STATE SERVICES COMMISSION
Te Komihana O Ngā Tari Kāwanatanga

Working Paper No. 12

A Framework for Measuring Training and Development in the State Sector

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A Framework for Measuring Training and Development in the State Sector

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Abstract

Little information is reported to Government on training and development in its agencies. Such information would be useful in advising Government about the capability of these agencies, among other purposes. However, measuring training is difficult for many reasons, including the lack of standard definitions and measures and the fact that many organisations have no centralised collection of training information.

This research draws on a review of the literature and interviews with officials to develop a framework for measuring training in government agencies. The framework comprises a hierarchy of linked components from *sound foundation* of training policies and practices and *efficient and equitable training investment*, to *training effectiveness* in achieving desired individual and organisational objectives, and finally to *State sector people capability* (resulting from training and other factors). Suggested measures and indicators are provided for each component of the framework. They include measures for government agencies to use internally for their own management purposes, as well as measures likely to be useful in reporting to Government. The paper concludes that while measuring training is problematic, it is nonetheless desirable. It suggests that reporting to Government should focus primarily on State sector people capability (using proxy measures such as qualifications) but that government agencies should also have systems in place to provide information on the other three aspects of the framework, when required.

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[1] This report was submitted by the author as Research Paper for Master of Public Policy at Victoria University of Wellington, February 2001.

Contents

Context

This research was prompted by the increased emphasis placed on training and development in the State sector by the current Government[2], and by concerns about the relative lack of information collected on training and development in the sector. This lack of information on training[3] was highlighted in the course of the policy work that led to State sector access to Skill New Zealand's Industry Training Fund. Some of the policy agencies involved suggested that it would be desirable to gather information on State sector training to better inform future policy development, and to allow evaluation of the effects of policy changes.

The State Services Commission (SSC) was also considering whether information on training should be included in its information gathering processes. This would increase its ability to provide advice to Government on the capability of the State sector, particularly the Public Service[4].

This research examines some of the reasons for the current scarcity of information on training in the State sector, and aims to develop a framework of measures to gather information likely to be of interest to Government. It explores the purposes for which governments may have an interest in information on training, examines possible measures and associated measurement issues, and looks briefly at the benefits and costs of introducing the measures. The primary focus is on the requirements of the Government, but it is also intended that the framework should be useful for Public Service departments and other State sector agencies to use for their own purposes.

Outline

This section (*context)* summarises contextual information about the current Government's interest in the training and development of staff in the State sector, and outlines some of the probable reasons for the relative lack of information in this area. The subsequent section (*current information sources)* sets out some existing information sources that could be drawn on for reporting to Government about training in government agencies, and considers whether they provide an adequate basis for such reporting. The section on *literature review* reviews information from the economic, human resource management (HRM) and equal employment opportunities (EEO) literature on the nature of training, potential definitions and measures, and measurement issues. For completeness, it also provides some key findings about training from the literature.

The section on *developing the framework: phase one* summarises the first phase of the fieldwork, which involved interviewing a small selection of officials and an employee representative about the purposes for which governments might want information on State sector training, suggested measures, and collection and reporting issues. It discusses a draft framework, which was developed on the basis of both the literature and the interviews. The subsequent section on *developing the framework: phase two* then summarises the final phase of the empirical research. This involved interviewing a further set of officials to obtain feedback on the draft

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[2] The Labour-Alliance Coalition Government elected in the 1999 election.

[3] "Training" is used as shorthand for training and development throughout the paper, except where a particular emphasis on development is intended. The definition of training used is "all the various processes by which an individual develops the competencies required for current and future employment-related tasks" (see the section on Literature Review for discussion).

[4] The Public Service comprises the 39 departments listed in the First Schedule to the State Sector Act. The State sector includes Public Service departments and other organisations defined as departments for the purposes of the Public Finance Act 1989, Offices of Parliament, State-owned enterprises, Crown entities and the Reserve Bank of New Zealand. The SSC's legislative functions apply mainly within the Public Service.

framework, including the feasibility for their organisations of providing the suggested information. The development of a revised framework is discussed. The final section on *conclusions* presents the framework and draws conclusions about those measures most likely to be useful in reporting to Government on training and development in its agencies.

The current Government's interest in State sector training and development

Prior to the 1999 election, Labour Party policies contained a strong emphasis on training for the New Zealand workforce as a whole and in the State sector in particular. In its *21st Century Skills* policy, Labour stated that it wanted to see all sectors of the economy progressively involved in appropriate training, with a requirement for all employers to have a strategy for training (Labour Party, July 1999, p 10). Labour's State sector policy said that the State sector, including the State-owned enterprises, was "a tremendous asset that can and should be used for training, and that State employers [would] be required to take a lead in the new Government's modern apprenticeship system" (Labour Party, November 1999, p 4). Pre-election Alliance policies stressed the importance of apprenticeships, particularly for young people, but without specific comment on the State sector.

Since the election of the Coalition Government in late 1999, there have been a number of statements by Ministers, as well as policy changes, which signal strong interest in State sector training. For example, the Minister of State Services, in a speech to the Public Servants Senior Manager Forum, talked about the need to "build capacity through better career structures, opportunities and professional development" (New Zealand Government Press Release, 8 March 2000). A joint media statement from the Minister of State Services and the Associate Minister of Education (Tertiary Education) on "new support for work-based training in the public sector" announced that work-based training provided for State sector employees through Industry Training Organisations (ITOs) would be paid for from the Industry Training Fund[5] from July 2001 (New Zealand Government Press Release, 4 July 2000). The Ministers stated that the "Government is moving to remedy [the State sector's lack of eligibility for funding] in line with our commitment to build up the capability of public organisations and boost the skills of State sector staff." Subsequently, in response to a Question in the House on 2 August 2000, the Minister of State Services stated that the Government was increasing funding to the Public Sector Training Organisation[6] because this would "enable many people through the public sector to gain relevant skills and qualifications, thereby increasing the capability of the sector" (Parliamentary Debates (Hansard), p 3840). The Minister added that the programme complemented the Modern Apprenticeships Programme and that opportunities to hire and train apprentices in the public sector were also being pursued.

As a result of the policy change and additional funding, the Public Sector Training Organisation (ITO for the State sector) is expanding its activities, with a particular emphasis on increasing participation of Māori staff in the State sector in structured training leading to recognised qualifications. It is also working to develop a State sector pilot for the Modern Apprenticeship programme, with the active encouragement of Ministers.

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5 The Industry Training Fund operated by Skill New Zealand subsidises structured industry training leading to nationally recognised qualifications up to level 4 on the National Qualifications Framework.

6 Strictly speaking, the Public Sector Training Organisation operates within the State sector rather than the wider public sector. As defined by Statistics New Zealand, the public sector comprises both central government and local government. (PSTO covers central government only).

Reasons for current lack of information

Lack of information about training in the State sector was one of the prompts for this research. Possible reasons for this situation include the devolved public management system, the lack of central agency emphasis on gathering training information and associated lack of Ministerial demand for such information. These factors are outlined briefly below.

Devolved public management system

Since the State Sector Act of 1988, responsibility for Human Resource Management has been devolved from the SSC to departmental chief executives. The focus of the public management accountability system shifted from input controls to responsibility for, and reporting against, outputs specified in purchase agreements. Within larger organisations, responsibility has been devolved to line managers or regional managers, often without systems in place for centralised collection of information on training (or other areas that might be regarded as inputs). Freedom to manage has led to a diversity of human resource and other practices between, and sometimes within, public organisations (providing much greater flexibility in managing to meet specific organisational requirements, but resulting in little consistency of information or other systems). At the time of the reforms, there also appeared to be an implicit assumption that the labour market would supply the skills required, meaning that less attention needed to be given to training, or to systems for recording training.

Lack of central agency emphasis on training information

Following the reforms in the late 1980s, the SSC established systems for collection and reporting of some human resource information from Public Service departments and other selected State sector organisations. This information focused mainly on areas directly associated with the desire of governments to reduce the size of the State sector and associated costs (staff numbers, cost of restructuring) and on labour relations objectives (contract information). Subsequently, information was requested and provided to Government on Public Service skill shortages and turnover rates, as signals of risk to capability and performance.

The Treasury collects financial information from all departments and other State sector agencies (see section 27, Public Finance Act 1989). However, it does not request information on training expenditure as a separate line item, and is therefore unable to report on training expenditure.

Lack of Ministerial demand

The SSC's report on staffing information provided to Cabinet was expanded in 1997, when the then Minister of State Services asked for EEO information to be included. However, there has never been a specific request for training information to be included, nor has SSC taken action to obtain such information, apart from in occasional one-off surveys for specific purposes (see the section on Current Information Sources for further details).

Recently, this Government has demonstrated that it is interested in internal human resource management policies and practices in government agencies (for example, performance payments). It is keen to work towards achieving greater consistency in remuneration practices across the sector. This suggests that the timing is right for reconsidering current practices in other areas of human resource management, including training, and whether sufficient information is available to advise Government about them.

The next section looks more fully at the current sources of information on training in the State sector, and at whether they provide an adequate base for reporting on training to the Government. Further reasons for the lack of information on training in the State sector include difficulties in defining and measuring training, which are considered in the section on Literature Review.

Current Information Sources

Introduction

This section outlines six existing sources of information on staff training in government agencies: public accountability documents; information reported to Responsible Ministers by SSC; ad hoc surveys undertaken by SSC; training brokers and providers; and Statistics New Zealand. The section considers each source in turn, and looks at whether they provide an adequate information base for reporting to Government on State sector training, particularly in terms of consistency, level of detail, timeliness and coverage.

Public accountability documents

A number of public accountability documents are produced by departments and other State sector organisations. These include both prospective planning documents (Departmental Forecast Reports (DFRs) and Statements of Intent (SOIs) for departments and Crown entities respectively, and retrospective reporting documents (annual reports) for all State sector organisations.

Some departments include performance indicators for human resource management (including training) in their DFRs and subsequently report against these indicators in their annual reports. A sample of recent DFRs[7] from 37 departments showed that only 16 (43 per cent) had such indicators and of these only one (SSC) included a training indicator (training as a percentage of hours worked). The most common Human Resources performance indicators were staff turnover, average length of service and total staff numbers. Five of the departments with Human Resources performance indicators did not report against them in their annual reports. The Treasury has now removed the requirement for summarised (financial) performance indicators for the statement of objectives in DFRs, which means that it is even less likely in future that departments will include quantitative performance indicators of this nature.

There was no consistent pattern in reporting on training expenditure in the 37 annual reports (reflecting the lack of accounting standards in this area[8]). Some departments recorded training expenditure in the notes on personnel expenditure; some departments included it under operating costs, while the majority did not include training expenditure as a separate item at all.

All departments had a section on organisation information in their annual report, which usually included Human Resource Management (HRM), often with a brief reference to staff development. Only one Public Service department (Ministry of Education) had a comprehensive statement that described their changing staffing requirements to improve capability, and the strategies they were employing to produce the balance and mix of skills they required. The Defence Force also gave considerable attention to capability in its DFR and

[7] The DFRs and annual reports included in the survey were obtained from the SSC's information centre. They are public accountability documents, which many departments put on their websites.

[8] See Literature Review for further discussion of lack of standardised measures of training.

annual report, using a number of quantitative and qualitative measures of readiness and sustainability.

At present, the SOIs and annual reports of Crown entities are not required to include information on training, or other areas of Human Resources, and few provide such information. The proposed Crown entities legislation will require some reference to good employer requirements in accountability documents, but reporting is likely to remain highly variable.

Because of the high degree of variability in the nature, type and quantity of information of training provided in DFRs, SOIs and annual reports, these documents do not provide a useful source of information for aggregated reporting on training across the Public Service or wider State sector. Frequently they provide limited if any information on training within organisations. Since they are essentially accountability documents produced for other purposes, it would not be appropriate to prescribe standardised HRM forecasting or reporting requirements.

Information reported to Responsible Ministers by SSC

The SSC collects information from departments and other stakeholders for the purposes of reviewing departmental and chief executive performance (under sections 6 and 43 of the State Sector Act 1988 respectively).

Chief executive performance review

An annual chief executive performance agreement forms the basis for review of chief executive performance. The 2000/01 guidelines include a requirement to "ensure management of the Government's ownership interest in the department" (p 14). They note that ownership initiatives should be supported by a brief discussion of any significant issues affecting the department's capability to deliver on its objectives (SSC, 2000a). The objectives are set at a high rather than detailed level, and reports from chief executives are less than ten pages long. These reports are considered along with stakeholder information, the departmental performance reports (see below), and other information in developing the Commissioner's performance review of each chief executive. This process does not provide an appropriate vehicle for detailed reporting by departments on training and development, or other aspects of public management.

As a separate process, but contributing to the review of chief executive performance, some information is collected on the development of senior managers in each department (for the department and wider Public Service). However, this collection has varied from year to year, and there is relatively little systematic information available on senior management development and capability. The current senior management development project is likely to lead to more systematic collection of information in this area.

Departmental performance review

Since 1995, the SSC has also sent out an annual "Expectations letter" to chief executives, setting out the basis on which departmental performance will be assessed for that year. The letter contains a mixture of generic expectations for all departments and specific expectations tailored to a particular department. The expectations cover both output performance (against the departmental purchase agreement(s)) and ownership performance (agreed in consultation with the department, based on the chief executive's performance agreement, SSC priorities and departmental priorities). The information gathered includes regular reports to departmental Vote and Responsible Ministers against the department's purchase and performance agreements respectively, as well as other information acquired by SSC in the course of its contact with departments and their stakeholders. As in the case of the chief executive's performance review, the information collected is high-level, and varies from department to department.

In the past two years, the SSC has moved away from a standard Expectations letter and checklist approach to monitoring activity, towards a tailored approach for each department, involving judgements about capability and performance. This means that, as with the chief executive performance reporting and review cycle, there is very limited generic information available. Once again, these reports provide little information that could be used in any aggregated or overview reporting to Government on training. The individual departmental reports could highlight specific areas of risk to capability and performance associated with inadequate training, although to date they have contained relatively little information on this area.

Ownership briefings

The information collected by SSC through the above processes is also used in developing ownership briefings for Responsible Ministers about their departments. These briefings vary in nature from department to department, but focus on: strategy; integrity and commitment to the collective interest; future capability; and long-term cost effectiveness. These are the four dimensions of ownership set out in the work led by SSC on ownership (Interdepartmental Working Group of Ownership, 1995). Again, while these ownership briefings may provide information on training and development, its nature will vary from department to department. The briefings are not produced for every department or to a standard timetable, but according to a priority list. While they may signal some issues for further investigation, in themselves they do not provide a solid foundation for reporting to Government on any generic issues across the Public Service.

Crown entities

The SSC does not at present have a role in collecting and reporting information on Crown entities to Responsible Ministers, although it does include "Crown entity monitoring" among its considerations in reviewing departmental performance. This does not, however, provide any information on training in Crown entities. It appears unlikely that the Crown entity reforms will lead to an increase in centralised data collection from the entities (Gill, 2000).

Ad hoc survey information collected by SSC

Over the past decade, the SSC has occasionally collected information from departments on training for specific project purposes. Three such projects are commented on below.

1993 Survey of Training Provision

In early 1993, the SSC undertook a survey of *Training Provision in the Public Service.* The purpose of the survey was to gather baseline data on the training function and the provision of training in Public Service departments in order to inform decision-making on how the sector should respond to the Government's industry training strategy. The survey focused on policy analyst, personnel assistant and branch manager training. Undertaking the survey took longer than anticipated, because departments had difficulty in providing the information requested.

The authors of this 1993 survey commented on the low level of systematic recording of training information among departments, the limited extent to which training needs were identified prior to training, and the very limited level evaluation of the effectiveness of training. The survey did find a high level of consistency in the duration and cost per person of formal (external) training courses in these areas. The authors noted, however, that branch manager training was under-reported because data on manager training usually wasn't kept at the corporate level. They also commented that over 40 percent of policy managers indicated that relevant courses were available for few or none of the areas of work undertaken by their policy staff (SSC, 1993). The themes of this survey have also been apparent in subsequent surveys.

1996 survey of strategic human resource capability issues

This project was undertaken by the SSC to identify key Public Service strategic human resource capability issues in order to develop strategies to reduce risk and enhance Public Service performance. Among the issues identified for attention were "continuing concerns about senior management development and chief executive succession management, and about management skills in general" (SSC, 1997, p 42). This survey also identified the lack of training courses for policy analysts as an issue, and noted that policy analysts and operational managers at all levels up to and including chief executives were two roles with critical skill shortages (SSC, 1996, p 19). While training and development frequently emerged as important issues during the interviews conducted with chief executives and other key stakeholders, the survey coverage was too broad to permit detailed investigation of any particular topic.

Improving the Quality of Policy Advice Project, 1998

One component of the Policy Advice project led by SSC during 1998 and 1999 focused on human resource management issues affecting the quality of policy advice. A brief questionnaire was used to gather indicative data on departmental expenditure and time for formal training courses for policy staff during the 1997/98 year. However, the figures provided were difficult to interpret because they did not include expenditure on courses run by in-house staff, or (in some cases) corporate training courses. The survey results highlighted the need for clear definitions relating to training expenditure, and the inadequacy of any single measure of formal training expenditure.

In addition to the paper questionnaire, policy managers were also interviewed about critical issues for their departments relating to recruitment, retention and performance of policy advisors, and how they were being addressed. Many discussed training and development issues (e.g. the importance of good academic backgrounds, and practical on-the-job development backed up by short courses). Time and coaching skills needed for on-the-job development were issues, particularly for small organisations, some of which had a preferred strategy of buying in experienced policy staff, rather than developing inexperienced advisors. The limited supply of good quality training courses for policy advisors was again commented on (SSC, 1999).

Comment on ad hoc surveys

While ad hoc surveys can, if well designed, provide good quality information on training, they are limited in the extent to which any conclusions can be drawn about trends. In addition, because the information requirements are not regular and expected, departments may have difficulty in providing the particular information requested. Unless definitions are clear, there will be difficulties in collating results because of differing interpretations of what is required. There will be even greater difficulties in combining the results of different surveys because of the lack of standard measures.

Training brokers and providers

Organisations that broker or provide training for State sector staff are an additional source of information on State sector training. The section below comments on two organisations that deliver training services specifically geared to the State sector, and also comments on information that may be available from other training providers.

Management Development Centre

The Management Development Centre (MDC), which is funded by member subscriptions, assists Public Service chief executives with discharging their responsibilities for senior management development. It issues guidance relating to management development, keeps a database of information on courses and scholarships for senior managers, and also records feedback comments from participants (see www.mdcentre.govt.nz). The MDC offers additional assessment and guidance services to nominated managers in member organisations, and holds seminars and clinics for senior staff. A summary of the services provided each year is contained in the annual report. This information could be used as one input to reporting to Government on senior management training but would need to be supplemented by other information from departments and SSC to give a fuller picture of senior management development (as one aspect of overall training).

Public Sector Training Organisation

As noted in the section on Context, the Public Sector Training Organisation (PSTO) functions as the Industry Training Organisation for the public sector. It develops unit standards and qualifications for registration on the National Qualifications Framework (NQF), oversees the quality of training programmes relating to these unit standards and qualifications, and operates work-based assessment systems across a wide range of public sector skills. Until 2000, PSTO was fully funded by member organisations, but it will also have access to Skill New Zealand's Industry Training Fund to subsidise State sector training from July 2001. Access to the Industry Training Fund will increase the number of unit standards and standards-based qualifications up to Level Four[9] on the National Qualifications Framework gained by staff in State sector organisations.

In the process of working with member organisations in the Public Service and wider State sector, PSTO has gathered a great deal of anecdotal information about training. This includes information about: perceived gaps in skill levels (including in some cases basic literacy and numeracy skills); gaps in training provision (including sector-wide, generic training in the core skills of working in the Public Service and policy advice skills); and about reduced departmental training capacity (with few departments retaining a separate training function). PSTO includes information in its annual report on expenditure on its various categories of activity, workplace assessor numbers, numbers of staff from member organisations registered as learners on the NQF, and numbers of credits awarded.

As a consequence of gaining access to the Industry Training Fund, PSTO will be required to provide much more detailed quantitative reporting to Skill New Zealand on the

[9] Skill New Zealand's Industry Training Fund can only be used to subsidise training towards qualifications (national certificates) registered on the National Qualifications Framework up to Level Four. This equates with the achievement expected in skilled trade studies.

characteristics of those who gain standards and qualifications, and the nature of those standards and qualifications. Detailed information will also have to be provided about State sector participation in the Modern Apprenticeship Scheme, including details of participants and results.

Information gained by PSTO – both quantitative and qualitative – will continue to be useful in highlighting training issues and concerns of member organisations, and will in future be useful in providing data on unit standards-based training of staff in the sector. However, as with the data from MDC, it can only provide a small part of part of the overall picture of State sector training.

Training providers

Training providers, including tertiary education institutions and a wide variety of private training providers, are also a potential source of information on numbers participating in training from Public Service departments, the wider State sector, and other sectors. This information could be useful in looking at numbers and trends for particular types of courses (e.g. public sector management or public policy). However, providers may not necessarily have the information in this form, and may be reluctant to share their data – publicly at least – because of market sensitivity.

Information from Statistics New Zealand

Statistics New Zealand collects information on "highest qualification gained" through the census. This can be used, albeit at a very high level of generality, to look at trends over time for the whole of central government compared with local government, private non-profit services, and other private sector services. Data from the 1996 census, for example, shows that almost 50 per cent of people employed in central government had an advanced vocational qualification, bachelor degree or higher degree compared with about 25 per cent of those in local government, and just 15 per cent of those in private, for profit services with this level of qualification (Statistics New Zealand, special run from 1996 census). These differences in qualification level reflect in part the different composition of the labour markets concerned. However, because of the nature of the data, Statistics New Zealand cannot do a breakdown by different components of central government and, because censuses are five years apart, trend information is also limited. Specific and timely data on qualifications would need to be collected from State sector organisations themselves.

Other human resource information reported to Government by SSC

Following the State Sector Act 1988, Cabinet has sought regular information from SSC on some aspects of State sector staffing, mainly on overall numbers and possible areas of risk. As described in the Context, the initial focus was on staff numbers and restructuring details, but additional information has since been sought and provided on contract details, skill shortages, turnover rates and EEO data. The additional information is collected from Public Service departments, while only basic information - staff numbers and restructuring numbers and costs - is still collected from other selected State sector agencies (mainly Crown entities that were formerly part of the Public Service).

Until June 1999, data was collected from departments on an aggregated basis (e.g. overall numbers within age bands or salary bands) meaning that if any new analysis was wanted, the survey had to be modified accordingly. The June 2000 collection of human resource information was, for the first time, conducted on an anonymous unit record basis from departmental Human Resource Information Systems, allowing much more detailed analysis of the data. Information on occupation (coded according to the New Zealand Standard Classification of Occupations) was also collected for the first time, meaning that comparisons of EEO data, turnover rates and other variables could be made between departments by occupation.

A list of the data collected in the SSC's 2000 human resource capability survey from Public Service departments is provided below. A full set of titles, descriptions and categories for each variable is available from the SSC. Wherever they are available, Statistics New Zealand categories are used.

Variables for inclusion in the June 2000 Human Resource Capability Survey
Gender, Ethnicity, Disability, Date of Birth, Occupation (new variable), Job Title (new variable), Business Unit (new variable), Employment Status, Salary, Salary on Appointment, Ordinary Hours Worked, Proportion of Full-time equivalent (FTE), Contract Term, Contract Type, Start Date, Source of Recruitment (sector), End Date, Cessation Category, Surplus Staffing Option, Surplus Staffing Payment, Region (new variable).

Source: State Services Commission (2000c)

In addition to the variables listed above, collected in the unit level collection, some information is also collected at a departmental level. This department-level information includes skill shortages (number and types of vacancies that have remained unfilled for at least three months despite efforts to fill them), management profile (EEO data on top three levels of management), and senior remuneration disclosure (total remuneration of senior staff receiving more than $100,000, in $10,000 bands).

Comments

There is currently no generic, consistent, information on training that could be drawn on to provide an overview of training (or even on aspects of training) in the State sector to Government. Furthermore, the current accountability documents do not provide an appropriate vehicle for the collection of standardised information on training and development because they are designed primarily for other purposes. While somewhat more training information is available on Public Service departments than on the rest of the State sector, this information is variable in nature and often limited.

Information on training and development could be collected through the SSC's annual Human Resource Capability Survey at the individual level or at the departmental level. One of the aims of this project is to determine whether it would be desirable to collect such information, what the information would be, and feasibility issues involved.

Literature Review

This literature review was undertaken to provide a conceptual basis for developing a framework for measuring training and development in government agencies. To this end, the section considers information from the literature on definitions of training and development, various ways of categorising training, purposes and associated benefits of measuring training, possible training measures, and measurement issues. It also outlines briefly some key findings about training from the literature.

Examining the literature was an iterative process throughout the research, as successive interviews and feedback prompted consideration of additional ideas and sources, which then fed into the revised framework and conclusions.

What is training?

Writers define the terms training and development, and other related terms, in varying ways. Fitz-enz (1984) distinguishes between *education* and *training*. He notes that "education is the presentation of concepts and information to people for the purpose of imparting knowledge, while training is … an interactive exercise whose goal is to develop skills and competencies within the workforce. It is one thing to know; it is something different to be able to do" (p 225). However, the Organisation for Economic Development (OECD) notes that "the dual role now performed by the education system [of preparation for citizenship and life as well as developing employment-related competencies] so blurs the boundary between vocational training and education as to make the distinction between them not only difficult, but unimportant" (OECD, 1997, p 56). The OECD defines training as "all the various processes by which an individual develops the competencies required for employment-related tasks" (OECD, 1997, p 19).

Development is also sometimes distinguished from training, with development defined in terms of broader capability to take up future work and career opportunities, beyond the competencies required for a current position. Collett (1998) refers to the need to "keep the twin activities of training and development in balance – to develop capability [for future work] not just competence [for current position]" (p 18). Developmental processes can include secondments, rotations, and involvement in special projects (see, for example, Management Development Centre publications on use of secondments and inter-agency projects for management development (MDC, 1997 & MDC, 1999 respectively). However, a broad definition of training can include developmental activities of this nature.

Training is an input. The extent to which "competencies are actually gained in any instance depends on the level and quantity of inputs, the innate abilities of the trainee and motivation to learn" (OECD, 1997, p 19). Other organisational factors – including systems and culture – will also be important. As will be discussed later in this section, those collecting data on training often also want information on the effects or outcomes of training for individuals, organisations or the economy as a whole.

Definition of training used for this project

For the purposes of this study, the working definition of training (and development) is adapted from that proposed by the OECD (1997): *"all the various processes by which an individual develops the competencies required for **current and future** employment-related tasks"* (words in bold added). This definition is broad enough to allow for a wide range of training and development activities to be included, but focused enough to exclude activities unrelated to employment. It is intended to cover both current competence and future capability.

As became apparent through the interviews (discussed in the two sections on Framework Development), Government's interest in training is likely to extend beyond information on training as an input or process to broader measures of the resulting state sector people capability (to which training – and other factors - contribute). The literature review therefore includes a brief discussion of "people capability", and the different factors that contribute to such capability.

Categories of training

Because "training" as defined above is such a general term, collection of information about training usually focuses on one or more categories of training. The OECD's *Manual for Better Training Statistics* (1997) provides a comprehensive set of training categories. It describes formal and informal training as different structural forms of training, and also defines several dichotomies of vocational training: internal vs. external training; initial vs. continuing training; on-the-job vs. off-the-job training; specific vs. general training; and occupationally-specific vs. non-occupationally specific training. These distinctions underpin many of the categories used in the literature, although the labels may be different. Furthermore, cut-off points between some pairs of categories (e.g. between initial and continuing training) vary between studies, or the categories may be seen as end-points on a continuum rather than mutually exclusive. The section below discusses the categories that are used most widely in the literature concerned with measuring training.

Formal and informal training

Many writers distinguish between formal and informal training. Formal training is generally described as training that has time set aside for it, rather than training that is carried out in the normal course of work (Decision Research Ltd, 1997). The OECD (1997) describes the key difference in terms of planning, where the purpose and format of formal training are pre-determined, whereas informal training is improvised (p 63). Most research on training concerns formal training, because it is easier to define and measure (and may serve as an adequate proxy for overall training in many situations).

Distinctions between formal and informal training, and even between work and training, may not be precise. The OECD (1991) notes that "alternative modes of training may lie on a continuum from quite formal classroom-based to quite informal interactions among co-workers or situations where new hires simply ask questions or watch others do the work" (p 15). Industry training, which emphasises training on the job, may also be difficult to categorise as purely formal or purely informal.

Internal, external and in-house training

The OECD (1997) distinguishes internal from external training on the basis of *delivery*. Internal training is delivered by the organisation's own employees while external training is delivered to an organisation's employees by persons who are not part of that organisation (p 61). It describes in-house training as training that an organisation provides to meet the specific needs of its own employees, which may consist of internal or external training. Some researchers use slight variants of these definitions. The 1996 Education and Training Survey conducted by Statistics New Zealand makes the distinction between external and internal training on the basis of responsibility for *organisation* (rather than delivery) of the training (Gobbi, 1998, pp 110-111).

Study towards a formal qualification may also be identified as a separate category (of external training). For example, the Education and Training Survey described above used the categories of in-house training, external training and structured/formal education (Gobbi, 1998). Informal training was not included in the survey.

Combinations of training categories

Silva (2000) used a list of 18 categories for employee participation in training and development in her research on human resource development in public sector organisations.

Most of her categories could be grouped into the formal (in-house, external and formal education) and informal training categories provided above, supplemented by some of the other OECD (1997) distinctions (e.g. initial vs. continuing training). The categories included, for example, external seminars and workshops, formal induction programmes, education for gaining a formal qualification and informal information sharing in work groups.

General and specific training

Becker (1975) distinguished between *general* and *specific* training. He applied an economic approach to training, looking at the incentives for funding training that apply to employers and to employees in terms of the relative benefits and risks accruing to each. Becker defined general training as that useful in many firms besides those providing it, and specific training as that which increases the productivity of employees in that particular firm – but not in others *(*pages 19 and 26). His hypothesis was that employees would bear the costs of general training, because it increased employability in many firms, while employers would bear the cost of specific training because it equipped the employees to work more productively in their specific firm, without increasing the risks of the employees quitting to take their new skills elsewhere (p 32). However, subsequent research has found that the actual behaviours of employers and learners / employees do not fit this model particularly well (e.g. Stern & Ritzen, 1991, p 1), and that in fact most training within firms is of a general nature and exportable to other firms (OECD, 1999, p 137). There are often difficulties in categorising training as purely general or purely specific, since most training combines elements of both specific and general training to a greater or lesser degree (OECD, 1997, p 61).

Purposes for attempting to measure training

This research was undertaken to determine the information on training in government agencies that would be useful to Government. This section sets out various purposes for measuring training. It notes that the reasons for collecting information on training differ according to the interests of the particular audience, for example academia / researchers, government, and organisations.

Training information for general research

Much of the literature concerns surveys of training, conducted for research purposes to answer a variety of research questions (sometimes relating to public policy, sometimes not). The research addresses questions such as how much training is being undertaken, of what types, by whom, for whom, at what cost and with what effects – although the exact questions and level of detail vary greatly. The relative effectiveness of training for different groups may also be of interest, for example in research on equity.

Training information to inform public policy

Human capital formation is one reason for Government interest in education, training and development; reducing disparities in individual outcomes is another. Dwyer (2000), for example, notes that Government's interest in job-related training fits broadly with the two interrelated objectives of enhancing economic growth and reducing disparities in employment and income (p 6). She adds that Government also has an interest in the working of the education and training market. Stern and Ritzen (1991) stress the role of Government in addressing market failure in the provision of education and training. Government's public policy interest in training is not focused on staff training in its own agencies, except as one component of the broader labour market. This research is not primarily about Government's general public policy interest in training.

Training information for use by organisations and their stakeholders

Information on training within organisations fits within a broader context of management information. Sveiby (1997) distinguishes an organisation's tangible assets (e.g. balance sheets items) from its intangible assets (e.g. reputation and staff capability). He comments that there are two main purposes for measuring intangible assets within organisations, addressed to two main parties. The first purpose is for external presentation, so that shareholders and others can assess the quality of management and whether the organisation is likely to be a reliable supplier or dependable creditor. The second purpose is for the internal management of the organisation, providing a management information system so that managers can monitor progress and take corrective action (p 163).

Sveiby's categories mirror the two primary audiences and purposes for training information in this research: primarily Government as a "shareholder" in government agencies with a strong interest in the quality of their management and ability to supply; and secondly internal management in government agencies who have a responsibility for improving organisational performance.

Benchmarking

Benchmarking is a technique often used by organisations seeking to lift their organisational performance. It involves "comparing one's own organisation's practices against *best practices* employed by organisations anywhere in the world" (Isaksson, 1997, p 2). The comparisons may be in terms of results or processes. However, as noted by Isaksson, the use of the term best practice does not imply that practices can be duplicated uncritically between firms. Instead, they need to be evaluated in terms of the organisation's specific strategy, complexity, stage of development, and use of technology. Some writers have preferred to use the term "good practices" rather than "best practices" to emphasise that there is no single best solution for all situations. Problems associated with the use of process benchmarking are discussed briefly under measurement issues later in this section.

Measures

The measures used in surveys and other collections of training information vary with the purposes for which they are used, the definitions of training, the scale of the investigation, and the nature of the subject for the collection (e.g. employer or employee). In the main, the measures reported in the literature are quantitative measures, for example cost and volume, rather than qualitative measures involving judgements. Most collections of training information face measurement difficulties, including the lack of standards.

Examples of sets of measures relating to training

There are a number of sets of measures in the literature, some relating to training as an input, some for measuring training effectiveness, and some concerned with measuring broader categories of capability resulting from training and other factors. Several sets of measures that may be useful in gathering training information for Government are discussed below.

Inputs – volume and cost

According to the OECD (1997) the two key measures of training – as an input – are *volume and cost* (p 31). These may be collected for the organisation as a whole, for groups of staff, or for individual employees. *Volume* measures include duration (hours), incidence or participation rate among staff (e.g. proportion of employees receiving training during a given period) and intensity (training hours as a proportion of hours worked during some period). Organisational training *costs* are defined by OECD as all the expenses incurred by an organisation in providing training. These include the costs of training personnel, the costs of training facilities, “specific trainee costs” and other training costs (p 33). The OECD provides detailed descriptions of all the factors to take into account in arriving at the costs of these various components (pp 31–44). Arriving at a comprehensive assessment of the costs of training on this basis would be a lengthy and costly process itself. The OECD also notes that one limitation of volume and cost measures is that they do not show the composition of training (p 48).

Training effects and effectiveness

Kirkpatrick (1994) has developed a model for evaluating the effectiveness of training within organisations. It has four levels:

- Level 1: Reaction - a measure of how participants feel about various aspects of the programme (i.e. “happy sheet”, customer satisfaction measure);

- Level 2: Learning - a measure of the knowledge acquired, skills improved or attitudes changed during training;

- Level 3: Behaviour - a measure of the extent to which participants change their behaviour because of training (transfer of training); and

- Level 4: Results - a measure of the final results for the organisation that occur due to training, including increased sales, higher productivity, and reduced employee turnover (Kirkpatrick 1996, p 2).

The difficulty of standardising measurement increases from level to level on the Kirkpatrick scale.

The American Society of Training and Development (ASTD) benchmarking survey also includes questions around “initial skill change” as a result of training, and “follow-up evaluation of performance on course objectives” (with assessments being obtained from participants and supervisors). These measures are similar but not identical to levels one and three on Kirkpatrick’s scale for measuring training effectiveness. Various correlations between learning effectiveness and institutional factors, and learning effectiveness and organisational outcomes, may then be examined (Bassi & Ahlstrand, 2000, pp 12–13).

The scales described above for looking at effectiveness of training focus on effects at the individual and organisational level. However, participation in training and development may also have effects for the economy as a whole. The OECD (1997) summarises the nature of these effects as follows:

- for *individuals:* qualifications, employment, job satisfaction, earnings, career progression;

- for *organisations:* employee morale, absenteeism, labour turnover, productivity, quality of output, production costs, sales and profit; and

- for *economies:* level of structural unemployment, inflation, international competitiveness and economic growth (OECD, 1997, p 20).

Most of these effects are measurable, either directly according to some (relatively) standard classification system (e.g. qualifications) or through a specially designed rating scale or other instrument (e.g. for job satisfaction). While some research focuses on the effects of training on these variables, other research looks at associations between these variables and further participation in training (e.g. training may increase skill levels, and higher skill levels are associated with higher participation in training). Some findings from the research are briefly summarised at the end of this section.

People capability

Organisational capability refers to the ability to produce outputs and deliver services on an ongoing basis. The people capability of an organisation comprises both the quantity (numbers of staff the organisation can access[10]) and the quality (competence of those staff) (SSC, 1999, p 5). It is affected by training and by a range of other factors. Sveiby (1997) defined an individual's competence as comprising knowledge, skill, experience, value judgements and social network (p 35). He suggests that indicators are needed of growth, of efficiency, and of stability for all the intangible assets of organisations, including staff competence. Measures suggested by Sveiby for the growth or renewal of competence include: total numbers of staff-years in the profession[11]; the educational levels of professionals (including qualifications and years of education); training and education costs (including cost of time); and performance gradings or competency assessments (pp 166-168). (Measures of efficiency include the ratio of professional staff to support staff and the "value-added" by professional staff, while measures of stability include average age, tenure within the organisation, and turnover rate for professionals (pp 169–174)).

Other combinations of measures

Fitz-enz (1984) discusses the measures of training and development that may be usefully employed within organisations. He notes that three basic measures of training are *cost*, *change* and *impact*, where cost is the expense per unit of training delivered, change is the gain in skill or knowledge or positive change in attitude by the trainee, and impact means the results or outcomes from the trainee's use of new skills, knowledge or attitudes that are measurable in monetary terms (p 227). These categories overlap those discussed above. Fitz-enz also provides detailed information on what should be included in each of these measures and notes, for example, that costs should be estimated through all phases of training: diagnosis, development, delivery and evaluation.

Comment on sets of measures

These differing sets of measures reflect differences in the underlying concept of training, and the purposes for which training is being measured. The OECD manual focuses on highly standardised measures of training as an input, which can be used in international comparisons. Fitz-enz considers training as part of the human resource management system within an organisation, and focuses primarily on measures that will be useful to the management of organisations. Kirkpatrick's model for evaluating training provides one such measurement scale. Sveiby also has an interest in the performance of organisations, but with a particular emphasis on all the different components that demonstrate trained and "competent" staff. Aspects of all these ways of conceptualising and measuring training are

[10] "Staff" is used as shorthand for the permanent workforce together with the supplementary workforce of casual staff, contractors and consultants.

[11] Sveiby defines the professionals of an organisation as the people who plan, produce or present the products or solutions of the organisation (Sveiby, 1997, p 165).

relevant to this project, since Government may have an interest in training as an input, in knowing that training dollars are well spent in terms of change and impact, and in knowing about the overall capability of the State sector workforce (as discussed in the next two sections).

Examples of measures applied in surveys

Some examples of the measures actually used in surveys and other forms of training information collection are provided below. A summary of research findings is provided towards at the end of the section.

Informal training

While most investigations of training measure formal training, have been some attempts to quantify the level of informal training. For example, Frazis et al (1998) investigated both formal and informal training, using data collected from establishments (with 50 or more employees) and their employees through the 1995 US Survey of Employer-Provided Training. Employees were asked to record any activity in which they were taught a skill or were provided with new information to help them to their job better over a 10-day period. On the basis of descriptive information provided about the activities, they were then classified by the researchers as formal training, informal training or self-learning.

Volume and cost of formal training

Statistics New Zealand's Education & Training Survey collected information from individuals who worked for salaries or wages at some stage in the 12 months before the survey in September 1996. The measures of training that were used included:

- median hours of formal training by participants (whether in-house or external*)*;
- participation rates (number and percentage of people who participated in education and training of a given form at least once over 12 months prior to interview) by gender, ethnicity, level of education, age, full- or part-time status, occupation and industry; and
- employer support – in-house training provision, payment for fees and/or study leave for qualifications (Gobbi, 1998).

A study of Employer-Sponsored Training in Canada (Jennings, 1996) used similar measures of the incidence and duration of "structured educational and training activities taking place in formal settings", and of the level and nature of employer support (p 8).

Research looking specifically at equity issues in training has also used measures of incidence and duration. For example, the measures used by Veum (1996), who investigated gender and race differences in company training in America, included numbers receiving "formal" training over a five year period, number of training events, total hours spent in training, and "intensity" of training (measured through hours of training as a proportion of hours worked). In an earlier paper drawing on the same data source (U.S. National Longitudinal Survey of Youth), Veum (1993) also looked at the sources of training, including employers, business schools and vocational institutes.

A survey of (formal) training carried out for the New Zealand Employers Federation (Decision Research Ltd, 1997) used measures of incidence (number of employees receiving training as a proportion of total employees); training expenditure (excluding cost of trainees' time) as a percentage of annual gross payroll; training by job or functional area; and the type of skill areas in which training was being provided. The survey also asked about the types of providers being used (in-house specialist trainers; other in-house staff; tertiary institutions; other trainers or training consultants). While the survey focused on formal training, respondents were also asked to comment on the relative importance of formal and informal training in their businesses.

Comment

The measures used most commonly in the above studies are measures of volume (e.g. incidence and duration) of structured (formal) training. Measures used somewhat less frequently include formal training expenditure (sometimes including overhead costs and staff time, sometimes not), training expenditure or volume for different sub-groups of staff, and information on training sources (in-house trainers, external providers, tertiary education institutions). The measures chosen for the studies depend on the type of analysis required. For example, research on equity in training requires information about who is receiving the training, while research looking more globally at the overall amount of training requires as a minimum either a volume measure (used more frequently when information is collected from training participants) or expenditure measure (used more frequently in collections from employers). The training expenditure measure most easily collected from employers is course fees for formal training courses, but this can be misleading in missing information on the salaries and other costs of internally provided courses (which may comprise a significant part of an employers' training strategy), and the time of staff participation. Ideally, a measure of the overall volume of training would include direct costs, overheads (e.g. training staff salaries) and the time taken by staff attending training courses. Informal training is left out of this equation, but could be captured in a description of activities rather than any attempt to quantify something that, by definition, would be difficult to measure.

Effects and effectiveness

Relatively few studies contain measures of effectiveness. One survey that did look at effectiveness used Kirkpatrick's (1996) evaluation model of training (see earlier description) to examine the nature of evaluation of training in government departments in New Zealand (Robertson, 1999).

The information collected through the American Society of Training and Development benchmarking survey is used to investigate relationships between training investments in, and the outcomes (in terms of job performance) of, formal training activities, where formal training is defined as being planned in advance with a structured format and defined curriculum. The ASTD data has also been used to investigate whether better training outcomes are associated with improved organisational performance (with the results indicating a positive link between training and the performance of the firm) (Bassi & Ahlstrand, 1999, p 13).

Measurement issues

Many difficulties in the measurement of training have been alluded to in the above discussion. These difficulties include problems associated with varying definitions of training, the lack of standardised measures of training, the lack of training information kept by many organisations, and methodological difficulties in the interpretation of findings about training results. The measurement process itself may also have unintended consequences. These issues are discussed briefly below.

Differences in definitions and methods of collection

The OECD notes that it is difficult to compare cross-country data because of variations in measurement methods. It states that the definitions (if any are provided) and questions on training, reference periods, population or enterprise coverage and survey methods vary greatly between countries (OECD, 1991, p 15). Similar differences are found between studies within countries, often because of the lack of standardised measures.

Omission of information on informal training

Informal training is frequently omitted from measures of training. As noted by Long et al (2000), this means that most training is not measured:

> Almost all the research is about formal training – learning that takes place during a time set aside from normal work. Many people, though, learn informally while they are working, by watching workmates, asking questions, or just trying to figure things out for themselves. Little is known about this type of training – except that there is a lot more of it than formal training (Long et al, 2000, Exec. Summary, p. ix).

There is limited evidence as to whether formal and informal training are complementary or substitutes – and therefore whether relying on measures of formal training (as most surveys do) provides a reasonable estimate of actual differences in training. It appears that there may be inter-country differences, for example relatively greater reliance on informal training in Japan (Van Buren & King, 2000, p 3). However, OCED (1997) notes that there is some evidence that formal and informal training are positively correlated, so that relative levels of training for different countries might not be as greatly affected by cross-survey differences in the extent to which informal training is measured as are absolute levels (p 139).

If formal and informal training are positively correlated (at least within countries) then measuring formal training should provide an adequate indicator of relative levels of the overall volume of training.

Availability of information

A number of researchers have experienced difficulties in accessing training information from employers. In their survey of New Zealand employers, conducted on behalf of the New Zealand Employers Federation, Decision Research Ltd found that nearly two-thirds of respondents did not have a specific training budget and that many had difficulty in providing some or all of the data. Most small and medium businesses, for example, could not provide breakdowns of training costs by occupational category. Larger organisations often had a devolved decision-making structure and no longer collected the types of information needed to complete the survey. Telecom, for example, was unable to take part in the survey because they had no centralised training function that collected such information. They commented that statistics such as "numbers trained" and "dollars spent" have low to insignificant validity as indicators of learning and value added development in an organisation. Some categories of information (such as cost of trainees' time), which had been included in a similar 1994 survey, were removed because too many employers had had difficulties providing the data (Decision Research Ltd, 1998, p 13).

Similar reasons were given for not participating in research to investigate training in New Zealand government departments. Reasons provided by 10 departments (from 26 contacted) for non-participation were that training had been decentralised, training was now delivered at each manager's discretion, nobody was doing the training or the training programme was not formalised. The researcher concluded that it was clear that there was "little continuity in training in government departments and that training professionals [were] a transient segment of the workforce in the Public Service in New Zealand" (Silva, 2000, p 364).

Methodological issues in interpreting results

There are also methodological issues in interpreting the findings of research, particularly research looking at relationships and causality - for example, the effects of training on wages. It is usually difficult to disentangle the effects of training from other factors – e.g. the nature of the person, the job and the enterprise (Long et al, Exec Sum p viii). Continuing benefits over time make it even more difficult to separate out long-term training effects from the effects of other factors on wages, performance or other effects. OECD (1997) notes that it is hard to disentangle the pure effect of training from other alternative explanations of any rise in productivity (p 137).

Measurement error also affects the extent to which valid conclusions can be drawn. For example, Barron et al (1997) found that the correlation between worker and establishment measures of training was very low (about 0.3). They found that establishments reported 25 percent more *hours* of training than did workers, although both reported similar *incidence* of training, and concluded that previous estimates may have underestimated the effect of training on wage and productivity growth by nearly a factor of three (p 527).

General issues associated with organisational measurement

As various writers have noted, what gets measured gets managed. This can mean that organisations focus on those things that are measured, rather than those things that are important. Measurement for its own sake may be detrimental to an organisation focusing on its core purposes and values. Process benchmarking, for example, may emphasise efficiency to the exclusion of results. As noted by Pfeffer (1997), "the pressure to appear better than comparable organisations often promotes a wave of downsizing and cost-cutting … [which] becomes never-ending and in some instances is unaffected by the skills and activities lost in the process" (p 359). Pfeffer implies that reducing human resource management to a set of financial or other quantitative measures would be counter-productive to the core purposes of the function, and probably lead to its demise. Other, non-quantitative indicators of the people dimension of organisational functioning are therefore essential.

Research findings

While the main emphasis of this literature review is on purposes, measures and measurement issues relating to training, a brief summary of research findings is provided below, for completeness.

Formal & informal training

Studies consistently find that there is more informal than formal training. For example Silva (2000) found that the more informal activities and short-term on-the job training activities were most commonly used in New Zealand government departments; a majority of employers saw informal training as more important than formal training in the research conducted for the New Zealand Employers' Federation (Decision Research Ltd, 1997, p 11); while Frazis et al (1998) found that workers spent about four percent of their working hours in either formal or informal training, and that about 70 percent of the training over the period was delivered through informal instruction. Findings from the employer data indicated that the incidence of formal training tended to be higher at establishments that were larger, had lower turnover, had higher numbers of benefits, used more alternative workplace practices and used contract workers to supplement their core work group (p 12).

Access to training and levels of employer support

Several studies have found that participation in training varies for different groups of workers. For example, Gobbi (1998) found that younger people, people with higher qualifications, and some ethnic groups (New Zealand European / Pakeha and "other" – i.e. not Pakeha, Maori or Pacific Islander – were more likely to participate in education or training (p 109). Jennings (1996) also found that access to employer-sponsored training was unevenly distributed among the workforce, generally favouring more advantaged workers (high income, white-collar workers with post-secondary education) (Abstract, p 3). Different groups of workers appeared to receive different types of employer support – frequent short training sessions for older and more experienced workers, and infrequent broader skills training for younger and less experienced counterparts. The authors noted that one public policy implication of the study was that a lifelong learning regime that relies strongly on employer-sponsored training may widen the skills gap (Jennings, 1996).

Veum (1996) also noted that gender and race differences in the sources and intensity of training appear to be associated with other factors (such as hours worked, education levels and type of work). He concluded that examining training in isolation provides a misleading indicator of discrimination (Veum, 1996, p 43).

The OECD (1999) report summarises the results of international and national surveys of training. It notes that overall, men and women appear to participate in job-related training at fairly equal rates, although men may receive more financial support from their employers; and that training tends to reinforce skill differences resulting from unequal participation in schooling (i.e. those with more education and better skills receive more training) (p 136).

Effectiveness of training

The results of a survey of New Zealand government departments indicated that there was relatively little evaluation of effectiveness of training, even at a rudimentary level. The author commented that there was little pressure to prove the benefits of training in terms of quality, productivity and service or to gain feedback for planning or decision making purposes (Robertson, 1999, p 368). Measuring training and development within and across organisations could provide one such source of pressure for closer scrutiny.

Most empirical research has found a positive impact of training on earnings growth, with some studies concluding that the earnings gains from training are likely to be significantly larger for groups of workers less likely to be trained (e.g. less skilled workers). Empirical evidence on the relationship between tenure and training, and turnover and training, is blurred and trainees (apart from apprentices) typically do not undergo periods of lower earnings (further arguments against the validity of Becker's economic model of general and specific training) (OECD, 1999, pp 136-138).

Discussion

The literature on training concentrates on measuring training as an input, and in some cases on drawing conclusions about features such as volume and cost for different groups of workers. It highlights the many difficulties in measuring training, including the lack of common definitions and standards. There is relatively little research on the effectiveness of training, whether for the individual or for the organisation, and a note of caution about drawing inferences of causality in research on training effects.

Areas not covered by the reviewed literature include the relative merits of measuring or not measuring training (in terms of the incentive effects on investment in training), and measuring the longer-term costs of *not* training (for example, choosing to restructure rather than upskilling existing staff). These areas could provide topics for future research.

While the literature is useful for this project in providing guidance on ways of conceptualising and categorising training, and associated training measures, it provides only limited information on the purposes for which governments might be interested in training within its agencies. Examining those purposes in greater detail, together with developing a draft framework for measuring training, is the subject of the next section.

Developing the Framework Phase One

Research methodology

The research for this project was exploratory in nature, to inform an area not widely researched to date. Therefore an iterative process was adopted, using key informants chosen for their expertise and interest in the area of training in government departments.

The fieldwork was undertaken in two phases. The first phase involved one-hour structured interviews with a small number of officials from government departments to ascertain their views on the purposes for which Government is likely to have an interest in information on training and development in its agencies, possible measures, agency coverage, and collection and reporting mechanisms. An interview schedule was developed (appendix one), and piloted with three officials in SSC before wider use. The schedule included a working definition of training as well as five interview questions covering the areas above.

Officials were invited to participate from government agencies that had recently been involved in work on training and development in the State sector – either in policy development or through the activities of the Public Sector Training Organisation. These agencies included the Ministry of Education, the Education Review Office, the Department of Labour, Te Puni Kokiri, Treasury, Skill New Zealand, and SSC. Participation was also requested from a Public Service Association (PSA) representative because of the Government's emphasis on Public Service partnership with the PSA, and PSA interest and involvement in this area.

Officials from Te Puni Kokiri and Treasury were not available for the first phase of the research, but did participate in phase two (as described later). In all, eight interviews were held for phase one, involving one or two representatives from each of the organisations listed. Interviews were transcribed from tapes, and their responses summarised (see below).

The results from the interviews from phase one of the fieldwork were used, together with the background facts in Current Information Sources and the Literature Review, to develop a draft framework for measuring training and development in government agencies (see Appendix Two).

The second phase of the fieldwork involved obtaining feedback from a wider group of officials on the initial draft framework, and making consequent revisions. The methodology for the second phase of the fieldwork is described more fully in the section on Framework Development Phase Two.

Summary of interview responses

Purposes for collecting information (question 1)[12]

Those interviewed expressed different and sometimes contradictory views on the purposes for which governments might be interested in having information on training and development in government agencies.

At one extreme was the view that Government would have no interest, and in fact some aversion, to receiving such information because it would inevitably be distorted by both politicians and the media into a beat-up on waste of public money. This was because of the public perception (shared by many politicians) that people hired into the State sector should already have the skills needed for the job, and further investment was therefore wasteful.

At the other end of the spectrum was the view that governments both should and would be interested in a wide range of information on training and development mainly because of their role as “owners” or “trustees” of government agencies. This gives them an interest in all the investment decisions in those agencies, including investment in training and development, and in the contribution of those decisions to improving the capability and performance of the sector.

Both of these views, while opposing, can be regarded as demonstrating concern about the proper stewardship of public money but with different perspectives on how to address that issue. They both focus on information about investment in training.

Overall, almost all of those interviewed thought that there were some purposes for which Government would want information on State sector training. These purposes are summarised below, using the words of the interviewees as far as possible, with an indication of the proportion of those interviewed who described each purpose.

Processes & behaviours/public accountability (Half of respondents)

Several respondents commented that in the public sector, process and appropriate behaviour are particularly important. Process is often what becomes politically sensitive, rather than outputs or outcomes. Training and development are part of that process. Government needs to be assured that departments are operating training (and other) policies and practices within some sort of framework that has external rigour, and that potential political risks (including unwise or unauthorised expenditure and inappropriate behaviour for those in the Public Service) are being managed.

A couple of respondents commented that government agencies’ obligations as good employers are also part of the importance of process – the ways things are done – within government, and that those obligations include skill development for employees.

Appropriate levels of investment in training and development (Half)

Half of the respondents considered that Government may be interested in information on the nature and levels of investment in training. However, some of those interviewed thought that

[12] See appendix one for full wording of questions.

measurement of expenditure on training is so problematic (especially in terms of overheads and time) that expenditure comparisons would be of limited value. These interviewees thought that Government would have more interest in results (in terms of whether the department could do the job) than in levels of investment.

Effectiveness of training (Most)

Most of those interviewed said that Government is likely to want to know whether training and development activities are effective in producing the desired results. Departments and agencies should be clear about what they expect to achieve by investing in training, and how they will know when that has happened. Ideally, there would be pre- and post-training measures, although in many areas of adult training (apart from literacy) such measures are complex and difficult. At the individual level, results could be assessed in terms of changes in competencies (whether measured through the achievement of unit standards or through organisational competency systems). Respondents acknowledged that often drawing a causal connection between the training and the results was difficult, particularly at the organisational level where performance is affected by many other factors. One respondent commented that, in general, ex post analysis and evaluation is sadly lacking for training and that upskilling HRM practitioners in the sector would help.

Skills base and overall capability of the government sector (Most)

Several respondents said that Government needs information on its human capital stock, or skill base. This includes the skills of those joining its agencies – for example qualifications, pre-employment training and experience, and the mix of age groups (for experience and renewal). It may also be interested in information on career paths within the service. Overall, it needs to know about current levels of capacity and capability, and that there are strategies in place to address deficits that are likely - currently or in future - to have an adverse impact on its ability to deliver.

A couple of respondents emphasised the fact that Government has a broad interest in the health and well-being of the government sector as a whole, rather than as a series of atomised units. Human resource measures could serve as one proxy for measuring the quality of the overall system, since the public sector doesn't have the bottom line measures (e.g. shareholder value, market share, profit and turnover) that the private sector uses.

Leadership by the State sector in training (Few)

A couple of respondents stated that Government may have an interest in State sector training because it sees it as setting an example for the private sector in the provision of training. With some governments, that may extend to an interest in government agencies developing a pool of staff for the wider economy. One interviewee mentioned that while overseas research indicates that governments typically undertake more training than the private sector, this may not have been the case in New Zealand over the past 15 years or so, because of the absence of centralised training typical of other jurisdictions. Another respondent, however, thought that since government is a large employer with a more highly educated workforce than the private sector, research evidence indicates that it is likely to provide more training for its staff (this conclusion is supported by the literature review).

Policy interest (Half)

Half of those interviewed stated that Government has an interest in how its education and training policies are working in the State sector as well as in other sectors. Where government agencies have been treated differently from other sectors (for example, in being excluded from the Industry Training Fund until recently) it would be useful to be in a position to track the effect of changed policy settings on levels of training and skills.

Two respondents thought that the current Government would have an interest in knowing whether State sector staff training is directed towards the skills needed for implementing its policy priorities, for example reducing disparities between different population groups. A couple of respondents also thought that Government would have an interest in information on equity issues in training participation for various groups within the population, in the public as well as the private sector, as an input to policy development.

Types of information needed to address these purposes (Question 2)

Most of those interviewed considered that the type of information needed from government agencies for any reporting to Government on training would be high level, aggregated data and information rather than a mass of detail. This was both because of the risk of reverting to input control, and because Government's interest is mostly in the "big picture". However, detailed information within agencies would be needed to support high level reporting.

Several respondents stated that clear, consistent definitions of training would be required, both for aggregation and for benchmarking. Others considered that as long as the measures used by each agency met quality criteria (e.g. valid, reliable, legitimate, fair and useful) then they should be acceptable. In most cases, it was not considered feasible to collect any quantitative data on informal, on-the-job coaching and development, although the importance of this type of skill development was acknowledged. More detailed feedback on feasibility issues was sought in the second phase of fieldwork, and is reported in the section on Framework Development Phase Two.

Processes and behaviours/public accountability

Suggested measures (which could be used internally, or for external reporting) included:

- assurance that there are quality systems, policies and procedures in place that mitigate against unauthorised or inappropriate actions and expenditure relating to training;

- information to demonstrate that training and development policies and practices meet good employer requirements;

- information on how pre-employment and induction training equip staff with the core knowledge, skills and attitudes needed for work in the Public Service or wider State sector (possibly linked to Standards Board reporting); and

- information about what is being done collectively (i.e. in cooperation with other State agencies) about pre-employment training, induction, policy advisor development, senior management development, succession management, or other initiatives relating to training and development.

Appropriate levels of investment in training

Respondents suggested a mix of quantitative and qualitative measures to demonstrate appropriate levels of investment. They included:

- *expenditure* on training (e.g. as percentage of personnel budget). Possibly level of employer support for training compared with staff contribution. Possibly include overheads as well as direct expenditure (many definitional issues about what is counted);

- *types of training* undertaken in each organisation (skill areas and levels, locally or nationally, generic to Public Service or specific to operational needs of organisation);

- what proportion of employees' *time* is spent on formal training; possibly amount of time for different types of training;

- assurance about *value for money* from the chosen pattern of expenditure on training, compared with other uses of the training dollar (e.g. numbers receiving training at what cost and with what performance results);

- who is *providing* the training (universities, polytechnics, private training providers, overseas providers) and some indication of how the amount of funding provided to each of these providers stacks up against the amount and quality of training provided;

- who is *receiving* the training; and

- *staff perceptions* of the level of investment in their training.

Training results and effectiveness

Information suggested by respondents as being useful to indicate training effectiveness included:

- assurance that there is an *evaluation framework* in place and implemented. This evaluation framework may include: an organisation-level needs analysis (competency gaps); individual needs analysis and targets; post-training assessment at individual level and evaluation against targets at the organisational level (e.g. turnover, absenteeism, staff satisfaction);

- information on the performance management system, and how formal and informal training and development are addressed as part of performance management, both in theory and in practice;

- summarised feedback on courses (e.g. feedback on management courses collated by Management Development Centre);

- assessment of results at individual level, including assessment against unit standards, where available, or other indicators of learning outcomes (e.g. competencies); and

- cost-benefit analyses of training.

Skills base and capability

Indicators suggested by respondents included:

- the qualifications of those who join (and have joined) the sector (e.g. the proportion with degrees). Data on unit standards should be included, to provide a baseline for measuring changes over time;

- a report on what capability gaps need to be addressed to be effective in delivering services to the public and the Crown, and the strategies for bridging those gaps. Information on trends over time. (Would also want information on costs and evaluation); and

- narrative account from each department (or agency) on the state of human capital (how well-trained it is, for example in terms of skills and qualifications and what is being done to enhance its value).

Leadership by the State sector in training

Information suggested in this area included:

- comparisons of training expenditure between State and private sectors overall and for particular occupational groups;

- comparisons of qualification and skill levels of public sector with private sector for similar occupations; international comparisons;

- longitudinal studies of career paths of those entering the Public Service, e.g. through Modern Apprentices scheme, graduate recruitment, or from other sectors mid-career; and

- flows of trained people from the public to the private sector (and vice versa).

Policy interest

Suggested information in this area included:

- changes in qualifications in the State sector following eligibility for access to the Industry Training Fund (compared with changes for similar occupational groups in the private sector, where that data is available);

- comparisons of levels of investment in training in New Zealand Public Service with overseas jurisdictions with less devolved management systems (if comparable data is available); and

- detailed data at the individual level (e.g. on age, ethnicity, literacy, qualifications, salary, job category and seniority, and tenure) and on types of training (including non-credentialed training). Could look at both learning outcomes for the individuals (though these are often hard to measure) and labour market outcomes, e.g. income effects, well-being indicators (but have to be cautious about drawing conclusions about causality).

Coverage and responsibility for reporting (Questions 3 and 4)

Views on which categories of government agencies should report training information to Government varied according to participant's views on the purposes for which Government might need this information.

Government agencies to be included

All but one respondent considered that Public Service departments should report some training information. Several respondents also thought that non-commercial Crown entities should also report on training, but probably with less detail than departments. However, what that minimum might be for either group varied: "just skill levels and qualifications", or "just training numbers and expenditure", or "just broad policies on training and development".

A minority considered that it would be useful to have consolidated reporting about training and development for the whole State sector. This would enable comparisons between different types of public agencies - for example Public Service departments, Crown entities and State-owned enterprises – and also allow tracking of changes when agencies move, say, from the Public Service to the Crown entity sector.

Responsibility for reporting to Government

Because of its current role in collecting other information on human resource management, most respondents thought that the information should be collected by the SSC, for analysis reporting of key findings to Government. Ideally, the information on training would be integrated with other HRM reporting, not stand-alone.

However, one respondent thought that instead of centralised information collection and reporting, all government agencies should report on their investment in training and development in the Statement of Accounts in their Annual Report, as part of their public accountability for use of resources. There would need to be clear definitions of what was to be included in "training investment", to enable valid comparisons. The data from the reports could then be drawn on for trend analysis, rather than SSC collecting the information directly.

Agencies other than SSC suggested as having some current or possible future involvement in gathering and reporting information about training in government agencies were Treasury (could collect information on training investment, via the Crown Financial Information System, CFIS); the Ministries of Health and Education (for collection of training data within their sectors); New Zealand Qualifications Authority and Skill New Zealand (training participation and qualifications gained by State sector employees with formal training agreements); Statistics New Zealand (census data and labour force surveys on training and qualifications for different sub-sectors within the State sector); and the Department of Labour (surveys to support government policy on job-related training).

Level of reporting

Views on the level of detail that should be included in any aggregated reporting to Government varied widely. A couple of respondents thought that comprehensive information should be provided on each organisation (at least within the Public Service) but the most common view was that any reporting to Government should be general information at a sector-wide level (e.g. whole of Public Service). Some thought that while it would be useful for SSC to collect, and form judgements on the basis of, relatively detailed information, any reporting to Government should be on an exceptions basis only (e.g. key areas of risk).

Respondents were doubtful about the value of departments and agencies advising their own Ministers separately about training. They thought that Ministers tended to be interested only in "purchase" – delivery for today – rather than "ownership" – investing in longer-term capability for tomorrow. Some saw the SSC, and Minister of State Services, as having responsibility for safeguarding the ownership interest. In addition, it was pointed out that information reported separately by each department or agency to each Minister would "get lost", and not allow any overview, comparisons or trend analysis in the longer term.

Information useful for Chief Executives (Question 5)

Respondents thought that chief executives would be interested in similar information to that described as useful for the Government, but at a greater level of detail and with more information on individuals. Some acknowledged that the quality of information on training - and other areas of HRM - that is reported to chief executives often depends on the quality of the Human Resource Information System and the calibre of HRM staff in the organisation.

One respondent provided a set of questions for which a chief executive of a large organisation would be likely to need answers. Points made by other respondents have been incorporated in the suggested set of questions below.

The chief executive of a larger, multi-disciplinary agency would want to know:

- What is the nature of my workforce?
- What skills do we need?
- Can we recruit these skills from the market, do we need to build our own, or a combination of both?
- When we recruit staff, what level of skills are we getting? What is the nature and level of their training before they joined my organisation?
- What sort of induction training do we provide, relating to both the department itself and its wider role in the Public Service? (Do they just get the Code of Conduct to read, or do we provide something over and above that?)
- What forms of basic training do we provide, and in my judgement is that adequate or does it expose me to risk? Do we provide consistent training for staff in our different regions?
- What ongoing training and skill refreshment/skill upgrade to we provide?
- What is the career path in this organisation, and how do people get promoted to the next level of attainment?
- What management training is happening at various levels of management (supervisors/first line managers etc)? What is our succession plan?
- How well is training integrated into our performance management system?
- What do we do about mentoring, counselling, coaching and secondments, and what are the results?
- How well do other aspects of the organisational culture and systems support the behaviour change produced by training?
- How do our training levels and results compare with other organisations? Are there opportunities for cooperation with other agencies to get greater value for our training investment?
- Overall, is our investment in training achieving the objectives we've set in our corporate development strategy? Are good employer and other objectives being met?

Feasibility of collection

Several of those interviewed commented on the difficulties of obtaining good quality information on training, both because of definitional and measurement issues and because of the lack of systems within organisations for capturing this information. Many stated that departments should be gathering this information themselves anyway. However, just what "this information" might be varied considerably between respondents, with some responses directly contradictory, for example: "keep away from measuring training expenditure – there are too many measurement issues about what's included – but focus on training outcomes"; and "results and effectiveness would be in the too hard basket – focus on overall training expenditure and levels".

A number of respondents described the need for a staged implementation process, linked to existing collection and reporting processes, and commencing with one or two high level measures. Gaining agreement on what those measures should be could well be problematic, given the range of different views expressed by those in this small group of officials.

Development of the draft framework

The draft framework in appendix two was developed on the basis of these interview results, together with the literature review and background facts about current information sources. It provides a set of suggested measures for different aspects of training, outlines related measurement issues, and summarises possible reporting mechanisms and scope issues.

The purposes, aspects and goals in the draft framework were developed primarily from the interview results. The two overarching purposes of addressing the "ownership" and "policy" interests of Government respectively reflect the separation in the interview responses between the Government's interest as a result of its role as "owner" or "steward" of its agencies, and its interest in knowing how well its generic training policies are working to achieve desired results in the State sector (as in other sectors). The four aspects of ownership, developed from the interview response categories (set out under question 1 above) closely match the four dimensions of ownership set out in earlier work published by SSC[13].

The indicative measures and measurement issues were drawn from both the interviews and the literature, with a mixture of quantitative and qualitative measures included, as suggested by interviewees. The measures for "integrity" (relating to sound policies and procedures, induction in public sector ethics & values etc) came solely from the suggestions of interviewees. The investment measures (expenditure and volume measures for different training types and groups) were suggestions based primarily on the literature, for further discussion of feasibility with the second set of interviewees. The effectiveness and capability measures were derived jointly from the interviews and the literature (particularly with respect to Kirkpatrick's measures of training effectiveness and Sveiby's measures of staff competence, respectively). Measures relating to the policy interest (labour market outcomes) came primarily from the literature (but were subsequently dropped as a separate category – as discussed in the next section on revision of the framework).

The collection and reporting mechanisms and scope for each aspect of training were developed using information from the interviews and knowledge of existing information sources. The "possible mechanisms" section identified possible ways in which the different types of training information could be provided to Government (e.g. via departmental performance reporting to SSC (integrity and effectiveness), possible inclusion in future overview reports such as that of the Standards Board (integrity), inclusion in the Crown Financial Information System operated by the Treasury (expenditure), or inclusion in the SSC Human Resource Capability Survey (capability). The scope issues listed in the draft framework relate mainly to the fact that most HR information collection at present is from Public Service departments, rather than other agencies in the wider State sector, and that this is likely to continue for collections operated by SSC.

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[13] These dimensions were Strategic Alignment, Integrity of the Public Service, Future Capability, and Cost Effectiveness over the Long Run (Interdepartmental Working Group on Ownership, 1995)

The draft framework served primarily as a basis for further discussion. It did not set out clear recommended measures for reporting to Government. Respondents in the next round of interviews were asked for their views on the structure and content of the draft framework, and on criteria to be applied in selecting the most appropriate measures for reporting to Government.

Framework Development Phase Two

Research methodology – phase two

Phase two of the empirical research involved collecting feedback on the draft framework developed during the first phase. It was originally proposed to collect feedback through focus groups, and this approach was trialled with a group of SSC staff. However, the timing of the groups (late November) proved to be extremely busy for many officials, and several expressed a preference to be interviewed at their office or by phone. Two focus groups of four participants each were set up, as well as some individual interviews. In both of the focus groups, two or three people withdrew on the day in question so that there was little opportunity for group discussion. Most of those who withdrew were subsequently interviewed individually.

In contrast to the first interview group, those involved in the second round of discussions worked predominantly in human resources and corporate services, rather than in policy roles. This meant that they were able to comment in greater detail on the feasibility of providing the types of information proposed in the framework. Officials were approached from a variety of agencies – large and small, service delivery and policy. Although staff from Crown entities were invited to participate, none did so beyond a brief discussion. The framework was also sent for comment to those who participated in the first round of interviews, and two of these people were interviewed for phase two as well.

Twelve officials from nine different organisations participated in the feedback interviews and discussions. The Public Service departments included Conservation, Courts, Environment, Prime Minister & Cabinet, Te Puni Kokiri, State Services Commission, Treasury, Women's Affairs and Youth Affairs. A representative from the Public Service Association was again included. A list of discussion questions was provided ahead of time (see appendix three). Brief notes were taken during the feedback discussions, and summarised as a basis for modifying the framework.

Feedback summary

While respondents found the draft framework useful in providing a focus for discussion around the measurement of training, some explanation was often needed either of the overall structure or of a particular aspect. It was too “dense” with information to be user-friendly. A summary of comments on specific aspects of the draft framework is given below.

Purposes and goals for measuring training and development

The majority agreed that the headings (integrity, investment, effectiveness and capability) provided under “ownership” were useful and appropriate, and that governments would be interested in these four aspects of training in government agencies. The separation of ownership and policy interest often needed explanation.

The main focus of the discussions was on the four aspects of the ownership interest, reflecting the fact that those involved in this set of discussions came predominantly from corporate rather than policy backgrounds (and also reflecting the primary focus of this research). Several people commented that the four dimensions of ownership were at different levels and inter-related (e.g. capability a result of the others). A hierarchy of headings was suggested. Several interviewees thought that the Government would be interested primarily in capability (particularly in instances where there were shortfalls in performance). While one of these respondents thought that Government’s interest in training investment would be no greater or different than for other areas of government expenditure, others considered that Government would have a particular interest in training investment and its effectiveness, sometimes for specific groups (e.g. senior managers).

The most problematic area of the draft framework was “integrity”. Several respondents commented that while integrity could be seen as an aspect of capability (and of the other aspects of ownership), it was worth keeping separate because of its particular importance in the State sector, and because it was qualitatively different. One respondent suggested that integrity be separated into two dimensions: one at the agency level (that fundamental structure of training is sound in an agency); and the other at the sector-wide level (for shared ethos and attention to the interests of the sector or nation as a whole, not just the interests of a specific agency). The ethical behaviours of individuals would then be identified as an aspect of capability. Integrity, as expressed in the draft framework, appeared to cover too many different areas: sound infrastructure of policies and procedures; systems to generate a collective ethos across agencies; and ethical behaviours.

As noted above, there was relatively little discussion on the policy interest as a purpose for governments wanting information on training and development. Involving the State sector in the industry training strategy (and eligibility for funding) and in the Modern Apprenticeship Programme were commented on as important by a few – with a consequent need to measure effects. Some said it would be useful to be clear about the current Government’s policy on the role of the State sector in providing training for the benefit of the whole New Zealand labour force. They saw this as happening already in some of the larger operational departments, for example in Auckland.

Indicative measures for each goal

Respondents were asked for comments on the proposed measures, and on the ability of their organisations to provide the relevant information. This was to gain an indication of the feasibility as well as desirability of the measures.

General comments on proposed measures

There was general agreement that the proposed measures would provide the information needed to assess whether the stated goals were being achieved. Some interviewees commented on the level of overlap between the measures (as between the goals), for example the training evaluation framework (under effectiveness) could be seen as part of the sound training policies and practices (under integrity).

Very few additional measures were suggested, although some additional ideas were generated as respondents talked about what they collected in their own organisations (see below). A few people proposed a measure of staff satisfaction with their training and development (as one way of gauging the effectiveness of informal as well as formal training, and possibly as an indicator of the amount of informal training). Several commented on the importance of planned opportunities for training application in the workplace, and considered this should be included under the effectiveness heading. A number talked about the difficulty of coming up with satisfactory measures of capability, and said that measures of organisational performance might also be needed to demonstrate whether there was a capability problem. All thought that a detailed cost-benefit analysis of training investment would be problematic for many reasons, including the fact that the costs and benefits occur in different time periods.

Several interviewees asked whether some minimum standards or benchmarks would be developed (e.g. for what would be regarded as “sound” training policies or level of expenditure on training as a percentage of training and development). While some of these respondents thought that specific standards would be useful, more expressed concerns that any one measure in isolation could be misleading and that the context (in terms of type of work of the organisation) and the interaction of measures was more important.

Ability of organisation to provide information

Most respondents said that their organisations would have difficulty providing some or all of this information, either because it was not collected at all or because it was held at a branch or local level, not at a corporate level for the whole organisation. Specific comments on the ability to provide the information are set out below.

Integrity of policies, systems and behaviours

All had training policies in place, and most linked training and development with the overall performance management system including some form of training needs assessment, training plan development and follow-up. However, they did not all have any corporate oversight of how well the system as a whole was working, whether planned training activities were in fact undertaken, and with what results.

Some had very formal and comprehensive induction processes, while induction was acknowledged to be pretty sketchy in other organisations. In some cases, induction (and ongoing training) included explicit attention to ethics and values, in other cases it did not. Breeches of ethical (and other) standards tended to be used in a learning and development process, rather than formally recorded (unless they involved breaking the law).

About half of those interviewed commented on sectoral measures, or on training and development beyond their own organisation (including the use of secondments as a means to offer staff in small agencies the opportunity to develop additional skills, as well as to bring in new skills from other agencies). Some commented that Public Service-wide training initiatives would be useful, but difficult for departments (outside SSC) to develop and fund. (The Management Development Centre and Public Sector Training Organisation do coordinate some training initiatives).

Level of investment in training

Few of those interviewed collected information on the amount spent on formal training courses by individual at the corporate level, although this was often collected within branches or divisions. Some had an overall target for the percentage of personnel budget spent on training, but not all subsequently reported against that target at the organisation level.

Occasionally an EEO analysis of participation was done for a specific course, but there was little if any regular analysis of training and development participation, expenditure (or results) for different groups. This was partly because there were usually no systems in place to make the collection of individual training information straightforward at the organisation level. In addition, small numbers in many departments could make drawing conclusions problematic.

One person commented that excellent training records were kept for those areas where there was a possibility of prosecution in the event that staff were inadequately skilled.

Almost all of those interviewed had time-cost systems which could provide information on hours spent on formal training, usually combined with time spent on conferences. However, collecting data on informal on-the-job coaching and development would be problematic, even if desirable. A couple of respondents suggested that it would be useful to collect information on job-specific training separately from longer-term career development, to the extent that was possible.

Effectiveness of training

Most (but not all) had a system of training needs assessment (linked to performance and competencies), training plans and some level of review, as part of the overall performance management system. Not all collected information on the operation of this system at the corporate level. Many commented on the difficulty of evaluating effectiveness of training and development in a meaningful way, beyond the immediate reaction to a specific training course. A number commented on the importance of opportunities for application of training, and that ensuring that these happened was both a staff and management responsibility. Evaluating the effectiveness of training in contributing to organisational development and performance was seen as difficult to do in any systematic or integrated way. Similarly, evaluating the effectiveness of significant expenditure on management development, or expensive overseas courses, was seen as problematic, particularly because the benefits may be realised over a decade or so.

Several commented that sharing of information on the effectiveness of different courses and providers was useful – at least within departments (where often this did not occur), and possibly between departments. The Management Development Centre’s feedback from participants on management courses was generally considered useful.

People capability

Very few departments recorded either qualifications or competencies on their Human Resource Information Systems, although several were looking at enhancing their systems to collect more information on training and development. Most were doubtful about the usefulness of recording information on qualifications. One person also cautioned that collecting data on qualifications could imply that qualifications are always necessary, which could disadvantage EEO groups (this may have more to do with the way the information is used at an individual level, rather than its use for aggregated reporting). In contrast, another said that keeping data on qualifications might become more important with the Government's emphasis on State sector participation in industry training, and the need to demonstrate changes as a result of that participation.

Respondents agreed that identifying current and future skill requirements and gaps, risks, and strategies to address them, should be part of ongoing organisational planning. However, this appeared to be done patchily. Operational departments tended to have more comprehensive and systematic training programmes for their specific operational skill requirements than was apparent for corporate or policy staff. Other factors, apart from training and development, were acknowledged as important in building capability - for example, factors affecting the attractiveness of the organisation as an employer, and incentives for people to remain.

Measurement issues

Most of those interviewed agreed with the measurement issues that were listed in the draft framework, for example that informal training would be too difficult (and costly) to measure on any ongoing basis, and that standard definitions would be required. The varying classification systems used by departments for defining and measuring competencies would be an issue in collecting and aggregating competency data.

The fact that any one measure is inadequate on its own was again stressed. In particular, collecting information on dollars or hours spent on formal training are problematic both because most on-the-job training (which probably confers the most benefit) is excluded, and because information about the organisational context is needed as well. The current workforce may have a number of "non-performers" or people whose skills need considerable upgrading because requirements have changed. These sorts of contextual factors need to be taken into account in reporting on training investment levels across agencies, even when agencies are grouped according to workforce characteristics.

One person commented that the fact that some departments do not collect much if any data on training was not valid as an excuse for not providing training information. The issue may be more around difficulty in providing information because it is not kept at corporate level, rather than because it is not available within the department at all.

Collection and reporting

These respondents confirmed the view of the earlier group that if some coordinated information collection is undertaken in this area, it should be done by SSC. Collection of information from agencies in the wider State sector was touched on to only a limited degree. Some commented that Crown entities would mainly report to their Boards, rather than to any external agency (except perhaps for some collection of information from agencies in the education and health sectors by their respective ministries for workforce planning purposes).

A few people commented that while governments could at times have an interest in information on training in their agencies, this would be unlikely to be a strong or ongoing interest. Rather than regular reporting to Government on training and development in its agencies, there should be the capability to report when and if the need arose. However, most respondents thought that regular and relatively detailed reporting on training and development should be provided within departments and other government agencies for their own senior management teams[14].

Usefulness for Government and for government agencies

Government

The majority of respondents indicated that the main focus should be on capability – to provide assurance that government agencies are thinking about capability gaps and what they are doing to address them. This also fits with the SSC role in relation to Public Service departments, as advisor to Government on ownership issues in government departments (among other roles).

Government agencies

Some respondents said that they found discussing the framework useful in thinking about measuring training and development in their own agencies. Others commented that it would be useful for chief executives to be able to do comparisons with similar organisations, for example, on training expenditure averages, patterns and trends over time.

Some of the measures would be useful to share across agencies to stop reinventing the wheel. They could lead to more shared development of policies and implementation. Several mentioned the wastefulness of everyone developing separate sets of competencies, when many of the elements were generic. Shared information (between agencies as well as within agencies) on the effectiveness of different courses was considered useful (although this is done to some extent at present by informal networking). However, a couple of respondents thought that there was no value in sharing or benchmarking information in this area.

Decision criteria

Respondents stressed that there should be very clear benefits for Government before any additional data was collected from departments or other agencies. These benefits might include reducing any demonstrable risks from non-collection, or addressing actual performance failures that signal capability failure. Other potential benefits were described as benchmarking good practice (though, as previously mentioned, there were a couple of opposing views on the usefulness of this) and enhancing performance through requiring attention by departments and other agencies to these areas.

High on the list of costs to be considered were compliance costs, which may differ for small departments from large, regionally based organisations. Respondents considered that there would need to be considerable discussion with all departments about their ability to provide the information from their existing systems, and lead-in time if systems development was needed. The impact on workloads for human resource staff would need to be recognised – many feel they are at the limit of what they can do. The SSC would also need to take account of the costs of developing promoting and implementing any new collection. Good practice guidelines might be needed for some of the measures.

Other comments from participants included:

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[14] More details on the nature of those reports was provided in the first round of interviews, summarised in the section on Developing the Framework Phase One.

- “keep any collection small and simple, focused on a few key priorities – don’t turn it into a bureaucratic nightmare”;

- “look at what’s available now, and build on that for short-term (but anticipate development over the longer-term)”;

- “departments need to know what the expectations are around any measures (for example, if they are to be used for benchmarking performance)”;

- “maybe just have one or two quantitative measures, together with a descriptive account”;

- “ensure that the information is used in a constructive manner, which takes organisational size and context into account (rather than a one-size fits all prescription)”;

- “be aware of incentive effects of any measures – they may produce perverse results”; and

- “it may be more important to ensure capability to provide training and development information if needed, rather than to have an actual ongoing collection”.

Discussion: implications for revising framework

The intention of this research was to produce a framework, which – in addition to its primary focus on Government’s requirements for information about training and development - would be useful to government agencies in thinking about measuring training and development. The feedback from this group of interviewees suggested that while the measures and measurement issues were generally fine as drafted, the structure of the framework itself would benefit from revision to make it simpler, reduce overlap between the categories, and disentangle the various components of the “integrity” category. Because the separation of “ownership” and “policy” interests required explanation, this distinction could be eliminated. Focusing on “people capability” as the primary goal would allow for greater simplicity, and reflect to some extent the achievement of both policy and ownership interests. The primary role of SSC relates to Government’s ownership rather than policy interest, and this is likely to be the primary emphasis of any measurement and reporting by SSC (as discussed more fully in the conclusions).

Other suggestions that were influential in revising the framework included providing a hierarchy of goals to show the linkages more clearly, and reducing the overlap between the various measures. The suggestion of explicitly building in sectoral as well as individual agency measures was also adopted, since governments are interested in the performance of whole sectors, not just individual agencies. The revised framework should also make it clearer that any reporting to Government would involve only a few measures (based on more detailed supporting measures within departments and agencies), allaying some concerns about a new “bureaucratic nightmare” of reporting. Respondents also thought it useful to separate out reporting requirements to SSC from reporting to Government, for greater clarity and to make it clear that while SSC needs enough information to be able to advise Government on its ownership interest in departments, it does not report all information gathered (Government would be swamped with unnecessary detail).

The revised framework

The revised framework appears in Appendix Four. As suggested in the feedback, the key elements of the revised framework are arranged in a linked sequence from preconditions and inputs (a sound foundation for training and training investment respectively) to an intermediate result (training effectiveness in achieving short-to-medium term objectives) to a longer-term result of both training and other factors (State sector people capability).

In order to reduce the amount of information on a single page, the measures are provided separately for each aspect of training. In some cases, the measures provide an indication of expected good practice (for example, in relation to the "sound foundation" for training and development). In other cases, such as training investment, there is no suggestion as to the expected level of investment – data would need to be collected over a period, and measurement and comparability issues ironed out, before any "benchmarks" could usefully be established. The revised measures expand on those in the draft framework, and incorporate more fully the results of both sets of interviews as well as the literature.

Some explanatory information has been provided with the framework, in order to makes its intended application clearer.

One possible collection mechanism suggested in the earlier framework – that of collecting data on training expenditure by departments through the Crown Financial Information System (CFIS) operated by the Treasury - has been dropped from the revised framework. Initial discussions with Treasury indicated that this would not be considered a priority, both because of the lack of standards for measuring expenditure on training, and because (as discussed in the literature) a single measure of expenditure on training is not particularly meaningful. The revised framework focuses on reporting to Government by SSC, using information collected from departments.

A brief summary of purposes, benefits, costs and issues associated with the proposed measures for each of the four areas is attached as an annex to the framework. These were developed by reflecting on the information gathered in both rounds of interviews and the literature, and on subsequent feedback.

Conclusions

This research project aimed to identify measures likely to be useful in reporting to Government on training and development within its agencies. It was intended that the framework of measures developed in the course of the paper should also be useful to the government agencies themselves.

Summary of research findings

A brief scan of pre-election Labour Party policies and post-election statements confirmed the current Government's interest in information about training (and other areas of HRM) in its agencies.

An examination of current information sources - including public accountability documents, reports from SSC to Ministers, and both ad hoc and regular surveys - indicated that these sources provide limited information on training within government agencies and almost no standardised, generic information that could be aggregated to provide an overview of training (or aspects of training) in the State sector. In most cases, there is also limited if any potential for them to provide such information. However, the SSC's Human Resource Capability Survey was identified as a possible vehicle for further collection and reporting of training information, should that be considered desirable.

The literature review (comprising human resource management/EEO and economic literature) highlighted the complexity of defining and measuring training, the lack of standard definitions or measures, and the difficulties in collecting training information from organisations (many of which have no centralised training information collection). Different definitions and measures were used in different studies, all with limitations. Categories of training often reflect some combination of formal vs. informal training; general vs. specific training; internal, in-house and/or external training; initial vs. continuing training; generic vs. specific training.

However, the definitions of these categories vary, and there is also some debate around the usefulness of some distinctions (e.g. between generic and specific training). Several studies focused primarily on training as an input, and on quantitative measures such as cost (a particularly problematic measure) or volume. A very small number of studies investigated training effectiveness, using a framework such as Kirkpatrick's model (1996), while others investigated longer-term effects of training (and other factors) for the individual or organisation (e.g. in terms of staff competence, as discussed by Sveiby, 1997).

Drawing causal links from training to effects is problematic because of the time frames involved and interaction with other variables. Organisational measurement itself can also be problematic (in focusing attention on what is measured rather than what is important). Overall, while the literature provided useful guidance on training definitions, categories and measures, it also served to highlight the many pitfalls in any attempt to define and measure training.

The first phase of the fieldwork focused on the purposes for which Government might have an interest in training in its agencies. The interviews, with a group of officials selected for their interest and knowledge of this area, added an extra dimension - largely missing from the reviewed literature – about Government's interest in integrity, public accountability, sound policies and practices, and in ethical behaviours both underpinning and resulting from training. The interviewees alluded to many of the measurement issues raised in the literature, and supplemented the mainly quantitative measures from the literature with a range of qualitative indicators they thought would be useful within government agencies, and in reporting to Government.

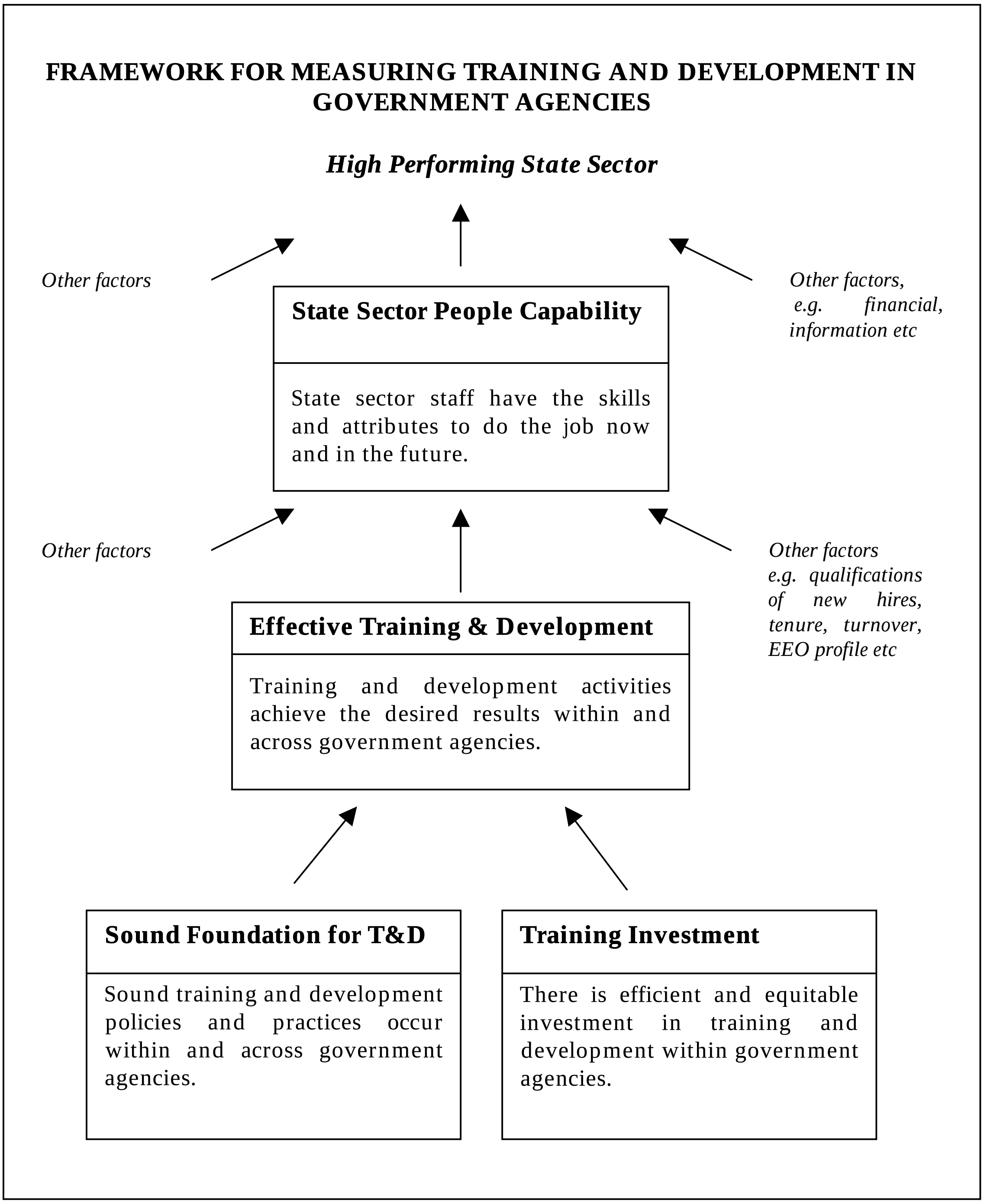
There were divergent views on what (if anything) should be reported to Government about training, ranging from “just training numbers and investment” to “just skill levels and capabilities”. These differences reflected differing opinions about Government’s primary interest, as well as about what information the interviewees thought would be feasible to collect and report. The draft framework was developed on the basis of both the literature and the first round of interviews, with the purposes, and collection and reporting parts of the framework drawn primarily from the interviews (supplemented by the review of current information sources) while the measures and measurement issues were developing from both the literature and the interviews.

A second group of officials, primarily with HRM or corporate services backgrounds, provided feedback on the draft framework. As a result, it was simplified and the layout changed to make it more understandable and useful within government agencies. A clearer set of linked goals was developed, with separate lists of measures/indicators for each goal. Reporting by departments to SSC (or another central agency) was separated out from reporting to Government. The measures and measurement issues in the revised framework were expanded to reflect more fully the information gathered in the literature review and interviews.

The second group of officials were particularly concerned about the compliance burden of any centralised collection of training information, given the current lack of accessible information on training within departments, and workloads. It was apparent that government agencies often have no separate training function and limited if any central collection of training information (an issue that also came up in the literature review). Many considered they were at the limits of what they could reasonably be expected to do. Possibly because of the timing of this round of interviews (during November), there appeared to be very high work demands, resulting in an impression of overwork and near burnout. These high work demands, combined with the relatively high rate of resignations for HRM staff shown in the SSC’s 2000 Human Resource Capability Survey (19.6 percent compared with 11.8 percent for all Public Service staff) make the infrastructure for HRM particularly important. Further research could be undertaken to investigate these issues (as described later in this section).

The revised framework

The key components of the framework for measuring training[15] developed through this research are outlined below. The full framework, including proposed measures/indicators, centralised data collection, and reporting to Government is provided in Appendix Four.



[15] Training is defined as "all the various processes by which an individual develops the competencies required for current and future employment-related tasks".

As described in the section on Framework Development Phase Two, the key elements of the revised framework are arranged in a linked sequence from preconditions and inputs (a sound foundation for training and training investment respectively) to an intermediate result (training effectiveness in achieving short-to-medium-term objectives) to a longer-term result of training and other factors (State sector people capability). These other factors include pre-existing professional and academic qualifications of staff, the length of tenure of the professional groups delivering the key business of the organisation, and the turnover rates of these groups (Sveiby, 1997). Measures of these other factors would also be needed for adequate reporting on the overall "people capability" of an organisation.

Initial feedback from officials indicates that this revised framework would indeed be useful within agencies, possibly with more explanatory detail around its application, for example about which measures are most suited to which types of organisational contexts.

Reporting to Government

State Services Commission's Role

The SSC is Government's main advisor on human resource management in the Public Service and, to a lesser degree, in the wider State sector. Therefore SSC needs to anticipate Government's information requirements and ensure it has the ability to respond. This means that part of SSC's role is to gather appropriate data, prior to its request by Ministers, or in other words to "structure statistical capture devices for relevant information, and then ensure that the resulting material is online and able to be manipulated into the shape required for an argument" (Yeabsley, 1999, p 6). Yeabsley adds that the main focus for SSC is capability – assurance that departments are thinking about capability gaps and what they are doing to address them.

The SSC can only provide this assurance if departments have good internal information systems around training (and other aspects of organisational performance), which SSC can draw upon. The framework for measuring training sets out some of the information that organisations should be able to access internally.

Coverage of government agencies

The main emphasis of the research was on Public Service departments, and there was limited consultation with staff from Crown entities. Overall, while respondents considered that Government might have similar capability concerns for Crown entities as for Public Service departments, they thought that centralised collections were less appropriate (because of the wide diversity of entities) – apart perhaps from within particular sectors, such as education and health. As noted in the section on Current Information Sources, it appears unlikely that the Crown entities reform project, currently in progress, will lead to an increase in centralised HR data collection from them. The SSC may undertake occasional investigations of particular matters of concern, at the direction of its Minister. However, it is not anticipated that there will be ongoing, regular collections of detailed information by SSC from Crown entities. Most of their reporting will continue to be to their Ministers and in annual reports tabled in Parliament.

Content

The revised framework separates out these three sets of information: information reported to Government on a regular basis; information that SSC (or other agents for Government) collect in order to be in a position to report to Government, should the need arise; and information that departments or other government agencies should be collecting themselves, primarily to inform their own management practice but also to provide to Government, when required.

The fieldwork did not provide a clear basis for decisions on which information on training should be reported to Government, since there was no consensus in views among officials interviewed in the course of the research. However, almost all those interviewed thought that some information should be reported. The differences in views reflected in part differences in opinions about the most appropriate model of public management. One view was that Ministers are primarily interested in results, not internal management, which is the responsibility and interest of chief executives (often further devolved to line managers). According to this view, providing information on internal management risks a return to "input control". An alternative view is that organisational capability is an indicator of future results, and that the Government should be kept well informed about how agencies are managed to ensure they can deliver in future as well as today. This latter view is consistent with the views expressed in the Controller and Auditor-General's third report in 1999, which emphasised the importance of reporting to Parliament on capability (possibly including "capability expenditure") as well as on delivery of outputs (OAG, 1999). It seems prudent to keep Responsible Ministers and Government collectively informed about key aspects of internal management, so that they can better fulfill their roles as owners or stewards of public assets and so that the risk of unwelcome surprises is reduced.

Proposed reporting of training information to Government

The section below summarises the proposed reporting of training information (collected from Public Service departments) by SSC to Government, in each of the four areas of the framework. The primary focus of the proposed reporting – in line with Ministerial statements, the emphasis of some officials, and with the role of SSC as outlined above - is on State sector people capability.

State sector people capability

"State sector staff have the skills and attributes to do the job now and in the future."

- Annual reports on overall skill levels, skill gaps and how they are being addressed.
- Ability to provide reports on senior management skill levels and gaps.

Comments

As discussed earlier, overall people capability is affected by a number of factors, including training. In the absence of other standardised measures, qualifications may have to be used be used as a proxy for skills. This is because there are no standardised sets of competencies that are used across the Public Service, apart from those developed for chief executives. At present, many departments would have difficulty providing information on qualifications, because they do not record them. However, the growing use of kiosk-type Human Resource Information Systems, which allow people to enter and update some of their own HR data, should make this easier in future. Ideally, the information on skill levels would be supplemented with other information, for example on tenure and turnover for different professional groups, to round out the picture of State sector people capability.

Information on skill gaps may continue to be collected through the annual skill shortage survey that is currently part of the SSC's human resource capability information collection. However, this survey captures only limited information about advertised vacancies that have remained unfilled for at least three months, despite efforts to fill them. It understates the levels of skill shortages within departments because of its narrow focus on specific vacancy information. The SSC will be revising the survey over the coming year to capture more useful information on skill gaps, and on how they are being addressed.

Senior management development and capability is of particular concern to the Government, because of its implications for the recruitment of chief executives as well as the management of government agencies. Therefore SSC and departments should be able to provide reports on skill levels and gaps for this specific group.

Training effectiveness

"Training and development activities achieve short and medium term objectives."

- Periodic reports on whether departments' training strategies and level of investment have achieved the desired results.

Comments

These reports should provide an indicator of the marginal effects of training on organisational capability. Training effectiveness could be looked at on a two to three year cycle, in order to focus attention on the need to evaluate training effectiveness in achieving individual and organisational goals. In their reporting, departments would need to demonstrate that their training strategy was linked to their strategic business planning and had clear objectives relating to business needs; that a training evaluation system was in place and applied; and that the results of evaluation were acted on at the individual and organisational level. Any "mission critical" or particularly expensive development activities would need particular attention. Over time, this may link in with the capability/accountability/performance (CAP) system being introduced progressively within Public Service departments.

Sound foundation for training and development

"Sound policies and practices are in place within and across government departments."

- Periodic reports on some aspect of departmental training policies and practices.

Comments

Reports on training policies and practices could be generated in response to Government interest in some aspect of training policy or practice, or concerns that insufficient attention is being given to a particular aspect of development, e.g. induction or succession management. The reports from departments could, for example, focus on what they are doing within the department about induction (including public sector ethics/ethos), further staff development on and off-job, management development, career paths and career development, succession planning and/or any involvement in initiatives beyond the department (e.g. use of secondments for development or participation in cross-sector training for policy staff and senior managers).

Efficient and equitable investment

"Training and development activities achieve short and medium term objectives."

- Ability to report on training budget and expenditure on formal (structured) training courses within departments, including overheads and cost of hours spent on training (and to provide the rationale for their particular pattern and level of investment).

- Report on equitable access for all staff to training and development (to be included in reporting on EEO Policy to 2010).

Comments

This was the most difficult area to reach a decision on – what, if anything, should be reported to Government, because of the numerous difficulties in reporting on training expenditure highlighted in the literature and by respondents? Many measures of investment are inadequate, for example measures of expenditure on training courses, or any other single investment measure without any context about the nature of the workforce or reasons for high or low expenditure. Furthermore, much of the training that goes on in departments will be missed from measures of formal training (although the literature indicates that measures of formal training are likely to give a good indication of relative levels of training overall). However, the researcher has concluded that departments – and SSC – should be in a position to report on training expenditure, albeit with caveats around the interpretation of the information. This will require some preliminary work to determine what departments include under training expenditure at present, whether they capture or could capture overhead costs (for example of staff salaries) associated with training, and whether they have systems for recording hours spent on training.

Reports on training expenditure would need to be accompanied by a report stating how the level and pattern of expenditure fits the particular human resource strategy and labour force characteristics for that department.

Equitable access to training is one of the indicators of good practice, relating to organisational culture and strategic human resource management, for departmental self-assessment in the EEO policy to 2010. This could be a particular focus of any reporting to Government on progress against the policy.

Possible areas for further research

Areas for additional research suggested in the course of the project, but beyond its scope include:

- *Resourcing and infrastructure for HRM in government departments.* This topic was prompted by the apparent level of overwork of respondents in the second phase of the fieldwork, the levels of turnover of HR staff, and some evidence gathered in the project that human resource information systems and other infrastructure for HRM may be inadequate (possibly contributing to the preceding two factors);

- *Defining and measuring the costs of not training.* As noted in the literature review, there are many difficulties in defining and measuring training expenditure. However, there will also be a variety of costs incurred by not training, including costs of staff turnover, recruitment and restructuring to address new skill needs. Any comprehensive measure of expenditure relating to staff capability would take account of these “deferred costs” as well as the actual expenditure on training; and

- *Reporting on training within government agencies.* The information gathered from respondents in this research suggests that reporting on training within government agencies (to chief executives or Boards) is relatively limited. Further research could establish nature and frequency of reporting on training (and other areas of HRM) within departments, its purposes, and effects. The incentive effects of requiring or not requiring reporting on training could also be investigated.

Next steps

This framework has been developed with the primary purpose of outlining measures most likely to be useful in reporting to Government (as set out above). Its usefulness for that purpose will become apparent over time. Considerable additional work would be required by SSC, involving consultation internally and externally, prior to decision making and implementation.

However, preliminary feedback indicates that the framework has achieved, at least in part, its secondary objective of being useful to departments.

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Appendix 1: Interview schedule: towards a framework for measuring training and development in the State sector

The working definition of training & development for this research: *"all the various processes by which an individual develops the competencies required for current and future employment-related tasks"* (based on definition from OECD, 1997). These processes may include formal "away from job" training – whether in-house or external – and more informal "on-the-job" coaching and development.

Questions for discussion

1 For what *purposes* do you think governments are likely to have an interest in information on staff training and development in their agencies? Explain the reasoning behind your answers (e.g. link to purposes of government investment in T&D).

2 What *types of information* on training and development would be needed to meet the purposes outlined in question 1? Be as precise as possible in describing the types of measures that might be used and for what types of training, together with any feasibility or cost issues that might arise.

3 What *categories of government agencies* do you think should be included in some or all reporting on training and development to Government and why?
Categories include: Public Service departments; Police & Defence Forces;
Non-commercial Crown entities (further grouped into Crown Agents, Autonomous Crown Entities & Independent Crown entities); Crown-Owned Companies; State-Owned Enterprises

4 *Who* should report to Government on training and development within government agencies? (E.g. CEs to their Ministers, SSC or another central agency to Cabinet? Other? Combination?).

5 What information do you think *chief executives* of government agencies should receive on training & development in their own agencies, and why?

Appendix 2: Draft framework for measuring training & development in government agencies

Overall Purpose	***Ownership Interest of Government***				***Policy Interest of Government***
Aspect	*Integrity*	*Investment*	*Effectiveness*	*Capability*	*Improve NZers' Skills*
Goals (interrelated)	Ethical public sector, shared ethos, no scandals, strong collective interest	Efficient and equitable expenditure of public money	Training achieves desired objectives	State sector staff have skills to do the job, now & in the future	Knowledge of how industry training policies are affecting labour market outcomes
Indicative measures (high level)	Sound training policies, & procedures in place and applied (includes both good employer requirements and financial delegations) Extent of pre-employment or on-job induction in public sector ethics & values Extent of collective T&D, secondments between agencies, career paths No. and nature of breeches of standards	$ spent on formal training courses[16] Hours spent on formal training[17] Estimate of time spent on informal training[18] Training $, hours, incidence, types for different groups of staff (EEO groups, age, full or part-time, occupation etc) Relative levels of investment by staff and by employer in training Cost-benefit analysis of training investment	Training evaluation framework in place (ex ante needs assessment and objective-setting; ex post assessment at individual and organisational level) Training evaluation includes coaching, mentoring, secondments etc Shared information on effectiveness of different training opportunities	Staff qualifications (including unit standards) Staff competencies[19] Changes in the above Narrative account of skills needed to meet strategic objectives, skill gaps, what's being done to address them (for sectors as well as organisations)	Skill levels and skill gaps (outcome information) Training data on hours, $, participation rates etc for different types of training at the individual level (by ethnicity, gender, occupation etc) Links between policies and outcomes for different sectors and groups within the population (impact evaluation)

[16] Numerous measures available. Often expressed as a ratio, e.g. training expenditure/total personnel expenditure. May include costs for planning, development, implementation, evaluation – or just delivery. May include direct costs only; or direct costs, overheads and opportunity costs.

[17] Requires time recording system with consistent definitions of training. May be expressed as a ratio, e.g. training hours/hours worked.

Overall Purpose	Ownership Interest of Government				Policy Interest of Government
Aspect	*Integrity*	*Investment*	*Effectiveness*	*Capability*	*Improve NZers' Skills*
Measurement issues	Need to ensure that measures add value – not merely done for form's sake. "Breeches of standards" involve value judgements, more breeches may simply indicate better data collection.	Need clear defns of what to include. Informal trg very difficult to estimate Assessment of equity requires individual data on training (& clear definitions. Agencies may not collect much if any data on training Both benefits & costs of trg hard to measure	Effects may be difficult to measure Problems with establishing causality Limited attention to training evaluation in PS departments (1999 survey)	Requires data to be recorded on quals. Requires systematic assessment and recording of staff competencies. Requires HR strategy linked to Strategic Business Planning	Definitions Large scale, costly surveys needed for NZ-wide information Difficult to establish causal links
Collection & reporting: possible mechanisms	Departmental level: to Ministers on request To SSC as part of Departmental Reporting (as at present). Possible inclusion in overview report by Minister of State Services to Cabinet (link to standards work)	Possibly via CFIS[20] Level/type of training for different groups reported by depts, based on their HRIS (could be collected as part of SSC HRC survey)	Summary report of evaluation framework and results (to SSC?) Statement about whether training strategy & investment have achieved desired results	Special runs from SNZ on qualifications by sector Summary report from departments or (longer term) unit record data, as part of SSC HRC survey, e.g. Skill Shortage component[21]	Statistics NZ surveys Other sample surveys NZQA & Skill NZ databases of unit standards gained by gender, ethnicity, age, sector (?) etc.

[18] Includes unstructured training on-the-job, for example coaching and mentoring. Usually collected through on-off survey rather than on an ongoing basis.
[19] Sveiby proposes several measures of staff competence for professionals, including years in their profession, education level, gradings, tenure, turnover rate (Sveiby, 1997)
[20] Crown Financial Information System, through which departments provide financial information to Treasury.

Collection & reporting: scope issues	Standards Board mandate includes all State sector organisations Reporting to SSC is by Public Service departments only	CFIS collects information from Public Service departments only HRC survey collects very limited info from Crown agencies	No collection of information in this area at present	Current SSC skill shortage survey is inadequate, and covers only PS departments Census data on quals very general (and "Central Government" sector cannot be disaggregated)	Sector comparisons useful (eg Public Service, Crown entities and subgroups, SOEs) but limited data at present by sector(?)
Decision criteria[22] - benefits - costs - feasibility					

(NB: This draft framework was presented to interviewees on one A3 page).

[21] SSC's Human Resource Capability survey is an annual collection of HR data from Public Service departments and other selected State sector organisations. Much of the collection is anonymous, unit record data. It also includes a skill shortage survey, which is under revision.

[22] Several layers of decisions possible – individual departments/entities; sectoral groups; central agencies; policy agencies; Cabinet. Criteria may vary.

Appendix 3: Discussion questions on draft framework

1 ***Goals***

- Are the overall headings and descriptors useful and appropriate?
- Should “integrity” be collapsed into the other categories or redefined?

2 ***Indicative measures***

- How would we know if each goal was being achieved? (Are other / different measures needed?)
- What soft and hard measures does your organisation currently use in these areas? What information is collected from whom, for whom, and why?
- Which suggested measures in the framework would be particularly difficult for your organisation?
- What sectoral measures do you think would be useful (e.g. for Public Service or health sector etc)?

3 ***Measurement issues***

- Any other significant measurement issues not listed?

4 ***Collection and reporting***

- Which areas of information would most usefully be collected by SSC, for analysis and reporting to Government?
- How should other information be reported, if at all?
- Which agencies should be included in any reporting? How frequently?

5 ***Decision: costs and benefits***

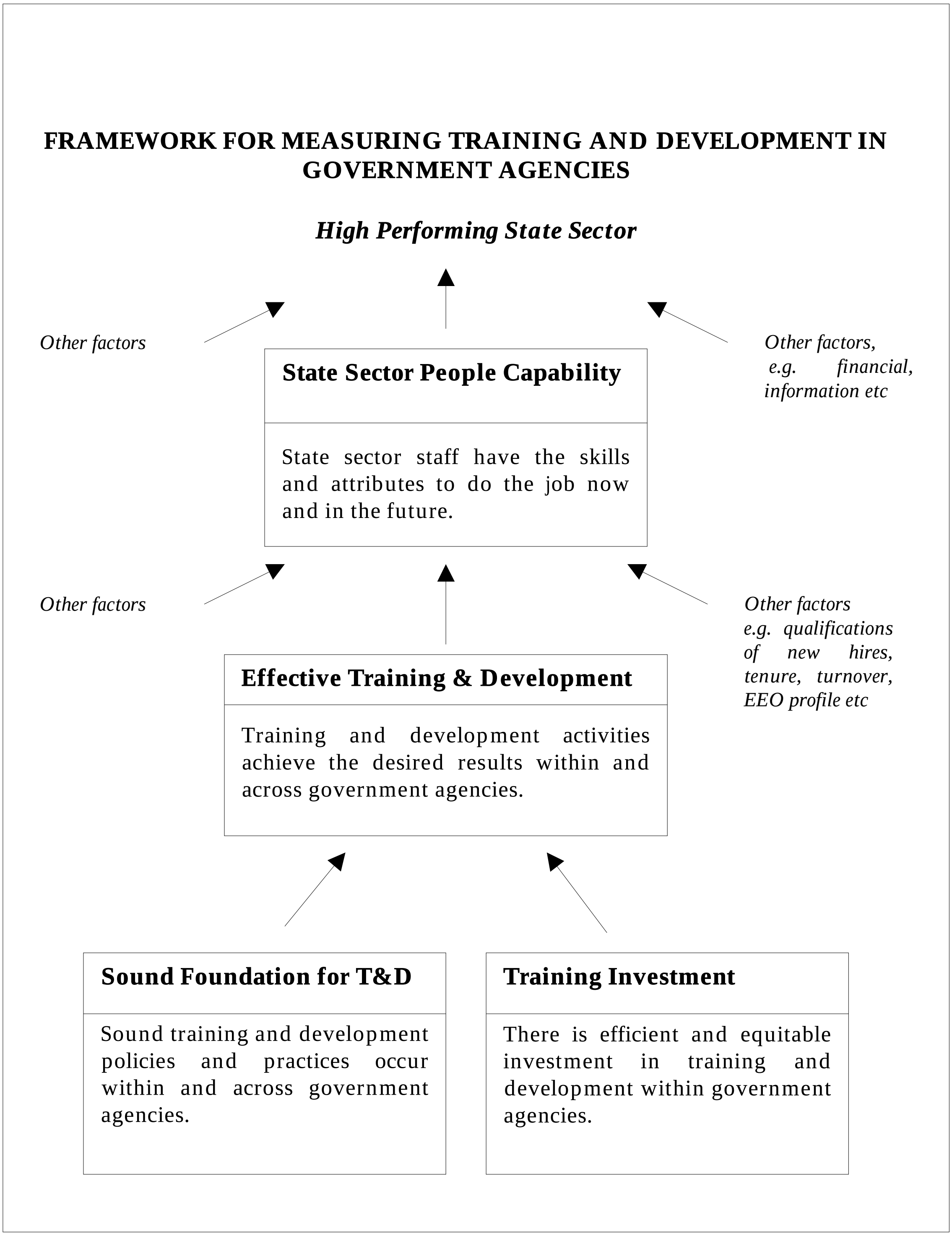
- What are the most important factors in reaching decisions (for organisations, central agencies, lead agencies within sectors, Government) on whether the benefits of collecting training and development information outweigh the costs (compliance costs, setting up new systems, etc)?

6 ***Overall comments***

- Would this framework be useful in making decisions on what training & development information to collect and report to Government? (primary purpose)?
- Would the framework also be useful to departments and entities in deciding on what training data to collect and for what purposes?

Appendix 4: Revised framework

This framework for measuring training and development in government agencies sets out the links between different aspects of training[23], together with possible measures for each aspect.



[23] Training is defined as "all the various processes by which an individual develops the competencies required for current and future employment-related tasks". A similar framework may provide a useful way of thinking about and measuring other aspects of human resource management, such as performance management or remuneration.

PROPOSED MEASURES AND REPORTING FOR EACH ASPECT OF FRAMEWORK

Measuring training is problematic, because of the lack of standard definitions or measures. Therefore proxies often have to be used (e.g. qualifications for skill levels, expenditure on training courses for overall expenditure on training). Further comments on measurement issues are provided in the annex to the framework.

This section sets out measures that may be used by government departments and other agencies for their own internal management, as well as measures for use in reporting to Government (primarily through the SSC in its role as Government's advisor on public management).

It is not intended that every department or agency would use every measure, but that they would tailor the content and frequency of their own collection and use of information to suit their organisational needs. In some cases, the capability to generate the information when needed may be more important than regular collection and reporting.

I Sound foundation for training and development

Sound training policies and practices are in place within and across government agencies.

Possible indicators/measures

Agency level

- The training policy is available to all staff, and applied for all staff (Investors in People (IIP)[24] standard may provide a useful set of indicators).
- The training policy explicitly addresses the good employer requirements under section 56, State Sector Act (or other legislation applying to the agency).
- Training is integrated within the agency's strategic planning and performance management systems, and addresses current and predicted organisational and individual requirements.
- Training policies and practices cover:
  - initial induction (including Public Service ethics and standards expected by the Government);
  - continuing training and development (e.g. through courses, coaching and mentoring, project assignment, secondments);
  - management development and succession; and
  - career paths and career development.

- The operation of the training policy is regularly reviewed.
- Financial delegations for training-related expenditure are clear and applied in accordance with the policy.
- A framework is in place for the evaluation of training and development (including needs assessment, objective setting, opportunities for training application on-the-job, and review of effectiveness – possibly using Kirkpatrick's model[25]).

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[24] This standard, developed in the United Kingdom, comprises a set of twelve indicators relating to people development against which organisations may be assessed and awarded the IIP standard.

[25] The four stages of Kirkpatrick's model for evaluating training are reactions (level 1), learning (level 2), behaviour (level 3) and results (level 4) (Kirkpatrick, 1994).

- Training information is collected, shared and reported in line with the requirements of the agency as a whole and its branches.

Sector level

- Extent of secondments between agencies for career development purposes.
- Extent of coordinated, cross-agency training & development for particular groups (e.g. senior managers, policy staff).
- Extent to which training provided for senior managers addresses the requirements of the Public Service as a whole as well as the department. (Some government agencies may also play an important role in developing other groups of staff, e.g. policy staff, for the Public Service or other sectors).

Centralised data collection (SSC)

- Periodic collection of self-reports from departments against selected agency level measures (e.g. description of what they are doing about induction, further staff development on and off-job, management development, career development, succession planning) and their involvement at sector level (e.g. use of secondments for development, participation in cross-sector training for policy staff and senior managers). Evidence to be provided.
- Periodic surveys of use of secondments by departments (further to 1999 survey by SSC).
- Regular collection of information on what departments are doing about senior management development.

Reporting to Government

- Periodic reports on some aspect of departmental training policies and practices.

II Training investment

There is efficient and equitable investment in training and development in government agencies.
Note: Measuring investment in training is particularly problematic, given that there are no standards (e.g. training expenditure is not included in accounting standards) and that measuring all direct costs, overheads and opportunity costs associated with planning, implementing and evaluating all training and development would be a major undertaking (see OECD, 1997). Nonetheless, measures of investment are useful for showing patterns and trends within organisations, and (providing that definitions are clear and consistent) can be also be useful when combined with other information in looking at patterns across organisations as well.

Possible indicators/measures

Agency level

- Budget allocation for formal training (e.g. as proportion of total personnel budget).
- Actual direct costs of formal training courses, including course costs, travel and accommodation.
- Overhead costs associated with formal training courses (staff costs associated with planning, delivering and evaluating training courses).
- Opportunity costs of training, i.e. cost of hours or days spent on formal training. Time spent may also be expressed as a ratio of training hours as a proportion of hours

available (excluding leave). May also show distribution of training hours across staff, or changing patterns over time.

- Training expenditure (direct costs) as a proportion of total personnel expenditure. (May also include overhead costs and dollar value of opportunity costs in the training expenditure figure).
- Description of nature and extent of informal training (including coaching and mentoring). (*N.B. Likely to be difficult to quantify)*
- Training expenditure, time, frequency and / or types for different groups of staff (e.g. by gender, age, ethnicity, disability, full & part-time status, occupation, seniority etc). (*N.B. Requires user-friendly, accessible Human Resource Information System or database).*
- Relative levels of investment by staff and by employer in training and development.
- Trends over time for these measures.

Sector level

- Contribution of time or money to training initiatives that benefit a group of agencies.
- Aggregated measure(s) of training costs for sector – totals, averages, patterns and trends over time for different types of organisations.

Proposed centralised data collection

- Budgeted and actual expenditure on formal training courses (for possible expansion to include overhead costs and opportunity costs of time in future years). *(N.B. Requires considerable lead-in time to determine what departments include under training expenditure at present – if they have it as a line item - and how well that reflects the actual expenditure on formal training in the department).*
- Equitable access for all staff to training and development included in departmental self-assessment and reporting to SSC on EEO Policy to 2010.

Proposed reporting to Government

- Ability to report on training budget and expenditure on formal (structured) training courses within departments, including overheads and cost of hours spent on training (and to provide rationale for particular pattern and level of investment).

- Report on equitable access for all staff to training and development (to be included in reporting on EEO Policy to 2010).

III Training effectiveness

Training and development activities achieve short and medium term objectives.

Possible indicators/measures

Agency level

- A training evaluation framework is in place and applied (see also indicators for Part I, e.g. Kirkpatrick's four level model for training evaluation).
- Training courses or other developmental opportunities are available to meet identified skill gaps (numbers, types, accessibility – supply side measures).
- The results of training evaluation at the individual level (e.g. initial course reaction, demonstrated learning of skills or knowledge, behaviour change after the course) are

applied to improve the quality of training and development in the agency, and to facilitate the application of new skills and knowledge in the workplace.

- Individual staff development plans are in place, and monitored on a regular basis as part of the performance management cycle.
- Feedback is gathered from staff and managers on their overall level of satisfaction with - and their application of - training and development, and adjustments are made where indicated. (*N.B. Links to indicator listed above for individual courses or other development opportunities).*
- Measures are developed and applied to assess the impact of high priority or high cost training and development activities on key aspects of organisational performance.
- Feedback on training providers, courses and other development opportunities is shared within the agency.
- Understanding of and compliance with the Public Service code of conduct and other public sector conventions and practices are monitored regularly and breeches remedied.

Sector level

- Cross-agency training (e.g. for senior managers) is evaluated in relation to its objectives. The evaluation may involve participants (reaction); participants and their managers (learning and behaviour change); and chief executives/central agencies (longer term impacts, e.g. on supply of candidates with skills and experience for senior positions).
- Information is shared with other agencies on particularly useful courses and development opportunities (e.g. through Management Development Centre or Public Sector Training Organisation).

Proposed centralised data collection

- Periodic reports from departments on whether their training strategy and investment have achieved the desired results, together with evidence.

Proposed reporting to Government

- Periodic reports on whether departments' training strategies have achieved the desired results.

IV State sector people capability

State sector staff have the skills and attributes to do the job, now and in the future.

Possible indicators/measures

Agency level

- Extent of achievement of key results and other performance objectives.
- Descriptive statement with evidence that the strategic business planning process identifies strategic objectives, skill requirements, skill gaps, and strategies to address these gaps.
- Skill shortage information including recruitment difficulties.
- Ease of recruitment for particular groups, for example senior management.

- Staff competence (e.g. assessment against organisational or sector-level competencies including integrity, qualifications including unit standards, and other measures[26]).
- Changes in staff competence over time.
- Staff qualifications, including unit standards, and changes over time (serve as a standardised proxy for skill levels).

Sector level

- Sector wide reports on qualifications level (e.g. from Statistics New Zealand).
- Sector reports on current and predicted workforce requirements and strategies to address them.
- Public Service senior management competencies and competency gaps (e.g. measured against Public Service chief executive competencies).

Centralised data collection

- Information on skill shortages (collected by SSC from Public Service departments. Survey to be revised).
- Some information collected on workforce issues in health and education sectors (collected by Ministry of Health and Ministry of Education respectively).
- Information on chief executive competencies (collected by SSC). *N.B. Could be expanded in future to include information on the competencies of senior managers, when standard measures are available and used.*

Reporting to Government

- Annual reports on overall skill levels, skill gaps and how they are being addressed.

- Ability to provide reports on senior management skill levels and gaps.

[26] Sveiby proposed several measures of competence for professionals, including years in their profession, education level, gradings, tenure and turnover rate (Sveiby, 1997)

ANNEX TO FRAMEWORK: PURPOSES, BENEFITS, COSTS AND ISSUES ASSOCIATED WITH PROPOSED MEASURES

Sound foundation for training and development

Purpose of measure(s) – To ensure that government agencies have training policies and procedures in place that comply with legislation, meet government requirements for State sector staff, are consistent with good practice, and can withstand public scrutiny.

Benefits – Verification that sound training policies are in place, which take account of the public sector context.

Costs – There should be few additional costs for agencies to address these matters in internal reporting (e.g. as part of their internal controls). For most agencies, there should be no new information gathering requirements. However, larger agencies are likely to have difficulty in identifying secondments for career development purposes, and inter-agency training (based on the experience of a previous survey of secondments by SSC). Long-term costs should be low, because it is not proposed to undertake any regular large-scale collection or reporting in this area.

Measurement issues – Measures are largely qualitative. Reporting may be done superficially and for form's sake, rather than critically and as part of a process of improvement.

Efficient and equitable training investment

Purpose of measure(s) – To provide public accountability for expenditure of public money.

Benefits – Allows public scrutiny of level and nature of investment in training; permits comparisons, for example between agencies with similar workforces; may contribute to EEO analysis.

Costs – Potentially imposes high compliance costs on agencies that do not have centralised collection of data on training expenditure, or do not have time-cost systems. Many agencies would have difficulty reporting on training expenditure etc at the individual level.

Measurement issues – Very clear and unambiguous definitions of "training" would be required, and the measures would also need to be well specified (without being so comprehensive as to be excessively burdensome). The ability of organisations to provide the data is also an issue (see costs, above). Comparability between organisations with different training strategies and labour forces may be an issue (especially if the measure of expenditure is limited to direct course costs).

Effective training

Purpose of measure(s) – To provide assurance that training and development activities achieve their intended results.

Benefits – Assurance that investment of time and money in training and development are achieving positive results.

Costs – Likely to impose some compliance costs, since a 1999 survey indicated that there was limited attention to training evaluation in Public Service departments.

Measurement issues – problems with establishing causality between training and results (may be due to other factors); effects of training may be difficult to measure and judgments may vary between different raters; longer-term effects of training and development may occur well after training has taken place (and be affected by other factors as well).

State sector people capability

Purpose of measure(s) – To determine whether the State sector workforce has the skills and attributes that are required, and to alert the Government to any areas of risk to performance from a lack of people capability.

Benefits – Ability to provide Government with assurance that its workforce can deliver on current and proposed work programmes.

Costs – Some compliance costs, in that larger departments (in particular) have difficulty in collecting and reporting skill shortage information – particularly on “hard to fill” vacancies over past year. At present, indications are that most departments do not store information on qualifications or competencies in their HR Information Systems.

Measurement issues – Adequate measures of “skill shortages” are problematic. The existing sets of competencies are department-specific (except at chief executive level), so that ratings are not comparable. Reporting on the extent to which training & development to address current and predicted skill gaps is built in to strategic business planning and review may be superficial rather than rigorous.