

## A Friendly Guide to the Six-Year Completion Rate

The Six-Year Completion Rate was developed to help estimate the percentage of British Columbia students who graduate, with a BC Certificate of Graduation (“Dogwood”) or BC Adult Graduation Diploma (“Adult Dogwood”), within six years from the first time they enrol in Grade 8. While most students will complete high school within the expected five-year period, a number of students will take longer to complete (e.g., students who take a year off to play sports or study abroad; or those who require an additional year to successfully finish one or two required courses).

The Six-Year Completion Rate does not include students who receive the British Columbia School Completion Certificate (“Evergreen”). The Evergreen certificate recognizes the accomplishments of students with special needs and an Individual Education Plan (IEP), who have met the goals of their education program, other than Graduation (and not all students with special needs should be in an Evergreen program). The Evergreen is not a graduation credential; students who receive an Evergreen have not graduated.

Note: The Six-Year Dogwood Completion Rate is not the opposite of a “dropout rate”, because although students may not attain their Dogwood certificate during this specific six-year period, they may nonetheless go on to graduate at some point afterwards.

### Selecting a group of students for the calculation

For each school year, the six-year completion rate is based on a specific group, or *cohort*, of students in a district. All students present in the school system are included in one school year cohort, for one district only. Each cohort consists of students who either:

- Started in Grade 8 in Year 1 (of the six-year period), or
- Arrived in higher grades in later years during the six-year period

While the students may move between districts, the school district of record (for Completion Rate purposes) is **always** the last district in which the student appears in British Columbia during the six-year period. This district is called the *District of Responsibility* – in other words, it is the school district that is responsible for graduating that student. Some students arrive later in the process, and some students depart prior to graduation. The cohort calculation brings all of these changes into consideration.

By the end of the period, each student within a cohort will have:

- Graduated from Grade 12 in B.C. with a Dogwood certificate from the District of Responsibility (= **Completions**), OR
- Left B.C. from the District of Responsibility for the remainder (and duration) of the six-year period as of September of Year 6 (= **Outmigrants** estimation), OR
- Remained in B.C. without completing a Dogwood certificate. (This last group includes non-graduates and students who graduate *after* the end of the six-year period).

### **Allowing for newer arrivals**

The cohort includes arrivals into the District of Responsibility both from other districts and the BC independent schools system. For students who enter the BC school system for the first time (e.g., either from out of province or a First Nations school) in a grade higher than 8, they are assumed to have started Grade 8 ‘on-time’ and will be selected into the cohort that corresponds to their grade level (see example below).

### **Example of a cohort calculation**

This example follows one group of students in a 1999/2000 completion cohort, as they move from Grades 8 through 12 during the specified six-year window.

Step 1: The cohort begins with all first-time Grade 8 students enrolling in a BC school (public or independent) in Year 1 (1994/1995). The cohort excludes any students who are also seen in Grade 8 in the previous year (1993/1994) and are repeating the grade - they would already be included in an earlier cohort.

Step 2: Add to this cohort all new arrivals to the BC school system in Grade 9 in Year 2 (1995/1996), that were not already in the cohort in Year 1.

Step 3: Add to this cohort all new arrivals to the BC school system in Grade 10 in Year 3 (1996/1997), that were not already in the cohort in Years 1 or 2.

Step 4: Add to this cohort all new arrivals to the BC school system in Grade 11 in Year 4 (1997/1998), that were not already in the cohort in Years 1, 2 or 3.

Step 5: Add to this cohort all new arrivals to the BC school system in Grade 12 in Year 5 (1998/1999), that were not already in the cohort in Years 1, 2, 3 or 4.

The above process is designed to ensure all the students selected for the cohort hypothetically started Grade 8 (either within BC or outside of BC) at the same time

### **Adjusting for outmigration**

The Dogwood Completion Rate is adjusted for *outmigration* – i.e., those students who leave British Columbia but who may successfully complete school elsewhere. This adjustment is made by calculating the outmigration rate for students in Grades 2 through 4 in each district. The logic is that children in these grades cannot “drop out,” since they are of school age; therefore, it is a reasonable assumption that the students in this *proxy cohort* who are missing from both this district and all other districts in the following year have truly moved out of the province.

Using this outmigration rate, we are able to estimate the number of **Outmigrations** for the district.

The Six-Year Completion Rate cannot be calculated at school level because outmigration from British

Columbia cannot currently be estimated from Ministry data for school-level cohorts. For a more detailed explanation, please see *Understanding Outmigration in the Six-Year Dogwood Completion Rate*.

**Calculating the Six-Year Completion Rate**

The formula for the Six-Year Completion Rate at district level can now be calculated as follows:

$$\frac{\text{Graduated students (= Completions)}}{\text{All students in the cohort – Outmigrations}} \text{ at the end of the six-year period}$$

The rate is based on the number of students in the cohort who obtained their BC Certificate of Graduation (“Dogwood”) or BC Adult Graduation Diploma (“Adult Dogwood”) within the period, divided by the number of all students who are considered to be within the cohort (less the estimated outmigrations for that cohort).

The six-year completion rate is always reported for Year 6. For instance, in the previous example Year 1 was 1994/1995 and Year 6 was 1999/2000. Therefore, the six-year rate for that cohort is reported as the 1999/2000 Six-Year Completion Rate.

**Understanding sub-models and extended models**

The Six-Year Completion Rate is built around the assumption that using a six-year time frame to calculate the number of students who complete Grades 8 to 12 is the B.C. standard. However, additional *sub-models* and *extended models* are used to investigate transition and graduation rates at different times:

- The *progress sub-models* provide indicators of student progress from grade to grade (e.g. Grade 8 to Grade 9 to Grade 10 etc.) after they enter a Completion Rate Cohort. Grade progress is observed through the 2-, 3-, 4-, and 5-year ‘PROG’ models in the Completion Rate data marts.
- The *5-year completion sub-model* looks at whether the student obtained graduation within 5 years of entering Grade 8 for the first time.
- The *extended completion models* look at whether the student obtained graduation within 7 or 8 years after entering Grade 8 for the first time.

See an example below that uses the 2012/2013 school year (= Year 6 of the cohort).

Model	Description	Logic
SIX YEAR DOGWOOD COMPLETION RATE (= GRAD 6 YEAR MODEL)	The standard six-year completion rate. A student is counted as successful if they graduate within 6 years of entering Grade 8 (however, most students complete within 5 years).	Successful students are those who entered Grade 8 for the first time in 2007/2008 (or in an accordingly higher grade in subsequent years), and then graduated by the end of

		the 2012/2013 school year.
PROG 2 YEAR SUB MODEL	This sub-model examines students' progress 2 years after entering the cohort.	Successful students are those in the 2012/2013 cohort that have entered Grade 9 before or by September 2009 (September of Year 3).
PROG 3 YEAR SUB MODEL	This sub-model examines students' progress 3 years after entering the cohort.	Successful students are those in the 2012/2013 completion cohort that have entered Grade 10 before or by September 2010 (September of Year 4).
PROG 4 YEAR SUB MODEL	This sub-model examines students' progress 4 years after entering the cohort.	Successful students are those in the 2012/2013 completion cohort that have entered Grade 11 before or by September 2011 (September of Year 5).
PROG 5 YEAR SUB MODEL	This sub-model examines students' progress 5 years after entering the cohort.	Successful students are those in the 2012/2013 completion cohort that have entered Grade 12 before or by September 2011 (September of Year 6).
GRAD 5 YEAR SUB MODEL	This model is based on a 5-year window for completing the 5 years of high school.	Successful students are those in the 2012/2013 completion cohort that have graduated by the end of 2011/2012 (Year 5).
GRAD 7 YEAR EXTENDED MODEL	This model is based on a 7-year window for completing the 5 years of high school.	Successful students are all of those in the 2012/2013 completion cohort that have graduated by the end of 2013/2014 (Year 7). This includes students who graduated in Years 5 or 6.
GRAD 8 YEAR EXTENDED MODEL	This model is based on an 8-year window for completing the 5 years of high school.	Successful students are all of those in the 2012/2013 completion cohort that graduated by the end of 2014/2015 (Year 8). This includes students who graduated in Years 5 through 7.

***Why do you use Year Six as the defining year of all completion rates – including the 7- and 8-year rates (which go beyond Year Six) and the 5-year rate (which excludes Year Six)?***

The Ministry uses the “Year 6 as defining year” approach to identify the cohort, rather than the length of time the cohort is active, because the cohort only exists once and so it is defined on the basis of a

single year that is fixed in time. Year 6 is still the key year for reporting purposes, so we continue to use that.

### **How are deceased students accounted for?**

Since 2011, students who are reported to the Ministry as deceased are not included in the Completion Rate calculations. In other words, a student that has become deceased is no longer included in the cohort of students that is regarded as having the potential to graduate or make *grade progressions* (e.g., to progress from Grade 8 to Grade 9), even if that student has graduated or has grade progressions.

### **How are International Education students accounted for?**

Any student who enters Grade 8, 9, 10, 11 or 12 is included in the Completion Rate calculations, including Non-Resident students. However, many schools assign students who are attending BC schools for a cultural experience only to the grade level 'Secondary Ungraded', since they are not intending to graduate. Students who are only ever assigned the grade level 'Secondary Ungraded' are not included in completion rate measures.

### **At what jurisdictional level can the Completion Rate be calculated?**

Completion rates can be calculated at both the provincial and district levels. The provincial Completion Rate can be calculated to include both public and independent schools. However, the district rates only include public schools. There is no district level equivalent for independent schools since most independent school authorities administer only a single school.

Completion rates are not available at the school level because outmigration from British Columbia cannot currently be estimated from Ministry data for school-level cohorts.

## Appendix 1 – Understanding the District of Responsibility

The District of Responsibility (**highlighted in yellow** below) is the district in which the student was seen in **September of Year 6**. If the student is not found in Year 6, the District of Responsibility is the one in which the student was last seen prior to Year 6, and a district’s completion rate is calculated accordingly (once it has been adjusted by the likelihood of outmigration). The District of Responsibility is known to *be* the District of Responsibility ONLY in the final year of the cohort.

	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Status
Student A	042	042	042	042	042		Completer
Student B		042	042	042	042	042	Non-Completer (no Dogwood)
Student C	057	042	042	042	042		Completer
Student D	042	042	042	042	057		Completer
Student E	019	057	042	057			Non-Completer or Outmigrant
Student F	042	042	057	042		042	Completer
Student G			061	042	057		Completer
Student H	042	057	019				Non-Completer or Outmigrant

This is illustrated, case by case, in the above examples:

- Student A arrives in district 042 in Year 1 and stays there until completion. 042 is the District of Responsibility.
- Student B arrives in Year 2 and stays until Year 6, but does not complete their Dogwood. 042 is the District of Responsibility.
- Student C is in district 057 in Year 1, moves to district 042 in Year 2, and remains there until completion. 042 is the District of Responsibility.
- Student D starts out in 042 but moves to district 057 in Year 5 (and completes). 057 is the District of Responsibility.
- Student E moves among various districts, did not complete, and is assumed to be either an outmigrant or a non-completer. Because they are last seen in 057, that is the District of Responsibility.
- Student F was not seen in Year 5, but because they returned in Year 6 to district 042 and completed the Dogwood, they are a Completer – and therefore 042 is the District of Responsibility.
- Student G appeared for the first time in Year 3 from outside the province, and completed in Year 5. Because they were last seen in 057 in Year 5, 057 is the District of Responsibility.
- Student H, who disappeared after Year 3, is assumed to be either an outmigrant or a non-completer. Again, because the last district in which that student was seen is 019, that district is the District of Responsibility for this student.