



The TDSB Planning staff produce three types of enrolment projections:

- (1) multiple scenario long term system enrolment projections produced every four to five years;
- (2) system enrolment projections produced every year; and
- (3) school-by-school enrolment projections produced every year.

(1) Multiple Scenario Long Term System Enrolment Projections

- The TDSB Planning staff prepare a set of long term system enrolment projections based on census data and population projections published by external organizations such as other levels of government and private sector demographic firms. The purpose of this set of enrolment projections is to understand what possible enrolment levels could be achieved in the future based on other professionals' forecasts of the future population of Toronto.
- The TDSB Planning staff produce this set of enrolment projections using a grade retention methodology. This approach is commonly used by school boards and is based on the cohort survival model of projecting a population (the world's most common population projection methodology). The grade retention method involves looking at historical system-wide enrolments observed over a number of years, broken down by grade, and examining the relationship between the number of students in a grade and the number of students who move on to the next grade in the following school year. The percentage of students who move on to the next grade in the following school year is referred to as the retention rate.
- The TDSB Planning staff use the pre-school-age population (0 to 3 year olds) from the external population projections to estimate the number of junior kindergarten students who would enter the public education system each year in the future. The TDSB Planning staff apply a number of different retention rates to each grade to reflect changes in migration and participation in the public education system. The staff prepare separate enrolment projections for the elementary panel and the secondary panel.
- These projections are produced approximately every five years after the release of each census and the subsequent release of updated population projections from the external sources.
- In 2011, the TDSB Planning staff produced a set of long term system enrolment projections based on population projections published by the City of Toronto, the Ministry of Finance, and three private sector economic and demographic forecasting firms: Environic Analytics, Manifold Data Mining, and Pitney Bowes .



(2) Annual System Enrolment Projections

- In November of each school year the TDSB Planning staff produce system enrolment projections (one for the elementary panel and one for the secondary panel) that contribute to the Board's processes for setting budgets and allocating resources. These system enrolment projections are submitted to the Ministry of Education in December as part of the Ministry's financial reporting process.
- The TDSB Planning staff produce these system enrolment projections using the grade retention methodology. Each year the projection application is updated with the past school year's system-wide actual enrolment. The actual enrolment is broken down by grade. The staff calculate retention rates based on the last five years of actual enrolment. The staff make judgements as to what retention rates to apply to future years based on the most recent trends observed in the calculated retention rates.
- The staff incorporate known program and policy decisions such as the introduction of full day kindergarten and the extension of the compulsory school-age to 18.
- The staff estimate the incoming junior kindergarten students from the pre-school-age population figures purchased from Baragar Systems, a private sector demographic firm. A description of the Baragar data sources and methodology is attached as Appendix A.
- These system enrolment projections are the most accurate projections that staff complete and are generally within 1% of the actual observed enrolment. These system enrolment projections become the "envelopes" used to control the school-by-school enrolment projections – the sum of the school-by-school enrolment projections should not exceed the system enrolment projections.

(3) Annual School-By-School Enrolment Projections

- From December to February of each school year the TDSB Planning staff produce school-by-school enrolment projections. These school enrolment projections are submitted to Employee Services for allocating staff to schools and to Business Services for setting school budgets for the upcoming school year. These school enrolment projections are provided to the Ministry of Education in their financial reporting process for determining the top-up grant (a component of the Pupil Accommodation Grant). They are also used by TDSB Planning staff in conducting student accommodation studies.



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- The TDSB Planning staff produce these school enrolment projections using the same grade retention methodology as used for the system enrolment projection except that the enrolments are aggregated at the school level, not the system level. Each year the projection application is updated with the past school year's actual enrolment. The actual enrolment is broken down by grade and track (Regular, French Immersion and Extended French). The staff calculate retention rates based on the last five years of actual enrolment. The staff make judgements as to what retention rates to apply to future years based on the most recent trends observed in the calculated retention rates.
 - The staff factor in known program and policy decisions such as boundary changes and grade changes.
 - The staff incorporate input from the Special Education Department on program changes and the results of IPRCs (Identification, Placement and Review Committees).
 - The staff incorporate input from the French-as-a-Second-Language Department on program changes and the number of applicants to the programs.
 - The staff include student yields from active residential developments located in the schools' attendance areas.
 - The staff estimate the incoming junior kindergarten students from the pre-school-age population figures purchased from Baragar Systems.
 - Staff consider each school's optional attendance data and the optional attendance status assigned to the school.
 - For intermediate schools and secondary schools, staff estimate the number of students in the entry grade by examining the students exiting the feeder schools and the past participation rates.
 - An important component of calculating the school-by-school enrolment projections is circulating the school enrolment projections to the principals and superintendents for their review and input. The TDSB Planning staff make adjustments to the school enrolment projections based on the local knowledge provided by the principals and superintendents. However, in making the adjustments the Planning staff are careful to ensure that the sum of the school-by-school enrolment projections do not exceed the system enrolment projections.



Data sources and methodology used for enrolment projections for the School District

All data is calculated as of September 30 of each year, and the projections are calculated effective September 30 of each school year.

The sources of data:

The enrolment projection methodology **does not use Census data**, but current data from other sources.

Population Base, not only for the School District as a whole, but also, for each catchment area as the boundary is currently constituted. Rather than Census data, current data by single year of age is used.

I. Birth data

- Vital Statistics (birth registry) of Province is the data source. **The annual number of births from 1990 to up to the current year (always one year behind, because projections are as of September 30 while the births for that school year are not yet finished).**
- However, births in the current school year have no influence on enrolment until five years later. For example, births in 2005 will not impact enrolment until 2010, and then only in kindergarten.
- 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. Additional population living in each catchment area as currently constituted by year of age from age 1 to 17).

- Human Resources Canada (1990 to 1993) and Canada Customs and Revenue Agency (1993 to 2010) – annual population data effective September 30 of each year is provided **by single year of age**. **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** (1 to 4, 5 to 9, 10 to 13, and 14 to 17), and **is always current** as well as historic. **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. The result is the net impact of migration on the preschool population. This is the net result of new families moving into the District into new housing as well as used housing, and those moving out. **Assumptions about future migration by age group form the second part of the projection methodology.**
- The current population from age 0 (births) to age 17 are “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 the next 15 years. **This base population is the key variable affecting enrolment projections. The other major factor is “market share” for each grade (e.g. kindergarten enrolment divided by the population aged 5)** which is factored into the enrolment projections after the population by age has been projected. The most important variable affecting market share is the impact of private school enrolments, for the District as a whole.

Part III - Enrolment Base - the source of data is the student information system 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 the school of the catchment area, or whether they attend another school in the District. In the case of the whole District, there is no cross boundary attendance, except for students who live in other school districts. This “out of district” enrolment is projected separately, as are international students. In the case of each school, the cross boundary attendance patterns are taken into account in each school projection.
- The “in catchment” enrolment by grade is then 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.
- The Participation rate assumptions by grade are then made, and applied to the projected population by age.
- 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” assumption 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 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).

