**Setting:**
*Description of the research location.*
(May not be applicable for Methods submissions)

The United States of America.

**Population / Participants / Subjects:**
*Description of the participants in the study: who, how many, key features, or characteristics.*
(May not be applicable for Methods submissions)

The population consists of school age children from all 50 states and the District of Columbia. This study will not involve gathering any new data; it will only involve secondary analysis of data already collected by the National Center for Educational Statistics and the United States Census Bureau.

**Intervention / Program / Practice:**
*Description of the intervention, program, or practice, including details of administration and duration.*
(May not be applicable for Methods submissions)

Not applicable.

**Significance / Novelty of study:**
*Description of what is missing in previous work and the contribution the study makes.*

A valid and reliable measure of grade retention rates by year, state, grade, and racial-ethnic group will allow for greater understanding of state policy outcomes, including differential outcomes by grade and racial-ethnic group.

**Statistical, Measurement, or Econometric Model:**
*Description of the proposed new methods or novel applications of existing methods.*

Relying on enrollment data from the Common Core of Data and the Private School Universe Survey and population estimates from the United States Census, we aim to develop a measure of grade retention by year, state, grade, and racial-ethnic group that accounts for migration.

**Usefulness / Applicability of Method:**
*Demonstration of the usefulness of the proposed methods using hypothetical or real data.*

In progress.
**Research Design:**
*Description of the research design (e.g., qualitative case study, quasi-experimental design, secondary analysis, analytic essay, randomized field trial).*
(May not be applicable for Methods submissions)

Not applicable.

**Data Collection and Analysis:**
*Description of the methods for collecting and analyzing data.*
(May not be applicable for Methods submissions)

Not applicable.

**Findings / Results:**
*Description of the main findings with specific details.*
(May not be applicable for Methods submissions)

In progress.

**Conclusions:**
*Description of conclusions, recommendations, and limitations based on findings.*

In progress.
Appendices
Not included in page count.

Appendix A. References


Appendix B. Tables and Figures

Not included in page count.