Republic of the Philippines
Department of Education
Region IV-A
SCHOOLS DIVISION OF QUEZON PROVINCE

24 October 2022

DIVISION MEMORANDUM
DM No. 892, s. 2022

GUIDE IN COMPUTING KEY PERFORMANCE INDICATORS

To: Assistant Schools Division Superintendents
Division Chiefs
Section/Unit Heads
Public and Private School Heads
All Others Concerned

1. For the information and guidance of all concerned, enclosed is *DepEd Memorandum dated October 12, 2022 Re: GUIDE IN COMPUTING KEY PERFORMANCE INDICATORS* to serve as guide onthe computation of Key Performance Indicators (KPIs), as well as a comprehensive information on the appreciation and appropriate usage of the indicators for reporting, and monitoring and evaluation-related matters.
2. Widest dissemination of this Memorandum is desired.

ELIAS A. ALICAYA JR., EdD
Assistant Schools Division Superintendent
Officer – In – Charge
Office of the Schools Division Superintendent

Parmjdf10/24/2022

DEPEDQUEZON-TM-SDS-04-009-003

Republic of the Philippines
Department of Education
OFFICE OF THE SECRETARY

MEMORANDUM

TO: **MINISTER OF BASIC, HIGHER, AND TECHNICAL EDUCATION (BARMM)**
REGIONAL DIRECTORS
SCHOOLS DIVISION SUPERINTENDENT
REGIONAL/DIVISION PLANNING OFFICERS
PUBLIC ELEMENTARY AND SECONDARY SCHOOL HEADS
ALL OTHERS CONCERNED

FROM: **EPIMACO V. DENSING III**
Undersecretary and Chief of Staff

SUBJECT: **GUIDE IN COMPUTING KEY PERFORMANCE INDICATORS**

DATE: October 12, 2022

The **Planning Service-Education Management Information System Division** (EMISD) issues this Memorandum to provide all personnel across all governance levels a guide on the computation of Key Performance Indicators (KPIs), as well as a comprehensive information on the appreciation and appropriate usage of the indicators for reporting, and monitoring and evaluation-related matters.

This initiative reiterates the vital role of the KPIs as one of the means of measuring the current state of education in the country, including its contributions in assessing programs and projects, monitoring and evaluation, policy development, formulation of interventions, and support for evidence-based decision making in the business of the Department.

Enclosed in this issuance is a **Guide** *(see Annex I)*, which was developed to disseminate awareness on KPIs that provides answers to the following: (1) how to compute; (2) definition and methodology; (3) concepts and notes related to each indicator; (4) data inputs; (5) level of disaggregation of data. Also, it would primarily address concerns on the extent of applicability as to the governance level of computation of a particular indicator (e.g., computed up to the division level or school level).

For clarifications, please do not hesitate to contact **PS-EMISD** through their mail address ps.emisd@deped.gov.ph.

For immediate attention and dissemination.

Republic of the Philippines
Department of Education
OFFICE OF THE SECRETARY

DEPARTMENT OF EDUCATION
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Doc #: 473393

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DEPARTMENT OF EDUCATION

GUIDE IN COMPUTING

EDUCATION PERFORMANCE INDICATORS

AS OF JULY 2022

PREPARED BY:
PLANNING SERVICE - EDUCATION MANAGEMENT INFORMATION SYSTEM DIVISION (PS-EMISD)

INTRODUCTION

The Department of Education (DepEd) formulates, implements, and coordinates policies, plans, programs and projects in the areas of formal and non-formal basic education. It supervises all elementary and secondary education institutions, including alternative learning systems, both public and private. It also provides for the establishment and maintenance of a complete, adequate, and integrated system of basic education relevant to the goals of national development.

Having these goals in mind, indicators are crucial in evaluating the performance of the education system. These indicators also aim at assessing whether the committed indicators and targets in the Basic Education Development Plan (BEDP) 2030, the Philippine Development Plan (PDP), and the Sustainable Development Goals (SDG) Agenda 2030 are achieved.

RATIONALE

Performance indicators refer to the several indicators computed and utilized to evaluate the educational performance in different levels of the education system. They also serve as tools that are used to report the status of the education system to the community, the whole country, and the global community.

In this regard, performance indicators:

- Serve as statistics that enable management to monitor effectiveness and efficiency in the delivery of education services;
- Measure how far or close one is from an objective;
- Identify problematic or unacceptable situations;
- Meet policy concerns; and
- Compare its value to a reference value, to a standard, or to itself.

The BEDP 2030, as issued in **DepEd Order No. 24, s. 2022**, provides for a strategic framework that includes the four pillars of *access*, *equity*, *quality*, and *resiliency and well-being*, which also provides intermediate outcomes that indicate achievement of these pillars. Performance indicators then serve as a measure whether these intermediate outcomes and the BEDP 2030, in extension, are achieved.

For purposes of this guide, the performance indicators discussed are categorized into the following:

- Access Indicators
- Efficiency Indicators
- Ratio and Proportion

ACCESS INDICATORS

Access indicators are used to assess the level of participation of learners or school-age children in a particular level of education.

In computing access indicators, the following key terms are used:

- **Official School Age.** The official school age follows the K-6-4-2 framework of the K-12 curriculum. Based on **Republic Act No. 10533** (otherwise known as the *Enhanced Basic Education Act of 2013*), the official school ages of learners in the K-12 curriculum are shown in the table below:

Level	Official School Age
Kindergarten	Age 5
Elementary (Grades 1–6)	Ages 6–11
Kindergarten to Grade 6	Ages 5–11
Junior High School (Grades 7–10)	Ages 12–15
Senior High School (Grades 11–12)	Ages 16–17
Junior High School to Senior High School (Grades 7–12)	Ages 12–17
Kindergarten to Grade 12	Ages 5–17

- **Projected Population Data.** The projected population data is provided by the Philippine Statistics Authority (PSA). This is the set of data used in computing the access indicators, the most current of which is based on the 2010 Census of Population and Housing.

The following are computed as part of the access indicators:

- **Gross Enrollment Rate (GER)**

  The GER indicates the capacity of the school system to prepare learners to the following levels of education system: (1) Kindergarten, (2) Elementary, (3) Junior High School, and (4) Senior High School. It is thus defined as the total enrollment for a particular level of education *regardless of age*, expressed as a percentage of the eligible official school-age population of that particular level in a given school year.

The formulas for the GER are as follows:

Level	Formula
Kindergarten	$$GER = \frac{Enrollment_{Kinder,\,SY\,N}}{Population_{Age\,5,\,SY\,N}} \times 100$$ where: $Enrollment_{Kinder,\,SY\,N}$ = Kinder enrollment (all ages) $Population_{Age\,5,\,SY\,N}$ = PSA projected population (Age 5)
Grades 1–6	$$GER = \frac{Enrollment_{Grades\,1-6,\,SY\,N}}{Population_{Ages\,6-11,\,SY\,N}} \times 100$$ where: $Enrollment_{Grades\,1-6,\,SY\,N}$ = Grades 1 – 6 enrollment (all ages) $Population_{Ages\,6-11,\,SY\,N}$ = PSA projected population (Ages 6 – 11)
Kindergarten to Grade 6	$$GER = \frac{Enrollment_{Kinder\,to\,Grade\,6,\,SY\,N}}{Population_{Ages\,5-11,\,SY\,N}} \times 100$$ where: $Enrollment_{Kinder\,to\,Grade\,6,\,SY\,N}$ = Kinder to Grade 6 enrollment (all ages) $Population_{Ages\,5-11,\,SY\,N}$ = PSA projected population (Ages 5 – 11)
Junior High School (Grades 7–10)	$$GER = \frac{Enrollment_{Grades\,7-10,\,SY\,N}}{Population_{Ages\,12-15,\,SY\,N}} \times 100$$ where: $Enrollment_{Grades\,7-10,\,SY\,N}$ = Grades 7 – 10 enrollment (all ages) $Population_{Ages\,12-15,\,SY\,N}$ = PSA projected population (Ages 12 – 15)
Senior High School (Grades 11–12)	$$GER = \frac{Enrollment_{Grades\,11-12,\,SY\,N}}{Population_{Ages\,16-17,\,SY\,N}} \times 100$$ where: $Enrollment_{Grades\,11-12,\,SY\,N}$ = Grades 11 – 12 enrollment (all ages) $Population_{Ages\,16-17,\,SY\,N}$ = PSA projected population (ages 16 – 17)

Level	Formula
Secondary (Junior High School to Senior High School)	$$GER = \frac{Enrollment_{Grades\ 7-12,\ SY\ N}}{Population_{Ages\ 12-17,\ SY\ N}} \times 100$$ where: $Enrollment_{Grades\ 7-12,\ SY\ N}$ = Grades 7 – 12 enrollment (all ages) $Population_{Ages\ 12-17,\ SY\ N}$ = PSA projected population (Ages 12 – 17)
Kindergarten to Grade 12	$$GER = \frac{Enrollment_{Kinder\ to\ Grade\ 12,\ SY\ N}}{Population_{Ages\ 5-17,\ SY\ N}} \times 100$$ where: $Enrollment_{Kinder\ to\ Grade\ 12,\ SY\ N}$ = Kinder to Grade 12 enrollment (all ages) $Population_{Ages\ 5-17,\ SY\ N}$ = PSA projected population (ages 5 – 17)

In computing the GER, take note of the following key points:

- If the GER approaches 100% or surpasses 100%, the rate indicates that the school system is able to accommodate all children in the official age group.
- The GER can be used together with the NER to measure the extent of overaged and underaged enrollment.
- A higher percentage of GER indicates a high degree of access to a level of education.

- **Net Enrollment Rate (NER)**

The NER is defined as the enrollment in a particular level of education of the official school-age group, expressed as a percentage of the corresponding population. It provides a more precise measurement of the extent of participation in a particular level of education of children belonging to the official school age.

The formulas for the NER are as follows:

Level	Formula
Kindergarten	$$NER = \frac{Enrollment_{Kinder\ (Age\ 5),\ SY\ N}}{Population_{Age\ 5,\ SY\ N}} \times 100$$ where: $Enrollment_{Kinder\ (Age\ 5),\ SY\ N}$ = Kinder enrollment (Age 5) $Population_{Age\ 5,\ SY\ N}$ = PSA projected population (Age 5)

Level	Formula
Grades 1–6	$$\text{NER} = \frac{\text{Enrollment}_{\text{Grades 1–6 (Ages 6–11), SY N}}}{\text{Population}_{\text{Ages 6–11, SY N}}} \times 100$$ where: $\text{Enrollment}_{\text{Grades 1–6 (Ages 6–11), SY N}}$ = Grades 1 – 6 enrollment (Ages 6 – 11) $\text{Population}_{\text{Ages 6–11, SY N}}$ = PSA projected population (Ages 6 – 11)
Kindergarten to Grade 6	$$\text{NER} = \frac{\text{Enrollment}_{\text{Kinder to Grade 6 (Ages 5–11), SY N}}}{\text{Population}_{\text{Ages 5–11, SY N}}} \times 100$$ where: $\text{Enrollment}_{\text{Kinder to Grade 6 (Ages 5–11), SY N}}$ = Kinder to Grade 6 enrollment (Ages 5 – 11) $\text{Population}_{\text{Ages 5–11, SY N}}$ = PSA projected population (Ages 5 – 11)
Junior High School (Grades 7–10)	$$\text{NER} = \frac{\text{Enrollment}_{\text{Grades 7–10 (Ages 12–15), SY N}}}{\text{Population}_{\text{Ages 12–15, SY N}}} \times 100$$ where: $\text{Enrollment}_{\text{Grades 7–10 (Ages 12–15), SY N}}$ = Grades 7 – 10 enrollment (Ages 12 – 15) $\text{Population}_{\text{Ages 12–15, SY N}}$ = PSA projected population (Ages 12 – 15)
Senior High School (Grades 11–12)	$$\text{NER} = \frac{\text{Enrollment}_{\text{Grades 11–12 (Ages 16–17), SY N}}}{\text{Population}_{\text{Ages 16–17, SY N}}} \times 100$$ where: $\text{Enrollment}_{\text{Grades 11–12 (Ages 16–17), SY N}}$ = Grades 11 – 12 enrollment (Ages 16 – 17) $\text{Population}_{\text{Ages 16–17, SY N}}$ = PSA projected population (Ages 16 – 17)
Secondary (Junior High School to Senior High School)	$$\text{NER} = \frac{\text{Enrollment}_{\text{Grades 7–12 (Ages 12–17), SY N}}}{\text{Population}_{\text{Ages 12–17, SY N}}} \times 100$$ where: $\text{Enrollment}_{\text{Grades 7–12 (Ages 12–17), SY N}}$ = Grades 7 – 12 enrollment (Ages 12 – 17) $\text{Population}_{\text{Ages 12–17, SY N}}$ = PSA projected population (Ages 12 – 17)

Level	Formula
Kindergarten to Grade 12	$$NER = \frac{Enrollment_{Kinder\ to\ Grade\ 12\ (Ages\ 5-17),\ SY\ N}}{Population_{Ages\ 5-17,\ SY\ N}} \times 100$$ where: $Enrollment_{Kinder\ to\ Grade\ 12\ (Ages\ 5-17),\ SY\ N}$ = Kinder to Grade 12 enrollment (Ages 5 – 17) $Population_{Ages\ 5-17,\ SY\ N}$ = PSA projected population (Ages 5 – 17)

In computing the NER, take note of the following key points:

- The ideal maximum value for the NER is 100%.
- A higher percentage of NER denotes a high degree of participation in a level of education of the school-age group.
- If the NER is below 100%, the percentage difference shall not be considered as the proportion of children not enrolled.
- The *age-specific enrollment ratio* is a more precise complementary indicator, i.e., the level of participation in education of the population at each particular age.

Comparing the GER and the NER will give you the following implications:

- GER – NER = % overaged and underaged learners
- GER ≥ NER
- GER = NER ⇒ there are no overaged and underaged learners

- **Gross Intake Rate (GIR)**

The GIR is also known as *apparent intake rate*. It reflects the general level of access to elementary education, indicating the capacity of the education system to provide access to Kindergarten or Grade 1 for the official school-entrance age population. This includes overaged and underaged learners in new entrants to Kindergarten or Grade 1. A high percentage of GIR indicates a high degree of access to elementary education.

The formulas for the GIR are as follows:

Level	Formula
Kindergarten	$$GIR = \frac{\text{New Entrants}_{\text{Kinder, SY N}}}{\text{Population}_{\text{Age 5, SY N}}} \times 100$$ where: $\text{New Entrants}_{\text{Kinder, SY N}}$ = Kinder enrollment – Kinder repeaters; $\text{Population}_{\text{Age 5, SY N}}$ = PSA projected population (Age 5)
Grade 1	$$GIR = \frac{\text{New Entrants}_{\text{Grade 1, SY N}}}{\text{Population}_{\text{Age 6, SY N}}} \times 100$$ where: $\text{New Entrants}_{\text{Grade 1, SY N}}$ = Grade 1 enrollment – Grade 1 repeaters; $\text{Population}_{\text{Age 6, SY N}}$ = PSA projected population (Age 6)

- **Net Intake Rate (NIR)**

The computation of the NIR includes only those new entrants to Kindergarten or Grade 1 learners who are of the official school-entrance age. It provides a more precise measurement of access to elementary education of the eligible, elementary school-entrance age population than the GIR. A high percentage of NIR indicates a high degree of access to elementary education for the official school-entrance age. However, the NIR shall not exceed 100%.

The formulas for the NIR are as follows:

Level	Formula
Kindergarten	$$NIR = \frac{\text{New Entrants}_{\text{Kinder (Age 5), SY N}}}{\text{Population}_{\text{Age 5, SY N}}} \times 100$$ where: $\text{New Entrants}_{\text{Kinder (Age 5), SY N}}$ = Kinder enrollment (Age 5) – Kinder repeaters (Age 5); $\text{Population}_{\text{Age 5, SY N}}$ = PSA projected population (Age 5)

Level	Formula
Grade 1	$$\text{NIR} = \frac{\text{New Entrants}_{\text{Grade 1 (Age 6), SY N}}}{\text{Population}_{\text{Age 6, SY N}}} \times 100$$ where: $\text{New Entrants}_{\text{Grade 1 (Age 6), SY N}}$ = Grade 1 enrollment (Age 6) – Grade 1 repeaters (Age 6) $\text{Population}_{\text{Age 6, SY N}}$ = PSA projected population (Age 6)

Comparing the GIR and the NIR will give you the following implications:

- GIR – NIR = % overaged and underaged new entrants
- GIR ≥ NIR
- GIR = NIR ⇒ there are no overaged and underaged new entrants

Also, note that for Kindergarten, if the NIR is equal to the NER (i.e., $\text{NIR}_{\text{Kinder}} = \text{NER}_{\text{Kinder}}$), then it means that there are no repeaters in Kindergarten of age five (5).

- **Transition Rate**

The transition rate assesses the extent by which learners are able to move to the next higher level of education, e.g., Elementary to Junior High School, and Junior High School to Senior High School. It indicates the degree of access to the next higher level, measuring the upward mobility in the educational hierarchy. A high transition rate indicates a high access or transition from one level of education to the next level.

The formulas for the transition rate are as follows:

Level	Formula
Kindergarten to Grade 1	$$\text{Transition Rate} = \frac{\text{New Entrants}_{\text{Grade 1, SY N}}}{\text{Enrollment}_{\text{Kinder, SY N-1}}} \times 100$$ where: $\text{New Entrants}_{\text{Grade 1, SY N}}$ = Grade 1 Enrollment – Grade 1 Repeaters, Current SY $\text{Enrollment}_{\text{Kinder, SY N-1}}$ = Kinder Enrollment, Previous SY

Level	Formula
Grade 3 to Grade 4	$\text{Transition Rate} = \frac{\text{New Entrants}_{\text{Grade 4, SY N}}}{\text{Enrollment}_{\text{Grade 3, SY N-1}}} \times 100$ where: $\text{New Entrants}_{\text{Grade 4, SY N}}$ = Grade 4 Enrollment – Grade 4 Repeaters, Current SY $\text{Enrollment}_{\text{Grade 3, SY N-1}}$ = Grade 3 Enrollment, Previous SY
Elementary to Junior High School (Grade 6 to Grade 7)	$\text{Transition Rate} = \frac{\text{New Entrants}_{\text{Grade 7, SY N}}}{\text{Enrollment}_{\text{Grade 6, SY N-1}}} \times 100$ where: $\text{New Entrants}_{\text{Grade 7, SY N}}$ = Grade 7 Enrollment – Grade 7 Repeaters, Current SY $\text{Enrollment}_{\text{Grade 6, SY N-1}}$ = Grade 6 Enrollment, Previous SY
Junior High School to Senior High School (Grade 10 to Grade 11)	$\text{Transition Rate} = \frac{\text{New Entrants}_{\text{Grade 11, SY N}}}{\text{Enrollment}_{\text{Grade 10, SY N-1}}} \times 100$ where: $\text{New Entrants}_{\text{Grade 11, SY N}}$ = Grade 11 Enrollment – Grade 11 Repeaters, Current SY $\text{Enrollment}_{\text{Grade 10, SY N-1}}$ = Grade 10 Enrollment, Previous SY

The table below shows the applicability of computing the access indicators at different levels of governance.

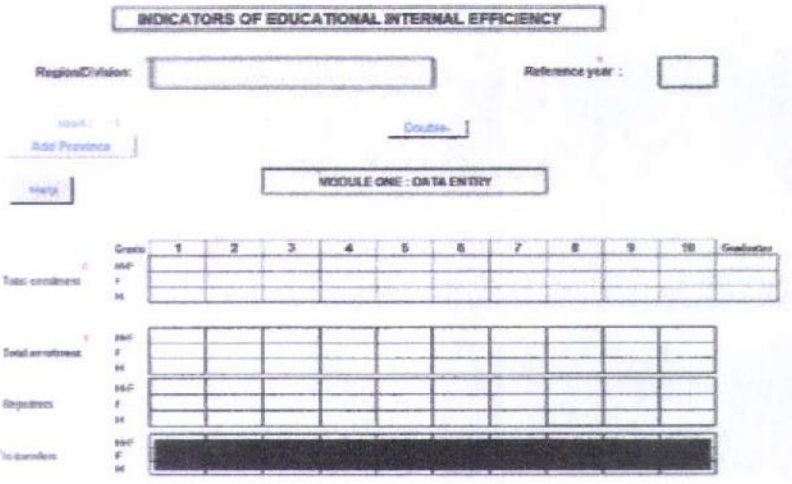
KPI	National	Regional	Division	School
Gross Enrollment Rate	✓	✓	✓	X
Net Enrollment Rate	✓	✓	✓	X
Gross Intake Rate	✓	✓	✓	X
Net Intake Rate	✓	✓	✓	X
Transition Rate	✓	✓	✓	X

From the table above, the access indicators cannot be computed at the School level, since the projected population data is not available at this level.

EFFICIENCY INDICATORS

Efficiency indicators are used to monitor the objectives of the education system to produce desired results at the least possible cost. These indicators also measure the quality of the education system in general.

The Department uses a template based on the computations set forth by the UNESCO Institute of Statistics (UIS) to compute the efficiency indicators. Data needed for the efficiency indicators are first inputted in the Module One of the template, a sample of which is shown below.



The template requires the following data:

- Enrollment for two consecutive school years (current and previous)
- Repeaters in the current SY
- Graduates in the previous SY

Once these are inputted in the Module One, the value of the efficiency indicators will be automatically computed in the Module Two of the template, a sample of which is shown below.

The following are computed as part of the efficiency indicators:

- **Promotion Rate/Graduation Rate**

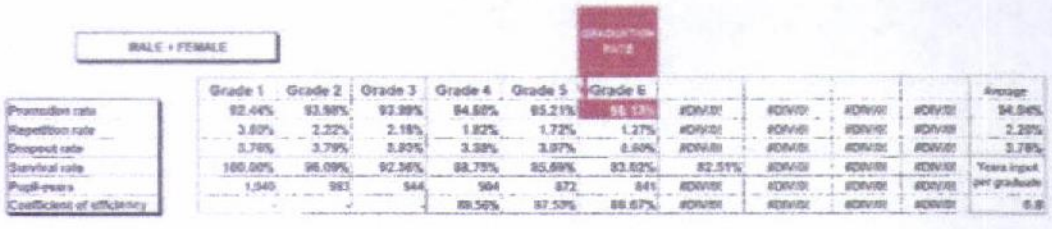
  The promotion rate assesses the extent of learners who are promoted to the next grade level. This can be computed by grade level in Grades 1 to 5 (for Elementary) and in Grades 7 to 11 (for Secondary). For Kindergarten and Grade 10, the learners who are promoted to the next level are called **Kinder completers** (for promotion to Grade 1) and **Grade 10 completers** (for promotion to Grade 11), respectively.

  For Grades 6 and 12, promotion rate is called **graduation rate** wherein it now assesses the extent of learners who finished the said grade levels.

  The formulas for the promotion rate/graduation rate *using the reconstructed cohort method* are as follows:

Level	Formula
Elementary (Grades 1 to 5) Secondary (Grades 7 to 11)	$\text{Promotion Rate} = \frac{\text{Enrollment}_{\text{Grade X, SY N}} - \text{Repeaters}_{\text{Grade X, SY N}}}{\text{Enrollment}_{\text{Grade X-1, SY N-1}}} \times 100$ where: $\text{Enrollment}_{\text{Grade X, SY N}} = \text{BOSY Enrollment, Current SY}$ $\text{Repeaters}_{\text{Grade X, SY N}} = \text{Repeaters, Current SY}$ $\text{Enrollment}_{\text{Grade X-1, SY N-1}} = \text{BOSY Enrollment, Previous SY}$
Junior High School (Grade 10)	$\text{Promotion Rate} = \frac{\text{Completers}_{\text{Grade 10, SY N-1}}}{\text{Enrollment}_{\text{Grade 10, SY N-1}}} \times 100$ where: $\text{Completers}_{\text{Grade 10, SY N-1}} = \text{EOSY Promotees}$ $\text{Enrollment}_{\text{Grade 10, SY N-1}} = \text{BOSY Enrollment}$
Elementary (Grade 6) Secondary (Grade 12)	$\text{Graduation Rate} = \frac{\text{Graduates}_{\text{Grade X, SY N-1}}}{\text{Enrollment}_{\text{Grade X, SY N-1}}} \times 100$ where: $\text{Graduates}_{\text{Grade X, SY N-1}} = \text{EOSY Promotees}$ $\text{Enrollment}_{\text{Grade X, SY N-1}} = \text{BOSY Enrollment}$

From the Module Two of the template, the **graduation rate** can be seen as follows:



- **Repetition Rate**

The repetition rate determines the magnitude of learners who repeat a grade level. This can be computed by grade level and average per grade level. A high repetition rate implies high wastage of resources.

The formula for the repetition rate is:

Level	Formula
All levels (Kinder to Grade 12)	$\text{Repetition Rate} = \frac{\text{Repeaters}_{\text{Grade X, SY N}}}{\text{Enrollment}_{\text{Grade X, SY N-1}}} \times 100$ where: $\text{Repeaters}_{\text{Grade X, SY N}}$ = Repeaters, Current SY $\text{Enrollment}_{\text{Grade X, SY N-1}}$ = BOSY Enrollment, Previous SY

- **School Leaver Rate**

The school leaver rate is internationally known as the *dropout rate*. This covers both learners who **do not finish a particular grade level** as well as those who **finish but fail to enroll in the next grade level the following school year.**

The formula for the school leaver rate is:

Level	Formula
All levels (Kinder to Grade 12)	$\text{School Leaver Rate} = \frac{\left(\text{Enrollment}_{\text{Grade X, SY N-1}} - \text{Repeaters}_{\text{Grade X, SY N}}\right) - \left(\text{Enrollment}_{\text{Grade X+1, SY N}} - \text{Repeaters}_{\text{Grade X+1, SY N}}\right)}{\text{Enrollment}_{\text{Grade X, SY N-1}}} \times 100$ where: $\text{Enrollment}_{\text{Grade X, SY N-1}}$ = BOSY Enrollment, Previous SY $\text{Repeaters}_{\text{Grade X, SY N}}$ = Repeaters, Current SY $\text{Enrollment}_{\text{Grade X+1, SY N}}$ = BOSY Enrollment, Next Grade Level, Current SY $\text{Repeaters}_{\text{Grade X+1, SY N}}$ = Repeaters, Next Grade Level, Current SY

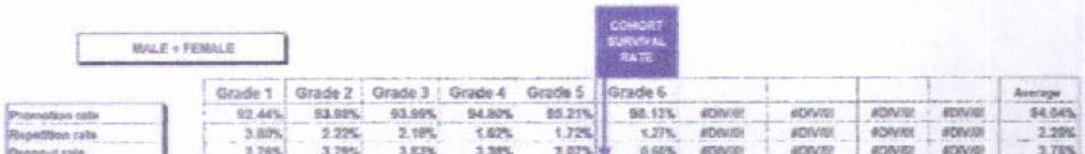
Using the reconstructed cohort method, the relationships of the three eventualities, namely promotion, repetition, and school leaver, imply the following:

- 1 = Promotion Rate + Repetition Rate + School Leaver Rate
- Promotion Rate = 1 – Repetition Rate – School Leaver Rate
- Repetition Rate = 1 – Promotion Rate – School Leaver Rate
- School Leaver Rate = 1 – Promotion Rate – Repetition Rate

- **Cohort Survival Rate (CSR)**

  The CSR computes the percentage of a cohort of learners who were able to reach Grade 6 (Elementary), Grade 10 (Junior High School), or Grade 12 (Senior High School). This rate is used to assess the internal efficiency and *wastage* in education.

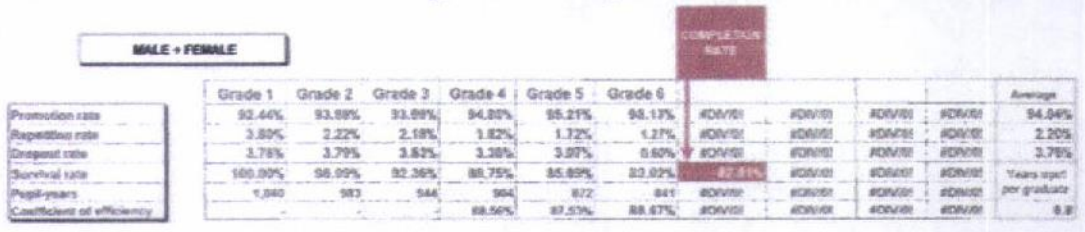
  From the Module Two of the template, the cohort survival rate can be identified as follows:



- **Completion Rate (CompR)**

  The completion rate measures the percentage of enrollment in Grade 1 and Grade 7 who complete or graduate in Elementary, Junior High School, and Senior High School.

  From the Module Two of the template, the completion rate can be located as follows:



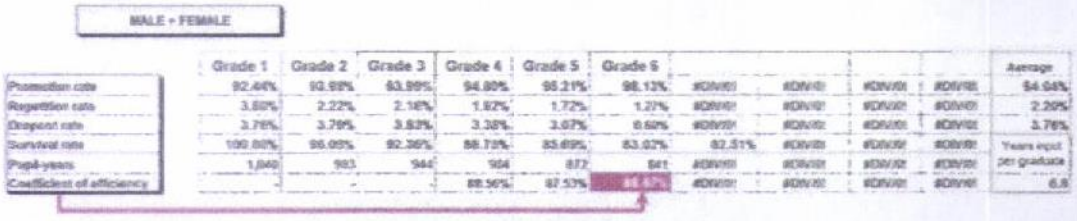
  Comparing the CSR and the CompR will give you the following implications:

  - CSR − CompR = % cohort of learners who were not able to complete the level
  - CSR ≥ CompR
  - CSR = CompR ⇒ all learners were able to reach and complete Grade 6/10/12

- **Coefficient of Efficiency**

  The coefficient of efficiency measures the overall internal efficiency of the education system, evaluating the impact of repetitions and dropouts on the efficiency of the educational processes in producing graduates. A high percentage of coefficient of efficiency indicates a high overall level of internal efficiency and little wastage due to repetitions and dropouts. In other words, early dropouts, especially in the lower grades, reduce internal efficiency.

From the Module Two of the template, the coefficient of efficiency can be identified as follows:

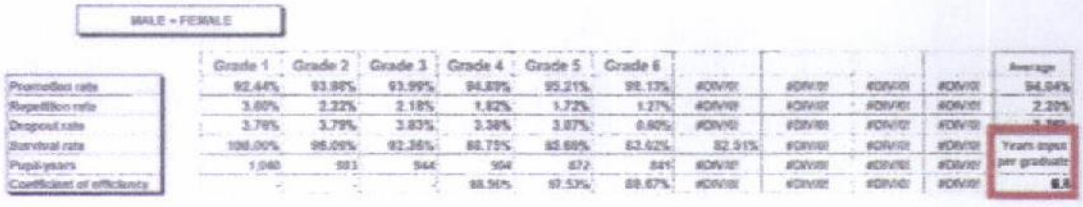


- **Years Input per Graduate**

  The years input per graduate measures the actual duration of pupil-years required to produce a graduate. A *pupil-year* is equal to one school year spent by a learner in a certain grade level.

  The ideal value for the years input per graduate for both elementary and secondary is six (6) years. Any value higher than the ideal implies a high value of repetition and school leaver (or dropout) rates.

  From the Module Two of the template, the years input per graduate can be identified at the end of the box, as shown below:



The table below shows the applicability of computing the efficiency indicators using the *reconstructed cohort method* at different levels of governance:

KPI	National	Regional	Division	School
Promotion Rate/ Graduation Rate	✓	✓	✓	X
Repetition Rate	✓	✓	✓	✓
School Leaver Rate	✓	✓	✓	X
Cohort Survival Rate	✓	✓	✓	X
Completion Rate	✓	✓	✓	X

KPI	National	Regional	Division	School
Coefficient of Efficiency	✓	✓	✓	X
Years Input per Graduate	✓	✓	✓	X

The efficiency indicators mentioned above are generated from the UIS template introduced at the beginning of this section. These are **not computed at the school level** due to vulnerability to migration of learners, **except for the repetition rate, which can be computed manually at the School level using the same formula provided above.**

Efficiency Indicators Using the Old Method

Some indicators can also be computed using the ***old method,*** which refers to the conventions set forth by the Department before the ***reconstructed cohort method*** was introduced. These can be used at the School level. However, for cohort survival and completion rates, the computation of these indicators at the School level shall be **discretionary** since the Department mainly uses the ***reconstructed cohort method*** for computing these indicators.

The indicators are:

- **Promotion Rate/Graduation Rate**

  The formulas for the promotion rate/graduation rate ***using the old method*** are as follows:

Level	Formula
Elementary (Grades 1 to 5) Secondary (Grades 7 to 11)	$\text{Promotion Rate} = \frac{\text{Promotees}_{\text{Grade X, SY N}}}{\text{Enrollment}_{\text{Grade X, SY N}}} \times 100$ where: $\text{Promotees}_{\text{Grade X, SY N}} = \text{EOSY Promotees}$ $\text{Enrollment}_{\text{Grade X, SY N}} = \text{BOSY Enrollment}$
Elementary (Grade 6) Secondary (Grade 12)	$\text{Graduation Rate} = \frac{\text{Graduates}_{\text{Grade X, SY N}}}{\text{Enrollment}_{\text{Grade X, SY N}}} \times 100$ where: $\text{Graduates}_{\text{Grade X, SY N}} = \text{EOSY Promotees}$ $\text{Enrollment}_{\text{Grade X, SY N}} = \text{BOSY Enrollment}$

- **Cohort Survival Rate (CSR)**

The formulas for the CSR *using the old method* are as follows:

Level	Formula
Elementary (Grade 6)	$CSR = \frac{Enrollment_{Grade\ 6,\ SY\ N}}{Enrollment_{Grade\ 1,\ SY\ N-5}} \times 100$ where: $Enrollment_{Grade\ 6,\ SY\ N}$ = BOSY Grade 6 Enrollment, Current SY $Enrollment_{Grade\ 1,\ SY\ N-5}$ = BOSY Grade 1 Enrollment, 5 years ago
Junior High School (Grade 10)	$CSR = \frac{Enrollment_{Grade\ 10,\ SY\ N}}{Enrollment_{Grade\ 7,\ SY\ N-3}} \times 100$ where: $Enrollment_{Grade\ 10,\ SY\ N}$ = BOSY Grade 10 Enrollment, Current SY $Enrollment_{Grade\ 7,\ SY\ N-3}$ = BOSY Grade 7 Enrollment, 3 years ago
Junior High School to Senior High School (Grade 12)	$CSR = \frac{Enrollment_{Grade\ 12,\ SY\ N}}{Enrollment_{Grade\ 7,\ SY\ N-5}} \times 100$ where: $Enrollment_{Grade\ 12,\ SY\ N}$ = BOSY Grade 12 Enrollment, Current SY $Enrollment_{Grade\ 7,\ SY\ N-5}$ = BOSY Grade 7 Enrollment, 5 years ago

*NOTE: Computation of CSR at the School level shall be **discretionary**.*

- **Completion Rate (CompR)**

The formulas for the Completion Rate *using the old method* are as follows:

Level	Formula
Elementary (Grade 6)	$CompR = \frac{Graduates_{Grade\ 6,\ SY\ N}}{Enrollment_{Grade\ 1,\ SY\ N-5}} \times 100$ where: $Graduates_{Grade\ 6,\ SY\ N}$ = EOSY Graduates, Current SY $Enrollment_{Grade\ 1,\ SY\ N-5}$ = BOSY Grade 1 Enrollment, 5 years ago

Level	Formula
Junior High School (Grade 10)	$$\text{CompR} = \frac{\text{Completers}_{\text{Grade 10, SY N}}}{\text{Enrollment}_{\text{Grade 7, SY N-3}}} \times 100$$ where: $\text{Completers}_{\text{Grade 10, SY N}}$ = EOSY Completers, Current SY; $\text{Enrollment}_{\text{Grade 7, SY N-3}}$ = BOSY Grade 7 Enrollment, 3 years ago
Junior High School to Senior High School (Grade 12)	$$\text{CompR} = \frac{\text{Graduates}_{\text{Grade 12, SY N}}}{\text{Enrollment}_{\text{Grade 7, SY N-5}}} \times 100$$ where: $\text{Graduates}_{\text{Grade 12, SY N}}$ = EOSY Graduates, Current SY; $\text{Enrollment}_{\text{Grade 7, SY N-5}}$ = BOSY Grade 7 Enrollment, 5 years ago

NOTE: Like CSR, computation of completion rate at the School level shall be ***discretionary.***

Other Efficiency Indicators

Other efficiency indicators include the following:

- **Retention Rate**

  The retention rate determines the degree of learners in a particular school year who continue to be in school in the succeeding year. Note that this is **not equivalent to the number of learners retained at the end of the school year.**

  The formulas for the retention rate are as follows:

Level	Formula
Grade 1 to Grade 6	$$\text{Retention Rate} = \frac{\text{Enrollment}_{\text{Grades 2 to 6, SY N}}}{\text{Enrollment}_{\text{Grades 1 to 5, SY N-1}}} \times 100$$ where: $\text{Enrollment}_{\text{Grades 2 to 6, SY N}}$ = BOSY Enrollment, Grades 2 to 6, Current SY; $\text{Enrollment}_{\text{Grades 1 to 5, SY N-1}}$ = BOSY Enrollment, Grades 1 to 5, Previous SY

Level	Formula
Junior High School (Grade 7 to Grade 10)	$\text{Retention Rate} = \frac{\text{Enrollment}_{\text{Grades 8 to 10, SY N}}}{\text{Enrollment}_{\text{Grades 7 to 9, SY N-1}}} \times 100$ where: $\text{Enrollment}_{\text{Grades 8 to 10, SY N}}$ = BOSY Enrollment, Grades 8 to 10, Current SY $\text{Enrollment}_{\text{Grades 7 to 9, SY N-1}}$ = BOSY Enrollment, Grades 7 to 9, Previous SY
Secondary (Grade 7 to Grade 12)	$\text{Retention Rate} = \frac{\text{Enrollment}_{\text{Grades 8 to 12, SY N}}}{\text{Enrollment}_{\text{Grades 7 to 11, SY N-1}}} \times 100$ where: $\text{Enrollment}_{\text{Grades 8 to 12, SY N}}$ = BOSY Enrollment, Grades 8 to 12, Current SY $\text{Enrollment}_{\text{Grades 7 to 11, SY N-1}}$ = BOSY Enrollment, Grades 7 to 11, Previous SY

- **Simple Dropout Rate**

The simple dropout rate calculates the percentage of learners who do not finish a particular grade level. Unlike the school leaver rate, it **does not** include learners who finish a grade level but do not enroll in the next grade level the following school year.

The formula for the simple dropout rate is:

Level	Formula
All levels (Kinder to Grade 12)	$\text{Simple Dropout Rate} = \frac{\text{Dropouts}_{\text{Grade X, SY N}}}{\text{Enrollment}_{\text{Grade X, SY N}}} \times 100$ where: $\text{Dropouts}_{\text{Grade X, SY N}}$ = EOSY Dropouts, Current SY $\text{Enrollment}_{\text{Grade X, SY N}}$ = BOSY Enrollment, Current SY

Take note that the simple dropout rate is **not equivalent** to the school leaver rate.

The table below shows the applicability of computing the other efficiency indicators at different levels of governance:

KPI	National	Regional	Division	School
Retention Rate	✓	✓	✓	X
Simple Dropout Rate	✓	✓	✓	✓

RATIO AND PROPORTION

Ratios and proportions are part of quality indicators that the Department computes to complement the other indicators previously presented. On a mathematical perspective, ratios are comparisons between two sets of objects. These can be expressed in either: (1) colon form, (2) fraction form, (3) decimal, and (4) percent. In the context of performance indicators, ratios and proportions assess not only the quality of the education system, but also the quantity of the resources being utilized in schools. Hence, the ratios and proportions are computed **at all levels of governance**, except for the IQR, which is **not** computed at the School level.

The Department computes the following ratios in basic education:

- **Teacher-Learner Ratio**

  The teacher-learner ratio denotes the number of learners per teacher at a specific level of education in a given school year. A high teacher-learner ratio suggests that each teacher has to be responsible for a large number of teachers. Conversely, a low number of learners per teacher indicate that learners will have a better chance of contact with the teachers, hence a better teaching-learning process.

  The formula for the teacher-learner ratio is:

Level	Formula
All levels	$\text{Teacher-Learner Ratio} = \frac{\text{Total enrollment}}{\text{Total number of teachers}}$

  NOTE: The data on enrollment and number of teachers for school annexes shall be added up to the mother school before computing the teacher-learner ratio.

- **Classroom-Learner Ratio**

  The classroom-learner ratio denotes the number of learners per instructional room (i.e., Kindergarten to Grade 12 classrooms *only*) at a specific level of education in a given school year.

  The formula for the classroom-learner ratio is:

Level	Formula
All levels	$\text{Classroom-Learner Ratio} = \frac{\text{Total enrollment}}{\text{Total number of instructional rooms}}$

- **Seat-Learner Ratio**

  The seat-learner ratio denotes the number of learners per available seat (i.e., in Kindergarten chairs, arm chairs, school desks, and New Design 2-seater desks *only*) at a specific level of education in a given school year.

The formula for the seat-learner ratio is:

Level	Formula
All levels	$\text{Seat-Learner Ratio} = \frac{\text{Total enrollment}}{\text{Total number of seats}}$ where: Total number of seats = Number of Kindergarten seats (if applicable) + Number of Arm Chairs + Number of School Desks $\times 2$ + Number of New-Design 2-seater Desks $\times 2$

- **Toilet Bowl-Learner Ratio**

The toilet-bowl-learner ratio denotes the number of learners per *functional* toilet bowl at a specific level of education in a given school year.

The formula for the classroom-learner ratio is:

Level	Formula
All levels	$\text{Toilet Bowl-Learner Ratio} = \frac{\text{Total enrollment}}{\text{Total number of functional toilet bowls}}$

- **Computer-Learner Ratio**

The computer-learner ratio denotes the number of learners per *academically used* computers (and other gadgets as long as they are used academically by the learners) at a specific level of education in a given school year.

The formula for the seat-learner ratio is:

Level	Formula
All levels	$\text{Computer-Learner Ratio} = \frac{\text{Total enrollment}}{\text{Total number of computers for academic use}}$

- **Gender Parity Index (GPI)**

The GPI denotes the ratio of female-to-male values of a given indicator. This can be in the proportion of female learners to male learners, or in other indicators such as GER and NER.

The formula for the GPI is:

Indicator	Formula
All indicators disaggregated by sex	$GPI = \frac{\text{Value of indicator for females}}{\text{Value of indicator for males}}$

The GPI can be interpreted as follows:

GPI RANGE	INTERPRETATION
Less than 0.97 ($GPI < 0.97$)	Disparity in favor of males
From 0.97 to 1.03 ($0.97 \leq GPI \leq 1.03$)	Parity between sexes
Greater than 1.03 ($GPI > 1.03$)	Disparity in favor of females

- **Inter-quartile Ratio (IQR)**

The IQR determines the proportion of a limited resource available to the most favorable quartile of a recipient group as compared to the proportion available to the least favored quartile. Similarly, it is a measure of the disparity in the distribution of available resources which can be calculated at various levels. However, the IQR mainly focuses on teacher distribution, as the IQR monitors the status and progress of distribution of teachers in public elementary and secondary schools.

The formula for the IQR is:

Indicator	Formula
All indicators	$IQR = \frac{\text{Total number of teachers in the most favored quartile}}{\text{Total number of teachers in the least favored quartile}}$

NOTE: The formula above can also be used when calculating the IQR in terms of other resources such as classrooms and seats.

The IQR can be interpreted as follows:

IQR RANGE	INTERPRETATION
From 1.00 to 1.30 ($1.00 \leq IQR \leq 1.30$)	Resources are equitably distributed.
Greater than 1.30 ($IQR > 1.30$)	The teachers in Q_1 (the most favored) have x as much resources as compared to the teachers in Q_4 (the least favored).

NOTES:

- *The ideal IQR must fall at most 1.30 as shown in the table above. Any value greater than 1.30 will result to a disparity of resources, with the IQR being directly proportional to the disparity, i.e., the greater the value of the IQR, the greater the disparity.*
- *The IQR must be computed from at least eight (8) schools. A list of below 8 schools cannot generate a true IQR.*
- *The computation of IQR utilizes school-level data for any level of governance.*

To compute for the IQR, follow these steps:

1. **Get the required data.** Ensure that the data for the enrollment and the number of resources *per school* are tally with the official release.

   NOTE: In the case of IQR for teachers, data of the annexes shall be added up to the mother school.

2. **Compute the ratio *per school*, then sort the table through the computed ratios in ascending order.**
3. **Compute the cumulative frequencies (CF) of the number of enrollment and the number of resources.**
4. **Compute the percentage of cumulative frequency of enrollment.** Divide each CF of enrollment by the total enrollment, then express each as a percentage.
5. **Find the 25% and the 75% in the % CF column.** This will serve as the markers for Q_1 (the most favored quartile) and Q_3, respectively.

   NOTES:

   - *If the exact value cannot be found, look for the closest value.*
   - *If there are multiple values, take the very first occurrence.*

6. **Determine the following:**
   - The number of resources in Q_1 and Q_3
   - The CF of resources below Q_1 and Q_3 values
   - The % CF in Q_1 and Q_3
   - The % CF below Q_1 and Q_3 values
7. **Compute the number of resources in Q_1 and Q_3 using the following formula:**

$$t(Q_1) = \text{CF below } Q_1 - \left[\frac{25.00 - \%\text{ CF below } Q_1 \text{ value}}{\%\text{ CF in } Q_1 - \%\text{ CF below } Q_1 \text{ value}}\right] \times \text{Number of resources in } Q_1$$

$$t(Q_3) = \text{CF below } Q_3 - \left[\frac{75.00 - \%\text{ CF below } Q_3 \text{ value}}{\%\text{ CF in } Q_3 - \%\text{ CF below } Q_3 \text{ value}}\right] \times \text{Number of resources in } Q_3$$

where $t(Q_1)$ and $t(Q_3)$ are the number of resources in Q_1 and Q_3, respectively.

8. **Compute the number of resources in Q_4 (or the least favored), or $t(Q_4)$.** Subtract the number of resources in Q_3 from the total number of resources.
9. **Get the IQR using the formula:**

$$\text{IQR} = \frac{\text{Total number of resources in the most favored quartile}}{\text{Total number of resources in the least favored quartile}}$$

$$= \frac{t(Q_1)}{t(Q_4)}$$