

Data Sources and Projection Methodology used for enrolment (Canada)

Data Sources:

For Demographic Dynamics:

- the District's **SIS data**,
- the **Provincial Birth Registry** current and historic files (100% coverage), and
- Canada Revenue Agency's current and historic **Canada Child Benefit** data bases, which was previously known as the **Child Tax Benefit** and **Universal Child Care Benefit** (98+% coverage based on Stats Canada audit).
- We do not use Census data as it is not accurate enough for these purposes. However, we do use some Census data to identify one key variable, changes in the number of women of key ages related to births.
- Additional data can be incorporated by the District. For example, a new housing project and the expected pupil yield.

Methodology:

All data is calculated as of September 30 of each year (October 31 in Ontario), and the projections are calculated effective September 30 of each future year.

The enrolment projection methodology **does not use Census data**, but **current** data from other sources (for each school as well as the jurisdiction overall).

I. Birth Data

- Vital Statistics (birth registry) of the province is the data source. **The annual number of births since 1993 to the present.** (Approaching 100% accuracy in terms of population coverage)
- Trends vary significantly from school to school, and because the projections are done at the school level, **birth projections are the first step in the enrolment projection methodology.**

II. Population of Children by single year of age (ages 1 to 17)

- Canada Revenue Agency (Child Tax Benefit, Universal Child Care Benefit, and Canada Child Benefit databases – 1993 to current year) are the data sources. **The annual number of children aged 1 – 17 by single year of age (1,2,3,4 etc.).** Though Statistics Canada is not the source for these databases, they have performed a study measuring the coverage of the data, and have concluded that the database is over 98% accurate in terms of population coverage.
- Not only is the number of children aged 1,2,3 etc. provided, but from this data, the **net impact of migration** is measured annually by age group. For example, for the preschool age group, the number of children aged 2 to 5 each year is divided by the number of children aged 1 to 4 the previous year. This quantifies the net impact of migration resulting from the new families moving into the area and into new housing as well as used housing, versus those moving out. **Assumptions about future migration by age group form the second part of the projection methodology.**
- The current population from age 0 to age 17 is “aged” by applying “age group specific” migration rates to the current population. This results in a projection of the number of children for each year of age for each of the next 15 years. **This base population is the key variable affecting enrolment projections.**

III. Enrolment by School, Grade, and Program

- The source of data is the Student Information System (SIS) of the School District.
- The students are first separated into the programs in which they enrol (e.g. Regular program, French Immersion, etc.).
- The students are then sorted within program by whether they attend their designated neighbourhood school, or whether they attend another school in the District.
- The data is aggregated and then the **“in catchment” regular program enrolment** by grade is compared to the **“potential registrants”** by age (for example, the number of children enrolled in kindergarten are divided by the number of children aged 5 living in a school’s catchment area). This measure is called a “Participation Rate”. Participation rates by grade are provided historically such that trends can be discerned.
- Once the “in catchment” enrolment has been projected, the “Out of Catchment” component of enrolment is projected. Such data is maintained historically such that trends can be observed. Assumptions about the size of the incoming group (e.g. kindergarten) are made. Once assumptions have been made concerning the ‘entry’ grade in a school, a “Retention Rate” is applied on a grade

by grade basis. A history of such retention rates are reviewed first and, then assumptions made concerning future rates.

- The “magnet program” enrolments are also a component of the projection. The methodology is similar to the “Out of Catchment” methodology. However, the “entry grade” assumptions takes into account the changes in the projected number of children in the appropriate age group (e.g. for kindergarten, the reference group is age 5). In the case of middle/junior schools and the secondary/high schools, a “feeder flow” methodology is used to establish the enrolment in the “entry grade” (i.e. grade 9 French immersion in a 9 to 12 school being “fed” by French immersion grade 8 classes in two middle/junior schools).