

**Tertiary Education
Commission**

Te Amorangi Mātauranga Matua



Cohort-based qualification completion and retention rates

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Introduction

Purpose

This document describes the methodology used by the Tertiary Education Commission (TEC) to calculate cohort based qualification completion and first year retention rates for those Tertiary Education Organisations (TEOs) that receive student achievement component (SAC) or Youth Guarantee (YG) funding.

These two rates are an alternative to the current educational performance indicator methodology. TEC will be publishing 2015 rates using the new methodologies alongside rates using the current methodology in August.

Scope of this document

This document describes the definitions and rules for calculating:

- Cohort qualification completion rates
- Supplemental non-completion progression rates – to higher and lower levels
- Supplemental completion rates where the learner does not belong to a cohort
- Cohort first year retention rates

Measuring the overall performance of a TEO

We have broadened the scope of what we are measuring to include all confirmed enrolments, including those that are not directly linked to TEC funding, full-fee paying and international students. This is because tertiary education organisations (TEOs) are accountable for the performance of all their students, regardless of funding source. Information on the educational performance of domestic, international and full-fee paying students is relevant to what the TEC invests in.

This means that the cohort-based qualification completion and first year retention rates includes all learners enrolled at the TEO regardless of whether they have been eligible for TEC funding or not. The only funding sources excluded are those for which qualification completions are not expected; these are enrolments in Secondary Tertiary Alignment Resource (STAR), Training Opportunities, Off-Job Training and Adult Community Education (ACE).

Cohort-based qualification completion rate

The cohort-based qualification completion rate measures how many learners in a starting cohort go on to complete a qualification at the same level after a given amount of time. This cohort-based approach does not require a learner to complete the particular qualification that the learner initially enrolled in. The learner is only required to complete a qualification *at the same level*.

Definition

The qualification completion rate of a cohort at level X at TEO A in year Y =

Total number of learners in the starting cohort at level X for year Y who complete a qualification within a given timeframe

Total number of learners in the starting cohort at level X for year Y

Example:

If there are 100 learners who start at degree level at a TEO in 2007, and 50 of these learners go on to complete a qualification at degree level within six years (by the end of 2012), the qualification completion rate would be 50%.

Rules for determining a starting cohort

Cohorts are created for each TEO for each year for each New Zealand Qualification Framework (NZQF) level. The exception is for level 7 where two cohorts are created – Level 7 (non-degree) and Level 7 (degree). Level 7 degree includes graduate diplomas and certificates.

If a learner is enrolled in two qualifications at different TEOs, they will be in a cohort at each TEO. For example, if a learner transfers from TEO A to TEO B in year Y after completing some study at TEO A, the learner will enter into the starting cohort at TEO B in year Y, even though this is not the learner's first year of study for the qualification. The learner will remain in the starting cohort at TEO A and be counted as a non-completion.

There are three rules for determining when a learner enters a starting cohort:

Rule 1: First Enrolment at a TEO in a given level

A learner counts in a starting cohort at level X in a given year Y at a TEO where the learner's first enrolment at the TEO is at level X and in year Y.

Example:

A learner enrolls in a course on the 1 March 2011 for qualification A. The NZQF level of qualification A is 4. This is the first time the learner has enrolled in a course for a qualification at this level. The learner would be in a level 4 cohort with a cohort entry year of 2011.

Rule 2: There is a significant gap (five years or more) in enrolments for a learner

A learner counts in a new starting cohort at level X in year Y at a TEO if there is a gap of five years or more between the current enrolment and the previous enrolment in that level at that TEO.

Example:

A learner enrolls in a course with a course start date of 2 March 2016 in a level 6 qualification at TEO A. The end date of the learner's last enrolment in a level 6 qualification at the TEO was on or before 1 March 2011. The learner would enter into the 2016 cohort at level 6, but still remain the in the 2011 cohort at level 6.

Rule 3: Subsequent enrolment after having previously completed a qualification at the TEO

A learner counts in a new starting cohort at level X in year Y at a TEO if the learner has a subsequent enrolment at level X in year Y at the same TEO following the completion of a prior qualification at the TEO.

Example:

A learner completes a level 4 qualification in 2013 in TEO A and then re-enrolls in another level 4 qualification in 2014. The learner would be counted in the level 4 cohort for 2014 for TEO A.

If there are enrolments linked to different qualifications at different NZQF levels for the same learner in the same year, the learner will be included in a cohort for each of these NZQF levels. A learner can only be counted once in a cohort at a NZQF level in a given entry year.

Data used to create and maintain cohorts

Data on course enrolments, the qualification NZQF level, qualification award category (QAC) codes and EFTS value are used to create and maintain cohorts. If data on these change over time other than for correcting errors, use the data at the time of entry into the cohort.

Use the master NSN to create and maintain cohorts. Where a learner is in a cohort multiple times (as master NSN and slave NSN) then the slave NSN will be removed.

Use course enrolments submitted in a TEO's final December single data return (SDR) submission. The year of the cohort will be the year of the course start date of the first course enrolment in the qualification.

Exclude course enrolments from cohort creation and update processes where:

- the associated qualification has a QAC Code of 25, 37, 90, 96, 97, 98 or 99
- the course enrolment has a funding source of 05 – STAR, 06 – Training Opportunities, 11 – Off Job Training or 23 – ACE

- the course enrolment has a course classification code of 5.1

Use the NZQF level of the qualification of the first course enrolment to determine the NZQF level of the cohort for the learner.

QAC codes are also used to determine the cohort. The QAC code will be that of the qualification enrolled in.

- For all NZQF levels, a learner cannot enter a cohort if the course enrolment is linked to a qualification that has a QAC code of 25, 37, 90, 96, 97, 98 or 99.
- For level 7 degree cohort, a learner can only enter the cohort if course enrolment is linked to a qualification that has a QAC code of 20 or 21.

Rules for counting completions

Rule: A learner is counted as completing a qualification if, and only if, the learner completes a qualification at the same level as the qualification the learner started at the beginning of the cohort. This means that completions will be counted even if the learner switches qualifications at the same level.

Example:

If a learner starts a level 7 Bachelor of Arts qualification and switches to and completes a level 7 Bachelor of Science qualification, this counts as a completion at level 7.

Other rules around recognising completions:

- Count all completions even if the learner does not have a course enrolment with the same qualification code as the completion
- Count all completions even if there is an enrolment that starts after the year that the learner completed the qualification
- In cases where a learner has not been active in the cohort for 5 or more years and a completion is submitted after the 5 years, the completion is still recorded against the cohort. If the learner has entered a new cohort prior to the qualification completion, then it should be recorded against the new cohort.

Data used in counting completions

Qualification completions are taken from SDR qualification completion files received up to the time the cohort rate is reported.

Example:

There are 100 learners who start in a level 6 qualification in 2009. 5 learners complete in 2010; 10 complete in 2011; and 40 complete in 2012. The rate would be 55% (55/100).

Timeframes for measuring qualification completions

The time period for measuring qualification completions differs by NZQF level.

- a) For levels 1 to 3, use a two-year time period.
- b) For levels 4 to 7 non degree, use a four-year time period.
- c) For levels 7 (degree) and above, use a six-year time period.

The years are counted from the start of the calendar year for the starting cohort. For example, the six year timeframe for a cohort that started at degree-level in 2010 would count completions up to the end of 2015.

Example:

For the 2015 reporting year, we will calculate the completion rate at:

- levels 1 to 3 for the 2014 cohort
- levels 4 to 7 non degree for the 2012 cohort
- levels 7 degree and above for the 2010 cohort.

Supplemental non-completion progression rates

We are supplementing the qualification completion rate to also measure when learners progress to a qualification at a different level without completing a qualification at the level that they started. The change may be to a higher or lower level qualification.

Non-completion progression occurs when a learner in a cohort:

- does not complete a qualification at the level that they started in
- has stopped enrolling in courses linked to a qualification at the level that they started, and
- has a subsequent enrolment in a course (e.g., the start date of this course is after the end date of the last course at the qualification level that they started in) linked to a qualification at a different level.

Example:

A learner starts a level 4 diploma in 2008 and then enrolls in a level 5 diploma in 2009 without having completed the level 4 diploma. This will count as a non-completion progression to a higher-level. The learner will then also be included in the level 5 cohort for 2009.

Note that if a learner changes from a level 7 non degree qualification to a level 7 degree qualification, this will count as a higher level progression from a level 7 non-degree to a level 7 degree.

Calculating non-completion progression rate

Definitions

Higher non-completion progression rate at level X in year Y =

Total number of learners in a starting cohort at level X for year Y who have not re-enrolled at the same level and not completed but who have enrolled at a higher level

Total number of learners in the starting cohort at level X in year Y

Lower non-completion progression rate at level X in year Y =

Total number of learners in a starting cohort at level X for year Y who have not re-enrolled at the same level and not completed but who have enrolled at a lower level

Total number of learners in the starting cohort at level X in year Y

Rules for non-completion progression

Rule 1: Subsequent re-enrolment or completion at the same level of the cohort

Non-completion progression is no longer counted where the learner subsequently re-enrols or completes in the cohort.

Rule 2: Concurrent enrolments

Where the learner enrolls in multiple levels in the same year including the cohort level, they are treated as concurrent enrolments in two different cohorts and non-completion progression does not apply.

Rule 3: Multiple enrolments in the same year

Where the learner in the same year has multiple enrolments in higher and/or lower levels, both higher and lower progressions will be recorded, however only the higher progression will be reported (see section 'Where a learner has multiple events in a year' for how to prioritise events in the same year).

Non-completion progression examples

- A learner enrolls in a course for a level 4 qualification in 2009. In 2010, the learner enrolls in courses for a level 2 qualification and a level 5 qualification. The learner will be reported as progressing from level 4 to level 5.
- A learner enrolls in a course for a level 6 qualification in 2011. The learner enrolls in 2012 in a course for a level 7 non degree qualification. The learner will be reported as progressing from level 6 to level 7 (non-degree). If the learner were then to enrol in 2014 in a course for a level 3 qualification, the learner would be reported as progressing from level 7 non-degree to level 3.
- A learner enrolls in a course for a level 2 qualification and a course for a level 5 qualification, both in 2010. The learner then enrolls in a level 4 qualification in 2011. The learner will be reported as progressing from level 2 to level 4.

Supplemental qualification completion rates not linked to a cohort

We are also supplementing the qualification completion rate to measure when a learner 'exits' or completes a qualification at a different level and when there is no course enrolment for the learner linked to a qualification at that level.

Example: A learner starts a qualification at level 4, and in the following year 'exits' with a qualification at level 3, without any course enrolments linked to a qualification at level 3.

Definitions

Completion rates without a cohort (to lower level) at level X for year Y is =

Total number of learners in a starting cohort at level X for year Y who have not completed in the cohort but have completed at a lower level for which there is no cohort for the learner

Total number of learners in the starting cohort at level x for year y

Completion rates without a cohort (to higher level) at level X for year Y is =

Total number of learners in a starting cohort at level X for year Y who have not completed in the cohort but have completed at a higher level for which there is no cohort for the learner

Total number of learners in the starting cohort at level X for year Y

Rules for calculating qualification completion rate with no cohort

Rule 1: Do not count completions that are more than one NZQF level higher or lower than the cohort level

Example:

If a learner is in a cohort at level 3 and there is a qualification completion at level 5 without any course enrolment linked to a qualification at level 5, do not count this qualification toward the level 3 cohort.

Rule 2: Do not count the completions if the learner has previously completed at that level

For the completion to be recorded the learner must not have previously completed in the lower or higher level cohort the completion is being recorded against.

Rule 3: Discard the lower-level completion if the learner goes on to complete at the cohort level

A learner is in the starting cohort at level 4 for 2010. The learner completes a qualification completion at level 3 for which there are no enrolments in 2011. This would initially count as a lower level completion. The learner then completes a qualification at level 4. The level 4 completion would be counted and the level 3 completion would be ignored.

Rule 4: Count the first completion

Only one completion is to be counted per cohort level for the learner.

Example:

If the learner is enrolled in level 4 cohort and completes a level 3 qualification and in the following year completes another level 3 qualification (and has not been enrolled in a level 3 cohort) only the first completion is to be counted.

Completions not linked to a cohort examples

- A learner is enrolled in level 4 cohort and completes a level 3 qualification
 - The level 3 completion is recognised as a completion no-cohort (lower) level against the level 4 cohort.
- A learner is enrolled in a level 6 cohort and completes a level 5 qualification in 2013 and level 4 qualification in 2014
 - The level 5 completion is recognised as a completion against the level 6 cohort and the level 4 completion is ignored.
- A learner is enrolled in a level 4 cohort, completes a level 3 qualification and then in the same year as the level 3 completion completes a level 4 qualification.
 - The level 4 completion is recognised as a completion against the level 4 cohort and the level 3 completion is ignored.
- A learner is enrolled in a level 4 cohort, completes a level 3 qualification and then in the subsequent year to the level 3 completion completes a level 4 qualification.
 - The level 3 completion is initially recognised as a completion against the level 4 cohort.
 - In the following year the level 4 completion is recognised and replaces the completion no-cohort (lower) level against the level 4 cohort.

Completion rates for full time and part time

We are calculating completion rates for both full-time and part-time students.

The following rules are used to determine when a learner is studying full-time or part-time over their entire course of study.

Rule 1: A learner is in full-time study over the entire course of their study if the number of years that the learner is in full-time study is equal to or greater than the number of years that the learner is in part-time study.

Example:

A learner is in study for 3 years. In the first and third years, the learner is in full-time study. In the second year, the learner is in part-time study. The learner is counted as being full-time over their entire course of study because the number of years that the learner is in full-time is equal to or more than the years that the learner is in part-time study.

Rule 2: A learner is studying full-time within a calendar year if and only if the total EFTS value of the course enrolments for the learner in a given year exceeds the minimum EFTS value for being full-time, according to Table 1.

Table 1: Threshold Values by weeks enrolled

Number of week enrolled in year	Minimum EFTS value to be full-time
12-15	0.3
16-19	0.4
20	0.5
21	0.525
22	0.55
23	0.575
24	0.6
25	0.625
26	0.65
27	0.675
28	0.7
29	0.725
30	0.75
31	0.775
32-52	0.8

The number of weeks enrolled is determined by the number of weeks between the start date of the earliest course in the year and the end date of the last.

Where a learner has multiple enrolment and/or completion events in a year

In some cases, there will be multiple events linked to a learner. The following hierarchy determines the priority of which events should be counted:

- Completed
- Enrolled same level no completion (retained)
- Completion no-cohort higher level
- Completion no-cohort lower level
- Enrolled higher level no completion
- Enrolled lower level no completion

Example: A learner enters a cohort in 2013 at level 5. In 2014, the learner completes a level 5 qualification and there is also an enrolment at a higher level. Given the priority list, the learner would count as having completed rather than as an instance of non-completion progression to a higher level.

Where a learner completes in a cohort, no further events are recorded against that learner in the cohort.

Publishing qualification completion rates

We are publishing qualification completion rates as an overall rate and by NZQF level grouping. These rates will also be split by whether the learner has studied full time or part time at the TEO.

The NZQF level groups are: 1 to 3; 4 to 7 non degree; 7 degree; and 8 to 10.

In calculating the qualification completion rate at a NZQF level grouping the number of learners who have completed in each cohort is summed and divided by the sum of the learners in each cohort. For example:

NZQF level	Number of learners in the cohort	Number of learners who completed	Qualification completion rate
Level 1	100	50	50%
Level 2	200	150	75%
Level 3	200	100	50%
Levels 1 to 3	500	300	60%

The same approach is used in calculating non-completion progression rates and completion rates not linked to a cohort.

Cohort-based first year retention rates

The first year retention rate measures, for longer qualifications, how many learners are retained in study after their first year of study (ie, there is an enrolment in a qualification at the same level in the year after they enter the cohort).

We are measuring first year retention rates for qualifications at level 7 degree and above and for qualifications that are 2 EFTS or more at levels 5-7 (non-degree).

Definition

The first year retention rate at level X for year Y for a TEO A=

$$\frac{\text{Total number of learners in a starting cohort who are still in study at level X in year Y+1 at TEO A}}{\text{Total number of learners in a starting cohort at level X for year Y at TEO A}}$$

Example:

There are 100 learners who start a level 6 qualification at TEO A in 2013. In 2014, 60 of these learners enrol in a course linked to a level 6 qualification. For 2014, the first year retention rate is 60/100 or 60%.

Rules for determining a starting cohort

The rules for creating and maintaining a cohort are the same as the rules for creating and maintaining cohorts for the qualification completion rate, except that:

Rule 1: The EFTS value of the qualification has to be 2 or more

The qualification linked to the course enrolment that determines the learner's entry into a cohort must have an EFTS value of two or more.

Rule 2: Only NZQF levels 4 and above are included

Cohorts for first year retention are only created for NZQF levels 4 and above.

Rule 3: The first qualification is used

A learner first enrolls in a level 4 or above qualification which is less than two EFTS and then enrolls in a qualification at the same level that is two EFTS or more. The learner will not be included in the retention rate cohort because the EFTS value of the first qualification that the learner enrolled in is less than two EFTS.

Rule for counting when a learner has been retained

A learner is counted as being retained if and only if there is a course enrolment, linked to a qualification at the same level, with a start date in the year after they entered the cohort.

Timeframes for measuring the first year retention rate

The time period used for measuring first year retention rates is two years. For example for the reporting year of 2015, it will include learners who started in 2014 and apply to qualifications at level 7 degree and above and qualifications that are two EFTS or more at levels 5-7 non-degree.

Reporting first year retention rates

The first year retention rate will be reported as an overall rate and by NZQF level grouping.

The NZQF level groups are: 4 to 7 non degree; 7 degree; and 8 to 10.

In calculating the retention rate at a NZQF level grouping, the number of learners who were retained in each cohort is summed and divided by the sum of the learners in each cohort. For example:

NZQF level	Number of learners in the cohort	Number of learners who were retained in the second year	First year retention rate
Level 4	100	80	80%
Level 5	200	150	75%
Level 6	200	120	60%
Level 7 non-degree	100	100	100%
Levels 4-7 non-degree	600	450	75%

TEO mergers

TEO mergers are treated the same as where a learner changes TEO. The learner will enter a new cohort based on their first enrolment in the NZQF level at the TEO.