

**Tertiary Education Commission  
Te Amorangi Mātauranga Matua**

**Progress Monitoring Report Methodology  
Paper**

**For  
Industry Training Organisations**

**Version 2.0**

**April 2009**

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## Versioning and Amendments

Version	Release Date	Key Points/Changes from previous version
<b>Progress Monitoring Report Methodology</b>		
2.0	27 April 2009	<p>The Progress Monitoring Report Methodology updates the draft Progress Monitoring Report and Baseline Monitoring Report Methodology papers. This document provides methodology for the release of the April 2009 Progress Monitoring Report, which is based on the December Industry Training Organisation Performance Measurement System (ITO-PMS) Quarterly Report.</p> <p>Key Changes:</p> <ul style="list-style-type: none"> <li>• Incorporates average number of credits achieved per trainee, completion rate of industry trainees, average time of completion compared with the expected time qualification completions, progression after completion, and industry cash contribution from the Baseline Monitoring Report.</li> <li>• Outcome commitments for each Key Performance Indicator have been added, including analysis which looks at the change required to meet the future years' outcome commitments.</li> <li>• Links to the TEC payment system and contains actual payment information.</li> <li>• Now implements suppression rules consistent with the Baseline Monitoring Report.</li> <li>• Formula for the proportion of "Unknown" completions has been clarified and revised. Refer to Appendix 2 for further details.</li> <li>• Finally, there have been some changes to output tables and graphs to accommodate the incorporation of full-year information.</li> </ul>
1.0	17 September 2008	<p>This methodology paper was released with the Industry Training Organisations draft Progress Monitoring Reports in September 2008. This version builds on the Industry Training Baseline Methodology paper (Version 2).</p> <p>Key changes:</p> <ul style="list-style-type: none"> <li>• Added Mix of Provision Arranged section with analysis by programme level.</li> <li>• Added year-to-date view in Volume of Delivery, Mix of Provision Arranged and Key Performance Indicator analysis.</li> <li>• Enhanced sub-sector information to include the sub-sector range 4 year high/low and % above and below own range in the Mix of Provision Arranged section; and a sub-sector distribution</li> </ul>

Version	Release Date	Key Points/Changes from previous version
		<p>summary in the Key Performance Indicator section.</p> <ul style="list-style-type: none"> <li>Changes to coding have been implemented to refine some Key Performance Indicators, including a change of methodology to include last reported dates of birth for all analyses requiring that statistic. These are described in Appendix 2 of the current methodology paper.</li> </ul>
<b>Baseline Monitoring Report Methodology</b>		
2.0	24 April 2008	General editing to support the release of April 2008 Baseline Monitoring Reports.
1.0	20 June 2007	Version that accompanied the 2007 Baseline Monitoring Reports

## 1.0 Introduction

### 1.1 Purpose of this Methodology Paper

The purpose of this document is to describe how the Tertiary Education Commission (TEC) compiles the data presented in the Progress Monitoring Reports for Industry Training Organisations (ITOs).

In 2007 a number of ITOs developed and submitted Investment Plans. These Plans contained ITOs' commitments to achieve outcomes and to deliver provision over a one to three year period commencing in 2008.

This methodology updates and builds on the methodology outlined in the Baseline Monitoring Report methodology and the draft Progress Monitoring Report methodology. This methodology paper covers full year reporting, e.g. previously reported in the Baseline Monitoring Report, and also part year reporting as previously done in the draft Progress Monitoring Report. Data calculations and processes relating to both full year and part year reporting are covered throughout this paper.

Feedback on the Progress Monitoring Reports and this methodology paper will be used to enhance future versions of Progress Monitoring Reports (see Section 1.10 for further feedback information).

### 1.2 Latest Release

The first Progress Monitoring Report for ITOs in 2009 (which this methodology paper describes) includes full year information formerly provided in Baseline Monitoring Reports. Progress Monitoring Reports throughout 2009 will include a mixture of year to date information and full year information, as the information becomes available through the ITO Performance Measurement System (ITO-PMS) Quarterly Report. The first Progress Monitoring Report includes Volume of Delivery and Mix of Provision Arranged information; and all Key Performance Indicators (KPIs). See *Table 5* in Appendix 1: Report Releases which describes specific information relating to each report, including date released, data variables, data used and data extract dates.

### 1.3 Audience

This methodology paper is produced for users of the Progress Monitoring Report for ITOs. These include ITOs and internal users within the TEC.

There are two main parts to this paper, which reflects the structure of the Progress Monitoring Reports. Section 2.0 describes the definition and calculation of the main elements in the volume of delivery and mix of provision arranged sections of the Progress Monitoring Report. Section 3.0 describes each of the KPIs, including formulae, business rules and specific variables.

### 1.4 Background

As part of the development of monitoring to support Investing in a Plan the TEC developed in 2007, in consultation with sector representatives:

- A mix of provision approach appropriate to each sub-sector; and
- A set of quantitative KPIs for each sub-sector linked to the Tertiary Education Strategy 2007-10 (TES) and described in the TEC's Investment Guidance 2008-10.

The quantitative KPIs were designed to utilise existing data and were developed in consultation with sector representatives.

Baseline information on the KPIs for each ITO receiving Industry Training Funding<sup>1</sup> were provided in Baseline Monitoring Reports (BMRs) produced in 2007 and 2008 and definitions and calculations of the KPIs were provided in the methodology paper supporting these reports<sup>2</sup>.

A series of interim tools were utilised in 2007 to support development and collection of Plan commitments. These generally involved spreadsheets and contained baseline KPI and mix of provision information. The information collected from ITOs was loaded into TEC databases.

A draft Progress Monitoring Report was produced in September 2008 to monitor progress against the Investment Plan. This report focussed on year to date information from the ITO-PMS Quarterly Report to June 2008, stored in the Industry Liaison Unit (ILU) database. Definitions and calculations used in these reports were provided in the methodology paper<sup>3</sup>.

## 1.5 Purpose of the Progress Monitoring Report for Industry Training Organisations

Within the context of ITOs' primary responsibility for monitoring performance against the Plan, the Progress Monitoring Reports are intended to:

- Provide sector comparative information to support ITOs in their continuous improvement activities;
- Allow TEC investment managers to build up a picture over time of the value emerging from investment and progress being made towards agreed changes and commitments;
- Minimise the impact of monitoring ITOs through utilising existing information collections;
- Provide a mutually understood evidence base that adds value to the discussions between investment managers and ITOs;
- Signal the importance of performance against the Plan and provide some transparency as to how the TEC will monitor this; and
- Assist in building a shared understanding of what constitutes significant variation from the Plan, data quality, and interpretation of data.

Figure 1 (below) shows the content of monitoring reports that have been or are planned to be produced from the ITO-PMS Quarterly Reports in 2007-2009. Note that Progress Monitoring Reports will be produced following the June and December submission of information by ITOs.

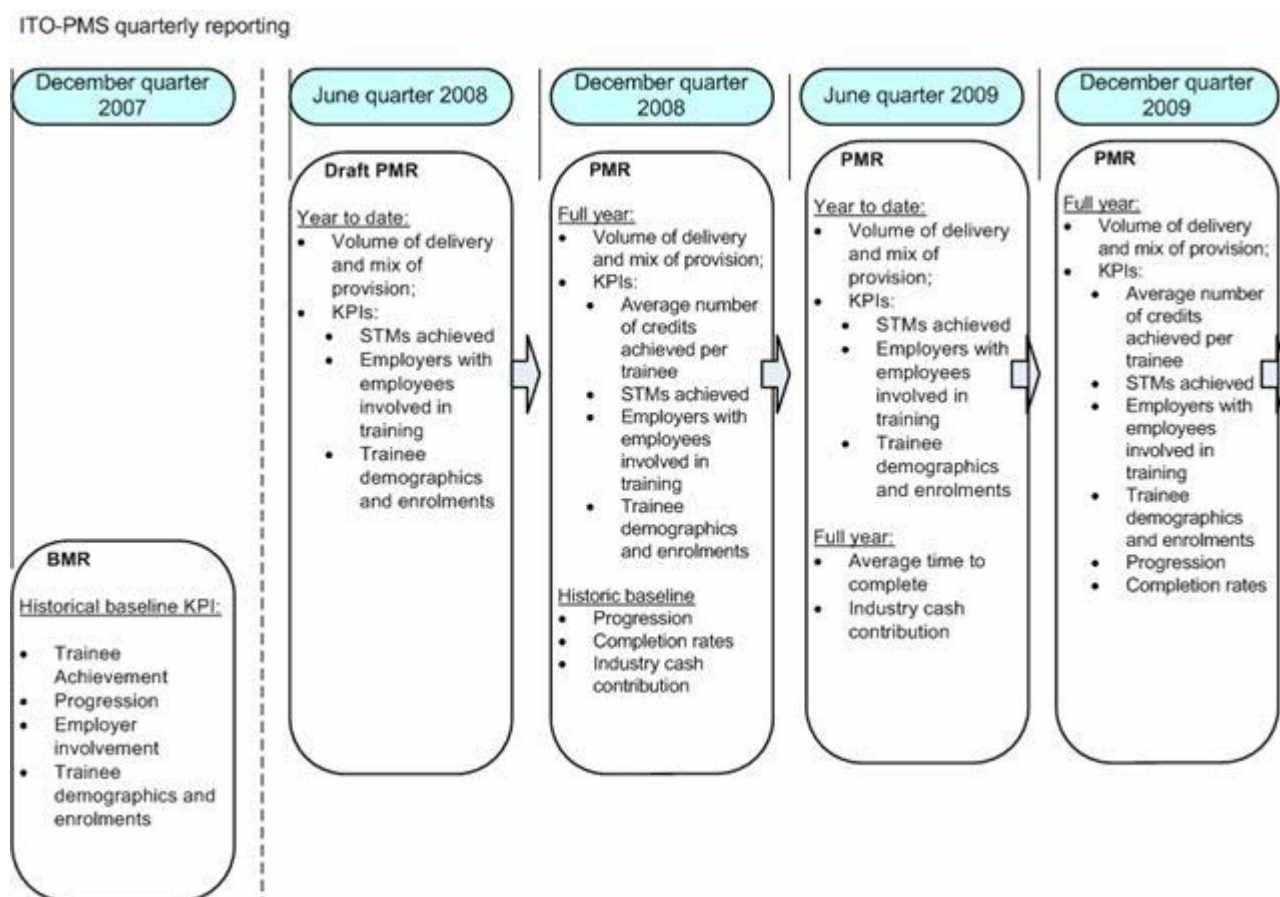
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<sup>1</sup> The ITO sub-sector reported on by TEC includes all Industry Training Organisations that receive funding from the Industry Training Fund.

<sup>2</sup> Baseline Monitoring Report Methodology Paper for Industry Training Organisations. See the TEC website ([www.tec.govt.nz](http://www.tec.govt.nz)) for latest version.

<sup>3</sup> Draft Progress Monitoring Report Methodology Paper for Industry Training Organisations. See the TEC website ([www.tec.govt.nz](http://www.tec.govt.nz)) for latest version.

Figure 1: Content of select Monitoring Reports from ITO-PMS Quarterly Reports in 2007 to 2009



## 1.6 Overview of Content of Progress Monitoring Reports

The Progress Monitoring Report presents information in two general categories:

1. Volume of Delivery and Mix of Provision Arranged; and
2. Key Performance Indicators (KPIs).

The major categories of information presented in the Progress Monitoring Reports are described below. For each of these areas the commitments in Plans are matched to actual information. Comparative reference points to previous years' actuals are also provided to assist interpretation.

### 1.6.1 Volume of Delivery and Mix of Provision Arranged

This content relates to Section 3 of the Plan – the Summary of Activity – as outlined further below.

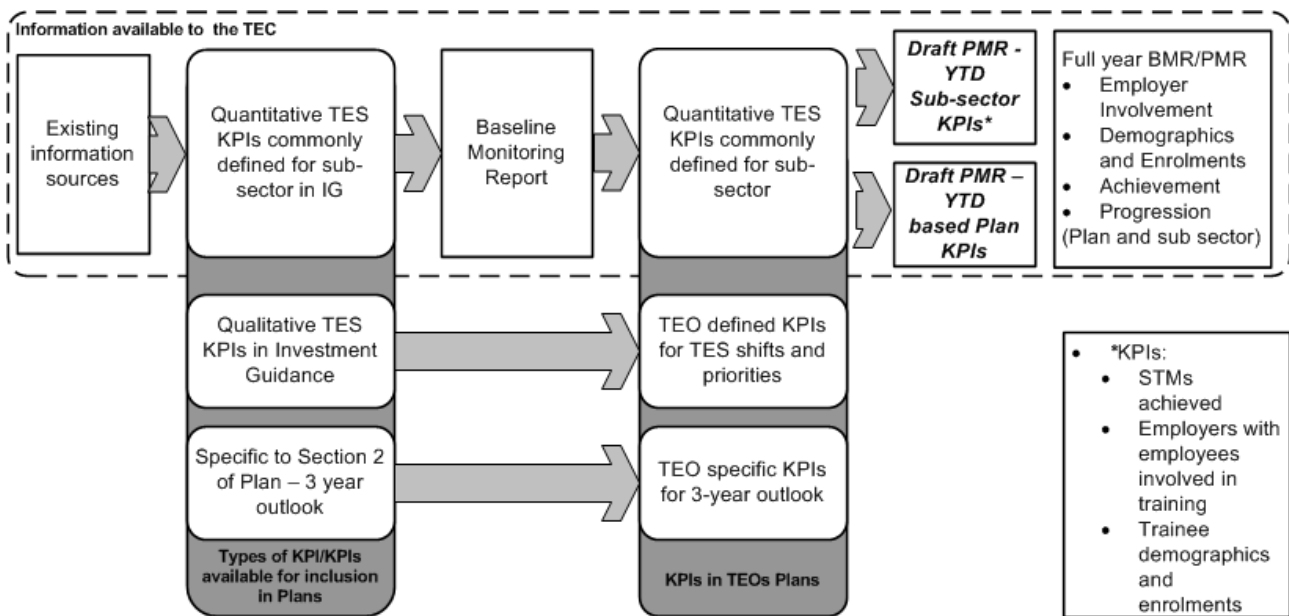
- **Volume of delivery** provides the total industry training funded provision in dollars and the total Standard Training Measures (STMs) funded, as specified in approval letters sent to ITOs. Information on actual performance is sourced from the ITO-PMS Quarterly Reports held in the Industry Liaison Unit database.
- **Mix of provision arranged** provides more detail on the nature of the provision arranged. The year to date and historical actual mix of provision are grouped by programme level. Data on the mix of provision to be arranged at programme level was collected in the Plan process. However, the interim processes may have resulted in the STM by level information being out of alignment with the total Plan delivery. For this reason, reporting of actual data against planned delivery by level is not presented in these reports. As for volume of delivery, information on actual mix of provision performance is also sourced from the ITO-PMS Quarterly Reports held in the Industry Liaison Unit database.

### 1.6.2 Key Performance Indicators

This content relates to Section 4 of the Plan – Key Performance Indicators - and also to indicators contained in the TEC’s Investment Guidance 2008-2010 that provide progress against the TES.

Figure 2 below shows how the KPIs contained in the Progress Monitoring Report relate to the types of KPIs available for inclusion in Plans (the shaded box on the left of the diagram) and those included in Plans (the shaded box on the right of the diagram). The KPIs that might be included in the Progress Monitoring Report are those for which there is information available through the ITO-PMS Quarterly Reports and PM-18 returns (as indicated by the dotted box) and produced in the Progress Monitoring Report. The KPIs reported in the Progress Monitoring Report are a subset of possible KPIs and so present a partial picture of progress.

**Figure 2: Key Performance Indicators presented in the Progress Monitoring Report in relation to other Key Performance Indicators**



The Progress Monitoring Report contains both KPIs that have an outcome commitment in an individual ITO’s Plan (Plan KPIs) and those that do not have an outcome commitment (sub-sector KPIs). One of the reasons sub-sector KPIs are included is to recognise that ITOs may still make a significant contribution to the progress of the sub-sector in areas where commitments were not made in Plans.

### 1.7 Information Sources

Data used in the Progress Monitoring Reports was extracted from the respective data sources listed in Table 1 below.

**Table 1: Key Performance Indicators presented in the Progress Monitoring Report, their relationship to Tertiary Education Strategy priorities and information sources**

Key shifts and STEP Priorities	KPIs in the Baseline Monitoring Report	Information Source
<b>Key shift:</b> alongside the improvements in quality required of other parts of the tertiary sector (and in the context of the ongoing increases in investment in industry training), lift the quality and performance of industry training <b>Key shift:</b> continue to respond to industry skills needs by managing the delivery of industry training	Average number of credits achieved per trainee	ITO-PMS returns
	Average time of national qualification completion compared with the expected time	ITO-PMS returns
	Participation of Māori and Pacific trainees compared to industry demographics	ITO-PMS returns ITOs' Profiles 08-10
	Participation of female trainees compared to industry demographics	ITO-PMS returns ITOs' Profiles 08-10
	Completion rates of industry trainees and Modern Apprentices	ITO-PMS returns
	Completion rates of Māori industry trainees and Modern Apprentices	ITO-PMS returns
	Completion rates of Pacific industry trainees and Modern Apprentices	ITO-PMS returns
	Completion rates of female industry trainees and Modern Apprentices	ITO-PMS returns
	Standard Training Measures (STM) achieved against contracted volume	ITO-PMS returns
	Employers with employees involved in industry training	ITO-PMS returns ITOs' Profiles 08-10
Industry cash contribution	PM 18 Returns	
<b>Key priority:</b> increasing educational success for young New Zealanders – more achieving qualifications at level 4 and above by age 25	Participation of trainees aged under 25 enrolled in national qualifications at level 4 and above	ITO-PMS returns
	Completion rates of industry trainees and Modern Apprentices aged under 25 at level 4 and above	ITO-PMS returns
	Progression after completion from level 1 to 3 to level 4 and above by the age of 25	ITO-PMS returns Single Data Return

Each ITO's KPI outcome commitment is sourced from the Investing in a Plan (IiP) database. Once extracted from the primary data sources, the data was processed using SAS into tables for each indicator or for sets of indicators (for example, Trainee Demographics and Enrolments).

The TEC used SAS computer software to generate all graphs and tables in the Progress Monitoring Reports and a Publication Assembly Tool that interfaced with Microsoft Word to produce individualised Word reports. The reports were then output as PDF documents and made available for release.

## 1.8 Implications of Current Methodology and Data

The methodology is based on that used to produce the Baseline Monitoring Report and baseline Mix of Provision information in 2007; and the year to date information, comparative information on the distribution of other ITOs, and comparisons against Plans outlined in the draft Progress Monitoring Reports. Some general implications are noted:

- Indicators used in the Progress Monitoring Reports may not be directly comparable or consistent with data previously reported by ITOs (e.g. Annual Reports) or Ministry of Education reports such as Profile and Trends and the Single Data Return Summary Report.
- Users of the Progress Monitoring Reports are advised against interpreting the data out of context. Many contextual factors that vary across ITOs may affect performance, in particular for trainee achievement and progression indicators. The information contained in the Progress Monitoring Reports needs to be interpreted in the context of the organisation. The information should also be considered within the context the information was collected in (see File Specifications for ITO Performance Measurement System, Version 6.0, September 2005<sup>4</sup>) and the known data characteristics described in the caveats included in each Progress Monitoring Report.
- Year-to-date information is subject to change. While comparative reference points have been provided to assist the interpretation, the information in Progress Monitoring Reports may not be predictive of full year results;
- An interim approach was used to capture information on Plan commitments. This may have resulted in data quality issues in some cases which will need to be corrected.
- Some percentages in the tables have been rounded. Summed percentages may therefore not add to 100%.
- Outcome commitments agreed in Plans relate to full year rather than each quarter or year to date.
- KPI figures include both industry training and Modern Apprenticeships in all cases except for the key performance measure - Standard Training Measures achieved against contracted volume which only includes industry training.

## 1.9 Improvements and Areas of Continuing Development

Since the draft Progress Monitoring Report was released changes have been made to improve the methodology and output. These changes, including key changes made since the Baseline Monitoring Report was released, are documented in the Versioning and Amendments Table on page 6 of this document. Continuing development includes:

- Work to further develop monitoring to be conducted with a working party comprised of nominated Chief Executives from ITOs and representatives from the Industry Training Federation; and
- Updating census data. The number of employers in the industry is based on 2001 Census data in most cases. Data from the 2006 Census is now available and it is intended that updated employer information be used in future reports. This will require work to be undertaken with the ITOs to produce factors such as eligibility for industry training of employers (e.g., owner operators) and the correspondence between census groupings and the coverage of ITOs need to be taken into consideration in determining the number of employees in the industry.

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<sup>4</sup> Copies are available by emailing [industry.training@tec.govt.nz](mailto:industry.training@tec.govt.nz).

## 1.10 Feedback

Comment can be provided to Investment Managers and Investment Advisors or to [Queries.IR&E@tec.govt.nz](mailto:Queries.IR&E@tec.govt.nz).

## 1.11 Document Structure

There are four sections to this methodology document:

### Section 1.0

- Provides a high level introduction and background to the report

### Section 2.0

- Contains high-level definitions and formulae for volume of delivery and mix of provision arranged. Variables explicitly mentioned in the report are quoted in bold.

### Section 3.0

- Contains high-level descriptions of the KPIs. Variables explicitly mentioned in the report are quoted in bold. Definitions and formulae used to derive the data in the report are given.

### Section 4.0

- Describes the key dimensions used throughout the report.

### Appendix 1

- Presents a list reports including their release dates, variables, data used and data extract dates.

### Appendix 2

- Presents a history of changes to data compilation.

## 2.0 Volume of Delivery and Mix of Provision Arranged

This section of the Progress Monitoring Report describes:

- Full year reporting – the ITO’s mix of provision arranged for the current and previous four years; and
- Part year reporting – the ITO’s progress against the planned mix of provision for the current and the previous years’ actuals on a year-to-date basis.

This section is comprised of the Volume of Delivery and Standard Training Measures arranged for the relevant period. Volume of delivery and mix of provision arranged are reported for Standard Training Measures (STMs) funded by the Industry Training Fund (ITF) only; Modern Apprenticeships are excluded from this data.

### 2.1 Volume of Delivery and Standard Training Measures Arranged

#### What it reports

This section of the Progress Monitoring Report presents volume of delivery in dollars and STMs arranged for each of the past four years and the current year. The central indicator presented is either the full year or the year-to-date as a proportion of allocation or agreed STMs.

Both individual ITO and sub-sector aggregated information are presented. The descriptions below refer to calculation of ITO-level information presented in the Progress Monitoring Report but can also be applied to the sub-sector aggregations. Analysis at sub-sector level may be useful in determining progress of the sub-sector as a whole.

#### Analysis

The following table indicates the analysis that is reported for ITOs in either full-year or part-year reporting. The definitions and calculations of each type of analysis are discussed below.

**Table 2 – Volume of delivery and STMs Arranged analysis for full-year or part-year reporting**

Type	Analysis
Full-year reporting	<ul style="list-style-type: none"> <li>• Volume of delivery and STMs – arranged – analysis by year</li> <li>• Volume of delivery and EFTS – arranged – analysis by month</li> </ul>
Part-year reporting	<ul style="list-style-type: none"> <li>• Volume of delivery and STMs – arranged (agreed in Plan and actual year-to-date) – analysis by year</li> <li>• Volume of delivery and EFTS – arranged (agreed in Plan and actual year-to-date) – analysis by month</li> </ul>

#### Definition and calculation

##### 2.1.1 Definitions common to both full year and part year reporting

**ITF Allocation (\$000)** is the planned volume (as per the approval letter for the ITO’s Investment Plan) or previously contracted volume arranged by the ITO.

**ITF Full Year (\$000)** represents the total volume arranged in thousands of dollars for the year concerned.

**STMs arranged** represents STMs for the year concerned.

**STMs agreed** are the planned number of STMs to be arranged for the current year, as is described in the approval letter for the ITO's Investment Plan. For years prior to the current year, STMs agreed equates to the number of STMs contracted.

**YTD (Year to date) and full year figures for the proportion of ITF allocation** or the **proportion of STMs agreed** are calculated for ITF funding committed and STMs enrolled year to date and full year as outlined below.

**YTD as proportion of ITF Allocation** and **ITF Full Year as % of Allocation** shows the amount of ITF funding committed as a proportion of ITF Allocation (\$000) for the full year. It is calculated using the following definition (Formula 1):

	ITF YTD \$000 or ITF Full year \$000
<b>Formula 1:</b>	ITF Allocation \$000

**YTD as Proportion of STMs agreed** and **STMs Arranged as % of STMs Agreed** shows the amount of STMs enrolled year-to-date for the historical quarter or for the full year as a proportion of STMs agreed for the full year. It is calculated using the following definition (Formula 2):

	YTD STMs or Full year STMs
<b>Formula 2:</b>	STMs agreed

### 2.1.2 Definitions for reporting full year results:

**ITF Full Year as % of Allocation** shows the amount of funding committed as a proportion of the allocation for the full year.

**Agreed as % of STMs arranged** shows the number of STMs agreed as a proportion of the number of STMs arranged for the full year.

**STM Arranged by quarter** is the total STMs delivered for the quarter, shown cumulatively through the year.

**STM Agreed by quarter** is the contracted number of STMs for the quarter, and year concerned is the cumulative volume agreed per quarter.

**Payments entitled** is either the year's allocation if 100% or more of the allocation has been delivered, or the volume delivered if the ITO has delivered less than 100% of the allocation.

**Payments made** is the net payments made to the ITO as determined at a particular date for the year (i.e., payments returned or payments from the ITO relating to the year are subtracted from the payments made by the TEC to the ITO).

**Payment difference** if lower than 100% of allocation is the payments made minus the payments entitled.

### 2.1.3 Definitions for reporting part year results:

**YTD \$000** is reported as follows. For the year in which the report was compiled (e.g. 2009) it shows the amount of Industry Training Fund funding committed for the year to date. For historical data (e.g. pre 2009) it shows the amount of ITF funding that had been committed for the year to date at the same quarter.

**STMs YTD** is reported as follows. For the year in which the report was compiled (e.g. 2009) it shows the number of STMs delivered year to date. For historical data (e.g. pre 2009) it shows the number of STMs that had been committed for the year to date at the same quarter.

For volume of delivery, **Percentage ITF Allocation remaining** indicates the proportion of the ITF allocation for the year concerned which was or is remaining to be consumed at the historical or present quarter. It is calculated using the following definition (Formula 3):

<b>Formula 3:</b>	$1 - \text{YTD as a proportion of ITF Allocation } \$000$
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For STM summary, **Percentage of STMs agreed** remaining indicates the proportion of STMs agreed delivered for the year concerned which was or is remaining to be consumed at the historical or present quarter. It is calculated using the following definition (Formula 4):

<b>Formula 4:</b>	$1 - \text{YTD as a proportion of STMs agreed}$
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**Variance from four year range** is the amount by which the ITO's year to date proportion is above or below the highest, or lowest, proportion recorded for the ITO in the last four years. If the ITO's current variance is within previous years' variances this value will be 0%, otherwise it represents the amount by which it exceeds the highest or lowest variance during the last four years. For instance if the high and low for an ITO for the past four year are 60% and 65% respectively but their current year is 67% then the variance from the four year range would be 2%.

**Proportion of Industry Training Organisations with YTD achievement more than 3% above/below their 4 year range** is the proportion of the sub-sector that are above (or below) their highest (or lowest) variance over the last four years. A threshold of 3% has been applied limiting the result to those either 3% or more above or 3% or more below their four year range.

**STM YTD by quarter** is the total STMs delivered for the quarter reported, plus any previous quarters in the same year. Full year data is available for 2007 and is shown cumulatively through the four quarters. STM YTD by quarter 2008 is only available up to the most recent quarter. The STM December 2008 will equal the total STMs delivered for the year.

**STM agreed by quarter** is the contracted number of STMs for the quarter, and for the year concerned is the cumulative year to date volume agreed per quarter.

## 2.2 Mix of Provision Arranged by Programme Level

### What it reports

This section of the Progress Monitoring Report analyses the ITO's mix of provision arranged by Programme Level for ITF funded STMs only. 'Level' is the level of the training programme approved for funding purposes under Section 10 of the Industry Training Act. 'Level' may also refer to the level of the unit standard or qualification linked to the National Qualifications Framework<sup>5</sup>.

### Analysis

The following table indicates the analysis that is reported for ITOs in either full-year or part-year reporting. The definitions and calculations of each type of analysis are discussed below.

<sup>5</sup> Source: ITO PMS Interface File Specification Version 6

**Table 3 – Mix of Provision Arranged analysis for full-year or part-year reporting**

Type	Analysis
Full-year reporting	<ul style="list-style-type: none"> <li>• Full-year mix of provision arranged by programme level                             <ul style="list-style-type: none"> <li>- STMs arranged by programme level</li> </ul> </li> </ul>
Part-year reporting	<ul style="list-style-type: none"> <li>• Year-to-date mix of provision by programme level                             <ul style="list-style-type: none"> <li>- STMs arranged by programme level</li> </ul> </li> </ul>

## Definition and calculation

### 2.2.1 Definitions common to part year and full year results

**STMs agreed** are the planned number of STMs to be arranged for the current year, as is described in the approval letter for the ITO's Investment Plan. For years prior to the current year, *STMs agreed* equates to the number of STMs contracted.

**Proportion of YTD STMs and programme level and a proportion of total** is the number of STMs enrolled at each programme level for the year to date or full year as a proportion of actual YTD STMs delivered at all levels. It is defined as per Formula 5 below.

<b>Formula 5:</b>	$\frac{\text{YTD or full year STMs delivered by programme level}}{\text{actual YTD or full year STMs delivered at all levels}}$
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### 2.2.2 Definitions for reporting full year results

**ITO proportion of sub-sector** is an individual ITO's actuals as a proportion of the sub-sector total for that year.

**Sub-sector 2008 change compared to 2007** is the actual percent change in STMs for the sub-sector between years.

### 2.2.3 Definitions for reporting part year results

**YTD** specifies the STMs enrolled year to date at each programme level. For previous years' data indicated in the graph, the year to date is taken as the historical enrolment at the same quarter in previous years.

**Range 4 year high (and low)** is the highest (and lowest) proportion over the preceding four year period as at the year-to-date period being reported.

**The % below own range (or above)** is the number of ITOs that are above (or below) their four year range divided by the number of ITOs in the sub-sector that (a) have a four year range and (b) have planned to deliver in the category being reported.

**Actuals** for both the individual ITO and the sub-sector are provided. The sub-sector information is useful in identifying whether the ITO's current actual is consistent with others in the sub-sector and whether it is different from that planned.

## 3.0 Key Performance Indicators

Each of the indicators featuring in the Progress Monitoring Report for ITOs is described in this section, including the formula used to create percentages, the business rules applied when processing the ITO-PMS data and the specific column variables mentioned in the report. Note: Modern Apprenticeship data is included in the indicators outlined, with the exception of the Standard Training Measures (STMs) section which includes Industry Training Fund (ITF) funded STMs only.

### 3.1 Definitions Common Across all KPIs

The following definitions relate to those Investment Guidance KPIs that are produced in the Progress Monitoring Report. They include those for which the ITO has given an outcome commitment in its Plan; and those where the ITO has no Plan commitment but the KPIs are used to indicate the progress of the sub-sector and sector as a whole.

#### 3.1.1 Definitions common to both full year and part year reporting:

**Sub-sector distribution summary** contains measures of central tendency and variation for the distribution of the individual ITOs actuals. Standard calculations are used for an arithmetic mean, median, upper quartile, lower quartile, standard deviation, and range. This includes the **Number of ITOs in distribution** which is the number of ITOs excluding any that lacked data and could not be included.

**Sub-sector distribution** is a plot of the year-to-date proportions for individual ITOs in the sub-sector.

**Sub-sector proportion** sums the information from ITOs in the sub-sector and calculates the full year or year-to-date proportion. The sub-sector proportion or rate is determined by aggregating each part of the formula; that is, the total number of amalgamated qualification enrolments for the ITOs in the sub-sector is summed, as is the total number completing successfully for all the sub-sector ITOs. The sum of successful qualification completions is then divided by the sum of all enrolments to obtain the sub-sector proportion.

**Important:** please note that proportions are not calculated where the denominator count is less than 30, as these rates are likely to be subject to significant variation and this may lead to misinterpretation. In addition, for privacy reasons, counts between 1 and 3 have also been suppressed to ensure individual's anonymity. These counts are still included in higher-level aggregations.

#### 3.1.2 Definitions for reporting full year results:

**Range last four years** is the lowest and highest actuals for the preceding four-year period.

**ITO contributions to sub-sector actual** is the change in the sub-sector actual as a result of the change in the ITO's actual for the KPI.

**Contribution sub-sector median** is the midpoint of ITO contributions.

**Contribution inter quartile range** describes the distribution of ITOs' contributions, describing the lower quartile (the proportion that 25% of ITOs' contributions are below) and the upper quartile (the proportion that 25% of ITOs' contributions are above).

**Change required to meet outcome commitment** is the difference required to meet the commitments based on the ITO's most recent year's performance for the KPI.

#### 3.1.3 Definitions for reporting year-to-date results:

**Variance range last 4 years (year-to-date to actual)** is the maximum range of variation from year-to-date to full year over the stated four year period.

**Year to date variance from outcome commitment** is the absolute difference between the year-to-date proportions for the KPI and the outcome commitment in the Plan.

### 3.2 Participation of Trainees – Programme Level

Trainee participation at a programme level is not an attribute of a person but rather an attribute of the training being undertaken. For this reason, enrolment counts need to be measured rather than trainees. This KPI reports the number of enrolments at level 4 and above where the trainee is under 25. The formula used is:

<b>Formula 6</b>	$\frac{\text{Number of enrolments at level 4 or above where the trainee is under the age of 25}}{\text{Number of enrolments where the trainee is under the age of 25}}$
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**Number of enrolments** is defined as the first time a trainee is reported as being active in a specified programme. These enrolments are then grouped into the yearly cohort of the year they first enrolled in the programme, meaning that a trainee can appear in different cohorts but not for the same programme.

**Birth date** identified in the record for enrolment is used to calculate the trainee's age. Please refer to Section Description of the Key Dimensions on age for more information on age calculations.

**Programme level:** the enrolment record also identifies the level of the programme in which the trainee is enrolled, and is used to identify the proportion of trainees at level 4 and above and at less than level 4.

### 3.3 Participation of Trainees Compared to Industry Demographics – Ethnicity and Gender

This measure, which compares the proportion of distinct trainees with a specific attribute (refer to key dimensions), provides for a comparison with the industry covered by the ITO. The formula is:

<b>Formula 7</b>	$\frac{\text{Number of distinct trainees with a specific attribute (Māori, Pacific peoples, female)}}{\text{Number of distinct trainees}}$
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**Number of trainees** (formula denominator) this represents the number of 'distinct' trainees engaged in training under the ITO during the period. A distinct trainee is identified by their New Zealand Qualifications Authority Identification Number (NZQA ID, otherwise known as the National Student Number) and must have been reported at some stage during the period – no qualifying time period is applied. Trainee count information is taken from all the quarterly ITO-PMS returns for the period and where ITOs report more than one record for a trainee in a quarter or during the period only one distinct trainee is counted toward the number of trainees. Trainee start dates are assigned to the quarter in which training began. Where start dates are reported in ITO-PMS Quarterly Reports for subsequent quarters, historical quarter data is updated retrospectively. This can cause discrepancies between historical data reported across quarters.

'Local ID', also reported by ITOs, is not used because NZQA ID has robust quality assurance mechanisms supporting the integrity of the information. When replicating this information, ITOs may also wish to use NZQA ID to obtain the same view of the data as the TEC.

Caveat: where NZQA ID numbers are merged and the ITO reports the trainee under a ‘master’ NZQA ID, the TEC is unlikely to be able to identify that the previous and ‘master’ NZQA ID numbers are the same individual, meaning that they are likely to be treated as two distinct trainees in the KPIs.

The industry comparison uses ethnicity and gender proportions specified in the appendix of each ITO’s 2007 Funding Agreement. Industry proportions are transformed into estimated industry numbers by applying the demographic proportions (from the 2007 Funding Agreement) to the number of employees in the industry as reported by the ITO (currently from Industry Training Organisation’s Profile 2008-2010).<sup>6</sup>

Column titles in the tabulated data for this section of the report have corresponding meanings to those outlined in the “Participation of trainees – programme level” section.

### 3.4 Standard Training Measures Achieved Against Contracted Volume

This indicator compares the volume of provision organised by the ITO with the contracted volume agreed by the TEC, for ITF funded STMs only. The formula for the KPI is:

<b>Formula 8:</b>	Annual STMs achieved
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	Annual STMs contracted

STMs achieved are calculated on a quarterly basis using the following formula:

<b>Formula 9:</b>	(no. of trainees * programme credits)
	-----
	(((programme duration in months/12) * 120) / 4)

A trainee is counted only if active at the end of the quarter.

The quarterly STMs achieved are then summed to provide a yearly STM aggregation for comparison with the yearly STMs investment allocation.

Features to note about STMs achieved include:

- All data is obtained from the ITO-PMS quarterly reports.
- The number of trainees counts all the active trainees at the end of the quarter based on NZQA ID numbers and the programme enrolled. Duplicates are identified through the TEC’s validation programme, and removed by the ITO.
- Credits are calculated from available credits for a programme and not from the credits achieved by the trainee.
- Modern Apprentices are removed from the indicator because they are allocated outside of the industry training allocation.

Column titles in the tabulated data for this section of the report have corresponding meanings to those outlined in the “Participation of trainees – programme level” section.

<sup>6</sup> The most recent estimate is used for all years.

### 3.5 Average Number of Credits Achieved per Trainee

This indicator compares the number of credits achieved with the number of trainees involved in training (with training agreements) during the period and is calculated as follows:

Formula 10:	Number of credits achieved
	Number of trainees

**Number of credits achieved:** (formula numerator) the total number of credits achieved by trainees is calculated by summing all the credits achieved by ITO trainees, including Modern Apprentices, and is not solely a function of Standard Training Measure funding levels. The volume of the credits is drawn from the ITO-PMS fields ‘L1CREDITS’ – ‘L8CREDITS’.

The credit information is taken directly from the ITO-PMS returns held by the TEC, and represents the volume of credits reported for quarter four of any one year. The fourth quarter volume is reported because the ITO-PMS records accumulated credits starting from quarter one and ending after quarter four in a calendar year. Where a trainee has left training during quarters one to three or in quarter four, the ITO should be reporting the trainee record details, including exit event and accumulated credits for the year, in quarter four. In this case, these will form part of the volume of credits included in the report.

Achievement of credits is defined under the ITO-PMS requirements, which states that credits are achieved when the ITO:

“... accepts the credit achievement report of an assessor registered to assess credit achievement. ITOs should be able to demonstrate an audit trail accordingly.”<sup>7</sup>

**Number of trainees:** (formula denominator) – See earlier description under Participation of Trainees Compared to Industry Demographics – Ethnicity and Gender.

### 3.6 Employers with Employees Involved in Industry Training

The purpose of this measure is to gain a view of the ITO’s industry penetration. The number of employers with employees in training (trainees with active training agreements) is compared with the industry size estimates reported by each ITO (currently from their Profile 2008-2010). The formula used is:

Formula 11	Number of employers with employees with training agreements during the period
	Number of employers in the industry

**Employers in the industry:** the ITOs’ estimates of industry size in their Profiles have been applied to all three years, as the 2001 Census is often the basis of the estimate, meaning that up-to-date trend information is not available for year-on-year estimates. It is also worth considering to what degree the denominator impacts on the KPI as compared with the numerator. An increase in the number of employers with trainees with active training agreements is more likely to cause improved KPI results than incremental changes to industry size.

Note: the number of employers with employees in training is reported by ITOs quarterly, and should reflect the number of distinct employers and not branch offices of the same employer. However, there appears to

<sup>7</sup> File Specification for Industry Training Organisation Performance Measurement System, Version 6.0, September 2005: page 16.

be some variation in how this information is collected by ITOs; as such, caution should be taken when interpreting these results at this time.

**Employees with training agreements:** this data is extracted from the ITO-PMS report field 'No\_Emp\_with\_Trn\_Agreements'. This field identifies the number of distinct employers with employees in training to date in any one calendar year. As such, the data provided in the fourth quarter reports is used to determine the overall number of employers with employees in training.

An analysis of all ITO data indicates that in a small number of quarterly ITO reports the number of employers with employees with training agreements actually decreases from quarter to quarter (three percent). For this reason, the information should be treated with care until the ITOs' methodology for reporting this information can be tested against the reporting specifications.

Note: the data for one ITO for quarter one and quarter two of 2008 has been removed due to a data quality issue that impacts the calculation of sub-sector data in the Progress Monitoring Reports.

Column titles in the tabulated data for this section of the report have corresponding meanings to those outlined in the "Participation of trainees – programme level" section.

### 3.7 Industry Cash Contribution

The industry cash contribution data is taken from the ITO's PM 18 returns.

### 3.8 Completion Rate of Industry Trainees and Modern Apprentices

The completion rate KPIs provide a view on the propensity of trainees to complete a programme aligned with their, and the employer's, training intention. This intention is captured, at the highest level, by a training agreement, which aligns with engagement in a training programme in some situations but not in others.

Performance measurement information collected by the TEC is based on its method of funding, that is, programme enrolments. This means that an analysis as to whether the trainee's and employer's training intention was met needs to be based on programme information<sup>8</sup>. As such, these programme-based completion rate indicators are calculated as follows:<sup>9</sup>

Formula	Number completing successfully, at the same or higher programme level, from those expecting to complete
12:	Number expecting to complete in the period

**Delayed reporting:** the most recent completion rates included in the Progress Monitoring Reports are for trainees who were expected to complete in the year prior to the reporting year (reporting year – 1). This is taken as the most recent year because these trainees have had four quarters after their expected end year to complete. On average, this allows for an additional 10 percent of completions to be counted in the completion rate, compared with using data relating to the reporting year.

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<sup>8</sup> The TEC has signalled that it will talk again with the Industry Training Federation and Industry Training Organisations about collection of information which provides a clear view of the training intention captured in training agreements.

<sup>9</sup> Both industry trainees and Modern Apprentices are included in all completion rates.

It should be noted that the trainees included in the two years prior to 'reporting year – 1' have had longer to complete, meaning that more trainees from these cohorts are likely to have completed and their completion rates are likely to be higher. Future reporting will consider taking two approaches: either not recalculate the historic completion rates for each year included in the reports, meaning that for trainees in each cohort included in 2009 reporting will have had the same length of time to complete for each of the three years featured in the report (i.e., 2005, 2006 and 2007) or re-calculating years prior to 2005 but applying a five-quarter time period for a completion to occur. Normalising the time periods for including a completion assists in comparing performance over time<sup>10</sup>.

**Number of trainees expecting to complete:** (formula denominator) a trainee is defined as expecting to complete during a period based on the expected length (duration) of the programme in which they are first registered. The duration is agreed between the TEC and the ITO during the section 10 of the Industry Training Act 1992 (The Act) approval process. Trainees who, given when they start and the expected duration of their programme, are expected to complete in a particular year, are identified as part of the cohort of trainees in the year for which the data will be mined for a completion. For example, trainees who are expected to complete in 2005 are identified as part of the 2005 cohort.

Table 4 shows examples of the expected end-year grouping (cohort) of trainees according to the start date of the trainees and the expected duration of their training programme. Example one demonstrates that a trainee starting on 1 March 2001 and undertaking a 24-month programme would be grouped in the 2003 expected year of completion cohort. In example two the trainee would form part of the 2004 cohort and in example three the trainee be grouped in the 2005 cohort.

**Table 4: Expected year of completion**

Example	Programme start date	Programme duration (months)	Expected year of completion
Example one	1 March 2001	24	2003
Example two	22 December 2003	12	2004
Example three	4 January 2004	18	2005

**Adjusted enrolments:** a trainee entering a programme can be considered an enrolment<sup>11</sup>. Each time a trainee enters a programme this could be considered to be a new enrolment; however, for the purpose of calculating this completion rate, each enrolment is not necessarily counted.

Two factors impacting on enrolment counts should be noted. Firstly, the sector has provided feedback, supported by analysis of the industry training data, that trainees change programme frequently. The change is often to a programme that provides the trainee and employers with similar skills to those provided by the programme from which they have switched, and reflects trainee choice rather than ITO performance. And secondly, when modest changes are made to programme specifications, under section 10 of The Act the TEC requires another programme code to be established. From the TEC's data viewpoint, trainees who have been migrated to the new programme codes appear to have left the first programme and enrolled in a new programme. The data does not provide a link between the two programmes to identify them as essentially the same programme.

The TEC is of the view that, given the limitations of the data and the impact of the two factors mentioned earlier, these factors would distort the results. If the TEC was to count each enrolment by a trainee in the denominator of the completion rate, the denominator would be approximately twice as big, thus unduly lowering completion rates for industry training.

<sup>10</sup> Both the Industry Training Federation and Industry Training Organisations will be consulted before any changes are made.

<sup>11</sup> If the data held by the TEC represented a training agreement, then this would be classified as 'registering' for that agreement.

In consultation with the Industry Training Federation and ITOs, the TEC has chosen a completion rate methodology that removes these factors but retains the training intention. The methodology amalgamates enrolments when they occur at the same or higher programme level, provided the next enrolment occurs at about the same time as the trainee leaves the first programme. As such, enrolments are only counted for a trainee when:

- it is the first enrolment with the ITO; or
- it is the first enrolment after a successful completion; or
- it is outside the period of 93 days before and after the end (exit) or last reported date of the first enrolment; or
- it is at a lower programme level than the first enrolment.

This methodology provides an 'adjusted enrolment' count for the completion rates presented in the Industry Training Organisation Progress Monitoring Reports. ITOs will be able to apply this approach and replicate the results for completion rate indicators by applying the following steps:

Step 1: Trainees who have only been enrolled in one programme are identified. These form one record, with one enrolment in the dataset<sup>12</sup>.

Step 2: All enrolments culminating in a successful completion are counted as one enrolment and one completion.

Step 3: Trainees who have been enrolled in two programmes are identified. Where the second programme is at the same or higher level and the start date is within 93 days (+/-) of either the exit or last reported date, these two records are amalgamated and incorporated in the dataset as one record. Where the second programme's start date or last reported date is outside of 93 days, both records are transferred to the dataset.

Step 4: Step 3 is repeated for all other multiple programme enrolments; that is, with three programme enrolments programme one is then compared with programme three and programmes two and three are then compared. Where the programmes are within 93 days and the last programme is at the same or higher level, only one record is included in the dataset. In all other instances, all records included in the dataset are used to calculate the number of adjusted enrolments.

Step 5: Records with an 'unknown' outcome are removed from the denominator count.

**Number completing successfully:** (formula numerator) the numerator for the completion rate formula counts the number of matched completions from the group of trainees expecting to complete during the period (the cohort). All unique completions<sup>13</sup> – trainee in a specified programme – are counted irrespective of the programme and when they occur. For example, if the enrolment falls into the 2005 cohort, but the trainee completes during 2004 or 2006, it would contribute to the 2005 cohort and completion rate. Completions are identified from all ITO-PMS quarterly reports and not just quarter four reports.

Under the ITO-PMS reporting requirements, a completion is defined as:

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<sup>12</sup> The TEC filters the data using NZQA ID to identify unique programme enrolments. If Industry Training Organisations are intending to replicate the KPIs it is recommended that the NZQA ID is used rather than Local ID .

<sup>13</sup> Code 'C' for the 'Exit Indicator' field in File Specifications for Industry Training Organisation Performance Measurement System, Version 6, September 2005: page 13. Note that historically code 'CA' was also used by Industry Training Organisations, and the algorithms also identify any completions reported under this code.

“... when the trainee has fulfilled the requirements of the training programme that they were signed into. No further activity is expected to take place in relation to that training programme.”<sup>14</sup>

This indicator provides the rate at which trainees (industry trainees and Modern Apprentices) complete a programme. The rate is constructed by dividing the number of programmes achieved (as defined earlier) by the number of programme enrolments. Where an outcome is ‘unknown’ for the trainee, these records have no opportunity for inclusion in the formula numerator and are therefore removed from the denominator<sup>15</sup>.

The completion rate graphs and tables presented in the Industry Training Organisations’ Progress Monitoring Reports also report the number (and proportion) of adjusted enrolments where the trainee has withdrawn (terminated), or is ‘still in training’, or where the outcome is ‘unknown’. ‘Still in training’ means that the trainee has been reported as active for the training programme in the fourth quarter report for the last full calendar year before the Progress Monitoring Report is produced. ‘Unknown’ means that the ITO has not reported an exit for the trainee for the programme, but is no longer reporting the trainee as being in that programme.

Key characteristics and assumptions for this indicator:

- Enrolments overlapping within 93 days are considered to be a continuous enrolment when the second programme is at the same level or higher.
- Where two or more records are amalgamated, the start date and programme duration for the newly merged record are taken from the first record.
- Trainees with more than one NZQA ID cannot be identified in the ITO-PMS data. This means that they are treated as two separate trainees in the indicator calculation, and this will affect enrolment counts.
- The indicator only includes exit events reported to the TEC, meaning that if exit information is entered into an ITO’s database system for a previous quarter, these exit events may not be transferred in the ITO-PMS exchange.
- Due to unknown outcomes for trainees, the completion rate is likely to under-estimate the proportion of trainees who have completed. Although the overall impact of this appears small, individual ITOs should consider the number of unknown outcomes for their trainees and the likely impact on the completion rate for their ITO.
- Because trainees in the more recent cohorts have had less time to complete, the rate of completions for these cohorts may be lower as a result of the trainees having only 13 months to complete after their expected end date.

### 3.9 Average Time of Completion Compared with the Expected Time

The purpose in this measure is to identify the proportion of trainees completing successfully when expected. The following formula allows for the calculation of the proportion of trainees completing relative to three categories of expected duration:

Formula 13:	$\frac{\text{Number completing in a) less than 90% b) between 90 and 110%, and c) greater than 110% of the time expected}}{\text{Number of trainees completing successfully in the year}}$
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<sup>14</sup> File Specification for Industry Training Organisation Performance Measurement System, Version 6, September 2005: page 16.

<sup>15</sup> Unknowns as a proportion of total adjusted enrolments are shown in the completion tables in the report.

The KPI for this measure is the proportion of trainees who complete in no more than 110 percent of the time expected, that is, the addition of component scores for trainees completing in less than 90 percent and between 90 and 110 percent of the expected time.

Only national qualification completions are included in this indicator due to sector feedback that the results become distorted through the inclusion of limited and supplementary credit programmes which have short expected duration periods. This information is drawn from ITO-PMS quarter four reports. Further enhancements of this indicator will include using all four quarterly reports during the year to ensure any completions not accumulated into the fourth quarter report are included.

Each yearly cohort in the Progress Monitoring Report graphs and tables includes all national qualification completions occurring in that year, including Modern Apprentices. Completions of limited and supplementary credit programme results do not contribute to the KPI information but provide additional information that may be of interest to TEC Investment Managers and ITOs.

The method for determining the length of time for completion uses the programme duration determined through the section 10 (of The Act) programme approval. Programme duration is compared with the time in the programme for individual trainees. This can be expressed formulaically as:

Formula 14:	$\frac{\text{Trainee's actual end date minus their start date}}{\text{Programme duration (months) / 30.4375}}$
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As shown in the formula above, the trainee's actual days in the programme are compared with the duration of the programme. Programme duration is reported in months, and is transformed into days by dividing the average number of days in a year (365.25 days) by the number of months in a year (12 months). The trainee's actual number of days in the programme is then divided by the expected days in the programme, which provides the percentage of the expected time that the trainee was in training.

### 3.10 Progression After Completion

The TEC's Investment Guidance 2008-2010 (page 19) notes that all ITOs will be expected to contribute to the STEP (outlined in the TES 2007-2012) priority of increasing educational success for young New Zealanders – more achieving qualifications at level 4 and above by age 25. The Investment Guidance (page 19) also identifies that ITOs' contribution will be assessed by a metric of KPIs, including increasing the progression rates of trainees and apprentices moving from national qualifications at levels 1 to 3 to level 4 and above by the age of 25.

The KPI for progression included in the Progress Monitoring Reports therefore measures the rate at which trainees completing a national qualification before the age of 25 enrol in further tertiary education within 12 months. The formula used to calculate the rate is:

Formula 15:	$\frac{\text{Number enrolling in a level 4 or higher qualification within 12 months}}{\text{Number of trainees completing a national qualification below level 4 before the age of 25}}$
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The numerator (number enrolling in a level 4 or higher qualification within 12 months) is a subset of the denominator (number of trainees completing a national qualification below level 4 before the age of 25).

**Number of trainees completing a national qualification below level 4 before the age of 25:** (formula denominator) this information is drawn from the ITO-PMS quarterly reports (quarters one to four) and includes all unique completions provided that:

- they are for a national qualification;
- the programme is at levels 1 to 3; and
- the trainee is under 25 at the date of completion (exit).

Only the last completion reported for trainees (based on NZQA ID) against a programme code is included to ensure completions are not counted more than once.

**Number enrolling in a level 4 or higher qualification within 12 months:** (formula numerator) the group of unique level 1 to 3 completions is then matched with both Single Data Return and ITO-PMS data (using NZQA ID/ National Student Number) to identify tertiary enrolments at level 4 or above for this group<sup>16</sup>.

Where one or more enrolments at level 4 or above exist, the enrolment start date is compared with the level 1 to 3 completion date (exit date). The level 4 or above enrolment is counted as progression if its start date is:

- no more than 6 months before (182.63 days i.e., 365.25 days / 2) the completion date of the level 1 to 3 programme; and
- no more than 12 months after (365.25 days) the completion date of the level 1 to 3 programme.

Enrolments identified in the Single Data Return with a funding code for 'ITO off-job training' (code 11) and 'ITO off-job training FOREIGN student' (code 21) are removed<sup>17</sup>.

Because a condition for successful progression is that it occurs within 12 months of the level 1 to 3 completion, there will be a 12-month reporting delay for this KPI.

The further enrolment can be in the same ITO or another Tertiary Education Organisation within 12 months of completing the national qualification below level 4. The ITOs will not be able to duplicate the progression indicator results because course enrolments reported in the Single Data Return are considered along with ITO-PMS data.

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<sup>16</sup> If the Industry Training Organisation is using a 'slave' NZQA ID (National Student Number, NSN), rather than a 'master' NZQA ID, the matching process will not identify a progression. A 'master' NZQA ID can be obtained by interfacing with the NSI through the Ministry of Education web application. Where a slave NZQA ID is submitted, a 'master' NZQA ID (NSN) will always be returned.

<sup>17</sup> 2007 Single Data Return, Version 9.2, page 73.

## 4.0 Description of the Key Dimensions

Although the method for calculating each indicator will vary, the method for assigning a category or attribute for each key dimension does not. The approaches taken are described below.

### 4.1 Programme Classification

A programme is defined as a qualification, limited credit programme (LCP), or supplementary credit programme (SCP). Qualifications include national certificate (NC), national diploma (ND), and trade certificate (TC).

LCP and SCP are packages of unit standards, and are identified by the prefix LCP or SCP in the programme name. Where the name of a package of unit standards starts with NC, linking the unit standards to a national certificate, these are reclassified as supplementary credit programmes as they are not national certificates.

### 4.2 Programme Level

This is the National Qualification Framework level for which the programme was approved for funding by the TEC under section 10 of The Act. The programme level data is drawn from the 'Prog\_Level\_ITO' field in the ITO-PMS, and is taken from the last record for that trainee in each programme as reported by the ITOs.

### 4.3 Age

The age of a trainee is used in a number of KPIs to identify outcomes for defined groups. A trainee's age is calculated from the date of birth provided in the ITO-PMS Quarterly Reports. Age is determined based on the date of birth and their age as at 1 July for the defined cohort. Age is determined as at 1 July because this provides the average age of the individual in any given year, and is consistent with other tertiary education reporting. Where multiple dates of birth are recorded for a trainee, the most recently submitted date are used.

### 4.4 Gender

A trainee's gender is identified from the last reported female or male category reported by an ITO for the trainee. This will be the last reported record for trainees, with the exception of trainees reported as 'not specified'. For 'not specified' reports, the last earlier report of either female or male is used, and where this is not available the category of 'not specified' is retained. The ITO-PMS field of 'Gender' is the source of all data for this key dimension.

### 4.5 Ethnicity

A trainee's ethnicity is identified from the last reported ethnic category reported from any ITO for the trainee, and can be classified as European, Māori, Pacific Island, other and not stated. Only Māori and Pacific Island are used in the current KPIs.

This will be the last reported record for trainees, with the exception of trainees reported as 'not stated'. For 'not stated' reports, the last earlier report of another category is used, and where this is not available the category of 'not stated' is retained. The ITO-PMS field of 'Ethnic\_Code' is the source of all data for this key dimension.

## Appendix 1: Report Releases

Table 5 – List of Report Releases and Data Inclusions

Reports and date released	Variables	Data used	Extract Date
Progress Monitoring Report, April 2009	Full year to 2008: <ul style="list-style-type: none"> <li>• Volume of delivery</li> <li>• Mix of provision arranged</li> <li>• Proportion of STMs</li> <li>• Participation of trainees compared to industry demographics (including Māori, Pacific Island, Female and Aged under 25)</li> <li>• Employers with employees involved in industry training</li> <li>• STMs achieved against contracted volume</li> <li>• Trainee achievement</li> </ul> Year-to-date from April 2008 <ul style="list-style-type: none"> <li>• Industry cash contribution</li> </ul> Full year to 2007: <ul style="list-style-type: none"> <li>• Completion rates (including Māori, Pacific Island, Female and Aged under 25)</li> <li>• Progression</li> <li>• Average time to complete</li> </ul>	ITO-Performance Measurement System (ITO-PMS) Quarterly Report  Tertiary Contract Management system (TCM – captures payment information)  Investing in Plan data bases (captures KPI commitments)  PM 18 returns  ITOs Profiles 08-10	14/04/2009  Detailed in report  27 April 2009
Draft Progress Monitoring Report, October 2008	Year-to-date to 2008: <ul style="list-style-type: none"> <li>• Volume of delivery</li> <li>• Mix of provision arranged</li> <li>• Proportion of STMs</li> <li>• Participation of trainees</li> <li>• Employers with</li> </ul>	ITO-Performance Measurement System (ITO-PMS) Quarterly Report	

	employees involved in industry training		
Baseline Monitoring Report, April 2008	<p>Full year to 2007:</p> <ul style="list-style-type: none"> <li>• Participation of trainees (including Māori, Pacific Island, Female and Aged under 25)</li> <li>• Average number of credits achieved per trainee</li> <li>• Expected completion time</li> <li>• STMs achieved against contracted volume</li> </ul> <p>Full year to 2006:</p> <ul style="list-style-type: none"> <li>• Completion rates of industry trainees and Modern Apprentices (including Māori, Pacific Island, Female and Aged under 25)</li> <li>• Progression</li> <li>• Employers with employees in training</li> </ul> <p>Full year to 2005:</p> <ul style="list-style-type: none"> <li>• Industry cash contribution</li> </ul>	ITO-Performance Measurement System (ITO-PMS) Quarterly Report	

## Appendix 2: Changes to Data Compilation

This table outlines the changes made to the data extraction and derivation for the Progress Monitoring Report since June 2007. These changes have been made based on feedback during the Data Quality Exercise, the examination of Baseline Monitoring Reports, draft Progress Monitoring Reports and the Progress Monitoring Reports, and consultation with sub-sector representatives. Further changes will be made as issues and feedback are progressively addressed.

Table 6 – Register of Changes to PMR Coding

Change Name	Change Description	Date Change Made	Reason for Change Related Issues/Errors etc
TCM Payment Import	Import payment figures from TCM dataset.	3/02/09	To allow actual payment different to be presented.
Revise proportion of unknown completions formula	Formula changed from: $\frac{\# \text{ Unknown}}{\text{(Adjusted Enrolments - \# Unknown)}}$ to: $\frac{\# \text{ Unknown}}{\text{Adjusted Enrolments}}$	1/04/09	To correctly represent the proportion of adjusted enrolments where there is no known outcome/status.
Suppression rules for KPI tables and graphs	Whilst calculating/generating KPI figures then following rules of suppression has been applied:  <b>if cohort &lt; 30:</b> 1) show cohort 2) suppress rate  <b>if 0 &lt; cohort &lt; 4:</b> 1) suppress cohort 2) suppress rate  <b>if cohort = 0:</b> 1) cohort = 0 2) rate = *  <b>if 0 &lt; numerator &lt; 4:</b> 1) suppress numerator 2) suppress rate  <b>if numerator = 0:</b> 1) numerator = 0 2) rate = 0%	1/04/09	Rules been applied in order to protect the privacy of students from TEOs with relatively small number of cohorts.
Correct last reported enrolment	Trainees under 25 enrolled in national qualifications at level 4 and above now only counts the first report of a trainee against a programme.	16/9/08	Previously multiple counts may have occurred as each start date for a programme generated a new enrolment event. Additionally the Baseline Monitoring Report methodology also stated that the last reported programme level is used to remove duplicates and provide the most accurate data. Analysis of coding indicates that this was implemented with the data for each year rather than for the data for all years.

Change Name	Change Description	Date Change Made	Reason for Change Related Issues/Errors etc
Duplicates in participation of Māori, Pacific People and female trainees	Last reported date of birth is used to remove duplicates when calculation participation of Māori, Pacific People and female trainees.	16/9/08	Participation of Māori, Pacific People and female trainees did not take into consideration cases where the same trainee has multiple dates of birth recorded. This has now been rectified with the last reported date of birth being used to remove duplicates. Additionally the Baseline Monitoring Report methodology stated that the last reported ethnicity and gender are used to remove duplicates and provide the most accurate data. Analysis of coding indicated that this was implemented within the data for each year rather than for the data for all years.
Addition of Volume of Delivery and Mix of Provision Arranged	Added Mix of Provision Arranged section with analysis by programme level. Added year-to-date view in Volume of Delivery, Mix of Provision Arranged and KPI analysis.		To provide broader coverage of Plan
Enhancement of sub-sector information	Enhanced sub-sector information to include the sub-sector range 4 year high/low and % above and below own range in the Mix of Provision Arranged section; and a sub-sector distribution summary in the KPI section.		To enhance utility of sub-sector information
Plan Commitment Information	Added Plan commitment information		To enable comparison of progress against the Plan
No suppression rules for KPI tables and graphs (vs BMR methodology)	Whilst calculating/generating KPI figures the following rules of suppression were not applied:  <b>if cohort &lt; 30:</b> 3) show cohort 4) suppress rate  <b>if 0 &lt; cohort &lt; 4:</b> 3) suppress cohort 4) suppress rate  <b>if cohort = 0:</b> 3) cohort = 0 4) rate = *  <b>if 0 &lt; numerator &lt; 4:</b> 3) suppress numerator 4) suppress rate  <b>if numerator = 0:</b> 3) numerator = 0 4) rate = 0%		Insufficient time available to implement in this release.