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Equity Index | Backgrounder 2021-22

This document serves to provide information on CBE's Equity Index and how its use will be phased in.

Contents

learning | as unique | as every student

Overview

Opportunity

The revised funding model from Alberta Education provided an opportunity to begin the evaluation of our process for allocating funds to schools (RAM).

RAM Equity Models

2019-20	2020-21	2021-22
57 schools received equity funds 5 schools received transition funds Coding to achieve class size and programming	ALL schools allocated equity funds via Equity Index No Weighting Based on Equity Index only, school size not factored in.	Weighted Variables ▪ Student variables 68% ▪ School variables 20% ▪ Census variables 12% Calculated Per Student Focused Allocation

RAM Model 2019-20

The *Resource Allocation Method (RAM) for Schools | 2019-20* (pp. 47, 48) state that the following variables were used to determine which schools would receive an Equity Allocation:

- ▪ level of education less than high school (2011 National Household Survey data, mapped to students at Sep. 30, 2018 boundaries category)

- ▪ percentage below low-income cut-off (LICO, 2012 Tax Filer database, mapped to students at Sep. 30, 2018 boundaries category)

- ▪ percentage in lone parent families (2012 Tax Filer database, mapped to students at Sep. 30, 2018 boundaries category)

- ▪ student mobility (number of new registrations plus number of de-registrations between Oct. 1, 2018 and February 19, 2019, divided by Sep. 30, 2018 student count)

- ▪ Music Instrument Registration, Refundable Security Deposit, Transportation & Noon Supervision Fee waivers as of January 20, 2019 for the 2018-19 school year

Weightings were used on the individual factors and were developed on the same basis as prior years. Each factor has a maximum weight of "4". A score at or below the average (mean) was given a weight of "0". The remaining schools were divided approximately into quarters, with the first one-quarter getting a score of "1", and the highest quarter a score of "4". The maximum score is "20" for all five factors.

A cut-off of "9" was used for the 2019-20 school year to determine which schools would be eligible for an equity allocation. This resulted in 57 schools being eligible for an equity allocation plus four transitional for a total of 61 (there were 53 in 2018-

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19 plus 4 transitional for a total of 57). Five schools were newly qualified for equity, (and three transitional are once again in the qualifying range); four schools did not meet the qualifications, resulting in a 50 per cent transitional allocation; and the remaining one transitional from 2018-19 no longer qualified.

Some schools received a higher total equity allocation in 2019-20, based on changes in score (13 schools received a higher score versus 2018- 19), while some schools received a lower total equity allocation (10 schools received a lower score versus 2018-19).

RAM Problem and Question

The 2019-20 Model favoured schools and families who could afford to assess students for the determination of a special education code even though a code may not fully reflect the complexity of need. That is, the cost of "proving" need impacts the funds available to program or support the need.

When considering equity in CBE and how this might be accounted for in RAM, the work in 2019-20 started with the question, "what variables impact student achievement and predict the requirement of extra supports?"

Goal of Equity Index

The end goal is to have a robust equity index that considers a range of variables that have been statistically determined to be predictors of student achievement in CBE. When applied to RAM this then results in a wider system view of equity based on a set of data that describes our student population with depth and breadth.

Phases

Phase One | Equity Index Model 2020-21

Many school divisions and organizations across the world use an equity index. The index is comprised of several variables defined by the organization in the consideration of equity.

Research & Strategy conducted an environmental scan of indices used by organizations (like the OECD) and school divisions to measure equity. Out of all the organizations, school divisions and ministries of education reviewed, there were eight publicly available indexes with enough detail to be included.

From that work a list of student, school and census variables was created. The list was reviewed for our context in the CBE and the province; specifically, variables which impact student achievement and predict the requirement for extra supports. For example, public housing, a variable used by the Boston Public Schools for their index, was removed and the 'in/out student count' by school was added.

This left us with 27 broad student variables (e.g., report card marks, attendance), 21 broad school variables (e.g., programming, high school completion) and 70 census variables. Our statistician began with the census variables and analyzed correlations to student achievement. In this process the list was narrowed to 24 census variables.

In this phase of the 48 school & student variables, 19 specific variables were defined.

By using data tied directly to the student then summarized into the school result for each variable, a profile was created for each school based on their actual students. This profile was then used to determine the requirements of extra support.

The data for each of the 43 variables (19 school & student, 24 census) were sorted and assigned a number where a score of 1 indicated a lower potential gap of achievement for students in the school based on the variable and 246 the highest potential gap.

For example, the in/out count for a school is the number of students who have left or joined the school after the first student in day. Students who move within the school year, tend to have gaps in their learning as not all program of study outcomes are covered in the same order or on the same day across schools. The lower the in/out count for a student, the lower the chance of gaps.

The data for each variable were collected by school, arranged within the variable from lowest to highest, and then the score was assigned.

Example

Consider a situation where there are only 10 schools in CBE. The value for each of the schools for Variable 1 is listed in the table.

School	Variable 1 Value
A	23
B	16
C	29
D	23
E	15
F	12
G	35
H	6
I	23
J	7

The data sorted by the variable from lowest to highest and the score assigned.

School	Variable 1 Value	Score
H	6	1
J	7	2
F	12	3
E	15	4
B	16	5
A	23	6
D	23	6
I	23	6
C	29	9
G	35	10

In Phase One, variables were weighted equally when considering variable to variable comparisons. Within variable weightings were applied in some cases.

Regardless of enrolment, the Component score for a school determined their funding. That is, the Per Student allotment for a school with a Component score of 213 would be the same amount of money whether the school enrolment was, for example, 150 students, 300 students, 450 students and so on.

RAM

Additionally, in Phase One the equity portion of RAM was phased in at 10%.

> The phase-in is achieved by presenting the variables and components on the per student tab represented at 100% implementation, in conjunction with the per school phase-in line, representing the adjustment needed to achieve the phase-in rate. The amount being phased-in is the difference between the normal RAM, following the long-standing RAM rules, compared to the RAM calculated under the new methodology, using the equity factors.

> For example

> School A normal, long-standing RAM rules for 2021-22: $3,000,000

> School A RAM calculated under new method: $3,500,000

> RAM amount increase under fully implemented new method: $ 500,000

> Phase-in for 2021-22 at 10% - adjustment required   ($ 450,000) - line 65

> Net increase included on 2021-22 RAM: $ 50,000

> Net School A RAM using new method with phase-in $3,050,000

Resource Allocation Method (RAM) for Schools | 2020-21 (p. 32)

Phase Two | Equity Index Model 2021-22

As part of this phase, we needed to conduct a more encompassing review of "What student, school and census variables impact student achievement?"

In the spring of 2020, the Superintendents' Team approved the engagement of the University of Calgary to conduct a literature review with the focus of the research primarily on what impedes student achievement.

For the purpose of this research, the researchers were asked to consider the achievement of an Alberta High School Diploma or Certificate of High School Achievement as meeting with success with respect to our Results. In order to support each student in meeting with success we needed to consider what impedes or advances the attainment of a diploma or certificate. Since these are tied directly to student achievement in courses, the research focused on these areas.

The research summary was shared with the Superintendents' Team, Education Directors, Principals and Assistant Principals in 2020-21.

Based on the literature review, the variables used in Phase One were reviewed; some remained, some were removed (Enrollment Type Code, Grants Program Code 710, AP/IB Courses Participation, Non-Aboriginal Identity) and others added (Economic Immigrants, Family Class Immigrants, Refugee Immigrants). The draft list was reviewed then finalized by Superintendents of School Improvement and six Education Directors.

The intent of Phase Two was to share this draft list with principals and have them add any additional variables that, based on their experience and/or school context, should be considered. Due to time constraints and competing demands this did not happen. Over the course of the next year there will be built in processes that will start with RAM roll out and continue over the course of the year that will allow for ongoing and focused principal input at all division levels and in the many different contexts.

Phase Two | General

The data for a school is based on the data of the students enrolled in the school with exceptions by variable identified within each category. The school enrolment has been factored into the final number for each school's variable to allow for school-to-school comparison for the purpose of allocating funds.

Student Variables

Weight	Variables
2.00	Canadian Citizen
7.25	ELL (301,302,303)
8.25	ELL LP 301 & 303 Funded (1-5 yr)
9.75	EYE RTI 2 & SPED (code 50s)
12.00	EYE RTI 3 & SPED (code 40s)
10.00	Indigenous (331, 332, 333, 334)
3.75	Permanent resident
5.00	Refugee (640)
6.00	Student School Moves per Student
4.00	Total School Enrollments per Student

Canadian Citizen - weighted 2.00%

This is the percentage of students in a school who have a citizenship status of 1 (Canadian citizen). The school with the highest value has a score of 1. The calculation is based on the 2020-21 February student enrollment records.

ELL (301,302,303) - weighted 7.25%

This is the percentage of students in a school coded with an English language learner code. The school with the lowest value has a score of 1. The calculation is based on the 2020-21 February student enrollment records.

ELL LP 301 & 303 Funded (1-5 yr) - weighted 8.25%

This calculation only looks at students with an English language learner code who are funded by Alberta Education and takes into account the students' English language proficiency.

Gr 1-3		Gr 4-6		Gr 7-9		Gr 10-12	
LP	**%**	**LP**	**%**	**LP**	**%**	**LP**	**%**
1	30	**1**	30	**1**	35	**1**	30
2	30	**2**	30	**2**	30	**2**	30
3	20	**3**	25	**3**	30	**3**	35
4	15	**4**	10	**4**	3	**4**	3
5	5	**5**	5	**5**	2	**5**	2

For each school, the percentage of the individual LP level is calculated at first within their own division. The division-level results are combined based on the above weightings. For schools that may have two or more divisions, the school-level results are calculated and weighted by their division enrollment percentages. The school with the lowest value has a score of 1. The calculation is based on the 2020-21 February student enrollment records.

EYE RTI 2 & SPED (code 50s) - weighted 9.75%

This percentage is based on six years of the *Early Years Evaluation Teacher Assessment* (*EYE-TA*) data and two years of code data from students with identified special education needs (SPED) as entered into PowerSchool (Student Information System). The school with the lowest value has a score of 1.

note | In order to understand better the *EYE-TA*, Dr. Doug Willms and The Learning Bar have provided information on the validity and reliability these data, which can be found in Appendix | *Early Years Evaluation Teacher Assessment* (*EYE-TA*).

All *EYE-TA* RTI 2 are classified as moderate and for the purpose of this calculation all SPED funded codes that are mild/moderate are classified as moderate.

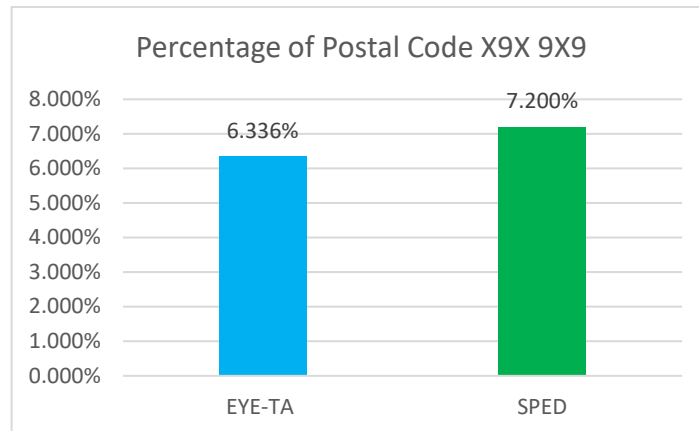The individual school result is calculated as follows:

1. *EYE-TA* moderate fall data are organized by postal code.
2. The percentage of *EYE-TA* moderate codes by postal code is calculated.
3. Given that the *EYE-TA* RTI 2 data results in about 88% of students being coded with a mild/moderate SPED code later in a student's education, a factor of 0.88 is applied to these results.
4. SPED moderate data are organized by postal code.
5. The percentage of SPED moderate codes by postal code is calculated.
6. The *EYE-TA* moderate percentage where the 0.88 factor has been applied are compared by postal code to the SPED moderate percentage.
7. The higher of the two numbers is assigned as the moderate code percentage to the postal code.
8. Each student, regardless of grade, is assigned a moderate code percentage based on their postal code.
9. These values are then summarized into the school moderate code percentage.

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Example

The *EYE-TA* RTI 2 data is collected for students with postal code X9X 9X9. The percentage of *EYE-TA* RTI 2 "codes" in this postal code is calculated to be 7.2%. Applying the 0.88 factor, it is expected that 6.336% of students who live in the postal code X9X 9X9, will have mild/moderate SPED code later in their education.

The SPED moderate data for postal code X9X 9X9 is calculated to be 7.2%. Since the SPED percentage is higher, *each student* with a postal code of X9X 9X9, regardless of grade, is assigned a moderate code percentage of 7.2%

Percentage of Postal Code X9X 9X9

	EYE-TA	SPED
	6.336%	7.200%

EYE RTI 3 & SPED (code 40s) - weighted 12.00%

The severe code percentage is based on six years of *EYE-TA* data and two years of SPED data as entered into PowerSchool. The school with the lowest value has a score of 1.

note | In order to understand better the *EYE-TA* , Dr. Doug Willms and The Learning Bar have provided information on the validity and reliability these data, which can be found in Appendix | *Early Years Evaluation Teacher Assessment (EYE-TA)*.

All *EYE-TA* RTI 3 are classified as severe and all SPED funded codes that are severe are classified as severe.
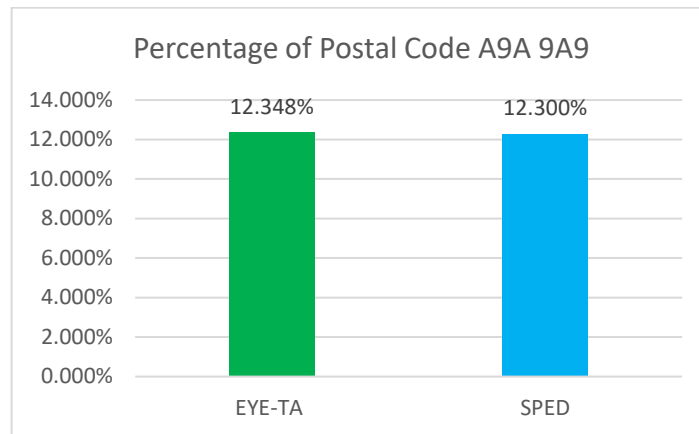
The calculation of the school result is as follows:

1. *EYE-TA* severe fall data are organized by postal code.
2. The percentage of *EYE-TA* severe codes by postal code is calculated.
3. Given that the *EYE-TA* RTI 3 data results in about 98% of students being coded with a severe SPED code later in a student's education, a factor of 0.98 is applied to these results.
4. SPED severe data are organized by postal code.
5. The percentage of SPED severe codes by postal code is calculated.
6. The *EYE-TA* severe percentage where the 0.98 factor has been applied are compared by postal code to the SPED severe percentage.
7. The higher of the two numbers is assigned as the severe code percentage to the postal code.
8. Each student, regardless of grade, is assigned a severe code percentage based on their postal code.
9. These values are then summarized into the school severe code percentage.

Example

The *EYE-TA RTI 3* data is collected for students with postal code A9A 9A9. The percentage of *EYE-TA RTI 3* "codes" in this postal code is calculated to be 12.6%. Applying the 0.98 factor, it is expected that 12.348% of students who live in the postal code A9A 9A9, will have mild/moderate SPED code later in their education.

The SPED moderate data for postal code A9A 9A9 is calculated to be 12.3%. Since the EYE-TA percentage is higher, *each student* with a postal code of A9A 9A9, regardless of grade, is assigned a moderate code percentage of 12.348%.

Percentage of Postal Code A9A 9A9

Indigenous Code (331, 332, 333, 334) - weight 10.00%

This is the percentage of students in a school coded with an Indigenous enrollment code. The school with the lowest value has a score of 1. The calculation is based on the 2020-21 February student enrollment records.

Permanent Resident - weight 3.75%

This is the percentage of students in a school who have a citizenship status of 2 (permanent resident). The school with the lowest value has a score of 1. The calculation is based on the 2020-21 February student enrollment records.

Refugee (640) - weight 5.00%

This the percentage of students in a school coded with a refugee (640) code. The school with the lowest value has a score of 1. The calculation is based on the 2020-21 February student enrollment records.

Student School Moves Per Student - weight 6.00%

This is the number of different schools a student has attended in Alberta weighted by the grade the student is in minus 1 (**note** | students in K or Grade 1 have their result divided by 1). The school with the lowest value has a score of 1.

For example, if a student is in grade 6 and attended School A for 4 years, School B for 2 and is currently in School C, this student's number would be 0.6 (found by taking 3 and dividing by 5).

After the above calculation, the school-level results are represented as the straight average of the student-level results.

Total School Enrollments Per Student - weight 4.00%

This is the number of years a student has attended school in Alberta weighted by grade the student is in minus 1 (**note** | students in K or Grade 1 have their result divided by 1). The school with the lowest value has a score of 1.

For example, if a student is in grade 6 and attended School A for 4 years, School B for 2 and is currently in School C, this student's number would be 1.4 (found by taking 7 and dividing by 5).

After the above calculation, the school-level results are represented as the straight average of the student-level results.

School Variables

Weight	Variables
3.00	Absent Rate
3.00	Drop-Out Rate from High School's Accountability Pillar
3.00	High School Completion Rate (3 yr) from High School's Accountability Pillar
5.00	In/Out Count per Student
3.00	Transition Rate (4 yr) from High School's Accountability Pillar
3.00	Waived Fee Per Student

Absent Rate - weight 3.00%

This is the absent rate of each student summarized into the absent rate of the school. The school with the lowest value has a score of 1.

The Absent Rate is a weighted average based on three years of data (from PowerSchool). A weight of 0.2 is assigned to the 2018-19 school data, a weight of 0.3 is assigned to the 2019-20 school data and a weight of 0.5 is assigned to the 2020-21 school data.

Drop-Out Rate - weight 3.00%

This rate is taken from the Accountability Pillar Report. It is the percentage of students aged 14 to 18 years each year registered at the school as of September 30 who drop out the following year, adjusted for attrition. The drop-out rate variable is the average of the drop-out rate for the last five years. The school with the lowest value has a score of 1.

In order to map the high school Accountability Pillar results back to the non-high schools, the historic school enrollment records are collected from PASIprep for high school students.

Example

When looking at all the students currently in a CBE high school, it was found that of the students who at some point attended ABC School (regardless of grade) 50% of them are currently enrolled in Central Memorial High School (CMHS), 30% of them are enrolled in Bowness High School (BHS) and 20% of them are currently enrolled in Ernest Manning High School (EMHS).

To calculate the Drop-Out Rate result for ABC School:

0.5 x CMHS Drop-Out Rate + 0.3 x BHS Drop-Out Rate + 0.2 x EMHS Drop-Out Rate

For schools that do not yet have students that are currently enrolled in high schools, the community information is used to identify which high school they will eventually go to and the corresponding Drop-Out Rate results are mapped to these schools.

For Christine Meikle School and Dr. Gordon Townsend School, the only high schools that do not have Accountability Pillar results, the median of all the Drop-Out Rate results are applied for these two schools.

High School Completion Rate (3 yr) - weight 3.00%

This rate is taken from the Accountability Pillar Report. It is the percentage of students in the Grade 10 cohort (grade 10 students who were enrolled in the school as of September 30) who have completed high school by the end of their third year, adjusted for attrition.

High school completion is defined by Alberta Education as:

- receiving an Alberta high school diploma;
- receiving certificate of high school completion;
- receiving a high school equivalency (GED);
- entering a post-secondary level program at an Alberta post-secondary instruction;
- registering in an Albert apprenticeship program; or
- earning credits in a minimum of five grade 12 courses include a language arts diploma exam course and three other diploma examination courses

The high school completion rate (3 yr) variable is the average of the high school completion rate for the last five years. The school with the highest value has a score of 1. The results for non-high schools are calculated based on the same mapping procedure as the Drop-Out Rate calculation.

In/Out Count Per Student - weight 5.00%

This is the number of students who have left or joined the school after the first student in day. The school with the lowest value has a score of 1.

The In/Out Count is a weighted average based on three years of data. A weight of 0.2 is assigned to the 2018-19 school data, a weight of 0.3 is assigned to the 2019-20 school data and a weight of 0.5 is assigned to the 2020-21 school data.

Transition Rate (4 yr) - weight 3.00%

This rate is taken from the Accountability Pillar Report. It is the percentage of students in the Grade 10 cohort (grade 10 students who were enrolled in the school as of September 30) who have entered a post-secondary-level program at an Alberta post-secondary institution or registered in an Alberta apprenticeship program within four years of entering grade 10, adjusted for attrition.

The transition rate (4 yr) variable is the average of the transition rate (4 yr) for the last five years. The school with the highest value has a score of 1. The results for non-high schools are calculated based on the same mapping procedure as the

Drop-Out Rate calculation. For Phase One, schools that eventually feed into the high school are assigned the same result

Waived Fee Per Student - weight 3.00%

This is the number of official waived fees per school (as provided by Finance) divided by the school enrollment. The school with the lowest value has a score of 1.

In 2019-20, due to various reasons, there were about 50% less waivers then prior years and for some schools, no waivers received at all prior to August 2020. As a result, the Waived Fee variable for 2019-20 is not used in the calculation, the Waived Fee variable is calculated as the average of the previous five-year results.

For Dr. Freda Miller School, Northern Lights School and Sibylla Kiddle School, due to the lack of historic results, the 2019-20 results are exclusively used for these three schools.

Census Variables

Weight	Variables
0.50	Economic Immigrants
0.50	Family Class Immigrants
0.50	First Generation
0.50	Home - Owner
0.50	Home - Renter
0.50	Home Language Non-Official
0.50	Immigrant
0.50	Lone-Parent Family
0.50	Low-Income Cut-Off
0.50	Low-Income Measure
0.50	Market Income Composition
0.50	Median Total Income Economic Family Standard Score
0.50	Median Total Income Economic Family With Children Standard Score
0.50	Median Total Income Standard Score
0.50	Mother Tongue Non-Official Language
0.50	Movers 1 Year Ago
0.50	Movers 5 Years Ago
0.50	No Certificate 15 Years
0.50	No Certificate 25 Years
0.50	Non-Citizens
0.50	Post-Secondary Certificate 15 Years
0.50	Post-Secondary Certificate 25 Years
0.50	Refugee Immigrants
0.50	Third Generation

Alberta Education is using five 2016 Statistics Canada Census variables in the determination of the Socio-Economic Status Index (*Interim Funding Manual for School Authorities 2020/21 School Year* p. 39) for 2020-21 funding of school authorities.

It is not uncommon to use census data for funding determinations. For example, some federal funding to municipalities and provincial governments are based on population estimate census data.

Census data are based on a dissemination area which is a geographic unit that the Census of Population Program uses for data reporting and is comprised of several postal codes.

In the census variable data below, students who do not have a Calgary postal code are excluded from the census variable calculations. If dissemination area information is not available for a postal code, nearby dissemination area census data are used as a reference.

Sometimes there are concerns that certain groups within a population, like immigrants, are not represented in census data. The response rate for the 2016 Canada Census was 98.4% for Canada and 97.9% for Alberta. This same census reports that 21.9% of the Canadian population were 'foreign-born' (immigrants).

For each Census variable, the calculation is first done at a dissemination area level and the school-level results are combined and weighted based on the dissemination area enrollment compositions for each school.

The following explain the variables in more detail and are arranged in alphabetical order for ease of access. The descriptions and data for each census variable can be found in Data Tables, 2016 Census of Population.

Economic Immigrants - weighted 0.05%

This is the percentage of Economic Immigrants in a dissemination area out of the total immigrant population in private households who landed between 1980 and 2016 as defined by Statistics Canada, 2016 Census of Population. 'Economic immigrants' includes immigrants who have been selected for their ability to contribute to Canada's economy through their ability to meet labour market needs, to own and manage or to build a business, to make a substantial investment, to create their own employment or to meet specific provincial or territorial labour market needs.

Family Class Immigrants - weighted 0.05%

This is the percentage of Family Class Immigrants out of the total immigrant population in private households who landed between 1980 and 2016 as defined by Statistics Canada, 2016 Census of Population. "Family class immigrants" includes immigrants who were sponsored by a Canadian citizen or permanent resident and were granted permanent resident status on the basis of their relationship either as the spouse, partner, parent, grand-parent, child or other relative of this sponsor.

First Generation - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their generation status is 'first generation'. 'First generation' includes persons who were born outside Canada. For the most part, these are people who are now, or once were, immigrants to Canada.

Home - Owner - weighted 0.05%

This is the percentage of owner tenure private households in a dissemination area that reported on the census. Tenure refers to whether the household owns or rents their private dwelling. A household is considered to own their dwelling if some member of the household owns the dwelling even if it is not fully paid for, for example, if there is a mortgage or some other claim on it.

Home - Renter - weighted 0.05%

This is the percentage of renter tenure private households in a dissemination area that reported on the census. A household is considered to rent their dwelling if no member of the household owns the dwelling. A household is considered to rent that dwelling even if the dwelling is provided without cash rent or at a reduced rent, or if the dwelling is part of a cooperative.

Home Language Non-Official - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their home language is not English or French. Home Language refers to the language the person speaks most often at home at the time of data collection. A person can report more than one language as 'spoken most often at home' if the languages are spoken equally often.

Immigrant - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their immigrant status is 'immigrant'. It includes persons who are, or who have ever been, landed immigrants or permanent residents.

Lone-Parent Family - weighted 0.05%

This is the percentage of lone-parent census families in a dissemination area that reported on the census.

Low-Income Cut-Off - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that they are in low income based on the Low-Income Cut-Offs, After Tax (LICO-AT) for the population aged 18 to 64 years. The low-income cut-offs, after tax refers to an income threshold, defined using 1992 expenditure data, below which economic families or persons not in economic families would likely have devoted a larger share of their after-tax income than average to the necessities of food, shelter and clothing.

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Low-Income Measure - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that they are in low income based on the Low-Income Measure, After Tax (LIM-AT) for the population aged 18 to 64 years. The Low-income measure, after tax, refers to a fixed percentage (50%) of median-adjusted after-tax income of private households.

Market Income Composition - weighted 0.05%

The market income percentage of the aggregate total income in 2015 of the population aged 15 years and over in a dissemination area. Market income is the sum of employment income (wages, salaries and commissions, net self-employment income from farm or non-farm unincorporated business and/or professional practice), investment income, private retirement income (retirement pensions, superannuation and annuities, including those from registered retirement savings plans and registered retirement income funds) and other money income from market sources during the reference period.

Median Total Income Economic Family With Children Standard Score - weighted 0.05%

This is the zero-mean normalization score of the median total income of couple economic families with children in 2015 in a dissemination area. Economic family is the combination of relatives that comprise a family. Classification on this variable considers the presence or absence of: married spouses or common-law partners; children; and other relatives.

Median Total Income Economic Family Standard Score - weighted 0.05%

This is the zero-mean normalization score of the median total income of economic families in 2015 in a dissemination area.

Median Total Income Standard Score - weighted 0.05%

This is the zero-mean normalization score of the median total income in 2015 among individuals in a dissemination area.

Mother Tongue Non-Official Language - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their mother tongue is not English or French. Mother tongue refers to the first language learned at home in childhood and still understood by the person at the time the data were collected.

Movers 1 Year Ago - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their mobility status 1 year ago is 'mover'. This refers to the status of a person with regard to the place of residence on the reference day, May 10, 2016, in relation to the place of residence on the same date one year earlier at the provincial level. Movers include non-migrants and migrants. Non-migrants are persons who did move but remained in the same city, town, township, village or Indian reserve. Migrants include internal migrants, who moved to a different city,

town, township, village or First Nation reserve within Canada. External migrants include persons who lived outside Canada at the earlier reference date.

Movers 5 Years Ago - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their mobility status 5 years ago is 'movers'.

No Certificate 15 Years - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 15 years and over is 'no certificate, diploma or degree'. This variable refers to the highest level of education that a person has successfully completed and is derived from the educational qualification questions, which asked for all certificates, diplomas and degrees to be reported.

No Certificate 25 Years - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 25 to 64 years is 'no certificate, diploma or degree'.

Non-Citizens - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their citizenship status is 'not Canadian citizens'. Persons who are stateless are included in this category.

Post-Secondary Certificate 15 Years - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 15 years and over is 'post-secondary certificate, diploma or degree'. Post-secondary certificate, diploma or degree includes: apprenticeship or trades certificate or diploma; college; CEGEP or other non-university certificate or diploma; and university certificates, diplomas and degrees.

Post-Secondary Certificate 25 Years - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 25 to 64 years is 'post-secondary certificate, diploma or degree'.

Refugee Immigrants - weighted 0.05%

This is the percentage of Refugee Immigrants in a dissemination area out of the total immigrant population in private households who landed between 1980 and 2016 as defined by Statistics Canada, 2016 Census of Population. 'Refugees' includes immigrants who were granted permanent resident status on the basis of a well-founded fear of returning to their home country. This category includes persons who had a well-founded fear of persecution for reasons of race, religion, nationality, membership in particular social group or for political opinion (Geneva Convention refugees) as well as persons who had been seriously and personally affected by civil war or armed conflict, or have suffered a massive violation of human rights.

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Third Generation Percentage - weighted 0.05%

This is the percentage of population in a dissemination area that reported on the census that their generation status is 'third generation or more'. 'Third generation or more' includes persons

Phases Three and On

These phases will see the index list revisited on a yearly basis and updated based on current research, feedback from schools and Education Directors, and the analysis of the data.

Appendix |

I. Early Years Evaluation - Teacher Assessment (EYE-TA)

The information that follows provides research regarding methods of allocation based on exceptionalities, as well as a detailed overview of the design and uses of the *Early Years Evaluation -Teacher Assessment* (*EYE-TA*). This information was research was provided to CBE by Dr. Doug Willms, founder of The Learning Bar and originator of the *EYE-TA*.

In the field of education, the measurement process entails the assignment of numbers to categories of 'real-world' observations. Generally, instruments such as the *EYE-Teacher Assessment* (*EYE-TA*) are used to relate observations in the real world to some latent or unobserved *constructs* that exist only as part of a theory (Wilson, 2005). We engage in the measurement process because we wish to make decisions based on people's responses on an instrument which are deemed to represent the underlying constructs. For the *EYE-TA*, the five domains are the latent constructs. Students' responses on the constructs are scored and the aggregated scores are used in various ways to improve students' outcomes.

Uses of the *EYE-TA*

The *EYE-TA* has multiple uses. These are listed in the table below and grouped into five categories. Detailed discussion relevant to each of these uses can be found in Appendix | *EYE-TA* Purpose and Implementation.

I. **Improve Classroom Instruction**

   Guide planning of classroom activities to develop children's pre-literacy skills
   Increase teachers' repertoire of high-yield teaching strategies
   Strengthen partnerships with parents and community agencies

II. **Assess the Effectiveness of Early Childhood and Kindergarten Programs**

   Predict levels of literacy skills at age 8 or 9
   Assess pre-post learning gains in pre-literacy skills
   Assess the effects of school or jurisdiction-wide interventions

III. **Reduce Inequalities of Sub-populations**

   Estimate inequalities in pre-literacy skills upon school entry
   Estimate the extent of reduction in inequalities in pre-literacy skills during kindergarten

IV. **Screening**

   Identify students requiring extra support
   Estimate the prevalence of students with special needs

V. **Allocate Educational Resources**

   Assess progress towards meeting strategic goals
   Allocate resources in an efficient manner

Applying the *EYE-TA* to Allocation of Funding

Why differential funding? Most provincial Ministries and school districts recognize the importance of providing additional education programs and services to support the educational development of students with special education needs. School districts typically use a combination of approaches for funding special education which include elements of the following approaches:

- a 'flat grant' model that allocates funds on a per capita basis using the total student enrolment of a school or school district;

- a 'supply-side model' that provides reimbursement for the amount a school or school district spends on special education services; and

- a 'demand-side model' that allocates funding based on the number of children in a school jurisdiction deemed to have special needs of differing types and levels of severity.

All three approaches to funding have inherent problems. The 'flat grant' system does not take account of the variation among schools or districts in the prevalence of students with special education needs. Within all school districts, schools vary in their socioeconomic characteristics, including rates of poverty and parents' levels of education. Several studies have shown that the prevalence of students with special education needs is higher among low socioeconomic status (SES) families (Szumski & Karwowski, 2012; Willms, 2002).

Funding based on a 'supply-side' model tends to be inequitable because larger and more affluent school jurisdictions tend to be in a better position to offer specialized, costly programs. Moreover, once this infrastructure is in place, there is a tendency to fit the needs of students to the services, rather than providing services to students' specific needs (Pijl & Dyson, 1998).

Demand-side' approaches rely on the diagnosis or 'coding' of children with special education needs and the submission of claims to a central authority. However, for many students with special education needs, the diagnosis is not definitive and can change over their life course. Also, the diagnosis and coding of children is time-consuming and expensive. School districts with more resources are better able to establish a system for administering and completing the coding and claim processes. Finally, there can be financial incentives for jurisdictions to inflate the number of children with special education needs, and to maintain a diagnosis so the funding is not lost (Greene & Forster, 2002; Jahnukainen, 2011; Li, 2010).

The funding of special education has evolved from these three approaches to one that emphasizes students' learning needs, improving student outcomes, and reducing inequalities. The Early Years Evaluation Teacher Assessment can be used appropriately as an element of a funding formula that emphasises student learning. This claim is supported with four arguments:

(1) A formal diagnosis of exceptionality is not required. The majority of students who are formally diagnosed with an exceptionality exhibit relatively low developmental skills at age 4 or 5 when they are in pre-school or kindergarten. The diagnostic schema in most Canadian provinces is based on some combination of the following exceptionalities: behaviour, mild intellectual disability, developmental disability, autism, deaf and hard-of-hearing, language impairment, speech

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impairment, learning disability, physical disability, blind and low vision, and multiple exceptionalities. About 98% of the students for whom funding allocated based on a 'coding' system exhibit low developmental skills at age 4 or 5 when they are in pre-school or kindergarten (Willms, Palinsky, & Blugerman, 2013).

(2) Diagnoses of exceptionalities are expensive, time-consuming, and, in many cases, not definitive. The diagnosis of a disability is typically conducted by a trained school psychologist or a speech and language pathologist. Additional costs and challenges with timelines can contribute to challenges. The Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-5) (American Psychiatric Association, 2013) establishes criteria for the diagnosis of most exceptionalities, but each one requires some degree of professional judgement. For example, the criteria for diagnosing an intellectual disability include assessments based on culturally appropriate tests of intelligence as well as the subjective assessments of a child's functioning in social and practical domains. The criteria for diagnosing a developmental disability or developmental delay are even less exacting; it is often used to encompass several types of exceptionality that do not fit into the other types of exceptionalities.

(3) The EYE is predictive of whether children become successful readers. The development of the EYE and its approach to estimating the RTI score was based on data from several jurisdictions. The RTI classification includes three tiers, based on a prediction model derived from longitudinal data that estimated the likelihood of a child being a successful reader at age 8 or 9, based on his or her *EYE-TA* domain scores.

(4) The EYE provides information on the extent of inequalities associated with childhood vulnerability and a classroom intervention to reduced inequalities. The use of a skills-based early childhood assessment such as the EYE requires a shift in thinking. Rather than the funding of special education programs and services being linked to 'exceptionalities', it is linked to performance on a skills-based assessment that is predictive of later school success. The EYE is a comprehensive assessment that provides a summary RTI score of each child's learning needs at the beginning of kindergarten. The prevalence of students with Tier 2 and Tier 3 learning needs is consistent with approaches based on formal diagnoses. Its use as one of the elements of a funding formula for schools is fairer and more practical than an approach based on the amount a school spends on special education services or solely on a coding system.

II. Other Potential Variables

The following variables were not included in Phases One or Two and will be part of the list of variables to consider moving forward:

- Accountability Pillar survey results
- age of the student relative to grade
- CBE student survey results
- extra funds (fundraising capability, casino frequency, etc.)
- grade 6 PAT results (Mathematics and English Language Arts only)
- grade 9 PAT results (Mathematics and English Language Arts only)
- grade 12 Diploma Exam results (Mathematics and English Language Arts only)

- homelessness
- learning goals versus no goals
- multilingual staff
- reading level relative to age of students
- report card results (Mathematics and English Language Arts only)
- school grade configuration
- school size / structure (e.g., pods)
- school start time relative to age of students
- student identifying at least two adults in the school who they feel know them
- student incidents by type (PowerSchool Incidents)
- student level of adaptability and resilience
- student level of emotional intelligence
- student program (regular, alternative, etc.)
- system wide baseline data
- teacher speciality as compared to teaching assignment
- type of school calendar (modified, traditional, year-round)
- whether a student had kindergarten in Alberta

The following variables were included in Phase One initially but were removed as per the rationale indicated:

- Citizenship Status - 3 (Other) – not enough data to allow for differentiation by school. In Phase 2 will consider removing Citizenship Status - 1 and combining Citizenship Status 2 & 3.
- Code 330 – not enough data to allow for differentiation by school.
- Grants Program Code - Bilingual (400s) and French Immersion (211) Percentage – removed because there is federal funding for French and so including these data would be a double dip.
- Section 23 Eligibility – not enough data to allow for differentiation by school.

III.   Long Range Plan

There is software that takes every data point associated with a student found within the student information system and based on success criteria can:

- identify the data values for students who meet these criteria; and
- Identify which students are not on track to meet these criteria.

At some point once we have refined the Equity Index variables and have a complete list of success criteria, we will explore the options available and the cost associated with same.

IV. *EYE-TA* Purpose and Implementation

I. Improve Classroom Instruction

Guide planning of classroom activities to develop children's pre-literacy skills.

The *EYE-TA* can play a key role in developing children's pre-literacy skills during kindergarten. It facilitates this development by identifying areas in which individual children and groups of children can benefit from particular learning opportunities. It helps teachers maintain a focus on key developmental outcomes and allows them to structure their child-centered environments to ensure that the specific learning needs of each child are met.

As teachers gain experience, they develop a repertoire of learning activities that build on children's interests. Gradually they embed activities into the classroom that enable children to benefit from their school experience. The *EYE-TA* includes a set of one hundred fun and engaging play-based activities referred to as the *EYE-100*. These activities were developed by experts in early childhood education, with guidance from a team that included a speech and language pathologist, an occupational therapist, and a physical therapist. The activities were field-tested with a large sample of early childhood educators, and subsequently modified in response to their feedback.

Forty of the activities emphasize skills in the Cognitive domain and forty emphasize skills in the Language and Communication domain. An additional set of twenty activities are aimed at strengthening Inquiry and Problem-solving skills. Each activity includes:

- a simple description of the activity and a clearly defined learning outcome;
- an indication of the intended group size, preparation time, and duration of the activity;
- a set of targeted vocabulary words;
- a list of required materials and preparation instructions;
- a format for lesson delivery based on an active teaching model;
- suggestions for differentiated learning that promote inclusion;
- an Indigenous section in every fifth lesson that supports teachers with integrating Indigenous teaching and values into their classroom;
- a number of supplementary resources including tips for using the activity to strengthen children's executive functioning, tips from teachers who have used the activity, a list of complementary early literacy books and a link to observable *EYE-TA* skills; and
- paper-based materials that minimize teachers' preparation time.

Increase teachers' repertoire of high-yield teaching strategies

The *EYE-TA* includes a set of seven professional learning modules designed to increase teachers' knowledge and improve quality of instruction. We use the term 'high-yield teaching strategies' to refer to teaching practices that have proven to be effective in developing students' literacy skills. They are set in the context of two core concepts: structured teaching and the cognitive and knowledge-processing dimensions of Bloom's revised taxonomy (Anderson et al., 2001; Hattie, 2009; Kyriakides, Christoforou & Charalambous, 2013).

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The modules are provided over the course of the school year. Their content covers:

- Classroom Management: Rules and Routines
- The Simple View of Reading
- Code-related Skills
- Language and Communication Skills
- Active Teaching
- Classroom Management: Maintaining Order
- Classroom Management: Minimizing Disruptions

The modules go hand-in-hand with the *EYE-100* activities, which emphasize coding and language skills and 'active teaching'. The over-arching strategy for active teaching is the structured lesson (Anderson et al., 2001; Hattie, 2009; Kyriakides, Christoforou & Charalambous, 2013). Our approach to structured lessons incorporates these elements in a simple but effective model with six steps:

- Set clear goals: "What will we learn?"
- Activate prior learning: "What do we know?"
- Model the skill: "Watch me first!"
- Guide the learning: "Let's try it!"
- Check for understanding: "What did we learn?"
- Give independent practice: "Let's do more!"

The 'set-up' for the lesson is done with the first three steps. In most lessons, this takes only two or three minutes. The main portion of the lesson is in the fourth step, "guide the learning". This step can involve a number of strategies, including those associated with constructivist approaches. The fifth step can also be done quickly and efficiently, using a variety of strategies, enabling teachers to informally assess whether students have learned a skill.

Strengthen partnerships with parents and community agencies

In many jurisdictions that use the *EYE-TA*, the summary reports and maps are shared with community agencies to help identify areas of need. This helps strengthen partnerships across government agencies and between schools and local organizations that support families. The *EYE-TA* school reports are used to engage with multiple stakeholders and the individual child reports are often used in the first parent-teacher meetings to discuss a child's strengths and areas where he or she would benefit from further experiences. The child reports are provided in 21 different languages, including six Indigenous languages.

II. **Assess the Effectiveness of Early Childhood and Kindergarten Programs**

Predict levels of literacy skills at age 8 or 9

The analysis and reporting of the *EYE-TA* data include an overall summary of each child's domain scores presented as a 'Responsive-Tiered-Instruction' (RTI) score. The term 'RTI', as it is used in the literature, refers to 'Response-to-Intervention', which calls for a tiered approach to instruction comprised of a continuous assessment of children's progress in the regular classroom setting with additional support for children who have learning difficulties or behavioural challenges. Many jurisdictions use this model to assist with early identification,

intervention, and resource allocation (Gersten et al., 2008). In most implementations, the process begins with all children receiving instruction in the regular classroom setting. Children who encounter difficulty responding to regular instruction are provided with 'interventions' of varying levels of intensity.

We prefer the term 'Responsive-Tiered-Instruction' because it uses data from the *EYE-TA* as a leading indicator, enabling teachers and school administrators to identify students who require additional support. The classification includes three tiers, which are based on a prediction model derived from longitudinal data that estimated the likelihood of a child being a successful reader at age 8 or 9, based on his or her *EYE-TA* domain scores. Children with a greater than 80% chance of becoming a successful reader are classified as having Tier 1 learning needs; those with a 50% to 80% chance of becoming a successful reader are classified as having Tier 2 learning needs; and those with less than a 50% chance are considered to have Tier 3 learning needs. The prediction model considers the age of the child at the time of the assessment and his or her skill level in each of the five domains. The results derived from the model weights some skills more heavily than others. Skills in the Cognitive and Language and Communication domains figure most prominently; children's Awareness of Self and Environment, Social Skills and Approaches to Learning, and Fine Motor skills also contribute to the classification.[1]

These RTI results enable teachers and school administrators to accurately determine which children are likely to require additional support during kindergarten and the early primary period. The RTI scores are intended to support an inclusive approach to meeting each child's learning needs. It calls for *all* children to receive Tier 1 instruction, with some children additionally receiving Tier 2 or Tier 3 instruction, as follows:

Tier 1 is the foundation of a successful reading program. It entails quality instruction using play-based approaches and universal strategies for all children. Instruction is differentiated based on children's individual learning needs. Teachers may group children for certain activities; for example, one group of children may be engaged in play-based activities that build their language skills while another group is doing activities aimed at strengthening their phonological awareness.

Tier 2 instruction focuses on particular foundational reading skills, which can vary among children. Children with Tier 2 learning needs usually receive three or four 30-minute sessions per week in small groups (3 -5 children). Tier 2 instruction should be in addition to the Tier 1 instruction they receive during regular classroom hours.

Tier 3 instruction is more intensive. It is based on a detailed individual instructional plan that sets out clear instructional goals in specific skill areas.

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[1] The findings are based on a longitudinal study which involved data for over 1,800 children in five school districts who were assessed in kindergarten with the *EYE-TA*. At the end of grade 2, these children completed province-wide assessments of oral and written reading ability. A logistic regression model was fit to the data to estimate the probability that each child successfully reached the 'acceptable' level on the provincial assessment. These probabilities were used to establish three levels of risk for determining which children should receive a moderate (Tier 2) or intensive (Tier 3) intervention in a Responsive Tiered Instruction (RTI) model.

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Children with Tier 3 learning needs can participate in the Tier 2 small group lessons, but they also require several one-on-one sessions aimed at building their foundational reading skills. Like children with Tier 2 learning needs, they receive Tier 1 instruction during regular classroom hours.

An RTI classification is not permanent or necessarily long term, nor is it a label assigned to a child. As children are developing their literacy skills, their progress should be monitored on a regular basis, using a variety of formal and informal tests. Therefore, we stress the importance of not referring to children as Tier 1, Tier 2, or Tier 3. Rather, one should say that *all* children have Tier 1 learning needs, while some children also have Tier 2 or Tier 3 learning needs. In practice, teachers use the domain-specific results to plan their instruction. The RTI classification is used to gauge progress in children's learning over the course of the school year, and to allocate resources effectively. Schools with more than one kindergarten or Grade 1 classroom can use the RTI score to ensure the prevalence of vulnerable children is evenly distributed among classrooms.

Also, children with Tier 2 or Tier 3 learning needs do not necessarily have a specific learning or intellectual disability. The classification simply indicates that a child may need extra instructional time and resources during the primary school years. RTI is a *preventive* approach. It can help educators allocate resources early and continuously, rather than waiting until children have experienced failure.

Assess pre-post learning gains in pre-literacy skills.

We use the term 'vulnerable' to identify children who are at risk of not becoming successful readers unless they receive additional support during kindergarten and the primary grades. With the *EYE-TA*, we consider those children with Tier 2 or Tier 3 learning needs to be vulnerable.

The recommended practice for the administration of the *EYE-TA* for children entering kindergarten is to assess all children within about six weeks after the start of the school year. Children who are deemed vulnerable – those with Tier 2 or Tier 3 learning needs – are assessed again near the end of the school year. Children who have only Tier 1 learning needs are usually not reassessed because only in rare circumstances do their *EYE-TA* scores decline from the beginning to the end of the school year. However, at the discretion of the teacher, any child can be reassessed. With this approach, it is possible to estimate the prevalence of vulnerable children and the reduction in vulnerability from the beginning to the end of the school year.

Assess effects of school or jurisdiction-wide interventions.

EYE-TA data can also be used as a baseline for conducting an intervention study. A study could be a quasi-experiment in which the intervention is implemented in one region of a country but not another, or with a randomized experiment with treatment and control groups. The *EYE-TA* data can be used for identifying strategic samples of schools or for randomly assigning students or schools to treatment conditions associated with an intervention.

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III. Reduce inequalities of sub-populations

Estimate inequalities in pre-literacy skills upon school entry

In many jurisdictions, as part of the implementation of the *EYE-TA*, data are collected on the child's postal code. The postal code data are linked to data from the Canadian Census to obtain a measure of socioeconomic status (SES). With these data, the gaps in skill levels across levels of SES can be estimated. Similarly, some jurisdictions collect data on Indigenous status, thereby allowing one to estimate differences in skill levels between Indigenous and non-Indigenous students.

Estimate the extent of reduction in inequalities in pre-literacy skills during kindergarten

The *EYE-TA* data can be used to estimate increases in skill levels for Indigenous and non-Indigenous students, or for children with varying levels of SES, following the same techniques described in the previous section.

IV. Screening

Identify students requiring extra support

The *EYE-TA* was designed as a screening measure to reliably identify children who are vulnerable. The scales include items that provide reliable scores at the lower end of the population distribution of skills, thereby providing a more precise score for determining which children require extra support.

The *EYE-TA* was not designed to diagnose specific disabilities, such as autism, learning disabilities, or speech or language disorders. In many jurisdictions, children with low scores in particular domains are referred to psychologists or speech and language pathologists for further assessment.

Estimate the prevalence of students with special needs

The use of the *EYE-TA* for estimating special needs funding builds upon research done in Ontario, Canada that uses data from the Canadian Census to estimate the expected prevalence of students with special needs in each school district (Willms, Palinsky, & Blugerman, 2013). The Ontario prediction model has been used in conjunction with *EYE-TA* data to provide more accurate estimates of the prevalence of children with special needs in a school district or province.

V. Allocate Educational Resources

Assess progress towards meeting strategic goals

The setting of goals based on the *EYE-TA* follows a framework called SMART, which includes five criteria: goals should be specific, measurable, attainable, relevant, and time-related.[2] These criteria are described below.

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[2] One of the earliest SMART frameworks used 'assignable' rather than 'attainable' and 'realistic' rather than relevant (Doran, 1981). The framework used in this paper is commonly used in education.

Specific. A specific goal is one that clearly states what is to be accomplished. Goals are more likely to be achieved if there is a small number of well-defined goals.

Measurable. Goals need to be stated in absolute terms and linked to time-invariant scales.

Attainable. Setting attainable goals is perhaps the most challenging aspect of goal-setting. They must be realistically achievable in a specified period and yet challenging for educators at all levels of the school system.

Relevant. A goal must be understood and seen as important for actors at all levels of the school jurisdiction, including regional administrators, teachers, parents, and students. 'Relevance' can be bolstered by appealing to economic, health, and social benefits. For example, improvements in literacy skills are related to earnings and tax revenue, reduced crime rates, less unemployment, less dependence on social welfare, and lower health care costs (Hanushek & Woessmann, 2015; Ross & Wu, 1995).

Timeframe. Monitoring the progress of a school jurisdiction requires monitoring data provided annually or even more frequently. This requirement is especially pertinent to monitoring pre-literacy skills during the pre-kindergarten and early primary school period.

Goals set based on the *EYE-TA* typically refer to a reduction of vulnerability over the course of a school year or the attainment of a long-term target.

Allocate resources in efficient manner

Willms (2018) described five types of strategies that can be implemented by a jurisdiction when considering allocating resources: universal, performance-targeted, SES-targeted, compensatory, and reallocation. Universal and performance-targeted strategies are most relevant to the use of the *EYE-TA*. A universal strategy strives to improve the outcomes of all students in a jurisdiction, while a performance-targeted intervention is targeted towards students with low levels of performance. The most efficient approach is to implement these two types of strategies with *within-school* interventions in the majority of schools, and *whole-school* interventions in a small set of 'vulnerable' schools; that is, those with a high prevalence of vulnerable students.

For example, a common goal of many jurisdictions is to increase the percentage of children who have strong pre-literacy skills when they enter grade 1. A universal strategy is to use the *EYE-100* in all schools in a jurisdiction, as the activities are designed to strengthen the pre-literacy skills of all children. A targeted strategy would be to use jurisdiction-wide results from the *EYE-TA* to identify schools with at least 75% of its students who are vulnerable. These schools would likely benefit from a whole-school intervention, such as *Confident Learners* (Willms, 2016).

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V.   Phase One - Variables

The purpose of this next section is to explain the variables in detail and the methodology of how the data were pulled for Phase One.

School & Student Variables

The data for a school are based on the data of the students enrolled in the school with exceptions by variable identified below. The school enrolment has been factored into the final number for each school's variable to allow for school-to-school comparison for the purpose of allocating funds.

Some considerations in Phase One have included the grade of the student and weighed data within a variable accordingly. As well, with some variables multiple years of data were used where possible and, in some cases, weightings applied to years. This was because of statistical determinations.

The following explain the variables in more detail and are arranged in alphabetical order for ease of access.

Absent Rate

This is the absent rate of each student summarized into the absent rate of the school. The school with the lowest value has a score of 1 and the highest a score of 246.

The Absent Rate is a weighted average based on two years of data (from PowerSchool). A weight of one-third is assigned to the 2018-19 school data and a weight of two-thirds is assigned to the 2019-20 school data.

For Phase Two, the way the data is assigned will be reviewed. For example, with these data perhaps we use five-year trend data and weight each year.

Note | the collection of attendance data highlights the need for accurate reporting of attendance by schools. Inconsistencies in the data will affect the absent rate of the school. For example, in schools recording daily attendance (done twice a day), if a student is ill for 22 of the 180 days of school but the teacher has only recorded the absence in the morning, the student's absent rate will be 6.1% instead of 12.2%. For block attendance schools (attendance taken every block), if a student is ill for 18 of the 180 days but two teachers do not record attendance for this student in a six-block day, the student's absent rate will be 6.7% instead of 10.0%.

AP/IB Courses Participation Rate

This is the percentage of students in a high school enrolled in one or more advanced placement or international baccalaureate courses. The school with the

highest value has a score of 1 meaning that it has the lowest negative impact on student achievement.

For Phase One, schools that eventually feed into the high school are assigned the same result as the high school. For example, students who attend Chief Justice Milvain School feed to Annie Gale School which in turn feeds to Lester B. Pearson High School. Refer to Appendix | Schools and Assigned High School for specifics on how schools were assigned in Phase One.

Exceptions (for 2020-21):
- Dr. Freda Miller School is assigned the same rate as Evergreen School.
- Jack James High School is assigned the same rate as Forest Lawn High School.
- Northern Lights School is assigned the same rate as Coventry Hills School.
- Sibylla Kiddle School is assigned the same rate as Cranston School.

For Phase Two, the way the data are assigned will be reviewed and another method may be used to assign the data to the schools that are not high schools. For example, maybe we track where students land for high school then weight the elementary or middle/junior school based on these results.

Citizenship Status - 1 (Canadian Citizen) Percentage

This is the percentage of students in a school who have a citizenship status of 1 (Canadian citizen). The school with the highest value has a score of 1.

Citizenship Status - 2 (Permanent Resident) Percentage

This is the percentage of students in a school who have a citizenship status of 2 (permanent resident). The school with the lowest value has a score of 1.

Drop-Out Rate

This rate is taken from the Accountability Pillar Report. It is the percentage of students aged 14 to 18 years each year registered at the school as of September 30 who drop out the following year, adjusted for attrition. The drop-out rate variable is the average of the drop-out rate for the last five years. The school with the lowest value has a score of 1.

For Phase One, schools that eventually feed into the high school are assigned the same result as the high school. Refer to Appendix | Schools and Assigned High School to see how schools were assigned in Phase One.

Exceptions (for 2020-21):
- Dr. Freda Miller School is assigned the same rate as Evergreen School.
- Joane Cardinal-Schubert High School (JCSHS) is assigned the same rate as Lord Beaverbrook High School because JCSHS only has Accountability Pillar Survey data.
- Nelson Mandela High School (NMHS) is assigned the same rate as Lester B. Pearson High School because NMHS only has only one year of data.
- Northern Lights School is assigned the same rate as Coventry Hills School.
- Sibylla Kiddle School is assigned the same rate as Cranston School.
- The results for schools that are assigned to both Forest Lawn and Jack James High Schools (see Appendix) are calculated on a weighted average of the two schools' results based on their school enrollments.

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For Phase Two, the way the data are assigned will be reviewed and another method may be used to assign the data to the schools that are not high schools. For example, the percentage of students in the high schools by feeder school could be used to apply weighting.

Enrollment Type Code (402, 403, 413, 415, 416, 417, 418) Percentage

This the percentage of students who are exchange, visiting, or step-child of a Canadian citizen or Temporary foreign worker. The school with the lowest value has a score of 1.

EYE_RTI2(MOD)&SPED Percentage

This percentage is based on five years of the *Early Years Evaluation Teacher Assessment* (*EYE-TA*) data and two years of SPED data as entered into PowerSchool. The school with the lowest value has a score of 1.

note | In order to understand better the *EYE-TA*, Dr. Doug Willms and The Learning Bar have provided information on the validity and reliability these data, which can be found in Appendix | *Early Years Evaluation Teacher Assessment* (*EYE-TA*).

All EYE RTI 2 are classified as moderate and all SPED funded codes that are mild/moderate are classified as moderate.

The calculation of the school result is as follows:

1. *EYE-TA* moderate data are organized by postal code.

2. The percentage of *EYE-TA* moderate codes by postal code is calculated.

3. Given that the *EYE-TA* RTI 2 data result in about 88% of students being coded with a mild/moderate SPED code later in a student's education, a factor of 0.88 is applied to these results.

4. SPED moderate data are organized by postal code.

5. The percentage of SPED moderate codes by postal code is calculated.

6. The *EYE-TA* moderate percentage where the 0.88 factor has been applied are compared by postal code to the SPED moderate percentage.

7. The higher of the two numbers is assigned as the moderate code percentage to the postal code.

8. Each student, regardless of grade, is assigned a moderate code percentage based on their postal code.

9. These values are then summarized into the school moderate code percentage.

Note | the collection of SPED data highlights the need for accurate data entry. There are many instances where a severe code is in the unfunded field and the mild/moderate code is in the funded field or there is no code in the funded field and a mild/moderate or severe code in the unfunded field. For Phase One the data was cleaned in the spreadsheet. Schools, however, must do the data cleanup in PowerSchool themselves. SIS Support has been working with schools this year to address this; however, errors still exist. To ensure comparison of data from code fields was correct, SIS Support, reviewed every school to catch these. However, for

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Phase Two, the data pull will be what it is; that is, the data will be presumed to be correct.

EYE_RTI3(SEV)&SPED Percentage

The severe code percentage is based on five years of *EYE-TA* data and two years of SPED data as entered into PowerSchool. The school with the lowest value has a score of 1.

note | In order to understand better the *EYE-TA* , Dr. Doug Willms and The Learning Bar have provided information on the validity and reliability these data, which can be found in Appendix | *Early Years Evaluation Teacher Assessment* (*EYE-TA*).

All *EYE-TA* RTI 3 are classified as severe and all SPED funded codes that are severe are classified as severe.

The calculation of the school result is as follows:

1. *EYE-TA* severe data are organized by postal code.

2. The percentage of *EYE-TA* severe codes by postal code is calculated.

3. Given that the *EYE-TA* RTI 3 data result in about 98% of students being coded with a severe SPED code later in a student's education, a factor of 0.98 is applied to these results.

4. SPED severe data are organized by postal code.

5. The percentage of SPED severe codes by postal code is calculated.

6. The EYE severe percentage where the 0.98 factor has been applied are compared by postal code to the SPED severe percentage.

7. The higher of the two numbers is assigned as the severe code percentage to the postal code.

8. Each student, regardless of grade, is assigned a severe code percentage based on their postal code.

9. These values are then summarized into the school severe code percentage.

For Phase Two, the way the data are assigned will be reviewed. For example, we could look at code trends and weight for this.

Note | the collection of SPED data highlights the need for accurate data entry. See Note in Moderate SPED section above.

Grants Program Code - ELL (301,302,303) Percentage

This the percentage of students in a school coded with an English language learner code. The school with the lowest value has a score of 1.

For Phase Two, the way the data are assigned will be reviewed. For example, perhaps the codes are weighted differently. As well Proficiency Level will be included and weighting will be considered.

Grants Program Code - K&E (710) Percentage

This the percentage of students in a school coded with a knowledge and employability (710) code. The school with the lowest value has a score of 1.

For Phase One, the K&E percentage for schools with grade 8 & 9 are compared to their feeder high school and the higher percentage is assigned to that school.

For all other schools that eventually feed into the high school they are assigned the percentage of their feeder high school.

Exceptions (for 2020-21):
- Dr. Freda Miller School is assigned the same rate as Evergreen School.
- Northern Lights School is assigned the same rate as Coventry Hills School.
- Sibylla Kiddle School is assigned the same rate as Cranston School.

For Phase Two, the way the data are assigned will be reviewed and another method may be used to assign the data to the schools that are not high schools.

Grants Program Code - Refugee (640) Percentage

This the percentage of students in a school coded with a refugee (640) code. The school with the lowest value has a score of 1.

High School Completion Rate (3 yr)

This rate is taken from the Accountability Pillar Report. It is the percentage of students in the Grade 10 cohort (grade 10 students who were enrolled in the school as of September 30) who have completed high school by the end of their third year, adjusted for attrition.

High school completion is defined by Alberta Education as:

- receiving an Alberta high school diploma;
- receiving certificate of high school completion;
- receiving a high school equivalency (GED);
- entering a post-secondary level program at an Alberta post-secondary instruction;
- registering in an Albert apprenticeship program; or
- earning credits in a minimum of five grade 12 courses include a language arts diploma exam course and three other diploma examination courses

The high school completion rate (3 yr) variable is the average of the high school completion rate for the last five years. The school with the highest value has a score of 1.

For Phase One, schools that eventually feed into the high school are assigned the same result as the high school. Refer to Appendix | Schools and Assigned High School to see how schools were assigned in Phase One.

Exceptions (for 2020-21):
- Dr. Freda Miller School is assigned the same rate as Evergreen School.
- Joane Cardinal-Schubert High School (JCSHS) is assigned the same rate as Lord Beaverbrook High School because JCSHS only has Accountability Pillar Survey data.
- Nelson Mandela High School (NMHS) is assigned the same rate as Lester B. Pearson High School because NMHS only has only one year of data.

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- Northern Lights School is assigned the same rate as Coventry Hills School.
- Sibylla Kiddle School is assigned the same rate as Cranston School.
- The results for schools that are assigned to both Forest Lawn and Jack James High Schools (see Appendix) are calculated on a weighted average of the two schools' results based on their school enrollments.

For Phase Two, the way the data are assigned will be reviewed and another method may be used to assign the data to the schools that are not high schools. Perhaps for Phase Two we use the data specific to the students who meet high school completion requirements in CBE rather than the Grade 10 cohort.

In/Out Count Per Student

This is the number of students who have left or joined the school after the first student in day. The school with the lowest value has a score of 1.

The In/Out Count is a weighted average based on two years of data. A weight of one-third is assigned to the 2018-19 school data and a weight of two-thirds is assigned to the 2019-20 school data.

Exceptions (for 2020-21):
- Dr. Freda Miller School is assigned the same rate as Evergreen School.
- Northern Lights School is assigned the same rate as Coventry Hills School.
- Sibylla Kiddle School is assigned the same rate as Cranston School.

Indigenous Code (331, 332, 333, 334)

This the percentage of students in a school coded with an Indigenous enrollment code. The school with the lowest value has a score of 1.

Rutherford Scholarship Eligibility Rate

This rate is taken from the Accountability Pillar Report. It is the percentage of Alberta grade 12 students who have met the eligibility criteria for a Rutherford Scholarship based on course marks in grades 10, 11 and 12.

The Rutherford scholarship eligibility rate variable is the average of the rate for the last five years. The school with the highest value has a score of 1.

For Phase One, schools that eventually feed into the high school are assigned the same result as the high school. Refer to Appendix | Schools and Assigned High School to see how schools were assigned in Phase One.

Exceptions (for 2020-21):
- Dr. Freda Miller School is assigned the same rate as Evergreen School.
- Joane Cardinal-Schubert High School (JCSHS) is assigned the same rate as Lord Beaverbrook High School because JCSHS only has Accountability Pillar Survey data.
- Nelson Mandela High School (NMHS) is assigned the same rate as Lester B. Pearson High School because NMHS only has only one year of data.
- Northern Lights School is assigned the same rate as Coventry Hills School.
- Sibylla Kiddle School is assigned the same rate as Cranston School.
- The results for schools that are assigned to both Forest Lawn and Jack James High Schools (see Appendix) are calculated on a weighted average of the two schools' results based on their school enrollments.

For Phase Two, the way the data are assigned will be reviewed and another method may be used to assign the data to the schools that are not high schools.

Student School Moves Per Student

This is the number of different schools a student has attended in Alberta weighted by the grade the student is in minus 1 (**note** | students in K or Grade 1 have their result divided by 1). The school with the lowest value has a score of 1.

For example, if a student is in grade 6 and attended School A for 4 years, School B for 2 and is currently in School C, this student's number would be 0.6 (found by taking 3 and dividing by 5).

Total School Enrollments Per Student

This is the number of years a student has attended school in Alberta weighted by grade the student is in minus 1 (**note** | students in K or Grade 1 have their result divided by 1). The school with the lowest value has a score of 1.

For example, if a student is in grade 6 and attended School A for 4 years, School B for 2 and is currently in School C, this student's number would be 1.4 (found by taking 7 and dividing by 5).

Transition Rate (4 yr)

This rate is taken from the Accountability Pillar Report. It is the percentage of students in the Grade 10 cohort (grade 10 students who were enrolled in the school as of September 30) who have entered a post-secondary-level program at an Alberta post-secondary institution or registered in an Alberta apprenticeship program within four years of entering grade 10, adjusted for attrition.

The transition rate (4 yr) variable is the average of the transition rate (4 yr) for the last five years. The school with the highest value has a score of 1.

For Phase One, schools that eventually feed into the high school are assigned the same result as the high school. Refer to Appendix | Schools and Assigned High School to see how schools were assigned in Phase One.

Exceptions (for 2020-21):
- Dr. Freda Miller School is assigned the same rate as Evergreen School.
- Joane Cardinal-Schubert High School (JCSHS) is assigned the same rate as Lord Beaverbrook High School because JCSHS only has Accountability Pillar Survey data.
- Nelson Mandela High School (NMHS) is assigned the same rate as Lester B. Pearson High School because NMHS only has only one year of data.
- Northern Lights School is assigned the same rate as Coventry Hills School.
- Sibylla Kiddle School is assigned the same rate as Cranston School.
- The results for schools that are assigned to both Forest Lawn and Jack James High Schools (see Appendix) are calculated on a weighted average of the two schools' results based on their school enrollments.

For Phase Two, the way the data are assigned will be reviewed and another method may be used to assign the data to the schools that are not high schools.

Waived Fee Per Student

This is the number of official waived fees per school (as provided by Finance) divided by the school enrollment. The school with the lowest value has a score of 1.

Census Variables

Alberta Education is using five 2016 Statistics Canada Census variables in the determination of the Socio-Economic Status Index (*Interim Funding Manual for School Authorities 2020/21 School Year* p. 39) for 2020-21 funding of school authorities.

It is not uncommon to use census data for funding determinations. For example, some federal funding to municipalities and provincial governments are based on population estimate census data.

Census data are based on a dissemination area which is a geographic unit that the Census of Population Program uses for data reporting and is comprised of several postal codes.

In the census variable data below, students who do not have a Calgary postal code are excluded from the census variable calculations. If dissemination area information is not available for a postal code, nearby dissemination area census data are used as a reference.

Sometimes there are concerns that certain groups within a population, like immigrants, are not represented in census data. The response rate for the 2016 Canada Census was 98.4% for Canada and 97.9% for Alberta. This same census reports that 21.9% of the Canadian population were 'foreign-born' (immigrants).

The following explain the variables in more detail and are arranged in alphabetical order for ease of access.

First Generation Percentage

This is the percentage of population in a dissemination area that reported on the census that their generation status is 'first generation'.

Home Language_Non-Official Language

This is the percentage of population in a dissemination area that reported on the census that their home language is not English or French.

Immigrant Percentage

This is the percentage of population in a dissemination area that reported on the census that their immigrant status is 'immigrant'. It includes persons who are, or who have ever been, landed immigrants or permanent residents.

Lone-Parent Census Family Percentage

This is the percentage of lone-parent census families in a dissemination area that reported on the census.

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Low-Income Cut-Off Percentage

This is the percentage of population in a dissemination area that reported on the census that they are in low income based on the Low-Income Cut-Offs, After Tax (LICO-AT) for the population aged 18 to 64 years. The low-income cut-offs, after tax refers to an income threshold, defined using 1992 expenditure data, below which economic families or persons not in economic families would likely have devoted a larger share of their after-tax income than average to the necessities of food, shelter and clothing.

Low-Income Measure Percentage

This is the percentage of population in a dissemination area that reported on the census that they are in low income based on the Low-Income Measure, After Tax (LIM-AT) for the population aged 18 to 64 years. The Low-income measure, after tax, refers to a fixed percentage (50%) of median-adjusted after-tax income of private households.

Market Income Composition Percentage

The market income percentage of the aggregate total income in 2015 of the population aged 15 years and over in a dissemination area. Market income is the sum of employment income (wages, salaries and commissions, net self-employment income from farm or non-farm unincorporated business and/or professional practice), investment income, private retirement income (retirement pensions, superannuation and annuities, including those from registered retirement savings plans and registered retirement income funds) and other money income from market sources during the reference period.

Median Total Income Economic Family With Children_Standard Score

This is the zero-mean normalization score of the median total income of couple economic families with children in 2015 in a dissemination area. Economic family is the combination of relatives that comprise a family. Classification on this variable considers the presence or absence of: married spouses or common-law partners; children; and other relatives.

Median Total Income Economic Family_Standard Score

This is the zero-mean normalization score of the median total income of economic families in 2015 in a dissemination area.

Median Total Income_Standard Score

This is the zero-mean normalization score of the median total income in 2015 among recipients in a dissemination area.

Mother Tongue_Non-Official Language

This is the percentage of population in a dissemination area that reported on the census that their mother tongue is not English or French. Mother tongue refers to the first language learned at home in childhood and still understood by the person at the time the data were collected.

Movers 1 Year Ago

This is the percentage of population in a dissemination area that reported on the census that their mobility status 1 year ago is 'mover'. This refers to the status of a person with regard to the place of residence on the reference day, May 10, 2016, in relation to the place of residence on the same date one year earlier at the provincial level. Movers include non-migrants and migrants. Non-migrants are persons who did move but remained in the same city, town, township, village or Indian reserve. Migrants include internal migrants, who moved to a different city, town, township, village or First Nation reserve within Canada. External migrants include persons who lived outside Canada at the earlier reference date.

Movers 5 Years Ago

This is the percentage of population in a dissemination area that reported on the census that their mobility status 5 years ago is 'movers'.

No Certificate 15 Years

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 15 years and over is 'no certificate, diploma or degree'. This variable refers to the highest level of education that a person has successfully completed and is derived from the educational qualification questions, which asked for all certificates, diplomas and degrees to be reported.

No Certificate 25 Years

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 25 to 64 years is 'no certificate, diploma or degree'.

Non-Aboriginal Identity Percentage

This is the percentage of population in a dissemination area that reported on the census that their aboriginal identity is 'non-aboriginal identity'. Aboriginal identity includes persons who are First Nations, Métis or Inuk (Inuit) and/or those who are Registered or Treaty Indians (that is, registered under the Indian Act of Canada) and/or those who have membership in a First Nation or Indian band. Aboriginal peoples of Canada are defined in the Constitution Act, 1982, section 35 (2) as including the Indian, Inuit and Métis peoples of Canada.

Non-Citizens Percentage

This is the percentage of population in a dissemination area that reported on the census that their citizenship status is 'not Canadian citizens'. Persons who are stateless are included in this category.

Owner Percentage

This is the percentage of owner tenure private households in a dissemination area that reported on the census. Tenure refers to whether the household owns or rents their private dwelling. A household is considered to own their dwelling if some member of the household owns the dwelling even if it is not fully paid for, for example, if there is a mortgage or some other claim on it.

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Post-Secondary Certificate 15 Years

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 15 years and over is 'post-secondary certificate, diploma or degree'. Post-secondary certificate, diploma or degree includes: apprenticeship or trades certificate or diploma; college; CEGEP or other non-university certificate or diploma; and university certificates, diplomas and degrees.

Post-Secondary Certificate 25 Years

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 25 to 64 years is 'post-secondary certificate, diploma or degree'.

Renter Percentage

This is the percentage of renter tenure private households in a dissemination area that reported on the census. A household is considered to rent their dwelling if no member of the household owns the dwelling. A household is considered to rent that dwelling even if the dwelling is provided without cash rent or at a reduced rent, or if the dwelling is part of a cooperative.

Secondary Certificate 15 Years

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 15 years and over is 'secondary (high) school diploma or equivalency certificate'. Secondary (high) school diploma or equivalency certificate includes only people who have this as their highest educational qualification. It excludes persons with a postsecondary certificate, diploma or degree.

Secondary Certificate 25 Years

This is the percentage of population in a dissemination area that reported on the census that their highest certificate, diploma or degree for the population aged 25 to 64 years is 'secondary (high) school diploma or equivalency certificate'.

Third Generation Percentage

This is the percentage of population in a dissemination area that reported on the census that their generation status is 'third generation or more'.

Components

The components are constructed by Principal Component Analysis (PCA) method. PCA is a statistical method that converts a large set of possibly correlated variables into a small set of linearly uncorrelated variables called principal components. The purpose of this procedure is to try to reduce the dimension of the original data with minimal loss of its numerical features (i.e., statistical features).

The principal components can be treated as a unique linear transformation of the original variables. The first principal component accounts for the largest possible variance of the original data set and each preceding component has the highest variance under the orthogonal condition to the previous component. The number of

extracted principal components are often determined by its eigenvalues or the desired amount of explained variance. The variable loading to different components can be used to describe the contribution of the variable and it enables us to better interpret the meaning of the component values.

In the Equity Factor component construction, Parallel Analysis is applied to decide the ideal number of components to retain from PCA procedure. Essentially, Parallel Analysis tests whether the extracted components are mostly random noise (unexplained variability with a data sample) or not.

Please refer to the Appendix | Variables and Components Summary Table for the list of what variables are included in each component.

VI. Phase One - Variables and Components Summary Table

The data for each of these variables are sorted where a score of 1 indicates a lower potential gap of achievement for students in the school based on the variable and 246 the highest potential gap.

All variables and components are weighted equally within RAM.

School & Student Variables	Score
Absent Rate	Lowest value has a score of 1
AP/IB Courses Participation Rate	Highest value has a score of 1
Citizenship status - 1 (Canadian Citizen) Percentage	Highest value has a score of 1
Citizenship status - 2 (Permanent resident) Percentage	Lowest value has a score of 1
Drop-Out Rate	Lowest value has a score of 1
Enrollment Type Code (402, 403,413, 415, 416, 417, 418) Percentage	Lowest value has a score of 1
EYE_RTI2(MOD)&SPED Percentage	Lowest value has a score of 1
EYE_RTI3(SEV)&SPED Percentage	Lowest value has a score of 1
Indigenous Code (331, 332, 333, 334)	Lowest value has a score of 1
Grants Program Code - ELL (301,302,303) Percentage	Lowest value has a score of 1
Grants Program Code - K&E (710) Percentage	Lowest value has a score of 1
Grants Program Code - Refugee (640) Percentage	Lowest value has a score of 1
High School Completion Rate (3 yr)	Highest value has a score of 1
In/Out Count Per Student	Lowest value has a score of 1
Rutherford Scholarship Eligibility Rate	Highest value has a score of 1

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Student School Moves Per Student	Lowest value has a score of 1
Total School Enrollments Per Student	Lowest value has a score of 1
Transition Rate (4 yr)	Highest value has a score of 1
Waived Fee Per Student	Lowest value has a score of 1

School & Student Components	Score
Component 1 ▪ Absent Rate ▪ Drop-Out Rate ▪ Grants Program Code - K&E (710) Percentage ▪ High School Completion Rate (3 yr) ▪ Indigenous Code (331, 332, 333, 334) ▪ Rutherford Scholarship Eligibility Rate ▪ Transition Rate (4 yr)	Lowest value has a score of 1
Component 2 ▪ Citizenship status - 1 (Canadian Citizen) Percentage ▪ Citizenship status - 2 (Permanent resident) Percentage ▪ Grants Program Code - ELL (301,302,303) Percentage ▪ Grants Program Code - Refugee (640) Percentage ▪ Waived Fee Per Student	Lowest value has a score of 1
Component 3 ▪ Enrollment Type Code (402, 403,413, 415, 416, 417, 418) Percentage ▪ Student School Moves Per Student ▪ Total School Enrollments Per Student	Lowest value has a score of 1
Component 4 ▪ EYE_RTI3(SEV)&SPED Percentage ▪ In/Out Count Per Student	Lowest value has a score of 1
Component 5 ▪ AP/IB Courses Participation Rate ▪ EYE_RTI2(MOD)&SPED Percentage	Highest value has a score of 1

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Census Variables	Score
First generation percentage	Lowest value has a score of 1
Home language_Non-official language	Lowest value has a score of 1
Immigrant percentage	Lowest value has a score of 1
Lone-parent census family percentage	Lowest value has a score of 1
Low-income cut-off percentage	Lowest value has a score of 1
Low-income measure percentage	Lowest value has a score of 1
Market income composition percentage	Highest value has a score of 1
Median total income economic family with children_standard score	Highest value has a score of 1
Median total income economic family_standard score	Highest value has a score of 1
Median total income_standard score	Highest value has a score of 1
Mother tongue_Non-official language	Lowest value has a score of 1
Movers 1 year ago	Lowest value has a score of 1
Movers 5 years ago	Lowest value has a score of 1
No certificate 15 years	Lowest value has a score of 1
No certificate 25 years	Lowest value has a score of 1
Non-aboriginal identity percentage	Highest value has a score of 1
Non-citizens percentage	Lowest value has a score of 1
Owner percentage	Highest value has a score of 1
Post-secondary certificate 15 years	Highest value has a score of 1
Post-secondary certificate 25 years	Highest value has a score of 1
Renter percentage	Lowest value has a score of 1
Secondary certificate 15 years	Lowest value has a score of 1
Secondary certificate 25 years	Lowest value has a score of 1
Third generation percentage	Highest value has a score of 1

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Census Components	Score
Component 1 ▪ Market income composition percentage ▪ Median total income economic family with children_standard score ▪ Median total income economic family_standard score ▪ Median total income_standard score ▪ No certificate 15 years ▪ No certificate 25 years ▪ Post-secondary certificate 15 years ▪ Post-secondary certificate 25 years ▪ Secondary certificate 15 years ▪ Secondary certificate 25 years	Highest value has a score of 1
Component 2 ▪ Lone-parent census family percentage ▪ Low-income cut-off percentage ▪ Low-income measure percentage ▪ Movers 1 year ago ▪ Movers 5 years ago ▪ Owner percentage ▪ Renter percentage	Lowest value has a score of 1
Component 3 ▪ First generation percentage ▪ Home language_Non-official language ▪ Immigrant percentage ▪ Mother tongue_Non-official language ▪ Non-citizens percentage ▪ Third generation percentage	Lowest value has a score of 1

VII. Phase One - Schools and Assigned High School

For Phase One, schools that eventually feed into a particular high school are assigned the same result as that high school. As high school designations change so too will the assigned high schools change.

While not perfect, the strong majority of students will continue on to their designated high school or middle/junior then high school. For alternative programs that do not have a designated high school they were assigned to a high school on based on the majority school data.

For the AP/IB Course Participation Rate and the four Accountability Pillar variables, there are exceptions (for 2020-21) and they are as follows:
  ▪ Dr. Freda Miller School is assigned the same rate as Evergreen School, which is assigned to Dr. E. P. Scarlett High School.
  ▪ Joane Cardinal-Schubert High School (JCSHS) is assigned the same rate as Lord Beaverbrook High School because JCSHS only has Accountability Pillar Survey data.

- Nelson Mandela High School (NMHS) is assigned the same rate as Lester B. Pearson High School because NMHS only has only one year of data.
- Northern Lights School is assigned the same rate as Coventry Hills School, which is assigned to Crescent Heights High School.
- Sibylla Kiddle School is assigned the same rate as Cranston School, which is assigned to Lord Beaverbrook High School.
- The results for schools that are assigned to both Forest Lawn and Jack James High Schools are calculated on a weighted average of the two schools' results based on their school enrollments.

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