

VICTORIA

Auditor-General
of Victoria

SPECIAL REPORT No. 47

**VOCATIONAL EDUCATION
AND TRAINING
A Client Perspective**

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The President
The Speaker

Parliament House
Melbourne Vic. 3002

Sir

Under the provisions of section 16 of the *Audit Act* 1994, I transmit the Auditor-General's Special Report No. 47, "*Vocational education and training: A client perspective*".

Yours faithfully

C.A. BARAGWANATH
Auditor-General

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Foreword

The importance of performance measurement and, in particular, the use of performance indicators to measure agency or program performance has been recognised by successive governments over a number of years. More recently, the Treasurer foreshadowed the widespread adoption of indicators to measure service delivery performance in collaboration with other States and the Commonwealth.

In the context of vocational education and training, I acknowledge and support the sound progress made to date by that sector in implementing a range of indicators to measure the performance at a national level. However, as the sector acknowledges, more effort needs to be directed at assessing the effectiveness of vocational education and training at a State and institute level through canvassing the views of student and industry clients.

I recognise the immediate challenge for the Office of Training and Further Education of undertaking assessments of effectiveness through the measurement of program outcomes is both difficult and complex. Nevertheless, I will follow these developments with great interest.

C.A. BARAGWANATH
Auditor-General

Part 1

Executive summary

Part 1.1

Overall audit conclusion

1.1.1 Vocational education and training primarily focuses on providing opportunities for students to develop a range of skills and abilities to meet workplace needs. Under a national agreement, each State and Territory has been required, since 1994, to provide performance data to the Australian National Training Authority to measure performance against the achievement of national goals and objectives for vocational education and training. The performance data has, to date, predominantly focused on inputs, activities and outputs. Work on measuring training outcomes has commenced at the national level with input from each State and Territory, but is at an early stage of development.

1.1.2 Audit found that in Victoria, the emphasis of the Office of Training and Further Education has been on the development of systems and the collection of data from training providers, including institutes of technical and further education, to meet the national requirements. Positive steps, including continuous improvement initiatives, have also been taken to enhance training delivery and other services which in turn are expected by the Office to produce effective and long-lasting performance improvements and increased client responsiveness by training providers across the State Training System. While the national goals, which are reflected in the State policy objectives, have a clear commitment to providing training that meets the needs of student and industry clients, the Office has only recently given greater attention to the measurement of such training outcomes. In this regard, audit recognises that the measurement of outcomes is a relatively new and evolving process across the public sector.

1.1.3 Due to initiatives at the national level involving the conduct of Australia-wide surveys of student and industry clients, and with a view to avoiding duplication of effort, the Office of Training and Further Education, has not, to date, sought information on training outcomes from institutes. While the national data was of some use for assessing training outcomes at that level, its use at State and institute levels was limited as the effects of differences in demographic and socio-economic conditions between States and institutes had not been discounted from this data. These differences can lead to variations in training outcomes irrespective of the quality and relevance of the training provided. As the national surveys were the first of this kind, comparable trend data was not available and specific outcome targets or benchmarks had not been established against which to monitor performance.



1.1.4 Only limited information was collected by individual institutes to assess training outcomes in that not all key stakeholders were included in the surveys. In particular, employers who recruited institute graduates or had employees such as apprentices who undertook vocational education and training courses were generally not surveyed. Audit also found that there was a lack of uniformity in the approach to the conduct of surveys both within and across institutes as well as shortcomings in survey design, methodology, analysis and reporting.

1.1.5 As a result of these limitations, audit was unable to form an opinion on whether vocational education and training provided through the Victorian State Training System had been effective in terms of meeting the training needs of student and industry clients. However, responses to national surveys suggested that, on face value, training had some positive impact on training outcomes, and that a high proportion (78 per cent) of respondents believed they had wholly or partly achieved their main aim of undertaking their course of study. On the other hand, responses disclosed areas which on the surface appear unsatisfactory. Specifically, the level of employer satisfaction with the relevance and value of training and dissatisfaction of students with support services and amenities need further investigation by institutes and the Office.

1.1.6 While audit is aware of developments at the national level in relation to the measurement of training outcomes, and that Victoria has input into those developments, the Office needs to ensure that such developments will facilitate comprehensive assessments of training outcomes at a State level. With this in mind, audit has identified scope for improving existing measurement activities through the development of an evaluation strategy for adoption by both the Office and all institutes. The strategy needs to be aimed at facilitating a uniform and consistent approach to the collection and analysis of employment outcomes, and student and industry satisfaction data. The collection of the data at the point of training delivery will enable individual institutes to improve assessments of training outcomes, in addition to consolidation of the data by the Office to provide a Statewide perspective, in terms of whether training provided through the State Training System has effectively met the needs of student and industry clients.

1.1.7 Until outcomes are accurately measured, the Office will not be in a position to conclude with confidence on whether the substantial resources allocated to vocational education and training (around \$700 million in 1995) are effectively used to meet the needs of student and industry clients.

Part 1.2

Summary of major audit findings

Meeting client needs	Page 27
<ul style="list-style-type: none">• An appropriate range of methods aimed at ensuring the training needs of student and industry clients have been accurately identified is used by the Office of Training and Further Education and institutes. <i>Paras 4.8 to 4.14</i>• Data derived from a 1995 national survey of graduates is currently the only available information on Statewide employment outcomes for graduates who have undertaken vocational education and training courses. <i>Paras 4.20 and 4.21</i>• The survey results suggested vocational education and training in Victoria had some positive impact on employment outcomes for students. However, as the effect of factors such as socio-economic or demographic differences between States and Territories and the State and institutes had not been discounted, the results for Victoria were of limited use for comparative purposes. <i>Paras 4.22 to 4.30</i>• As this was the first survey of its type, comparable trend data was not available nor had performance targets or benchmarks been set. In these circumstances, it was not possible to determine whether the employment outcomes were in line with the desired result. <i>Para. 4.26</i>• As institutes had not adopted a uniform approach to the conduct of student satisfaction surveys and were not required to report the results to the Office, sufficient and reliable information was not available to facilitate a Statewide assessment of student satisfaction. <i>Paras 4.40 and 4.41</i>• While a high proportion of Victorian respondents to a national survey (78 per cent) believed they had achieved their main aim for undertaking their course of study, it should be of concern to the Office that on face value, 22 per cent of respondents had either not achieved, or at the time of the survey, did not know whether they had achieved their main objective for undertaking a course of study. <i>Paras 4.44 and 4.45</i>• The Office needs to ascertain whether the outcome for 46 per cent of respondents, who indicated their course of study was not highly relevant to their current job, was in line with their objectives for undertaking their course. <i>Paras 4.46 and 4.47</i>	



Meeting client needs - <i>continued</i>	Page 27
<ul style="list-style-type: none">• A national survey designed to assess student satisfaction with support services and amenities revealed a high level of dissatisfaction. The matters raised need to be considered by institutes and the Office to assess whether they have any relevance to Victoria. <i>Paras 4.48 to 4.54</i>• Of the State's 27 institutes, only 7 had either consolidated the results of surveys undertaken by individual centres or departments or conducted an institute-wide survey which specifically addressed student satisfaction. <i>Paras 4.55 to 4.58</i>• A national survey on the satisfaction of employers with vocational education and training was completed in 1996. Although of limited use, on the surface the unsatisfactory Victorian results in relation to issues such as the value and relevance of training provided need to be further investigated by the Office. <i>Paras 4.61 to 4.73</i>• Only a few institutes had formally obtained the views of employers on an institute-wide basis regarding their satisfaction with training provided to students. <i>Paras 4.74 to 4.76</i>	

Improving performance measurement	Page 49
<ul style="list-style-type: none">• The Office of Training and Further Education had taken a number of positive steps to improve training delivery and other services to clients and facilitate continuous improvement. <i>Paras 5.16 to 5.20</i>• Performance data collected for national purposes provided some information on the performance of the State Training System but, to date, the measurement of training outcomes is still developing. <i>Para. 5.21</i>• The concept of <i>clients</i> needs to be more clearly articulated by the Office to avoid the inconsistencies in views currently held. <i>Paras 5.24 to 5.27</i>• There is a need for institutes to adopt a uniform and systematic approach to data collection to facilitate comparisons within and across institutes and to provide information for overall assessments of the State Training System, or like groups of institutes, in relation to training outcomes. <i>Paras 5.29 and 5.30</i>• Scope exists for improving the quality and usefulness of survey instruments used by institutes particularly in terms of survey design and methodology. <i>Paras 5.31 to 5.34</i>• The establishment of performance indicators on student destination and client satisfaction, together with targets and benchmarks for each indicator, would enhance the performance measurement process. <i>Paras 5.35 to 5.38</i>• Survey data needs to be subjected to sophisticated analysis to discount those factors, such as the different composition of students at various institutes, which can distort the actual outcomes of training. <i>Para. 5.40</i>	



Improving performance measurement - <i>continued</i>	Page 49
<ul style="list-style-type: none">• Survey results can provide the Office and institutes with critical information for planning purposes, marketing activities, continuous improvement and in assisting with assessments of training providers. <i>Para. 5.41</i>• Information on training outcomes should be collected, in the first instance, at the point of training delivery. <i>Paras 5.43 to 5.45</i>• To improve measurement activities in respect of training outcomes, the Office needs to develop and implement an evaluation strategy across the State Training System. <i>Paras 5.22 and 5.46</i>• The Office needs to continue to foster a culture of evaluation and accountability within the State Training System including the provision of support and guidance to institutes in pursuing the measurement of training outcomes. <i>Para. 5.47</i>	

Part 2

Nature of vocational education and training

INTRODUCTION

2.1 Vocational education and training forms part of the tertiary education system in all Australian States and Territories. In broad terms, it is directed at developing skills to assist students to obtain employment, meet current employment needs, achieve career advancement or upgrade their skills in line with new technology or work practices.

2.2 Generally, training is competency-based which focuses on developing a range of key skills and abilities required to meet workplace needs.

REFORMS TO VOCATIONAL EDUCATION AND TRAINING

2.3 Up until the late 1980s, vocational education and training was generally confined to an apprentice and trainee system directed at a small number of traditional industry classifications, such as carpentry and plumbing.

2.4 At that time, the Australian, State and Territory Governments commenced a major program of vocational education and training reform. Governments recognised a number of shortcomings including the need for industry to have more involvement in training and, more recently, for greater attention to be given to training outcomes. It was also acknowledged that the skills of the workforce needed significant upgrading to reflect best practice and leading edge technology if Australia was to become both efficient and internationally competitive. The changing needs of industry have significance for vocational education and training, given the key role of training in developing skills for the workforce.

2.5 Through the 1990s, the vocational education and training reform program has involved:

- Reorganising the systems that deliver vocational education and training with the aim of ensuring it is more responsive to the needs of industry and students;
- Developing national competency standards across industries and occupations and implementing competency-based training;
- Broadening the avenues for participating in training;
- Establishing a framework between States and Territories for the national recognition of training qualifications;
- Enabling prior learning or competencies to be recognised when enrolling in vocational education and training; and
- Establishing the Australian National Training Authority, through legislation in 1992, to provide a stronger national focus for vocational education and training. The Authority subsequently commenced operations in 1994.



2.6 Underlying these reforms has been a recognition that training must become more client-focused by promoting greater choice and diversity for consumers through increased competition between training providers. This awareness was reinforced in the development, in November 1994, by the Australian, State and Territory Ministers responsible for vocational education and training (Ministerial Council) of a national strategy for vocational education and training titled *Towards a Skilled Australia*. The strategy, which is built on national goals agreed by the Ministerial Council in 1992, is directed at:

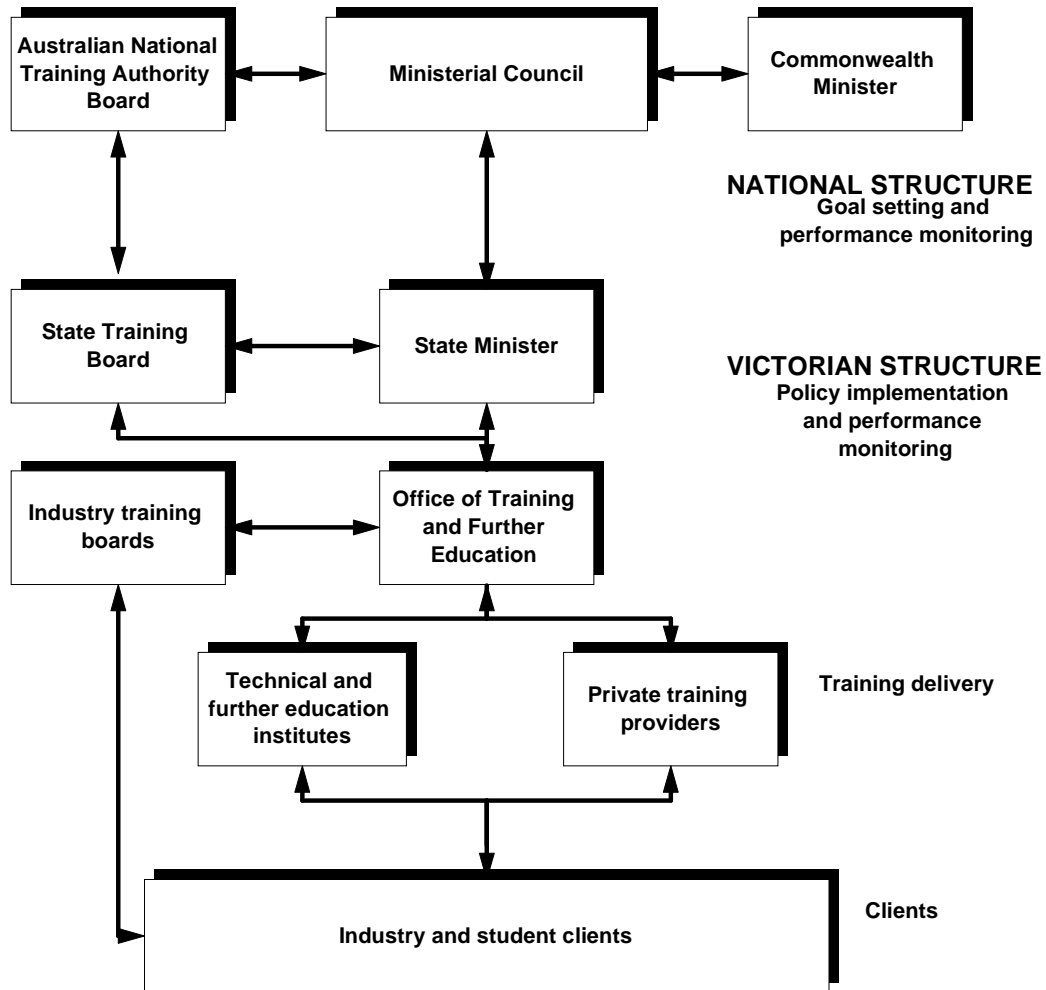
- enhancing quality;
- improving accessibility;
- increasing efficiency; and
- achieving greater responsiveness through increased choice and diversity.

2.7 The 1994 strategy is to be revised in 1997 in line with the Australian Government's Modern Australian Apprenticeship and Traineeship System policies.

ADMINISTRATIVE ARRANGEMENTS

2.8 The roles and administrative arrangements associated with vocational education and training involve a number of entities at a national and State level, in addition to technical and further education institutes and private training providers. Chart 2A provides an overview of the inter-relationship between these entities.

**CHART 2A
NATIONAL AND VICTORIAN ADMINISTRATIVE ARRANGEMENTS
FOR VOCATIONAL EDUCATION AND TRAINING**



National structure

2.9 Responsibility for vocational education and training at the national level is largely vested in the following bodies:

- *Ministerial Council* which, in broad terms, is responsible for setting national goals, objectives and overall priorities and for annual funding allocations; and



- *Australian National Training Authority*, established by Commonwealth legislation, is responsible for assisting the Ministerial Council in developing national priorities, directing government funds to those priorities, and monitoring State and Territory performance against national goals. The Authority is supported by the Australian Committee on Vocational Education and Training Statistics which, until September 1996, was primarily responsible for collecting and reporting on statistical and management information relating to the performance of vocational education and training across each State and Territory. This Committee has developed the Australian Vocational Education and Training Management Information Statistical Standard to be used by each State and Territory for measuring performance.

2.10 In September 1996, the National Advisory Committee on Vocational Education and Training Statistics superseded the former Committee. Its responsibilities include the further advancement of performance measurement.

Victorian structure

2.11 Vocational education and training in Victoria is provided through the State Training System. Details of the key participants within the System follow.

State Training Board

2.12 The State Training Board was established in 1987 and reconstituted with new functions in 1994 under the *Vocational Education and Training Act 1990*. The Board is responsible for providing expert advice to the Government on the skill requirements of Victorian industry and the community, and is accountable for the provision of training to meet these requirements.

2.13 The mission of the State Training Board is to build "*... a world class vocational education and training system to produce a skilled and empowered community to:*

- *support the competitiveness of Victorian industry and business; and*
- *enhance the social and economic opportunities of Victorians".*

2.14 The main functions of the Board in relation to vocational education and training are to:

- advise the State Minister responsible for tertiary education and training;
- negotiate funding allocations with training providers using a purchaser/provider model;
- accredit training providers and courses to ensure they meet established quality standards;
- perform the functions required of Victoria by the Australian National Training Authority; and
- ensure that the State Training System meets specified quality standards relating to training delivery and resource management.

.....

Office of Training and Further Education

2.15 The Office of Training and Further Education, which forms part of the Department of Education, fulfils the administrative requirements of the State Training Board. It has primary responsibility for implementing any policies or decisions of the Minister for Tertiary Education and Training or the Board.

2.16 In carrying out this role, the activities of the Office in relation to vocational education and training include:

- advising on policy;
- undertaking strategic planning;
- ensuring that industry advice is reflected in the policies, courses offered and training delivered;
- purchasing training services from a network of providers;
- representing Victoria at the national level;
- managing the budget cycle;
- accounting to the Minister and the State Training Board for public spending on vocational education and training; and
- administering relevant programs and services for the provision of training in accordance with government policy, legislation and any requirements of the Department of Education.

Industry training boards

2.17 The 15 industry training boards, each of which represents a broad industry grouping, are contracted by the State Training Board to provide advice on their respective training requirements. This advice is primarily provided through industry training plans, prepared by the boards, which detail forecasted training requirements over a 3 year period for the industry groupings they represent. The role of the boards also includes:

- promoting vocational education and training within their industry grouping; and
- contributing to course accreditation and curriculum development.



Training providers

Technical and further education institutes

2.18 Under the *Vocational Education and Training Act 1990*, individual technical and further education institutes are self-governing and each has distinct characteristics which reflect its industry base, size, region and the nature of training courses offered.

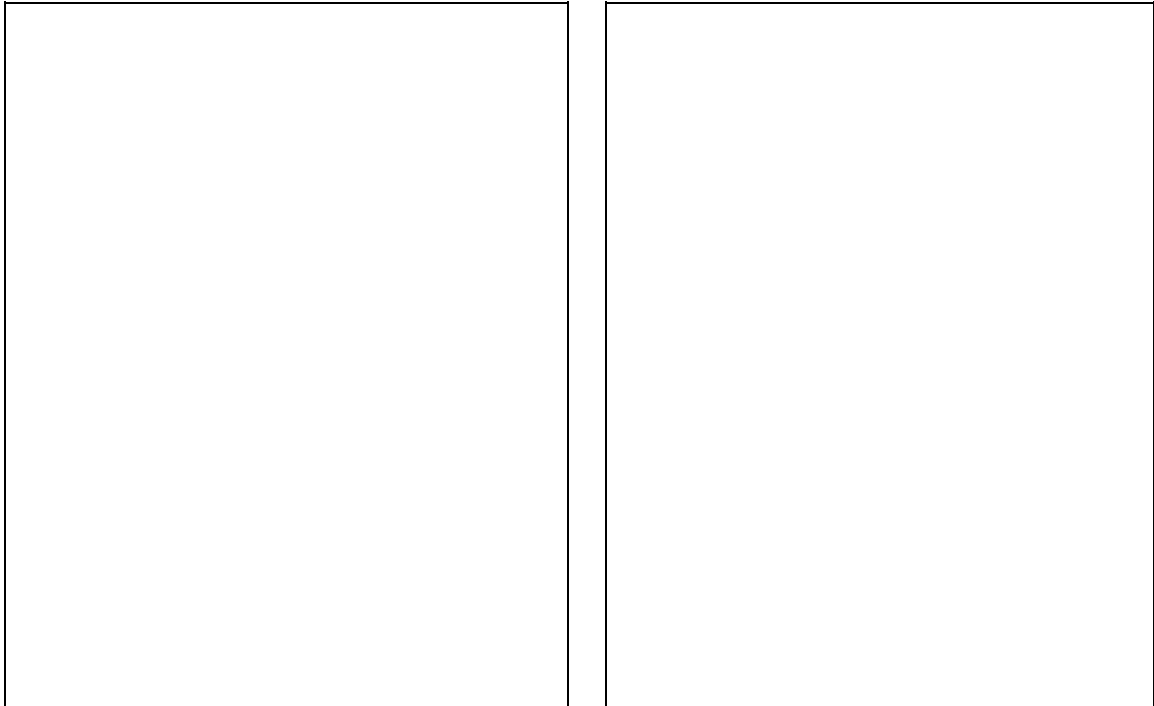
2.19 At 30 June 1996, 27 institutes (including 4 universities with technical and further education sectors) offered training courses relating to major industry groupings. For the year ended December 1995, these institutes were contracted by the State Training Board to deliver approximately 56 million student contact hours (the total number of training hours spent by students in contact with teachers) to approximately 305 000 enrolled students. Table 2B shows the number of publicly-funded student contact hours contracted in 1995 for the 7 largest industry groupings.

TABLE 2B
STUDENT CONTACT HOURS, 1995
(million hours)

<i>Industry groupings</i>	<i>Number of hours</i>
Business Services	13.1
Further Education	8.7
Electrical/Electronics	6.3
Engineering	5.0
Tourism and Hospitality	4.2
Social and Community Services	4.2
Building and Construction	4.0
Total	45.5

Source: *The Training Profile for Victoria, 1996*, prepared by the State Training Board.

2.20 Accredited training courses range in duration from one to 2 years, or longer if undertaken part-time. However, accredited courses may be completed in a shorter timeframe given that training is currently based on the level of competencies achieved. Students actually complete such courses when the required competencies are demonstrated. Successful completion of courses results in the award of diplomas, associate diplomas, advanced certificates or certificates. Short courses, single modules or individual subjects are also available in most institutes.



*Hospitality and business training courses
are offered by a number of technical and further education institutes.*

2.21 Training courses are generally classified according to the following accredited streams of study:

- preparatory courses for study in vocational education and training and higher education;
- courses which provide both initial and subsequent training for occupations; and
- recreation and personal enrichment courses (where accredited).

Private training providers

2.22 Through the registration of private providers, which include community organisations, commercial business colleges, industry associations, secondary colleges and businesses, the State Training Board aims to provide high quality vocational education and training courses through a wide range of providers. A number of private training providers have successfully tendered for public funding to deliver training. This initiative is designed to formally acknowledge the role of private training providers in the State Training System and signal a commitment to increased diversity and competition in the delivery of publicly-funded training.

2.23 The number of private training providers registered by the Office of Training and Further Education has increased significantly in recent years from approximately 200 in June 1994 to over 600 in September 1996.

FUNDING SOURCES

2.24 Funding for vocational education and training in Victoria is provided by both the Australian and State Governments. Under the Australian *Vocational Education and Training Funding Act 1992*, funding is provided to the Australian National Training Authority for distribution, in accordance with a formal agreement with each State and Territory. The agreement also requires States and Territories to maintain training effort, which is defined as financial inputs, enrolments and student contact hours delivered at 1994 levels, if they are to attract future funding from the Australian Government.

2.25 Through the mechanism of Performance and Funding Agreements, funding is allocated to training providers in line with priorities assessed by the State Training Board on the basis of its economic and labour market forecasts and input from industry. The Agreements require training providers to deliver a specified range and level of training in accordance with defined outputs. The Office of Training and Further Education is responsible for monitoring the performance of providers to ensure they deliver training in accordance with the Agreements.

2.26 For the 1995 calendar year, funding from the Australian and State Governments for vocational education and training throughout Australia totalled \$2.7 billion, of which around \$700 million was allocated to Victoria.

2.27 In addition to government funding, institutes raise revenue through providing training services on a fee-for-service basis and from statutory fees paid by students and other commercial activities such as bookshops, canteens and the lease of property.

2.28 Under the Agreements, institutes are required to provide performance information to the State Training Board in line with the Australian Vocational Education and Training Management Information Statistical Standard. This information was first provided for 1994 and includes data on training outcomes from the perspective of student and industry clients, which is discussed in detail in Part 5 of this Report.

VICTORIAN POLICY OBJECTIVES

2.29 According to the State Training Board's June 1995 policy document titled *Strategic Directions for Vocational Education and Training*, the Victorian Government's policy for vocational education and training, which reflects the national goals, seeks to :

- build on the system base;
- retain a strong industry focus;
- emphasise quality delivery; and
- support the development of the training market.



2.30 The policy "... aims to achieve excellence in tertiary education and training through the promotion of:

- choice and access for all qualified students;
- responsiveness to industry's needs;
- improved recognition and accreditation processes, including linkages across sectors of education; and
- devolution of decision-making to institutions to enable a high degree of independence and self regulation".

2.31 The Board has indicated that its aim is to improve productivity within the State Training System and allow institutes to have the authority to properly conduct their business. It sees the challenge for the System is to deliver vocational education and training that meets the emerging needs of its key stakeholders, namely, the Government, industry and the community through focusing on the achievement of outcomes rather than levels of activity.

2.32 Specifically, the intended outcomes for the State Training System are:

- independent, educationally diverse and enterprising training providers;
- greater choice and diversity for both students and industry;
- emphasis on quality and training innovation through competition and a focus on future training requirements;
- a System which can strategically meet industry needs on a Statewide basis and locally; and
- clear accountability for performance.

Part 3

Conduct of the audit

AUDIT OBJECTIVE

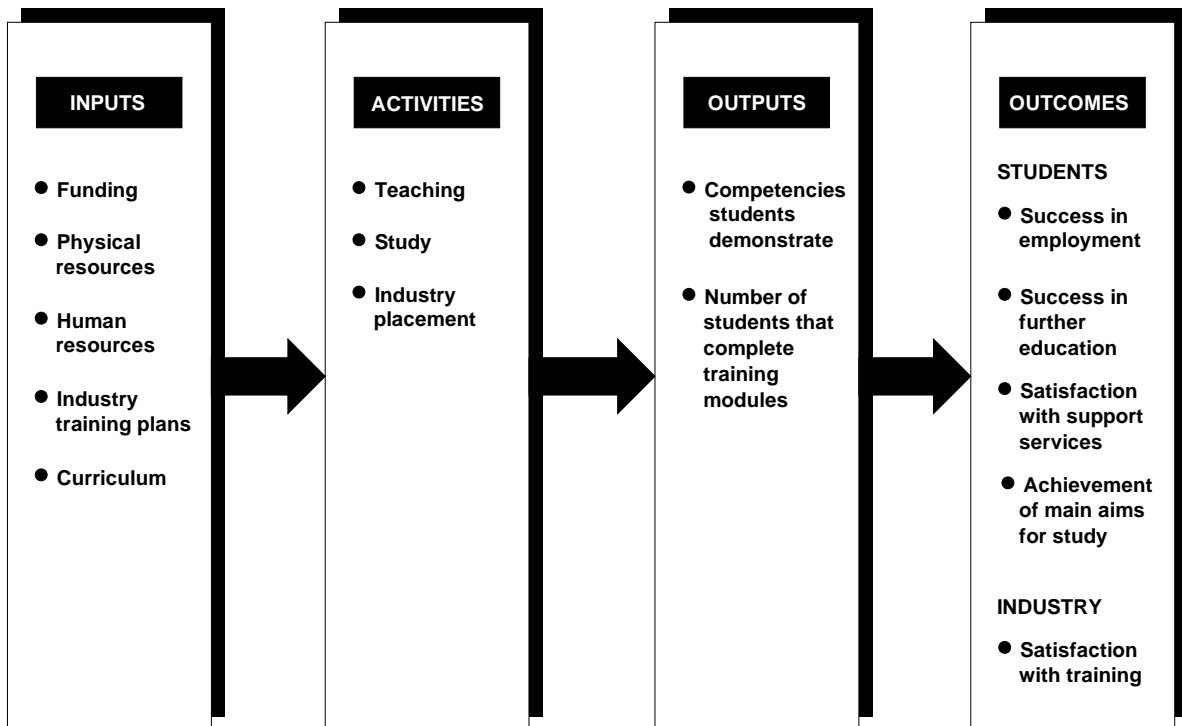
3.1 The overall objective of the audit was to examine the provision of vocational education and training within the State Training System in order to assess whether it had been effective in terms of meeting the training needs of student and industry clients.

SCOPE OF THE AUDIT

Areas of examination

3.2 Chart 3A illustrates the main components involved in the provision of government funded vocational education and training by institutes.

**CHART 3A
COMPONENTS OF VOCATIONAL EDUCATION AND TRAINING**





3.3 The audit focused on the outcomes of vocational education and training which forms part of the State Training System. It did not cover the other main component of the System, namely, adult community and further education. Specifically, the audit was directed at assessing whether students undertaking vocational education and training courses had:

- improved their employment status;
- opportunities for a better or higher paid job;
- acquired knowledge and skills that improved their personal development;
- achieved their main aim for undertaking study; and
- expressed satisfaction with support services and amenities.

3.4 In relation to industry, the assessment of outcomes was directed at whether employers were satisfied that the skills and knowledge of students were relevant to the workplace and contributed to improved efficiency, productivity and competitiveness.

3.5 For the purpose of the audit, *students* were defined as participants in publicly-funded training courses. *Industry* included employers who had recruited institute graduates, had purchased training for their staff on a fee-for-service basis or who had employees such as apprentices undertaking training within an institute.

3.6 The primary source of data available in relation to assessing training outcomes was survey data obtained by individual institutes, the Office of Training and Further Education and any relevant data obtained at a national level.

Agencies subject to audit

Office of Training and Further Education

3.7 The audit encompassed a review of processes, mechanisms and systems established by the Office of Training and Further Education to enable it to monitor and measure the effectiveness of training provided by individual institutes to student and industry clients, and to assess State outcomes for vocational education and training in terms of meeting client needs. Where available, performance measurement data gathered by the Office was examined by audit.

3.8 The audit of the Office included an examination of the following areas:

- policies and procedures;
- strategic planning documents relating to the identification of vocational education and training needs;
- the stewardship and governance role played by the Office;
- processes for the prioritisation and validation of training needs;
- Agreements with training providers;
- specific projects in relation to performance measurement;
- development of performance indicators and targets for measuring training outcomes;



- the use of internal and external benchmarking for performance improvement in respect of training outcomes;
- implementation of continuous improvement systems and processes relating to the provision of training; and
- management information systems, including validation and verification of performance data.

3.9 To assist in evaluating the State Training System, audit also visited the Australian National Training Authority located in Queensland. Discussions with the Authority covered current developments at the national level in relation to performance measurement, including training outcomes, and their implication at the State level.

Technical and further education institutes

3.10 Five institutes were selected as case studies for detailed examination by audit comprising:

- one rural institute, the South West Institute of Technical and Further Education, located in western Victoria; and
- 4 metropolitan institutes, namely:
 - William Angliss Institute of Technical and Further Education;
 - Royal Melbourne Institute of Technology (Technical and Further Education sector);
 - Holmesglen Institute of Technical and Further Education; and
 - Barton Institute of Technical and Further Education.

3.11 Areas examined at each institute included the following:

- strategic planning documents including approaches adopted in identifying the training needs of student and industry clients;
- the use of performance indicators to measure training outcomes;
- procedures in place to foster continuous improvement in training; and
- the use of student destination and client satisfaction surveys to assess training outcomes.

3.12 In addition, audit also conducted an extensive telephone survey of the State's remaining 22 institutes with the aim of collecting information relating to their measurement of training outcomes, covering the following aspects:

- the development of performance indicators; and
- policies and practices in relation to the conduct of student destination and client satisfaction surveys.

Private training providers

3.13 Due to the relatively small percentage of training funds allocated to private training providers (2 per cent in 1995) compared with institutes, these entities were not covered in the audit.

Period covered by the audit

3.14 The audit primarily covered the provision of vocational education and training since January 1994 as this was the first year the performance of the State Training System, in terms of meeting the agreed national goals for vocational education and training, was required by the Australian National Training Authority to be formally measured using agreed performance indicators.

Compliance with auditing standards

3.15 The audit was performed in accordance with Australian Auditing Standards applicable to performance audits and accordingly included such tests and other procedures considered necessary in the circumstances.

SPECIALIST ASSISTANCE

3.16 Specialist advice was provided to audit by Mr Neil Day of the Centre for Program Evaluation, Faculty of Education, University of Melbourne. The advice covered the following areas relating to the State Training System:

- the adequacy of the design and methodology of survey instruments utilised by institutes and the Office of Training and Further Education, including national surveys;
- the suitability of performance indicators for assessing performance; and
- avenues for improving the measurement of training outcomes.

Part 4

Meeting client needs

OVERVIEW

4.1 Due to initiatives at the national level involving the conduct of Australia-wide surveys of students and employers, the Office of Training and Further Education determined that it would not risk duplicating these initiatives. Therefore, Victorian institutes were not required to undertake such surveys. Although of some use at the national level, audit found that the reliability and usefulness of the information on training outcomes derived from these surveys was limited for State purposes. Specifically, sophisticated statistical analysis had not been conducted to discount the impact of differing socio-economic and demographic factors. Furthermore, as these were the first surveys of their type, comparable trend data was not available and, to date, specific outcome targets or benchmarks to monitor future performance had not been set.

4.2 Although institutes sought information on a range of matters from various stakeholders, it was generally not in a form suitable for a Statewide assessment of training outcomes. Consequently, the Office was not in a position to know whether the vocational education and training provided had effectively met the needs of student and industry clients. It also followed that the Office did not have the necessary information to fully assess whether the funds of around \$700 million allocated to training in 1995 had resulted in the desired outcomes in terms of meeting client needs.

4.3 Notwithstanding the limitations of the national survey data, audit considers the results suggest that on face value:

- Vocational education and training in Victoria had some positive impact on employment outcomes for students;
- A high proportion of Victorian respondents (78 per cent) believed they had achieved their main aim for undertaking their course of study. However, the fact that 22 per cent of respondents either had not achieved, or at the time of the survey, did not know whether they had achieved their main objective for undertaking a course of study, should be of concern to the Office and requires further analysis; and
- The desire of employers to have more input into course content warrants reconsideration by the Office of existing mechanisms in relation to curriculum development and course accreditation.

4.4 The Office also needs to investigate whether the views expressed by employers on the value and relevance of training provided to students they have employed, which on the surface appear unsatisfactory, accurately reflect the actual situation in Victoria and are in line with the Office's expectations.



INTRODUCTION

4.5 Within the broad policy context of aiming to build a world class State Training System capable of producing a skilled and empowered community, the State Government has set a range of objectives and goals for the System which reflect a clear commitment to providing vocational education and training that meets the needs of the System's student and industry clients.

4.6 The Board's 1995 policy document titled *Strategic Directions for Vocational Education and Training*, broadly defines the needs of students and industry in terms of providing:

- training that meets both the immediate preferences of students and which will provide job opportunities;
- a broad range of options, including strengthened provision of traditional vocational education and training, which enables greater flexibility through easier movement of students between and within the various education sectors and into the workforce;
- meaningful options for adults returning to vocational education and training which acknowledge prior experience and different needs; and
- partnerships with other sectors of education, private providers and industry to facilitate learning and career options for students.

4.7 To meet the training needs of industry, according to the policy document, the System should be capable of:

- providing specific responses to training requests tailored to a particular client;
- responding promptly to requests;
- offering flexibility in the timing and mode of delivery;
- adapting training programs when product or service changes make this necessary;
- providing a training program that is integrated with, and subordinate to, the client's business strategy;
- offering competitive prices for training programs and providing value for money; and
- providing programs that address a range of vocational, advanced and broad skills such as the capacity of employees to function in teams and the ability to adapt to changing work requirements.

IDENTIFYING CLIENT NEEDS

4.8 In view of the strong emphasis of the State Training System on meeting the needs of clients, it is important for mechanisms to be in place which facilitate ongoing input of clients into the planning process.

4.9 In this regard, the Office of Training and Further Education has primary responsibility for identifying, on an annual basis, the specific training needs of clients as well as regularly monitoring and evaluating results to determine whether these needs have been effectively met on a Statewide basis and by individual institutes.

4.10 Planning requires intricate balancing of student and industry needs and involves the identification, validation and prioritisation of training requirements, using a range of mechanisms and processes to ensure client needs are accurately defined. These processes include:

- consideration of forecasted training requirements detailed in annual industry training plans prepared by the 15 industry training boards;
- obtaining specialist advice and analysis of economic factors impacting on industry training requirements;
- input by individual institutes and other relevant organisations at a regional level, e.g. committees of the Australian Department of Employment, Education, Training and Youth Affairs; and
- utilisation of statistical data produced by the Australian Bureau of Statistics and labour market analyses undertaken by State and Australian Governments.

4.11 The Office applies the above range of data to a *Labour Market Training Needs Analysis Model* which compares economic activity to the demand and supply of publicly-funded vocational education and training. Annual State training priorities established by the Office are published in a document titled *Industry Training Priorities: Victorian State Training System*. The priorities provide the basis on which institutes are contracted by the State Training Board to deliver a specified amount of training, quantified in terms of the total number of training hours spent by students in contact with teachers, at an agreed cost per student.

4.12 In January 1996, the Office commissioned consultants to conduct a study of businesses to determine the level of their awareness of the role of industry training boards and their perception of how accurately the boards identify the training needs of the businesses they represent. The results of this study were not available prior to completing the audit.

4.13 Institutes also conduct training needs analyses, including fee-for-service training activities. Mechanisms used by institutes for this purpose range from structured approaches, such as market research or the establishment of industry consultative or course advisory committees, to informal liaison and discussions with businesses.

4.14 Audit acknowledges that the Office of Training and Further Education uses an appropriate range of methods aimed at ensuring the planning process is accurate. The ultimate test of whether the processes used by both the Office and institutes have accurately identified the needs of student and industry clients will, in audit opinion, only be determined by comprehensive and regular monitoring and evaluation of training outcomes for clients.



4.15 As indicated in the following sections, action has commenced at the national level aimed at measuring training outcomes through the conduct of client surveys. The Office had input into these initiatives. Nevertheless, sufficient information is currently not available to form a conclusion on training outcomes on a Statewide basis and as such, the Office is not in a position to know whether the vocational education and training provided has effectively met the needs of its student and industry clients. It also follows that the Office does not have the necessary information to fully assess whether the funds allocated to training (around \$700 million in 1995) has resulted in the desired outcomes in terms of meeting client needs.

MEASURING THE EFFECTIVENESS OF TRAINING FOR STUDENTS

4.16 A national Standard was established to measure the performance of vocational education and training systems across each State and Territory from 1994. In Victoria, under individual Performance and Funding Agreements, each institute is required to provide annual student statistical data in compliance with the Standard covering inputs, activities and outputs.

4.17 The Agreements also require institutes to survey students following successful completion of their course of study. The surveys are to seek information on student destination, namely, whether they have been successful in obtaining employment or are undertaking further study. Information is also to be sought on the extent of student satisfaction with their course of study. The Agreements state that this information represents the key measure for assessing training effectiveness.

Statewide employment outcomes

4.18 Initiatives taken at the national level were key factors in influencing the Office of Training and Further Education not to enforce the requirement for institutes to conduct graduate destination surveys in 1994 and 1995. In 1994, the Australian National Training Authority commissioned a survey of 1993 graduates which, in terms of Victoria, covered only 8 institutes. A further national graduate destination survey covering all Victorian institutes was undertaken in 1995. It was envisaged by the Office that this survey would provide institutes with the information required under the Agreements and would avoid duplication of effort.

4.19 For 1996, the requirement for institutes to conduct a graduate destination survey was again not enforced by the Office as the Authority proposed undertaking a further review of the results and methodology of the 1995 national survey. It is intended that a uniform survey package will be developed subsequent to the review for use at an institute level.

1995 National graduate destination survey

4.20 The 1995 national graduate destination survey results represent the only data currently available which provide comprehensive Statewide information on the employment outcomes of students who successfully completed a vocational education and training course. The national survey also provides some data on student satisfaction.

4.21 The national survey targeted all Australian resident students who had, in 1994, successfully completed a diploma, associate diploma, advanced certificate or certificate course of 200 hours or more, but excluded courses classified as recreational, leisure and self-enrichment. Across Australia, around 106 000 questionnaires were sent to graduates of which almost 65 000 (61 per cent) responded. In Victoria, the response rate was 63 per cent (12 750 graduates) which represented 19.7 per cent of respondents to the survey nationally. Respondents were requested to provide information regarding their situation at 31 May 1995.

Limitations of national survey data

4.22 While the national survey may have provided some useful data for assessment at a national level, there were significant limitations in the extent to which the results could be used for comparative purposes in assessing the effectiveness of vocational education and training provision at a State or institute level.

4.23 Specialist advice provided to audit indicated that these limitations related to the accuracy and reliability of the data gathered. In particular, *confounding variables* present problems in making comparisons between the States and Territories. Such problems arise when there are differences between training systems in each State or Territory in respect of socio-economic and demographic factors such as sex ratios among graduates and prior levels of employment. These factors can lead to differences in outcomes irrespective of the quality of the vocational education and training provided.

4.24 Specific contextual factors which need to be taken into account include local employment opportunities, differences between areas in economic growth, or even localised differences in the development of specific industrial sectors which offer most opportunities to young people. In addition, where disadvantaged groups and long-term unemployed form part of the key clients of particular institutes, these factors should be taken into account when analysing employment outcomes. For example, institutes that have high levels of enrolments of long-term unemployed may achieve lower than average employment outcomes which, nevertheless, may represent a successful result if referenced against employment outcomes which are typical for this particular group.

4.25 Sophisticated statistical analysis can be used to discount the impact of some confounding variables. The Office advised audit it has now commenced applying this type of analysis to the data.

4.26 As this was the first survey of its type, comparable trend data was not available nor had performance targets or benchmarks been set. In these circumstances, it was not possible to assess whether, for example, the Statewide employment outcomes for graduates were better or worse than in previous years or to what extent they were in line with the desired or targeted result.

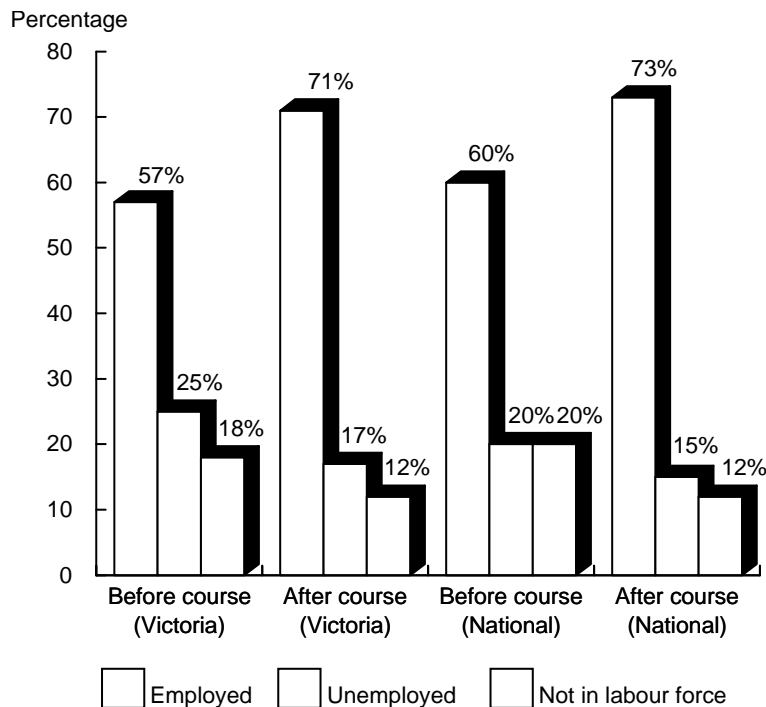
4.27 The current situation highlights the need to improve the usefulness and reliability of performance measurement data gathered through surveys for assessing training outcomes for clients. Further comment on this shortcoming is detailed in Part 5 of this Report.

Movements in labour force status

4.28 Notwithstanding the limitations of the national survey data, the results suggested that vocational education and training in Victoria had some positive impact on employment outcomes for students.

4.29 As illustrated in Chart 4A, the national survey indicated that movements in the labour force status of Victorian respondents before and after their course of study with respect to employment and unemployment were 14 per cent (increase) and 8 per cent (decrease), respectively. This was slightly better than the equivalent national movements of 13 per cent and 5 per cent.

**CHART 4A
LABOUR FORCE STATUS BEFORE AND AFTER COMPLETING
COURSE OF STUDY, VICTORIA COMPARED WITH NATIONAL RESULT, MAY 1995**



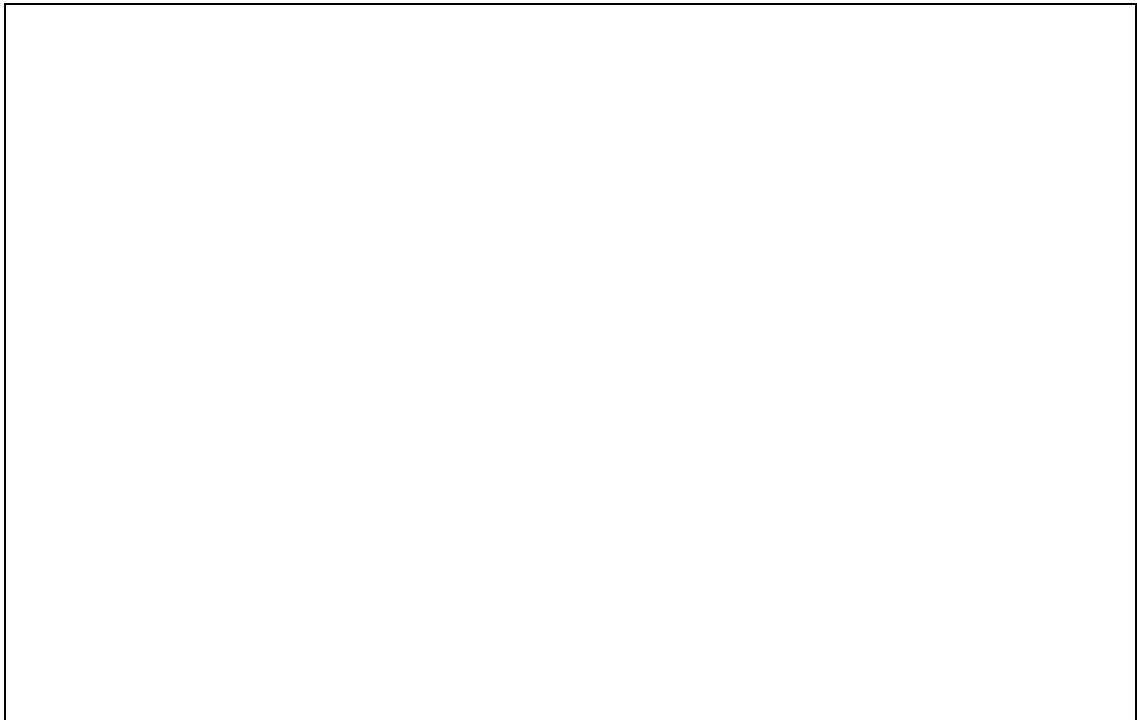
4.30 The national survey results also indicated that as a result of completing their course of study, 32 per cent of Victorian respondents had received a wage increase in their current job compared with the national response of 33 per cent.

Institute student destination surveys

4.31 As the requirement for institutes to conduct student destination surveys in 1994 and 1995 was not enforced by the Office of Training and Further Education, it was not surprising that audit found only 5 institutes had conducted a destination survey of their graduates in 1994, and 6 institutes in 1995.

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4.32 Two of the institutes which had conducted destination surveys were examined in detail by audit. These destination surveys covered a range of areas including employment status before commencing and after completing a course. While the results may be of some use at the institute level in terms of assessing employment outcomes, there was little evidence that the data had been subjected to sophisticated analysis to discount the impact of confounding variables. This factor, together with the differences in approaches adopted by individual institutes, placed limitations on using the results to evaluate or compare performance of the institutes. By way of illustration, the different approaches adopted by Royal Melbourne Institute of Technology and Holmesglen Institute of Technical and Further Education, are described in the following paragraphs.



Students can undertake a range of courses, including creative media.

Royal Melbourne Institute of Technology

4.33 In 1994, the Royal Melbourne Institute of Technology recognised that due to the increasing competitiveness of the vocational education and training market, it was important to obtain and analyse information about the employment outcomes achieved by its graduates. One approach adopted by the Institute has been to track a group of students over successive years. For this purpose, the Institute conducted a survey of all 1993 graduates, in April 1994, to follow-up on their destination after completing an accredited technical and further education program. The same graduates were again surveyed in April 1995.



4.34 The main findings of these destination surveys in terms of the labour force status (excluding those engaged in further study) were that:

- the employment status of students in 1994 did not change after completing their course in 1993 (71 per cent were in full and part-time employment in 1994 compared with 72 per cent who were employed in 1993 prior to undertaking the course); and
- the level of graduates in employment increased to 77 per cent in 1995 with a trend towards full-time rather than part-time employment.

4.35 The Institute surveyed its 1995 graduates in June 1996, but the results were not available at the date of the audit.

Holmesglen Institute of Technical and Further Education

4.36 In 1994, Holmesglen Institute contracted a market research company to undertake a destination survey of a sample of its 1993 graduates to determine their employment and study status some 8 months after completing their course. The survey sample was confined to students who had satisfied the course requirements and had applied to receive an award which formally signified course completion. In contrast to the approach adopted by Royal Melbourne Institute of Technology, apprentices and other students who were employed prior to commencing their course were excluded from the sample. The Institute advised audit the survey sample did not include those students who were employed in order to avoid the potential for inflating positive outcomes.

4.37 Institute analysis of the destination survey results identified that approximately 69 per cent of respondents were in employment 8 months after completing their course at the Institute compared with 56 per cent that were employed at the start of their course.

4.38 In addition, over the past 2 years, some of the Institute's teaching centres had conducted their own student destination surveys. The results of these surveys indicated that those graduates who responded, in most cases, had either obtained work in their field of study or gained entry into higher education courses and were progressing well.

4.39 In April 1996, the Institute again engaged a market research company to design and conduct a destination survey of its 1995 graduates. According to the Institute, the results of the survey, which were not available at the time of preparing this Report, will provide Institute-wide information in respect of graduate employment outcomes.

□ *RESPONSE provided by Director, Holmesglen Institute of Technical and Further Education*

The Institute rejects the comment that the analysis used was unsophisticated. The analysis technique is the same as used for university graduate destination surveys.

Statewide student satisfaction outcomes

4.40 Student satisfaction is an important measure that can be used to assess the effectiveness of vocational education and training and should cover both current students and graduates. Although Agreements require institutes to undertake student satisfaction surveys, audit found that:

- the requirement did not extend to providing the results to the Office of Training and Further Education; and
- guidelines had not been issued to institutes to facilitate a uniform approach to student satisfaction surveys.

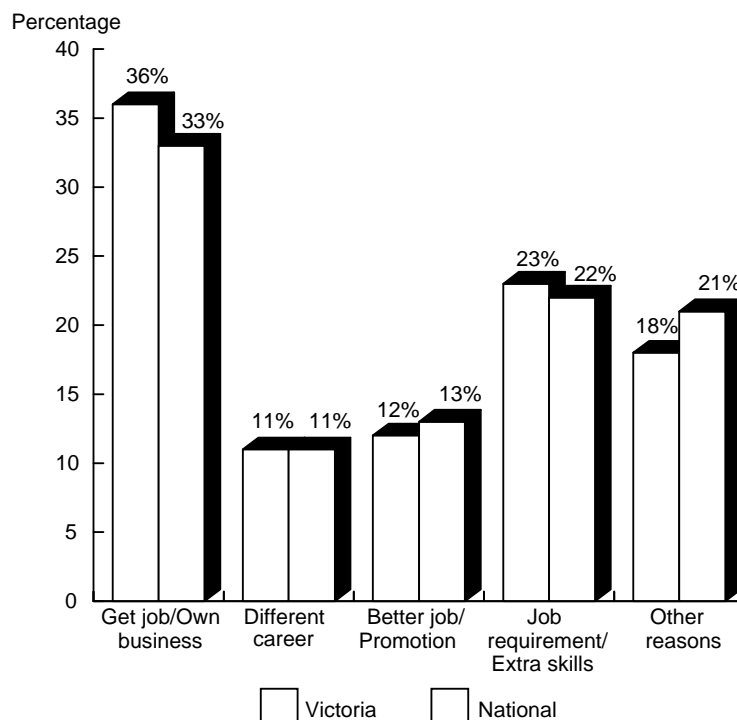
4.41 As a result, sufficient and reliable information was not available to facilitate a Statewide assessment of student satisfaction. Although the 1995 national graduate destination survey has provided information in relation to some aspects of student satisfaction from a graduate perspective, it too has limitations in that it was not aimed at addressing the important aspects of student support services and amenities nor was it directed at current students.

4.42 The following paragraphs provide information available from the national survey in relation to some aspects of student satisfaction.

Achievement of reason for undertaking study

4.43 Chart 4B indicates that 82 per cent of Victorian respondents (compared with 79 per cent nationally) undertook their course of study for vocational reasons, such as gaining employment or acquiring extra skills, rather than for other reasons, such as their own personal development.

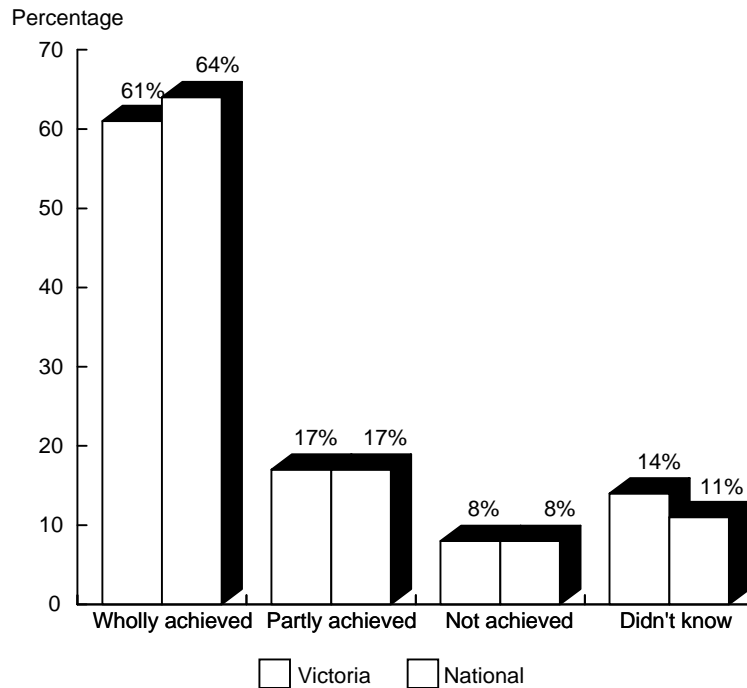
**CHART 4B
REASONS FOR ENROLLING IN A COURSE OF STUDY,
VICTORIA COMPARED WITH NATIONAL RESULT, MAY 1995**





4.44 As depicted in Chart 4C, a high proportion of Victorian respondents (78 per cent), believed they had wholly or partly achieved their main aim for undertaking their course of study and this was slightly below the national result (81 per cent).

**CHART 4C
ACHIEVEMENT OF MAIN REASONS FOR UNDERTAKING
COURSE OF STUDY, VICTORIA COMPARED WITH NATIONAL RESULT, MAY 1995**

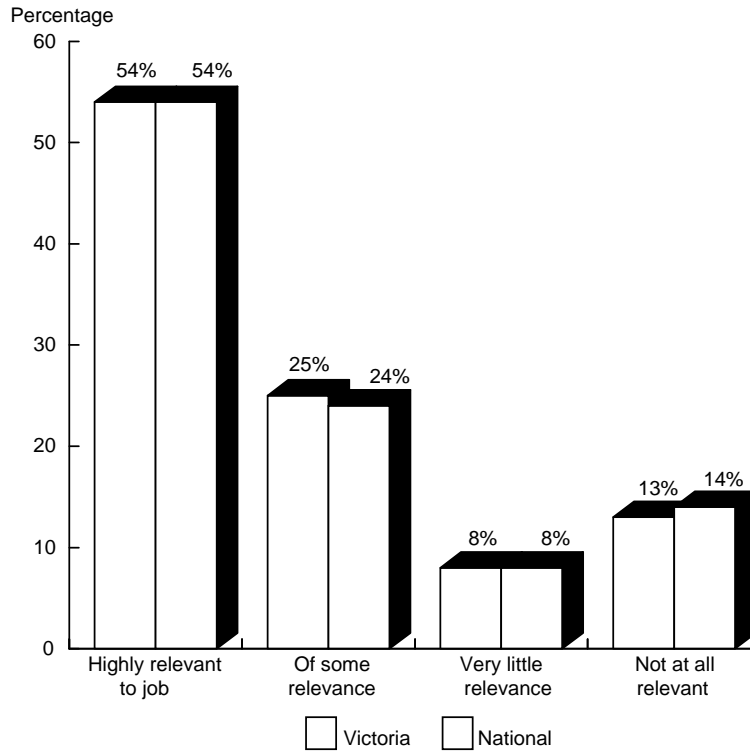


4.45 In the absence of trend data, benchmarks, targets and allowance for confounding variables, it was not possible to conclude whether the Victorian survey results were satisfactory. However, audit considers that on face value, the 22 per cent of respondents who either had not achieved or, at the time of the survey, did not know whether they had achieved their main objective for undertaking a course, should be of concern to the Office and warrants further analysis.

Relevance of course to workplace

4.46 Of those students employed at May 1995, most Victorian respondents (79 per cent) considered their course of study was highly relevant or of some relevance to the job they held at the time of completing the survey, and this was in line with the national result (78 per cent). Details are illustrated in Chart 4D.

CHART 4D
RELEVANCE OF COURSE OF STUDY TO CURRENT
JOB, VICTORIA COMPARED WITH NATIONAL RESULT, MAY 1995



4.47 The above chart shows that 54 per cent of Victorian respondents considered their course to be highly relevant to their current job. Further investigation should be undertaken by the Office to ascertain whether the outcome for the remaining respondents was in line with their objectives for undertaking the course.

Satisfaction with services and amenities

4.48 In July 1996, a report titled *Are you being served? Client perspectives on student services and amenities in TAFE* was issued by a former committee comprising technical and further education chief executives. The report presented the results of the first national study to address how effectively institutes are meeting client needs in relation to student support services and amenities, such as career advice and counselling. The study comprised a survey of around 2 300 students across Australia, excluding the Australian Capital Territory. The committee recognised that due to small sample sizes in certain sub-groups such as overseas fee-paying, and Aboriginal students, it was difficult to draw conclusions about such sub-groups from the results.

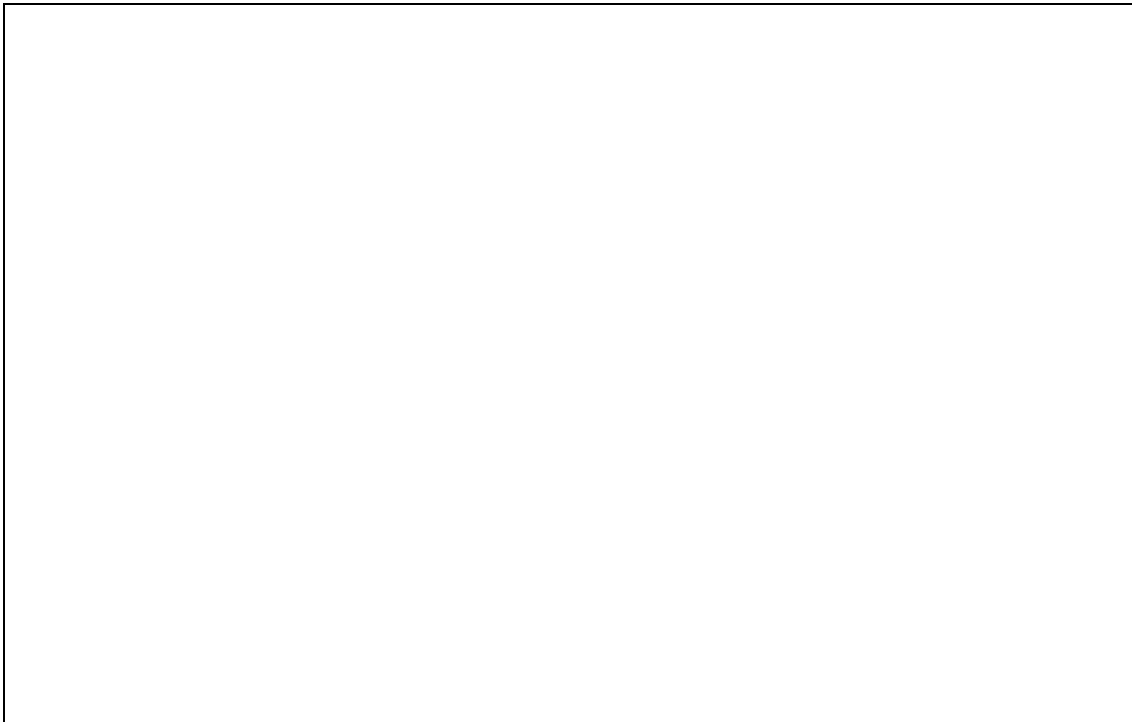
4.49 Despite these limitations and the national focus of the study, audit considers the results provide some useful information on student satisfaction in Victoria.

4.50 The report highlighted the crucial role student support services and amenities play in facilitating educational development and the welfare of students. Importantly, the study concluded that unless immediate steps were taken to improve these areas, the technical and further education institutes were in danger of losing students.



4.51 Important findings of the study were that:

- only 2 per cent of respondents reported not having experienced any problems with student support services and amenities;
- without the assistance of support services, over one in 5 respondents would have withdrawn from courses;
- almost half of the respondents perceived student services to be very important in assisting them to get the most out of their courses;
- over two-thirds of respondents considered that institutes were performing well in the areas of information, learning and counselling services;
- over one-third of all respondents considered the following 5 of the top 8 priority service categories were provided poorly or not at all:
 - financial assistance;
 - health, medical and safety services;
 - student association services;
 - facilities; and
 - employment services.



Support services offered by institutes also cater for disadvantaged students.

4.52 Many respondents considered student support services and amenities in institutes were sub-standard and would not be tolerated in a university environment. Sixty-three per cent of respondents considered more financial and human resources should be devoted to these areas.

4.53 In addition to engendering more student participation in the provision of student services, the report recommended that in order to improve the quality and effectiveness of services, a national framework including targets needs to be developed.

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4.54 Audit considers the study findings are significant in terms of the breadth of dissatisfaction expressed by students with existing services. With a view to implementing action plans to address the areas of concern, institutes in conjunction with the Office of Training and Further Education should carefully examine the findings. The recent development by the Office of a draft discussion paper on best practice in student services should assist in this regard.

Institute assessment of student satisfaction

4.55 Although institutes examined by audit had undertaken assessments of student satisfaction with the training provided, the information derived from this activity was seldom in a form that facilitated an overall assessment of student satisfaction for each institute or comparisons between institutes. In this regard, not all institutes utilised a uniform survey instrument. In addition, only 7 of the 27 institutes had either consolidated the results of surveys undertaken by individual centres or departments or conducted an institute-wide survey.

4.56 Of the 5 institutes examined by audit, only South West Institute of Technical and Further Education had undertaken an institute-wide survey which specifically addressed student satisfaction. As part of its continuous improvement activities, the Institute engaged a consultant to assess the level of client satisfaction with the training it provided. This assessment, which was undertaken by surveying students and staff, and employers and businesses that had used the Institute's services, was completed in July 1996.

4.57 The survey results indicated that the level of satisfaction was very high and that the gap between respondents' expectations and the performance of the Institute in relation to certain service aspects such as changes in timetabling, accuracy of learning materials and class information, availability of course materials and classroom comfort was relatively small. Furthermore, compared with 4 other institutes (3 in Victoria and one in Queensland) that had also conducted the same survey, South West Institute achieved the highest level of student satisfaction.

4.58 Other institutes examined, such as Holmesglen Institute of Technical and Further Education and Royal Melbourne Institute of Technology, had obtained only limited student satisfaction data through institute-wide student destination surveys. In addition, Holmesglen Institute advised audit that it had recently conducted an institute-wide survey of 2000 students assessing their satisfaction with course design and content, access to the institution, teaching and learning processes, services to students, facilities and assessment standards. The results will be compared with the findings from its 1994 survey.



MEASURING THE EFFECTIVENESS OF TRAINING FOR INDUSTRY

4.59 The other critical measure in relation to whether vocational education and training has been effective in meeting client needs is whether the employers who recruit graduates trained by institutes are satisfied with the competencies of the graduates. Information is also needed by institutes in relation to employer satisfaction with training provided on a fee-for-service basis.



Graduates need to demonstrate a range of competencies to successfully gain employment in their preferred vocation.

Statewide employer satisfaction

4.60 Even though annual Performance and Funding Agreements require institutes to survey their industry clients, the audit revealed that the majority of institutes had not formally obtained the views of employers in respect of their satisfaction with institute graduates. The Office of Training Further Education advised audit that it did not enforce this requirement as it envisaged the national survey would provide institutes with the information required under the Agreements and avoid duplication of effort.

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National Employer Satisfaction Survey

4.61 A national employer satisfaction survey conducted across Australia between September 1995 and January 1996 for the Australian National Training Authority provided some indicative information on the satisfaction of Victorian employers with vocational education and training. The survey aimed to measure employer views on, and their recent experience of, vocational education and training and, specifically, its availability, relevance and quality.

4.62 The targeted survey population comprised employers with at least one employee who had completed a diploma, certificate, apprentice or trainee course in the last 2 years which required a minimum of one semester or 200 hours of training. Interviews were conducted with approximately 2 000 businesses around Australia from a total of 63 200 businesses which collectively indicated that there were 143 600 recent graduates working for them in 1995.

Key survey findings

4.63 As reported by the market research company the 6 main survey findings, applicable at the national level, were as follows:

- *satisfaction with vocational education and training:* employers expressed high levels of satisfaction, usage and contact with training providers;
- *communication:* employers desired greater input into course content and greater consultations by training providers;
- *relevance of training:* there was strong employer response specifically for more practical experience, more job readiness and greater flexibility in course content to make training more relevant to employer requirements;
- *knowledge:* knowledge about key elements of vocational education and training generally, and reforms specifically, was poor considering the investment made in promotion and marketing;
- *qualifications:* knowledge about the framework established between States and Territories for the recognition of training qualifications was poor but also of note were some negative comments from employers about the usefulness of qualifications obtained through vocational education and training; and
- *variation in replies between employers:* there were considerable variations in some aspects of employer replies as a result of differences in the size of the business, its location within Australia, the type of industry and the extent to which the business utilises state-of-the-art technology.

4.64 The market research company concluded that, while employers were generally satisfied with the training provided to graduates, improvements were needed in specific areas, including:

- the amount of practical experience or on-the-job content;
- general job skills; and
- relevance of course to industry needs.

4.65 There was a very high level of agreement (84 per cent) among employers that they should have more input into course content and over 80 per cent agreed that qualifications should be based on the skills and competencies of the person, rather than the number of years spent in training.

Limitations of the survey results

4.66 While the survey provided useful data for assessment at a national level, there were significant limitations in the extent to which the data could be used for comparative purposes in assessing the effectiveness of vocational education and training provision at a State or institute level. In addition to the following limitations, those described earlier in this Part of the Report in relation to the national graduate destination survey are equally applicable to the national employer satisfaction survey.

4.67 According to the Australian National Training Authority, the survey was designed to provide accurate estimates at the national level rather than at lower levels of disaggregation, such as the State and institute levels. The Authority warned that any State comparisons with the national results should be made with caution. The Authority indicated that care needs to be taken when using data derived from small sample sizes, as was the case with this survey, because of large standard errors and that in interpreting the results, it needs to be recognised that employers of apprentices may be over-represented in the sample.

4.68 Due to problems with the completeness and accuracy of business registration records, it was not possible for audit to determine whether the selected sample of 2 000 was appropriate and representative.

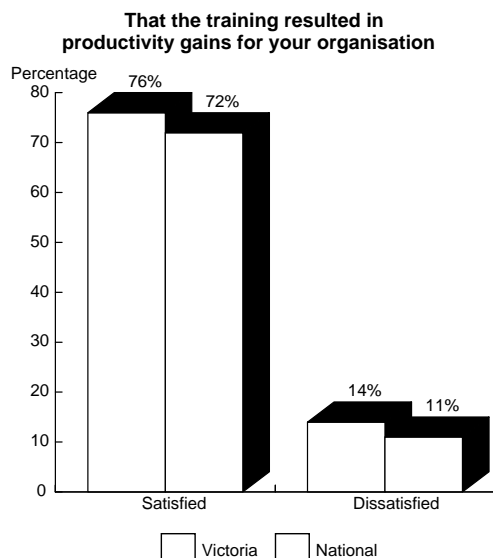
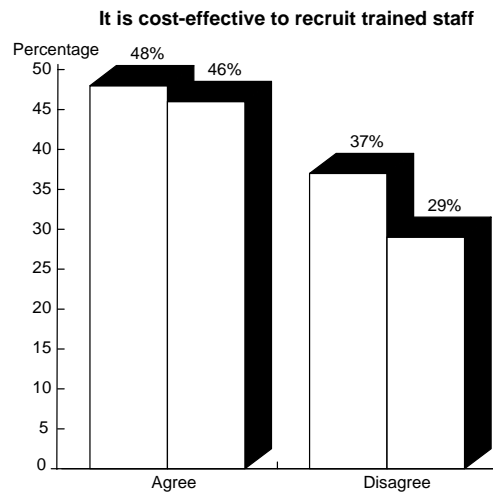
4.69 A scale covering *satisfaction/dissatisfaction, agreement/disagreement* was used to collect employers' perceptions, opinions and views in respect of the value and relevance of training. The scale also included *neutral, neither satisfied nor dissatisfied, neither agree nor disagree* and *don't know* categories. Responses to these categories have been excluded from information presented in Charts 4E and 4F as this level of data is not available at a State level. Had information on these categories been available, the results for Victoria may have been different.

Results for Victoria

4.70 The survey addressed critical measures of employer satisfaction, namely, *value* and *relevance*. In this context, *value* refers to whether it is cost-effective to recruit trained staff and whether training resulted in productivity gains. *Relevance* refers to whether skills acquired by students through vocational education and training are generally appropriate to employer needs and relevant to their current and future needs.

4.71 Chart 4E shows Victorian employers' views on the value of training in the context of whether it is cost-effective to recruit trained staff and whether training resulted in productivity gains. National comparisons are also shown.

**CHART 4E
EMPLOYER VIEWS ON VALUE OF TRAINING
(per cent)**

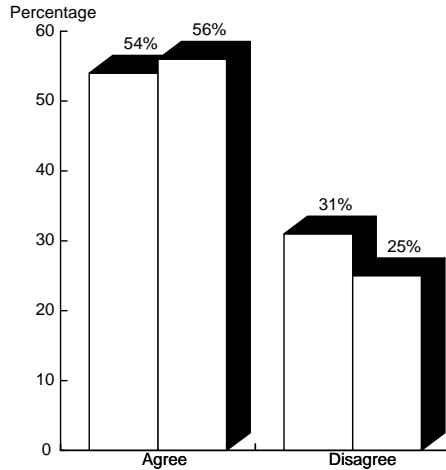




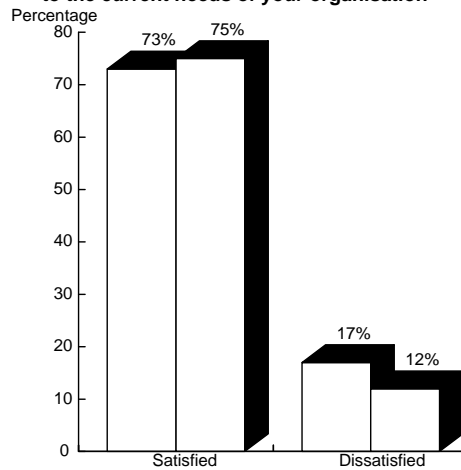
4.72 Chart 4F shows Victorian and national comparisons in relation to the relevance of training.

CHART 4F
EMPLOYER VIEWS ON THE RELEVANCE OF TRAINING
 (per cent)

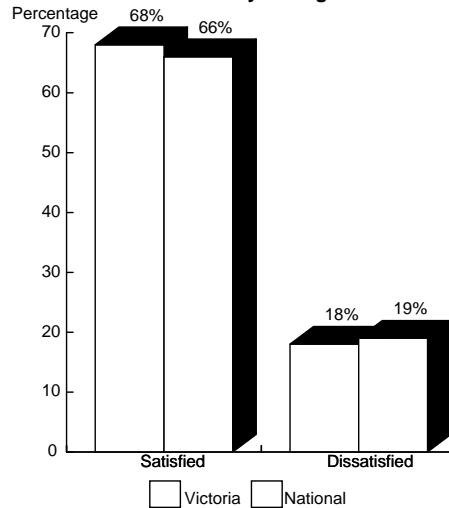
The vocational education and training system is providing graduates with skills appropriate to employers' needs



That the skills acquired were relevant to the current needs of your organisation



That the skills acquired were relevant to the future needs of your organisation



4.73 The results suggested that there were areas requiring investigation by the Office of Training and Further Education. In particular, consideration needs to be given to whether:

- the key national findings need to be addressed at a State level, e.g. whether the desire of employers to have more input into course content warrants reconsideration of existing mechanisms in relation to curriculum development and course accreditation; and
- the Victorian results in relation to value and relevance of training, which generally have higher dissatisfaction or disagreement levels than the national results, accurately reflect the actual situation and are in line with the Office's expectations.

Institute assessment of employer satisfaction

4.74 Of the 27 institutes in the State, only 5 had formally sought the views of employers on an institute-wide basis, through a survey or other structured methods, on the calibre of institute graduates they had employed.

4.75 In relation to training provided on a fee-for-service basis, the audit revealed that only 8 institutes had used surveys or other structured methods to formally assess, on an institute-wide basis, the level of employer satisfaction with training provided.

4.76 Given that industry is a key stakeholder of the institutes, the failure of the majority of institutes to formally seek the views of employers in any year, constitutes a significant shortcoming in measuring training outcomes.

□ **RESPONSE** provided by Secretary, Department of Education

The Department notes that audit, while defining broadly the outcomes of the State Training System (refer paragraph 2.32), has then confined its assessment of vocational education and training client outcomes to 3 national surveys. The Department contends that there are a multiplicity of products and services provided by the State Training System, in a variety of circumstances which require a variety of approaches in properly gauging their effectiveness.

The Department would emphasise the early stage of development of the survey approaches referred to by audit. The first graduate destination survey was undertaken in 1995. In 1996, consultants were engaged to review and further refine the survey design. The first employer survey was conducted in 1995 largely as a data gathering exercise and to test the survey's design and methodology. Consultants have been engaged to evaluate and formulate an improved and more efficient survey design, instrument and methodology for application in 1997. Work is in hand to develop a standard survey instrument to gauge student satisfaction for general use by technical and further education institutes. The shortcomings of the surveys identified by audit are known to the Office of Training and Further Education and are the subject of ongoing improvement and review.

Part 5

Improving performance measurement



OVERVIEW

5.1 Audit recognises the measurement of outcomes is a complex and difficult task and that developments in this area across the Victorian public sector are not yet well advanced. With respect to vocational education and training, mechanisms for measuring inputs, activities, outputs and outcomes were established in 1994. Early developments in measuring training outcomes have been principally driven at the national level with input from each State and Territory. Greater attention will now be directed towards refining the measurement of training outcomes.

5.2 While there have been some attempts by institutes to measure aspects of training outcomes through client satisfaction and student destination surveys, the approaches taken at that level have generally been ad hoc and have not fully covered all aspects of satisfaction for all clients or employment outcomes for students. In addition, audit found that there were a number of shortcomings in relation to evaluating outcomes that needed to be addressed by the Office of Training and Further Education or institutes, including:

- absence of a clear definition by the Office of stakeholders;
- lack of sophistication in the design, methodology and use of survey instruments by institutes;
- failure of institutes to survey all key stakeholders;
- lack of uniformity within and between institutes in the approach taken to gathering information;
- failure to consolidate data to provide an institute or Statewide perspective of client satisfaction;
- lack of sophistication in data analysis by both the Office and institutes; and
- limited review of the relevance of evaluation activities by institutes.

5.3 With a view to addressing these deficiencies, the Office needs to develop an evaluation strategy for implementation at the Statewide and institute levels. A *bottom-up* approach to evaluation should be adopted with assessments in the first instance undertaken at the point of training delivery. Results from institutes should then be consolidated by the Office to provide Statewide data and, where appropriate, data for like groups of institutes. Such an approach should enable both an overall assessment of the performance of the State Training System and of individual institutes in terms of whether clients' needs are being met.

5.4 For the strategy to be effective, the Office will need to continue to be proactive in providing on-going guidance and technical support to institutes through co-operative arrangements.

5.5 Audit recognises that the knowledge and expertise of the Office and institutes will expand with the experience that they gain in conducting surveys and developing performance indicators to measure outcomes.

INTRODUCTION



5.6 Developing and enhancing performance measurement is an ongoing process. It is important that as changes occur in policy, policy objectives or factors that impact on the achievement of goals, performance measurement is revised in line with the new circumstances.

5.7 In relation to vocational education and training, information on training outcomes is critical in assisting training providers in identifying deficiencies and areas of resource wastage, and where they need to direct attention to effectively meet the needs of student and industry clients. At a Statewide level, consolidated information on training outcomes assists in assessments of the extent to which policy goals and objectives have been achieved.

DEVELOPMENTS IN PERFORMANCE MEASUREMENT
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National level

5.8 The need for performance measurement information relating to vocational education and training was fully recognised, for the first time, in November 1990 when the Ministerial Council agreed to adopt a major program of reform in relation to statistical data collection. This led to the development of the Australian Vocational Education and Training Management Information Statistical Standard, which was first used by each State and Territory training provider in 1994. The development of the Standard was aimed at generating information by which to assess the progress of each State and Territory towards the achievement of agreed national goals.

5.9 Since 1994, the States and Territories have been required to provide performance data to the Australian National Training Authority on a range of performance indicators defined in the Standard. To meet this requirement, the annual Performance and Funding Agreements between the State Training Board and individual training providers make provision for the collection of performance data at an institute level in relation to the following indicators:

- *"actual student contact hours compared with contracted student contact hours;*
- *module load completion rate;*
- *operating expenditure per student contact hour;*
- *operating expenditure per module enrolment;*
- *operating expenditure per module load completion;*
- *recurrent cost to government per student contact hour;*
- *client satisfaction; and*
- *student destination".*



5.10 In August 1995, following consideration of the 1994 performance data, concerns were raised by the Ministerial Council regarding the comparability of that data. As a result, the Authority engaged consultants to undertake an independent review to identify any impediments in relation to the consistency of the performance data and recommend solutions where appropriate.

5.11 The review addressed a number of issues relating to the agreed national performance indicators including whether there was:

- a need for consistency in the precise specification and definition of data used in the construction of indicators to allow comparisons between the States and Territories (and between individual institutes within States and Territories);
- the possibility that narrow compliance with a few specified indicators may assume greater importance than the broader objectives of vocational education and training; and
- an over-emphasis of the existing set of indicators on inputs and processes, at the expense of outcomes such as quality of training, satisfaction of graduates and employers, and employment outcomes achieved by graduates.

5.12 The review concluded that while the Standard provided a good basis for data collection, adjustments needed to be made to the data to allow for reporting and collecting differences between the States and Territories.

5.13 As a result of the review, further work was then undertaken by the Authority and the States aimed at improving the 1995 performance information for the purpose of interstate comparisons. This work was completed in July 1996 with the issue of a report titled *Benchmarking VET - The Performance of the Vocational Education and Training Sector in 1995*. The report provides a range of performance information on inputs, activities and outputs and, for the first time, some outcome data collected through the national graduate destination and employer satisfaction surveys. The Authority advised audit that it now proposes to report this type of performance information annually.

5.14 The consultants engaged by the Authority have developed 13 performance indicators which will be considered by a Performance Review Committee established by the Authority. This Committee has until the end of 1997 to provide Ministers with an agreed set of indicators that can be used in the future to measure the performance of vocational education and training activity both within and between States and Territories.

5.15 Audit discussions with the Authority also revealed that greater emphasis will, in future, be placed on measuring training outcomes. The Authority realises that achieving cost-efficiencies does not necessarily mean that the system is effective. For example, the Authority believes the provision of a training course at the lowest cost is not desirable if it is achieved by compromising the quality. Similarly, achieving high participation rates is undesirable if there is little or no demand in the labour market for the skills a person has acquired. Audit strongly supports these directions.

State level

5.16 Audit acknowledges that, in terms of performance measurement, the Office of Training and Further Education, has to date, given priority to developing systems to provide performance data required at the national level.

5.17 For this purpose, the Office has been progressively enhancing its management information systems and those of institutes to improve performance monitoring and reporting to the Authority, particularly in relation to the accuracy, completeness and reliability of data collected by institutes.

5.18 In addition, the Office has taken a number of positive steps aimed at improving training delivery and other services to clients and facilitating continuous improvement including:

- Piloting a quality assurance framework aimed at achieving best practice and business excellence with a view to its implementation across the State Training System;
- Initiation of a range of benchmarking exercises aimed at identifying best practice. When completed, the Office aims to use the results of the exercises to improve the effectiveness of training;
- Annual publication by the Office since 1994 of the performance of each institute in relation to the key indicators, other than student destination and client satisfaction, established under the Standard;
- The development, in June 1995, of draft guidelines to assist institutes in conducting student destination surveys. The primary aim of the guidelines, when eventually issued, is to facilitate uniformity and consistency in the way institutes design, administer and analyse their surveys;
- The publication in 1996 of the *Market Research Manual, For Providers of Vocational Education and Training* which includes guidance in the conduct of client satisfaction surveys. The Office has indicated that the manual can be purchased by training providers; and
- The development in 1996 of a draft framework which, when issued, is expected to provide a set of principles and performance indicators which institutes can use for guidance in the delivery of services to students and self-assessment of their performance.

5.19 The Office of Training and Further Education envisages these initiatives will produce effective and long-lasting performance improvements and increased client responsiveness by training providers across the State Training System. While audit supports the initiatives of the Office, their success or otherwise in improving training delivery will not be known until they are fully implemented and the Office, in conjunction with institutes, evaluates training outcomes in terms of meeting student and industry needs. Audit acknowledges that measuring outcomes is a difficult and complex task and that to date some progress has been made in this regard. Audit also recognises that the knowledge and expertise of the Office and institutes will expand with the experience that they gain in conducting surveys and developing performance indicators to measure outcomes.



5.20 It is encouraging that both the Office and the Australian National Training Authority have indicated that greater attention will be directed towards outcome measurement in the immediate future.

NEED FOR AN EVALUATION STRATEGY

5.21 Audit is cognisant that as vocational education and training is a national system, the impetus for the development of performance measurement is at that level and that Victoria is obligated to have input into that process. To date, the national information has predominantly focused on inputs, activities and outputs, and almost exclusively on quantitative measures. Although progress has been made in measuring training outcomes, development is not yet complete nor is the information collected at the national level suitable at a State or an institute level.

5.22 With a view to addressing these limitations, audit considers there is a need for the Office of Training and Further Education to develop an evaluation strategy for implementation Statewide and at the institute level. The need for such a strategy was evident during the audit which disclosed:

- failure of institutes to survey all key stakeholders;
- lack of uniformity within and between institutes in the approach taken to gathering information;
- absence of, or lack of, sophistication in data analysis by both the Office and institutes;
- failure to consolidate data to provide an institute or Statewide perspective of client satisfaction;
- lack of sophistication in the design, methodology and use of survey instruments by institutes;
- limited use of national and institute survey results for continuous improvement by both institutes and the Office; and
- limited review of the relevance of evaluation activities by institutes.

5.23 Further details on current shortcomings and suggestions for improvements are set out in the following paragraphs.

Defining all key stakeholders

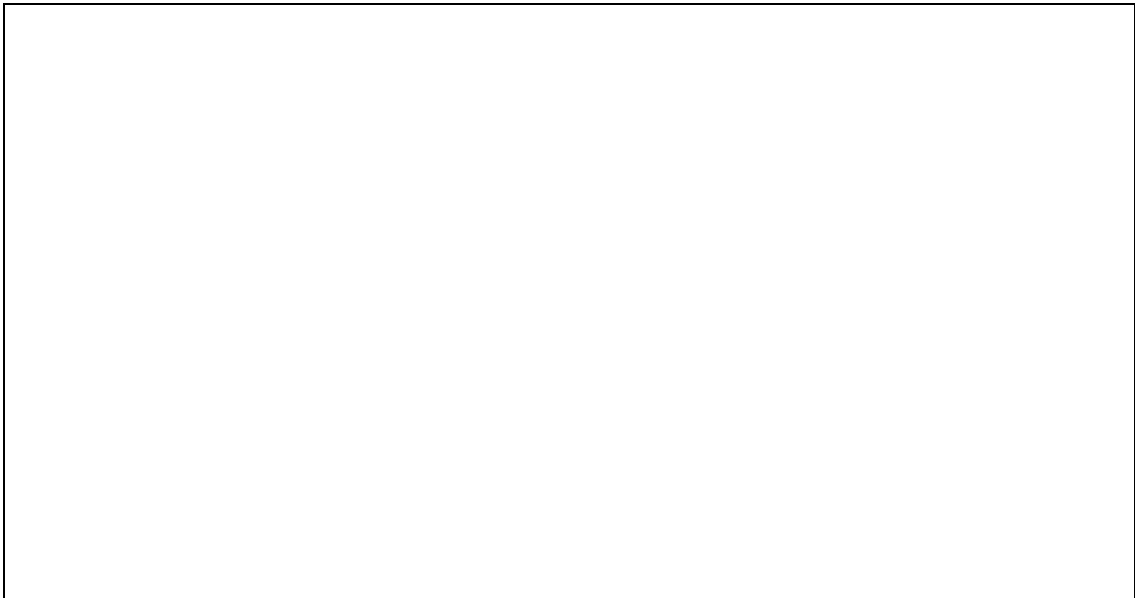
5.24 In accordance with Performance and Funding Agreements, institutes are required to undertake client satisfaction surveys. While the Agreements broadly define "clients" as *students, enterprises and industry*, it is not clearly specified whether the term "clients" extends to employers who recruit vocational education and training graduates or have employees such as apprentices undertaking vocational education and training courses. Consequently, the interpretation is at the discretion of individual institutes.



5.25 Although very few institutes examined by audit had undertaken surveys of employers, most recognised them as part of their client base. In contrast, the Director at Holmesglen Institute of Technical and Further Education voiced a strong opinion that, although recognising fee-for-service clients, those employers who recruited the Institute's graduates or had employees such as apprentices who undertook vocational education and training courses did not form part of the Institute's client base.

5.26 In audit opinion, employers constitute a principal client group of vocational education and training and as such should be regularly surveyed. To avoid any potential confusion by institutes in this regard, Agreements and any other relevant documents should be revised by the Office to incorporate a clear definition of clients.

5.27 Training services provided by institutes to employers on a fee-for-service basis will become increasingly competitive as more private training providers enter the market. As such, it is vital that the views of these stakeholders regarding their satisfaction with the services provided are also sought by institutes.



Special facilities available for fee-for-service training at an institute.



□ **RESPONSE** provided by Director, Holmesglen Institute of Technical and Further Education

Under its quality assurance registration (ISO 9001), Holmesglen defines its clients as individuals or organisations which use the education or training services provided by the Institute. Customers are defined as the individuals or organisations which purchase the educational or training services of the Institute which can include full fee paying students, the Office of Training and Further Education, Department of Education, Employment, Training and Youth Affairs or business. The Australian National Training Authority defines clients similarly in its publication, Draft Principles for Quality in Vocational Education and Training, i.e. "clients are individual learners and enterprises who use vocational education and training products and services (p.2)".

It is our view that audit comments about "employers" as clients is naive because:

- *they are expecting employers to discriminate the effect of vocational education from other social and environmental factors that impinge on the performance of individuals in a work setting; and*
- *they assume that the product of vocational education and training institutions is its graduate student, not the programs and services of the institution offered to the student or business.*

It is noted that the audit comment switches terms between employers and industry in paragraph 5.28. This confusion of terms arises because audit has not properly informed itself nor clearly defined terms. It seems audit is using its own discretion in interpreting clients.

Identifying service standards

5.28 By identifying, in broad terms, service standards expected by student and industry clients, and then assessing the extent to which those standards have been met, institutes can identify gaps between expectations of clients and the service delivered. In this way, those aspects that are important for enhancing client satisfaction can be determined.

Gathering data

5.29 The collection and analysis of outcome data should meet the diverse needs of all key State Training System stakeholders. To ensure data is valid and useful for decision-making, it should be adaptable and sensitive to the local environment. Data also needs to be in a comparable form if it is to provide a systematic basis for aggregation and monitoring and evaluation of performance at the institute, State and national levels, or between like groups of institutes. There is also a need for uniformity and consistency if information is to be used to monitor changes in performance over time.



5.30 The work conducted to date in collecting performance information on training outcomes for national purposes is viewed by audit as a positive step towards improved performance measurement. However, until significant improvements are made in data analysis, especially to discount the impact of confounding variables, as previously discussed in Part 4 of this Report, the information collected nationally will not provide useable baseline data for establishing targets, service standards and benchmarks, which in turn would support a more meaningful assessment of training outcomes at a State or institute level. When available, this information coupled with existing data on inputs, activities and outputs will facilitate improved assessments of the performance of the State Training System in terms of meeting the goals for vocational education and training.

Survey instruments

5.31 At an institute level, the collection of information to measure outcomes is effected through the conduct of client satisfaction and graduate destination surveys, and course evaluations. As the collection of data suffers from a number of shortcomings described earlier in this Part of the Report, its usefulness in terms of measuring the overall performance of each institute and in establishing meaningful benchmarks across institutes varies substantially according to the type and frequency of data collection, and the quality of data collection processes used.

5.32 A selection of survey instruments utilised by the 5 institutes subject to detailed examination by audit identified a number of shortcomings which also impacted on the quality and usefulness of the data. The most common areas needing improvement were as follows:

- *Question construction:* Questions should avoid bias through not inviting respondents to agree with positive statements about the training;
- *Unclear language:* The language used to express questions and the concepts underlying them should be comprehensible to intended respondent's and should be from the perspective of the respondent rather than the survey researcher;
- *Validity:* The validity of questions should be tested in all cases. Where this does not occur, some questions may, for example, fail to distinguish assessments of the quality of teaching from enthusiasm for course content or the respondent's success in the course. Questions to employers need to ensure a proper distinction between the quality of training and quality of employee;
- *Pre-testing and piloting:* Careful piloting and pre-testing before finalising the design of the survey needs to be undertaken in all cases;
- *Environment for completing surveys:* Respondents should be given sufficient time to complete the survey. Consideration should be given to the effect on responses, if any, of requiring completion of the survey in the presence of the trainer and to the appropriate stage during training to conduct the survey; and
- *Analysis of results:* The methods of data collection and analysis of survey results including details of response rates, conclusions reached and proposed corrective action, should be documented in all cases.

5.33 In order to get quality information that can facilitate informed decision-making, institutes may require staff training and expert support through the engagement



of specialists, especially in the area of sample selection, survey methodology and data analysis.

5.34 It is also important to realise that surveys constitute only one element of an effective performance measurement system. Consideration needs to be given by institutes to other evaluation methods such as a structured approach to discussions with local business or student groups, analysis of existing statistical data and reviews of clients' complaints. If properly undertaken, information derived from such activities can be used in a process of continuous improvement.

Performance indicators

5.35 Audit considers the usefulness of existing data gathered through surveys could be enhanced if, together with other evaluation methods, it was used to assess progress towards targets and benchmarks. Selected performance indicators could be used as part of this assessment process.

5.36 Although Agreements require information to be provided in relation to indicators defined as *client satisfaction* and *student destination*, audit considers that these are only broad measures which need to be broken down into a range of more specific quantitative and qualitative outcome indicators. Information derived from recent national surveys of graduates, employers and current students should provide scope for the Office of Training and Further Education and institutes to develop suitable indicators in these areas and in relation to fee-for-service activities.

5.37 Indicators from the perspective of current students and graduates could include:

- pre and post-course labour force status;
- course relevance to workplace;
- further study plans;
- achievement of personal goals for completing course of study, including job opportunities;
- accessibility of courses; and
- adequacy of teaching services, materials, equipment, and student support services and amenities.



5.38 From the perspective of employers who have recruited graduates or have staff such as apprentices undertaking training, indicators could cover the following aspects:

- satisfaction of employers with training courses;
- relevance to workplace needs of skills acquired by vocational education and training students;
- awareness and knowledge of vocational education and training, and contact and communication with training providers;
- involvement of employers in curriculum design and setting of standards;
- flexibility and adaptability of trainees to new tasks likely to be required by employers now and in the future;
- mode of training, e.g. off-campus, part-time;
- relevance and extent of training services offered; and
- availability, flexibility and accessibility of providers.

5.39 While performance indicators are important for assisting in performance measurement, there are risks involved in reliance on such information alone. For example, without looking behind student satisfaction results, factors contributing to dissatisfaction with courses, equipment or teaching may not be identified. Performance indicators can also be manipulated, unfairly discriminate against some institutes and may focus an organisation on narrow objectives, to the detriment of broader and perhaps more important objectives. For example, standards could be lowered to achieve an increase in the number of completed modules or subjects when in fact a more important objective may be industry satisfaction with the competencies of graduates.

Analysis, reporting and use of data

5.40 As previously discussed in Part 4 of this Report, in audit opinion, a more sophisticated analysis of outcome data derived through client surveys is required to adequately remove the effects of confounding variables. If the effects of these variables are not discounted, they can distort the actual outcomes of vocational education and training due to, for example, critical differences between institutes in the composition of their students or the economic environment impacting on particular industry groups served by institutes. The substantial funds that have collectively been spent by institutes and at the State and national levels on conducting a range of surveys, will have been substantially wasted if appropriate analysis is not undertaken.



5.41 In addition to assessing training outcomes, the analysis of survey data can be used by the Office or institutes to:

- assist in assessing the extent to which the forecasts of industry demands or needs for particular workforce skills were in line with actual results;
- assess the success or otherwise of quality assurance initiatives;
- attract clients through promoting the achievements of individual training providers or even the State Training System as a whole, such as high levels of client satisfaction or an improved labour force status as a result of completing a vocational education and training course;
- make decisions regarding the allocation of public training funds by assisting in assessments of the relative performance of training providers; and
- assist in a systematic process of continuous improvement by identifying strengths and weaknesses in the provision of training services.

5.42 During the audit, it was not evident that the results from surveys conducted specifically by institutes were effectively utilised for the purpose of identifying and addressing concerns raised by their clients. Unless this aspect of the evaluation process is in place, surveys may not contribute to improved performance.

DEVELOPING AN EVALUATION STRATEGY
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Evaluation cycle

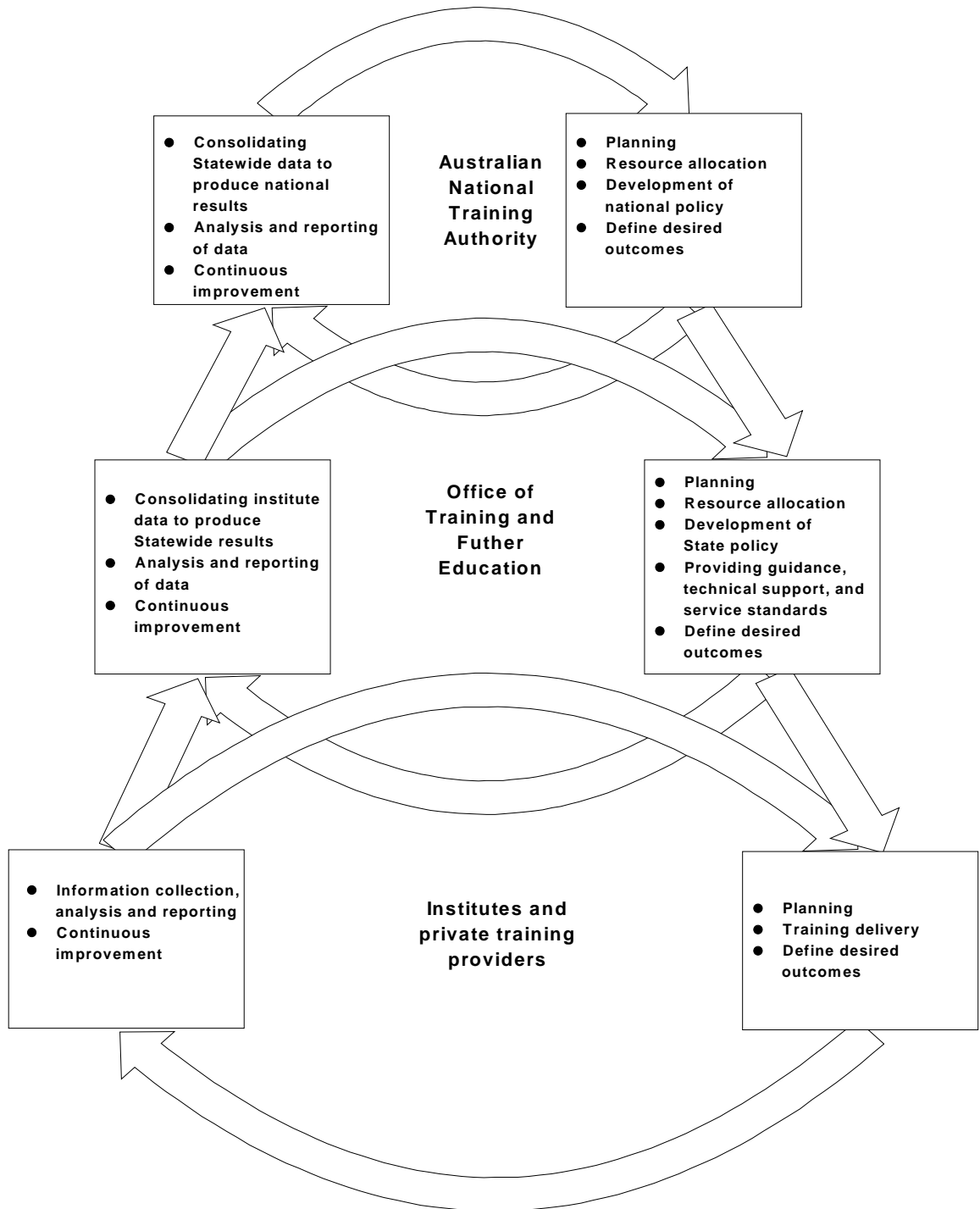
5.43 In developing an evaluation strategy, the Office of Training and Further Education will need to balance its own information needs with those of individual institutes and the Australian National Training Authority which is attempting to develop further Australia-wide performance indicators.

5.44 Audit considers that a *bottom-up* approach to evaluation needs to be adopted with assessments, in the first instance, undertaken at the point of training delivery. Using such an approach, performance information should serve several purposes. First, it should facilitate informed decisions at institute level. Secondly, the results from individual institutes could be consolidated by the Office to provide an overall assessment of the effectiveness of the State Training System or of like groups of institutes. This data can, in turn, be used to meet national information requirements. Under this approach institutes would also have an opportunity to collect additional information to suit their particular needs.



5.45 Chart 5A illustrates how the inter-relationships between training providers, the Office of Training and Further Education and the Australian National Training Authority can complement a bottom-up evaluation strategy designed to measure training outcomes and facilitate the gathering of information under the Standard.

**CHART 5A
EVALUATION STRATEGY FOR MEASURING TRAINING OUTCOMES**



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Elements of evaluation strategy

5.46 In broad terms, an evaluation strategy should encompass the following elements:

- *Purpose:* Evaluation activities need to be explicitly linked to the goals and objectives of the State Training System and those of individual institutes. For each evaluation activity, clear objectives should be established and principal stakeholders identified. For example, a survey to provide information for teachers of a particular training module should look very different to one intended to assist the Office in the allocation of resources to training activities and priorities;
- *Design:* Designing an evaluation strategy covers planning the broad aspects of research activities, assigning overall responsibility for tasks, identifying who to consult, determining how best to collect the data (survey or other methods) and forecasting how the evaluation results will be used in the continuing process of program development, monitoring or management. In the design phase:
 - emphasis needs to be placed on the collection of a broad range of evaluation information, including performance indicators, qualitative information derived through client surveys, and other data sensitive to the particular environment of each institute such as client complaints, and liaison with local businesses or student groups; and
 - definitions and precise specifications of individual data elements required need to be consistent with those being developed nationally and should be supplemented by any information required to assist in the interpretation of data;
- *Analysis and reporting:* Information needs to be gathered in a timely manner and presented in a form that will be understood and of maximum usefulness to both the Office and institutes. Methods need to be in place for arranging elements of data in line with performance indicators and systematically formatting other qualitative verbal or narrative data collected for evaluation purposes. Methods of analysis, which aim at consistency of interpretation as well as sensitivity to the environment of individual institutes, need to be adopted;
- *Action on results:* Findings need to be acted upon and used for continuous improvement; and
- *Review:* The strategy needs to be regularly reviewed to ensure the approach and performance measurement information continues to meet the needs of both the Office and institutes, and reflects new developments in vocational education and training.

Developing an evaluation culture

5.47 Through the evaluation strategy, the Office of Training and Further Education should attempt to encourage and foster a culture of evaluation and accountability within the State Training System. It should also aim to continue to engage the willing participation of institutes, by offering:

- support and advice for existing evaluation activities within institutes;
- support for forms of evaluation and reporting that will be additional to the key performance measures already under development;
- technical and specialised advice and support for survey design and detailed analysis of evaluation data, and assistance in the development of performance indicators that are sensitive to the particular circumstances of individual institutes; and
- guidance statements and training activities to assist institute staff who are assigned responsibility for evaluation tasks and activities, including guidance on the engagement of external expertise for specific assignments.

5.48 As private training providers will increasingly form an integral component of the training market, consideration should also be given to including them in the development of such a strategy.

□ **RESPONSE** provided by Secretary, Department of Education

The research and development of appropriate outcome measures in the Victorian public sector is in a relative state of infancy. Victoria is working with national agencies in researching and identifying appropriate outcome measures for the vocational education and training sector.

The Boston Consulting Group (BCG) completed a review of performance measurement in vocational education and training in 1995. This has led to the establishment of a high level, industry-based committee to examine the BCG report and recommend to Ministers by the end of 1997 an appropriate set of performance measures that can be used both nationally and at a State level.

The Office of Training and Further Education welcomes audit's recommended evaluation strategy for performance measurement. The Office believes the strategy is highly consistent with the tenets of the quality management framework it is seeking to introduce across the State Training System.

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