



METHODOLOGY FOR STANDARD SCHOOL ENROLLMENT PROJECTIONS

This document describes the grade-progression ratio method used by Cooper Center demographers in developing standard five-year school enrollment projections.

INPUT DATA

School enrollment projections require the use of birth data and fall membership counts. Birth data are obtained from the Virginia Center for Health Statistics, reported by county. To ensure that the birth data have been assigned to the correct localities, Cooper Center demographers geocode the residence address of each birth mother and then assign each birth to the locality of residence.

The second element of input data—historical and current fall membership counts—are obtained from the school division or from the Virginia Department of Education.

GRADE-PROGRESSION RATIO METHOD

The grade-progression ratio captures the school enrollment patterns of a cohort of children as they move forward in time and progress from grade to grade. Grade progression ratios provide detail of how many students advance into the next grade from the lower grade one year before and are determined by dividing the number of students in a particular grade by the number of students from the previous grade in the previous school year. For example, the 2nd grade/1st grade-progression ratio is found by dividing the current number of 2nd grade students by last year's number of 1st grade students. (In the case of kindergarten, the ratio is the actual enrollment in kindergarten divided by births five years prior). A ratio larger than 1 means there are additional students coming in to the school who were not enrolled in the previous grade. A ratio smaller than 1 means students may be transferring to private school or home school, dropping out, or families with school children are moving away from the community, among other reasons.

Because grade-specific progression ratios can fluctuate considerably from one year to another, it is important to generate and evaluate multiple sets of grade-progression ratios to minimize the “noise”. The Cooper Center does this by creating three- and five-year average ratios based on data from those most recent years, along with the single-year ratio of the latest year. All three grade-progression ratios are applied to the current school enrollment data to obtain forecasts for the following year, which then become the basis for projecting enrollment the year after. The projections based on single- and multiple-year grade progression ratios are compared, and the middle series is selected as most probable.

Please contact Hamilton Lombard at (434) 982-5698, or hl2qs@virginia.edu, if you have any questions.