

Development of a framework for key performance measures of student participation, transition, retention and completion/attainment

Report to the
National Education Performance Monitoring Taskforce of the Ministerial
Council on Education, Employment, Training and Youth Affairs

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Executive summary

The National Education Performance Monitoring Taskforce (NEPM) is developing key performance measures for national reporting in a number of areas relating to the National Goals for Schooling. Goal 3.6 relates to student participation, retention and completion/attainment:

Schooling should be socially just so that:

all students have access to the high quality education necessary to enable the completion of school education to Year 12 or its vocational equivalent and that provides clear and recognised pathways to employment and further education and training.

In this context the Taskforce contracted the consultants to develop a Framework that provides a conceptual basis for developing nationally comparable measures of student participation, transition, retention and completion/ attainment.

The report was prepared by Nigel Smart (Smart Consulting and Research), Gerald Burke and Phillip McKenzie (CEET). It provides:

- the views of key stakeholders;
- the relationship between measures developed in Australia and those being developed by international agencies such as the OECD;
- the principles that should underlie a Framework for key measures; and
- the key elements of the Framework.

The proposed Framework introduces a number of important new features:

- it covers the age range 6 - 24, the period in which most institution based learning occurs and the period during which formal education has greatest impact;
- it is person focussed, treating all 6 - 24 year olds as potential participants in education and training;
- it identifies three main stages as young people move through education and training: the ages of compulsory schooling (6-14), the ages of transition from schooling (15 to 19) and the ages of attainment (20 to 24);
- it focuses on those that do not continue learning as well as those that do;
- it introduces an open structure that can be adapted as the learning environment changes and develops.

The associated measures, which use both administrative and survey data, will show what is happening in relation to participation, retention, completion and attainment. It will also identify those outside the education system. The Framework is consistent with that proposed by the OECD in its recent work.

Detailed analysis of the data requirements of the proposed Framework and currently available data indicates that between them the currently available data sets would, with some changes, enable the construction of measures to address most of the questions identified in the Framework.

The major gap in the current data collections appears to be at the stage of compulsory schooling (ages 6 to 14), and relates to the numbers enrolled in approved schooling but not attending on a regular basis. The key issue in this regard seems to be that the States and Territories have different legislative definitions concerning enrolments and attendance, which makes it difficult to obtain nationally comparable data.

At the other two stages in the Framework (ages 15 to 19 and 20 to 24) there are a great deal of data available from the ABS, the Longitudinal Survey of Australian Youth (LSAY) and the various administrative collections prepared by the education and training authorities. The ABS and LSAY data collections have significant potential to address the Framework questions.

The main difficulty is that no single data source would be able to supply all of the necessary information. It will therefore be necessary, if answers are to be provided to the key questions, to use multiple sources of data, including ABS, LSAY and the administrative collections for schools and VET. In doing so it will be important to review the definitions and methodology used by each source, and to resolve apparent inconsistencies among various data sets.

The consultations have identified that the highest priority for future developmental work is on measures concerned with stage 2 of the conceptual Framework, namely the transition years from 15 to 19. This age group is seen as a particularly high priority for policy makers, and because their education and labour force activities are generally not as diverse as those in the 20-24 age group, it should be possible to develop key indicators more quickly and economically.

The report goes on to suggest the need for the development of 'leading' indicators in addition to those focussed on participation, transition, retention and completion/attainment. Most current measures are lagging measures in that they are focussed around the end of schooling and reflect educational experiences up to ten years earlier. Leading indicators could provide a more immediate measure of change.

The report identifies the next steps that need to be undertaken if the Framework is to be introduced. They are:

- development of a transition strategy for the new Framework;
- data development;
- identification and development of 'leading' measures; and
- integration of the range of NEPM Taskforce performance measures with the Framework.

1 Introduction

1. The State, Territory and Commonwealth Ministers of Education meeting as the Ministerial Council on Education, Employment, Training and Youth Affairs (MCEETYA) in Adelaide in April 1999 agreed on the *National Goals for Schooling in the Twenty-first Century* to address a range of areas of common concern within a Framework of national collaboration. The goals were to improve Australian schooling by providing a foundation for action to strengthen schools as learning communities, to enhance the teaching profession, to develop the curriculum and to increase public confidence in schools.

2. Under the Terms of Reference given by MCEETYA to the National Education Performance Monitoring (NEPM) Taskforce, key performance measures for national reporting are to be developed in a number of areas. The NEPM Taskforce has adopted principles to guide its work. These state that the primary purposes of nationally comparable reporting are improvement of student learning outcomes, accountability and system and school improvement

3. The National Goals for Schooling in the *Twenty-first Century* include the Goal 3.6 relating to student participation, retention and completion/attainment:

Schooling should be socially just so that:

all students have access to the high quality education necessary to enable the completion of school education to Year 12 or its vocational equivalent and that provides clear and recognised pathways to employment and further education and training.

4. The nature of this goal means that the scope of reporting achievement in this area will need to extend beyond the boundaries of schooling to encompass the post-compulsory education and training system more generally, and entry to the labour market.

5. The NEPM Taskforce formed the view that the current measures do not provide appropriate information about trends in student participation, retention, transition and completion/attainment as they currently apply to schooling and as they may need to apply in the future, given emerging new forms of education and training provision. In particular, there is concern that traditional statistical collections do not adequately reflect current developments in education, including:

- closer integration between general and vocationally-specific education programs;
- introduction of flexible pathways to enable students to obtain education and training qualifications with seamless pathways from one qualification to another;
- introduction of certification arrangements which are more portable between different learning environments and sectors; and
- recognition that provision of lifelong learning opportunities is a major requirement for individuals to achieve ongoing employment within a rapidly changing labour market.

6. Developing the capacity to track student pathways and transitions within the education and training system and to monitor progress in achieving the goals of lifelong learning have emerged as important challenges for policy makers throughout Australia.

7. The Taskforce noted that several agencies have been involved in developing or reporting on performance measures related to participation and retention, including MCEETYA, the Commonwealth, the OECD, the Productivity Commission and the various States and Territories.

8. In this context the Taskforce contracted the consultants to develop a Framework that provides a conceptual basis for developing nationally comparable measures of student participation, transition, retention and completion/ attainment and to investigate the data requirements for its implementation.

9. The Framework is intended to underpin the development of a statistical infrastructure that can provide quality information that supports cross-sectoral policy development, performance measurement and analysis, and an appropriate sub-state, state and national dimension.

10. The project was undertaken in two stages. The first was the development of the Framework and the second, following endorsement of the Framework by MCEETYA, involved the development of the Framework in more detail and the investigation of the data requirements for its implementation. This report combines these two stages into a single publication.

1.1 Contextual issues

11. This is an opportune time to review the adequacy of key performance measures. Australia is characterised by an increasing emphasis on individuals constructing their own pathways through education and training and into work. Policy makers and planners are using concepts such as ‘pathways’ or ‘itineraries’ in an attempt to provide coherence to young people's diverse education and employment circumstances. However, there have been only limited attempts to develop indicators of the various pathways into work used by young people, and the numbers involved.

12. It is important that policy makers are able to monitor the growing diversity of pathways, the extent to which different groups of young people participate in them, and the destinations they lead to.

13. The OECD's November 1998 draft comparative report entitled *Transition from initial education to working life* identified eight key features of policy Frameworks that contribute to successful transitions. Included among these features was:

Well designed monitoring tools such as statistics, indicators and longitudinal surveys reflecting developments in education and employment systems not in isolation from each other but revealing their interactions.

14. Education and training policy is being increasingly framed in lifelong learning terms. A high priority has been placed on providing young people with the skills, knowledge and motivation to be effective learners over their lives, whether through

post-school study or non-formal learning opportunities. The lifelong learning perspective implies a different conception of the data needed for policy development and monitoring:

- a focus on the whole age cohort to capture the full variety of learning experiences; and
- data on the accumulation of education and training, the profile of qualifications and other measures of attainment such as modules completed, rather than just highest level attained; and
- *where feasible*, measures of non-formal learning activities as well as formal education and training; this might include participation in a range of activities approved under Youth Allowance such as Green Corps which may not lead to a formal qualification.

1.2 Process of the consultancy and structure of the report

15. The consultants met with the Taskforce Sub Group for briefing and discussion of progress reports and, with others, presented a seminar to an invited group of stakeholders on 21 October. Consultations were held with key stakeholders. Chapter 2 reports on these consultations. It identifies the major issues raised by States/Territories and their needs in performance measures. It establishes the directions individual States/Territories are taking. It reports views on the key concepts underlying key performance measures. A meeting was held in February 2000 which was attended by representatives of government and non-government school systems, the ABS, DETYA and NCVER to discuss the original Framework proposals developed during the project.

16. Chapter 3 outlines the principles for a Framework derived from the terms of reference, the consultations and the consultants' analysis of the issues in a national and international context.

17. Chapter 4 provides an overview of existing indicators and their strengths and weaknesses. Chapter 5 outlines the major issues to be considered for the measures to be useful in international comparisons.

18. Chapter 6 outlines the proposed Framework. Chapter 7 investigates the data requirements of the Framework in some detail and identifies both the extent to which existing data sources can be used and the need for new data. Chapter 8 draws together the main conclusions and identifies further work that needs to be considered.

2 Main findings from the consultations

19. As part of the study wide ranging consultations through face to face or telephone interviews were undertaken. Parties consulted included members of the National Education Performance Measurement Taskforce, representatives of State and Territory departments of education, DETYA, ABS and representatives of the independent schools associations and the Catholic Education Offices. A total of 30 persons were interviewed. (A complete list of the people consulted is provided at Attachment 1.) In addition to these consultations a seminar was organised early in the study to discuss the project and identify issues and possible approaches, and progress reports were presented to Taskforce meetings. The major findings from these consultations are as follows.

20. The existing measures are not adequate

The existing measures are seen as disparate and not enabling a policy response. In particular, the apparent retention rate from the first year of secondary schooling to Year 12 is seen to have little value except for particular groups such as Indigenous students where the differences from the Australian or State averages are so stark.

21. Leading indicators are needed to support policy action

Existing indicators focus at the end of secondary schooling and are seen as lagging indicators reflecting historic policies. For example they are affected by schooling experiences many years prior to the students leaving school. Indicators eg of literacy levels while students are at primary school may be more useful for action to affect the students during their schooling.

22. New measures must have a clear purpose - improvement in the outcomes for all young people

New measures will need to lead to an understanding of what is happening to all young people, and not just those at school. They must enable a response at the school level and point the way forward for improvement.

23. The way people learn has changed

While the traditional pathways remain important there is a wider range of pathways through education, training and work. There are increased opportunities for learning opportunities outside formal institutions, and the use of alternative learning technologies is growing. It is no longer adequate to look at what is done in each sector independently or to ignore alternatives to institution based learning. Measures need to be developed which reflect and help monitor this developing environment.

24. Measures have multiple uses: political, resourcing and educational

These various uses can conflict and lead to second best educational outcomes. There is need for the measures to focus on the educational uses and improving educational outcomes.

25. *There is a need for consistency and comparability in the measures for States and Territories but league ladders are counter-productive*

There is a need to have a national view and to provide for international benchmarking. Measures must take account of different systems and demographics. League ladders of the States and Territories are not seen as fostering improvement and can lead to a focus on trying to explain away “poor” results rather than addressing of problems.

26. *There is a need to resolve differences in definitions and classifications across sectors of the education system*

Work is being done in this area with the establishment of the Australian Qualifications Framework (AQF) and the current development of the Australian Standard Classification of Education (ASCED). A Framework for qualifications and fields of study is being established, though clarifications of some aspects of level of qualification are still to be resolved. The establishment of the National Centre for Education and Training Statistics, and other consultancies commissioned by the Taskforce, will also help resolve problems of data comparability.

27. *The measures need to recognise all valued outcomes not just the outputs of educational institutions*

The inter-relationship between structured learning, work and other forms of activity needs to be effectively represented in any new measures. Specification of what is a satisfactory outcome from schooling is complex. While for many young people a satisfactory outcome is seen as successful completion of Year 12 or entry to tertiary education, there are many who do not aspire to these outcomes and for whom an immediate satisfactory outcome is getting a job even though it may possibly not be in their long term best interests.

28. *The measures need to quantify the numbers of young adults who are ‘at risk’*

If schools and other educational institutions are to be fully effective the numbers in these ‘at risk’ categories need to be minimised, and the risk factors better understood.

29. *There is a need to look at what is happening within each single year of age within the 15 – 24 age range, and possibly older ages*

From the end of compulsory schooling onwards young people are in increasingly diverse educational and labour market circumstances. The ability to understand this diversity and the chance to map movement between different circumstances will be lost if data are collected only for five or three year age groupings.

30. *There is a need for a suite of related key measures which, in totality, will illuminate a complex pattern of behaviours and pathways*

A very small number of measures, while having the attraction of simplicity, will not enable effective policy responses. The key measures could be supplemented by additional measures which could be used at the sector or school level. The measures need to be able to be applied to a range of demographic groups including currently disadvantaged groups.

31. *The measures need to reflect both static and dynamic views*

They need to provide snapshots in time and also to demonstrate the extent of interaction between individuals and formal learning during the young adult years.

32. *Schooling is only one of many influences on learning outcomes*

Family background, socio-economic status and geographic location are also important factors affecting an individual's capacity and willingness to extend learning. Measures that permit analysis of these factors are required.

33. *Any change in performance measures must be economic and cost effective*

Existing instruments and administrative arrangements should be developed where possible. The advantages of any new additional measures must outweigh any additional costs.

3 Principles for a conceptual Framework for performance measures

3.1 The Principles

34. This chapter outlines the principles for a conceptual Framework for key performance measures relating to national goal 3.6. The principles are derived from the stated purposes for the consultancy and the needs of key stakeholders identified in the consultations.

35. A first requirement is that the measures be of use in indicating action to improve schooling.

3.1.1 The measures need to indicate areas for policy/action to improve the system and its outcomes

36. Goal 3.6 states the concern as ‘all students’. Hence

3.1.2 The measures must encompass the whole age cohort and not report only on those enrolled in particular sectors or achieving particular outcomes.

37. The concern of goal 3.6 is with high quality education to enable completion of year 12 ‘or its vocational equivalent’ and hence:

3.1.3 The measures must encompass learning in all its forms including post school education and not just secondary schooling

38. Goal 3.6 is concerned with clear and recognised pathways to employment and further education and training. Hence:

3.1.4 The measures must encompass a range of outcomes beyond formal education, including work

39. For a young person to be unemployed and not participating in education would *prima facie* be an unsatisfactory outcome that the measures must identify.

3.1.5 The measures must encompass both satisfactory and unsatisfactory outcomes

40. What is a satisfactory outcome may vary with the age of the persons under consideration. It may change over time with globalisation, technological change, the ageing of the population and the changing structure of educational provision in Australia such as the growth of VET in school, and part-time education and training. From this we conclude

3.1.6 Measures will need to be selected appropriate to the age of the persons considered

41. A satisfactory outcome for persons during compulsory schooling could be participation in schooling and the measures should therefore help answer the question:

- Are all children enrolled and attending compulsory schooling and if not why not?

42. The minimum school leaving age varies slightly across states. Since all young people aged from 6 to 14 in all States fall within the compulsory years it is suggested that age range be used as the focus of measure for the compulsory years.

43. In transition years from school eg from ages 15 to 19 there is more diversity in what is a satisfactory outcome and hence question to be addressed could include

- What are young people in transition doing in relation to education and work?
- Are some of their activities unlikely to lead to satisfactory pathways to employment or further education and training?

44. For persons beyond transition ages eg 20 to 24, or even older, the questions are

- What qualifications are being achieved by young adults?
- Are young adults participating in structured learning and work?

45. To be of use for action to improve schooling the measures have to provide comparative data: across groups in Australia, over time and in an international context. Hence the following four principles:

3.1.7 *The measures have to provide information on the current position*

3.1.8 *The measures have to provide information on changes over time*

3.1.9 *The measures where feasible should be suitable for comparisons or benchmarking with the measures for other countries including the OECD Member countries*

3.1.10 *The measures must be able to be developed for a variety of groups*

- each State and Territory,
- metropolitan and non-metropolitan
- particular demographic groups to enable focus on ones which research suggests may be prone to early leaving or to problematic transition from education to working life:
 - ♣ socioeconomic status (SES)
 - ♣ geographically isolated
 - ♣ language background other than English (LBOTE)
 - ♣ Indigenous students
 - ♣ students with a disability.
 - ♣ gender.

46. In addition there are several principles relating to use and cost:

3.1.11 *The measures need to be simple and easily understood*

3.1.12 *The measures should be based on data potentially collectable in a rigorous, reliable and consistent way over time*

3.1.13 *The measures must not rely on data that is excessively costly to collect*

47. While it is desirable to capture all forms of learning it may not be possible to measure informal learning in the home, in the community or on-the-job that does not lead towards recognisable learning outcomes.

3.1.14 *The measures of learning must focus, at least for the next few years, on structured learning that could lead to a recognised learning outcome*

3.2 Summing up: the Conceptual Framework

48. From these principles a conceptual Framework has been developed which forms the basis of the identification of the performance measures relating to student participation, transition, retention and completion/attainment. The key features of this Framework are set out in Box 1.

Box 1. Conceptual Framework

1. The Framework is person centred rather than educational institution centred.
2. The persons concerned are all Australians aged 6 – 24 years.
3. The Framework has three key stages which are:
 - Compulsory schooling (ages 6 – 14);
 - Transition from schooling (ages 15 –19)
 - Attainment and continuous learning (ages 20 – 24).
4. The performance measures for each of the key stages derive from the key policy questions for each stage. The key policy questions for each of the stages are:
 - ***Compulsory schooling;***
 - Are all children enrolled and attending compulsory schooling and if not why not?
 - ***Transition years;***
 - What are young people in transition doing in relation to education and work?
 - Are some of their activities unlikely to lead to satisfactory pathways to employment or further education and training?
 - ***Attainment and continuous learning;***
 - What qualifications are being achieved by young adults?
 - Are young adults participating in structured learning and work?
5. The measures of learning relate to structured learning which could lead to a recognised qualification or completion of schooling.

49. This Framework has a number of clear benefits:

- It can remove many definitional problems;
- It identifies the purpose of the measure and the data collected;
- It is not constrained by changing institutional structures and pathways;
- It provides for continuous development and improvement; and
- It enables national comparability.

50. Adoption of this Framework will not necessarily be easy and may take some time to achieve. The detailed development will also need refinement as the understanding of the key stages grows and the identification of what constitutes a satisfactory outcome from schooling improves.

4 Review of existing performance measures

51. There is a very large number of reports and publications which provide data on the performance of education and training institutions and on the labour force outcomes for young people. The very extent of this data can make it difficult to assess performance due to the difficulty in determining what is important. Much of the data relates only to stocks which of themselves do not reflect performance.

52. Some of the data produced by national bodies include:

Australian Bureau of Statistics

- Schools Australia (4221.0)
- Transition from Education to Work (6227.0)
- Participation in Education (6272.0)
- Education and Training Experience Australia (6278.0)
- Australian Social Trends (4102.0)
- Children, Australia: A Social Report (4119.0)
- Education and Training Australia (4224.0)
- Labour Force Teenage Employment and Unemployment Australia (6202.040.001)
- Labour Force Australia (6203.0)
- Job Search Experience of Unemployed Persons Australia (6222.0)

MCEETYA

- National Report on Schooling

Department of Education, Training and Youth Affairs

- Education Participation Rates Australia - 1997.
- Selected Higher Education Student Statistics

Productivity Commission

- Report on Government Services Provision

National Centre for Vocational Education Research (NCVER)

- Australian VET Statistics
- TAFE Graduate Destination Survey

Graduate Careers Council of Australia

- Graduate Destination Survey

ACER

- Longitudinal Survey of Australian Youth and its related publications

53. In addition to the national reports, the States and Territories produce their own data collections and analyses.

54. From these reports a number of measures relating to retention, participation, transition, completion and attainment have emerged. The strengths and weaknesses of these measures are exhibited in the following table.

55. New measures are currently being developed in some States and Territories eg relative proportions in year 7 and 12 by equity characteristics.

56. New sources of data are also being investigated including the tracking of students via unique student identity indicators. At the moment the student identifiers are different in each sector. The use of identifiers based on initials and date of birth might potentially enable the tracking of students across sectors with a degree of error small enough that the data would remain useful in performance measures.

57. The ABS is also considering the development of a number of additional surveys which will provide information on education and training. They include:

- A social survey to be undertaken yearly with a particular focus on indigenous Australians every third year and likely to commence in 2002;
- A multipurpose household survey to be conducted yearly and likely to commence in the next few years; and
- A survey of education and training similar to the Education and Training survey in 1997 to be conducted in 2001 and then four yearly.

58. Recently there have been increasing attempts to look beyond traditional measures and develop measures more appropriate to the emerging environment. The recent reports of the Dusseldorp Skills Forum entitled *Australia's Youth: Reality and Risk* (1998) and *Australia's Young Adults the Deepening Divide* (1999) are examples of such attempts to develop outcome measures for young people.

59. Table 1 following identifies some of the strengths and weaknesses of the existing performance measures.

Table 1: Strengths and Weaknesses of Existing Performance Measures

| Measure | Examples of strengths | Examples of weaknesses |
|--|--|---|
| Apparent Retention Rate: Years 7 or 8 – 12 | <ul style="list-style-type: none"> • Simple • Well known • Easy to construct • Important measure for some groups such as Indigenous students | <ul style="list-style-type: none"> • Relates only to schools • Excludes students studying at home or part time • Includes adult and overseas students • Takes no account of movement among schools and school systems • Takes no account of migration |
| Apparent Retention Rate Years 10 – 12 | <ul style="list-style-type: none"> • Simple • Attempts to diminish weaknesses in the 7-12 Apparent Retention rate | <ul style="list-style-type: none"> • See above • Excludes all the young people who leave school before the middle of Year 10 |
| Age Participation Rates in all schools for each age in the range 15 – 19 | <ul style="list-style-type: none"> • Provides accurate picture of participation in schools • Could provide demographic splits. | <ul style="list-style-type: none"> • Limited to schools • Does not measure other valued outcomes e.g. work, VET, Uni. • Includes overseas students |
| Age Participation Rates in all education sectors | <ul style="list-style-type: none"> • Provides a picture of participation across formal education sectors | <ul style="list-style-type: none"> • VET data are cumulative whereas school and university data are point of time enrolments • Need accurate demographic data as well as enrolment data • No information on work or other activities outside formal education |
| Transition from Education to Work | <ul style="list-style-type: none"> • Presents a wider range of outcomes • Shows employment and education status. | <ul style="list-style-type: none"> • Small sample size limits use for States and Territories or special groups • Changes in definitions and collection methods affects time series data |
| Completion Rates | <ul style="list-style-type: none"> • Have potential to measure an outcome of schooling • Can be calculated for SES by home location | <ul style="list-style-type: none"> • Confined to schooling • Do not measure accumulated completions by a cohort • Differences among State systems make comparison unreliable • Outcome measure is limited to end of schooling award rather than learning attained |
| Finn Targets | <ul style="list-style-type: none"> • Provide target • Reflect community aspirations | <ul style="list-style-type: none"> • Mixture of attainment and participation • Excludes people who have participated but left before the target age without a qualification • Does not include employment • Targets are arbitrary |

5 Measures in an international context

5.1 The value of international comparisons

60. Placing Australian education and training policy in an international context provides opportunities for learning in a number of different ways. Australia is able to learn more about itself by using international experience and data to reference its performance, strengths and weaknesses. International comparisons can help to generate new ideas for overcoming deficiencies in education and training, and strengths can be better appreciated. Understanding what Australia does well, and why, can help put policy proposals into perspective. In this process the analysis of similarities among countries may be just as important as the identification of differences. For example, national debate may attribute problems in the transition to work to particular features of a country's education system when, in fact, problems such as high youth unemployment are also present in countries with markedly different education and training systems.

5.2 The challenge of international comparisons

61. Terminology needs to be treated with particular care when making international comparisons. For example, classification of any one program or country's system into the general or vocational education category involves making judgments about relative emphases, and these judgments can differ depending on the perspective adopted; the judgments can also change over time.

62. The institutional framework is also an important consideration in drawing international comparisons. For example, few countries have an education sector such as VET which:

- provides programs ranging from upper secondary to high-level tertiary qualifications, adult education, recreational courses, and a wide range of enterprise-specific programs;
- enrolls large numbers of part-time students and students taking only a few modules, and students from a broad age span; and
- is located in a wider range of institutions in the public and private sectors.

63. Education and training arrangements are often deeply embedded in specific national contexts. It is important to understand the economic, political and social circumstances that shape the operation of education and training systems, and which may limit their transferability to other countries.

5.3 Australia's current involvement in international data comparisons

64. In the areas of concern to the Taskforce Australia currently supplies data to three main international organisations: UNESCO (principally education data); the International Labour Organisation (principally labour force data); and the OECD (education and labour force data).

65. The labour force data collected in Australia and supplied to the ILO and OECD conforms to long-established conventions about basic concepts such as labour force

participation, employment and unemployment. However, even here the actual applications of the conventions within countries can differ eg in the treatment of part-time work or self-employment, or the collection of data on different forms of earnings.

66. International comparisons of education data have really only been operating in a systematic way since the late 1980s through the Indicators of National Education Systems (INES) project established by the OECD. INES, which was a collaborative exercise involving the OECD Secretariat and government and academic experts from OECD Members countries, led to the publication of the first edition of *Education at a Glance: OECD Indicators* in 1992. The seventh edition of EAG was published in 1998. Over time a number of new indicators have been added to EAG, other indicators deleted, and considerable efforts expended in improving the comparability of the indicators in both conceptual and methodological terms.

67. As a member of two INES networks and various working groups Australia has played a key role in the development of the EAG. The annual release of the EAG generates substantial discussion and analysis in Australia.

5.4 Relation to operating principles

68. As already indicated, it is desirable that education and labour force data in Australia should be collected according to definitions and methodologies that enable key aspects of the data to be incorporated by organisations such as the OECD and ILO in ways that are internationally comparable.

69. The ways that education and labour force data are combined and used to generate indicators to inform policy issues in Australia should reflect Australian frameworks and priorities. However the identification and development of indicators for Australian application will be enriched by ongoing analysis of indicator use internationally.

70. Attachment B summarises the four main indicators of school-to-work transition that are currently used by the OECD, and how these relate to Australian data and policy concerns.

5.5 Future international developments in transition indicators

71. The OECD approach to transition indicators has broadened considerably in recent years. In earlier editions of *Education at a Glance* (EAG) the focus was almost exclusively on youth unemployment rates. It was widely recognised, however that this was limited. The focus was on only one outcome of the transition to work, and a negative outcome at that (unemployment). As well, none of the early indicators provided any insights on the process of moving from full-time education to work. The priorities for indicator development were identified are in two main areas: *the process of transition* from education to work; and a *broader set of transition outcomes*. The 1998 edition of EAG represents a considerable advance in both these respects.

72. The November 1999 report from the *OECD Thematic Review of the Transition from Initial Education to Working Life* has attempted to move this development along even further by proposing a comprehensive framework for transition indicators that could lead to improved analytical insights and policy formation. These proposals, which are detailed in Attachment B, are consistent with the proposals developed in the present paper.

6 Proposed Framework for key performance measures

73. The conceptual Framework described earlier identified three distinct stages of young people's movement through education and training and the key performance related questions for each of those stages. The stages and major questions are:

Compulsory schooling (ages 6 – 14)

- Are all children enrolled and attending compulsory schooling and if not why not?

Transition years (ages 15 – 19)

- What are young people in transition doing in relation to education and work?
- Are some of their activities unlikely to lead to satisfactory pathways to employment or further education and training?

Attainment and continuous learning (20 – 24)

- What qualifications are being achieved by young adults?
- Are young adults participating in structured learning and work?

74. These stages may also prove useful for the reporting of other measures being developed by the NEPM Taskforce such as measures for IT or VET in schools. It may assist in promoting coherence and relationships across the suite of measures under development.

75. In this section of the report these questions are expanded upon, supplementary questions are developed which help focus on what is important and potential performance measures identified.

76. The data for the measures outlined in this chapter would be obtained in such away that the measures for each stage could be calculated according to agreed demographic groupings.

6.1 The compulsory years: are all children attending compulsory schooling?

77. Children who are not participating in schooling during the compulsory years are likely to be those most at risk of not achieving their potential, and of being trapped in a cycle of casual work, unemployment and employment assistance programs.

78. Existing measures tend to disregard this group. For example in the OECD report, *Education at a Glance*, Australia is reported as having 100 per cent participation in this group. DETYA in *Education Participation Rates, Australia 1997* (Canberra, 1999) provides what appear to be more realistic figures. However they only apply to school participation and they are only published for the age range 7 - 14 so it is not possible to determine the extent to which the proportion of the cohort at each age that is not participating in schooling changes. The DETYA report indicates that 1.3 per cent of children aged 7 - 14 are not attending school which equates to 27,000 children. Some of these children will be excused from school and others will be learning at home but estimates of these numbers could not explain the total size of the group.

79. The key supplementary performance related questions for this group are:
- How many people aged 6 - 14 are not enrolled and attending *approved* schooling?
 - Does the proportion not enrolled or not attending increase with age?
 - Are there common demographic characteristics among these people? and
 - Why are these people not attending school?
80. The measures for this group could then be:
- The number and proportion of young people aged 14 who are not attending or enrolled in approved schooling;
 - changes in the participation rate during the compulsory years of schooling;
 - The demographic characteristics of those aged 14 and not attending or enrolled in approved schooling; and
 - The attitudes of young people to schooling.
81. There will be difficulties in developing these measures. The numbers not attending are relatively small so survey errors may be large. Identifying individuals may be difficult given the legal requirement to attend school.

6.2 Transition years: what are young people doing/achieving?

82. The 15 - 19 age group reflects the period of transition of young people from compulsory schooling to further education, training, work and leisure. Most young people will leave school while they are in this age range and this period reflects a time of experimentation with pathways and lifestyle. For this reason the focus on performance in this period needs to be on the mix of activities being undertaken by young people and not on any one particular characteristic.

83. The performance measures need to identify those young people who are most at risk during this transition period¹. Existing published performance measures tend to focus on those who are more likely to successfully make the transition from school (e.g. Year 12 completion, transition to university or TAFE) rather than those at risk. In addition the use only of snapshots based on statistical data will not identify the richness of experience and the pathways of learning adopted by many young people.

84. To be effective in this age group performance measures will need to focus on the characteristics and experience of *each individual year of age* in the age range 15 - 19. Use of statistics from individual sources (e.g. schools, TAFE, University and work) will be of limited value because they provide only a one dimensional view and double counting will be a major source of error.

85. The key supplementary performance related questions for this group are:
- What proportion in each cohort are participating in schooling?

¹ See for example, Dusseldorp Skills Forum, *Australia's Youth: Reality and risk*, 1998

- What proportion of early school leavers are in full-time employment?
- Where are young people learning?
- What are their levels of attainment?
- Why do young people leave schooling early?

86. The measures for this group could then include:

- The proportion in each cohort of those:
 - in full-time education or work;
 - not in education or work;
 - in part-time work, part-time education or both;
 - attending approved schooling, VET courses or University;
- The levels of completion of schooling and attainment in terms of the AQF; and
- The attitude of young people to schooling and learning.

87. The education and labour force participation data could be collected and arrayed in matrix form that identified the 12 main categories that between them map the activities of the whole cohort.

88. The more disaggregated the form in which the data are collected, the greater the possibility of distilling key measures relevant to policy priorities, and the more opportunities there will be for ongoing discussions about the most appropriate measures.

Box 2. Education and Labour Force participation matrix

| In Education | In the Labour Force | | | Not in Labour Force | Total |
|--------------------|---------------------|--------------------|------------|---------------------|-------|
| | Employed full-time | Employed part-time | Unemployed | | |
| Enrolled full-time | | | | | |
| Enrolled part-time | | | | | |
| Not in education | | | | | |
| Total | | | | | |

89. The measures of transition outlined above are consistent with and more extensive than those being proposed in an international context by the OECD (see Attachment B).

6.3 Young adults: (a) what qualifications are being achieved by young adults?

90. By the time they reach age 24 most people will have completed their period of concentrated learning through attendance at educational institutions so it is an appropriate time to take stock of the outcomes that have been achieved.

91. Although there appear to be an increasing number of people who adopt a mix and match or just in time approach to structured learning and do not seek qualification, qualifications remain an important proxy for the learning undertaken.

They will of course understate the learning undertaken but a relative decline in qualification levels is likely to be seen with concern.

92. The performance measures need to cover the whole range of qualifications yet provide detail of the sector in which they were achieved.

93. The key supplementary performance related questions for this group are:

- Are young adults obtaining multiple qualifications?
- Is there an increasing proportion of young adults not receiving a qualification for their learning? and
- What types of qualification are being obtained?

94. Information in support of these questions would not need to be obtained for every age in the range. Data for the age 20 and age 24 cohorts might be sufficient.

95. The measures for this group at ages 20 and 24 could then include:

- The proportion who have taken instruction in final year school subjects;
- The proportion who have obtained a final year of secondary schooling credential;
- The proportion who have obtained a certificate, diploma or degree as classified by AQF;
- The proportion with multiple post-school qualifications; and
- The proportion who have attended post school structured training but have not received an associated qualification.

6.4 Young adults: (b) are they participating in structured learning and work?

96. Beyond age 19 the transition from school has been completed and future directions established for most young people. There remain however a significant and growing minority who return to school or other structured learning after having been away from it for some time. For those that have continued their learning there is an increasing trend to not see year 12, the TAFE course or the degree as the end point, with many moving to alternate choices even before completing their qualification.

97. The key supplementary performance related questions for this group are:
- What proportion of the age cohort participated in structured learning?
 - What form did their learning take? and
 - What was their work status?
98. The measures for this group could then include:
- As for those in the transition years the proportion in each cohort:
 - in full-time education or work;
 - not in education or work;
 - in part-time work, part-time education or both;
 - attending approved schooling, VET courses or University;
 - The proportion in each age cohort who participated in university or VET or other courses.
99. As for other stages, the data for these measures would be obtained in such a way that the measures could be calculated according to agreed demographic groupings.

7 The data requirements

7.1 Existing data and its limitations

100. In this section the data required to answer the questions associated with the three main stages young people move through education and training and to compare this with the data that is currently available is identified. This comparison is used to highlight the additional data gathering required together with features of existing data collections which limit their value in answering the Framework questions. This analysis leads to the identification of actions which will need to be taken to implement the Conceptual Framework.

7.1.1 Sources of existing data

101. As discussed in Section 4 “Review of existing performance measures” there is a very large amount of data collected on education and training on a regular basis. Much of this is prepared by the ABS.

102. A summary of some of the relevant features of the main data collections is provided in Table 2.

Table 2: Coverage of Existing Sources of Data

| Published by | Statistical Report | Survey Pop'n | Freq'y | State | Gender | SES ¹ | Indigenous | LBOTE ² | Geog. Isol'n | Disability |
|----------------------------|--|----------------------------|----------|-------|--------|------------------|------------|--------------------|--------------|------------|
| ABS | Aboriginal and Torres Strait Islanders | Sample | Irreg | Yes | Yes | Yes | Yes | No | Yes | Yes |
| ABS | Census | All | 5 Year | Yes | Yes | Yes | Yes | Yes | Yes | No |
| ABS | Education and Training Experience | Sample | 4 Yearly | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| ABS | Labour Force | Sample | Monthly | Yes | Yes | Yes | No | Yes | Yes | No |
| ABS | Transition from Education to Work | Sample | Annual | Yes | Yes | Yes | No | Yes | Yes | No |
| ACER | Longitudinal Surveys of Australian Youth | Sample | Annual | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Administrative collections | | | | | | | | | | |
| ABS | Schools | All | Annual | Yes | Yes | No | Yes | No | No | No |
| DETYA | Selected Higher Education Student Statistics | All | Annual | Yes | Yes | Post-code | Yes | Yes | Post-code | Yes |
| Boards of Study | Various in each State & Territory | Year 12 students | Annual | Yes | Yes | Post-code | Yes | Yes | Post-code | Yes |
| DETYA | School completion | All | Annual | Yes | Yes | Post-code | No | No | Post-code | |
| NCVER | Vocational Education and Training statistics | All in publicly funded VET | Annual | Yes | Yes | Post-code | Yes | Yes | Post-code | Yes |

Notes: 1. “Yes” indicates that the data source collects data on variables such as income or occupation from which a measure of socio-economic status could be constructed. All ABS surveys can have a SEIFA index applied to the file (ie. an area-based SES measure based on where the respondent lives).
2. “Yes” indicates that the data source collects data (eg birthplace or language spoken at home) from which a measure of Language Background Other Than English (LBOTE) could be constructed. Some ABS surveys also include measures of English language proficiency.

103. The Longitudinal Survey of Australian Youth (LSAY) has been used mainly as a source for investigating research questions to inform policy development rather than as a source of statistical information about the youth population. It does however have considerable potential to support the Framework.

104. LSAY and its predecessor longitudinal studies conducted by ACER and DETYA were essentially designed to inform policy development on young people making the transition from school to post-school education and training and the labour market. Thus, LSAY is particularly well placed to support the development of performance measures concerned with the *second stage* of the conceptual Framework. In addition because LSAY is concerned with the transition to work and, resources permitting, seeks to collect annual information on young people until at least the age of 25, it is also well-placed to support the development of performance measures for the *third stage* of the conceptual Framework.

105. Both the ABS and LSAY surveys and the ABS census have significant potential to address the Framework questions because they collect information about the *whole age cohort* for a *wide range* of their education, training and labour market activities. The increasingly fluid and diverse nature of education and training pathways means that the traditional administrative data collections are not able to adequately monitor developments affecting young people as a whole because they report only on those enrolled in particular sectors and their outcomes.

106. The administrative data collections conducted by education and training authorities clearly serve important management and accountability functions, and provide performance measures, *within* the sectors. They collect much more detailed data *on persons who are enrolled* in the individual education and training sectors than is possible through the ABS or LSAY-type surveys. Further, considerable work has occurred to improve comparability among the administrative data collections in terms of using common definitions and measures.

7.1.2 Data limitations: the main issues

107. In the tables on the following pages the gaps and limitations of existing published data in providing each of the required data elements are identified in some detail. Some of the data limitations are already being addressed in the development of future collections by the ABS. For example the ABS is reviewing its classification of qualifications and the collection of data on people with multiple qualifications. In addition, other consultancies commissioned by the NEPM Taskforce are reviewing the conceptual and empirical bases of a number of the demographic and social background categories listed in Table 1.

108. Also, the existence of these data limitations does not mean that a start on the development of the measures cannot be undertaken before they are all resolved. We are of the view that it is possible to use the existing collections to start the development of many of the measures with the potential for improvement over time as data collections develop.

7.1.2.1 *Samples to allow estimates for sub-groups of the whole population in the age groups.*

109. As stated the administrative collections for schools, publicly funded VET and universities provide regular data for a number of variables for persons who are enrolled students but they do not provide data on persons who are not enrolled. The ABS Census covers the whole population. Its limitations are the effects on the quality of the data of the mode of collection and that it is undertaken only every five years.

110. Regular sample surveys are undertaken by the ABS. The main ones, for estimates relating to the education and labour force, are:

- the monthly population survey (which is the basis for the *Labour Force* publication 6203.0);
- the annual supplementary survey in May (for *Transition from Education to Work* 6227.0); and the
- Four-yearly special supplementary survey of Education and Training (*Education and Training Experience* 6278.0).

111. The monthly population survey and the annual supplementary survey are based on an Australia wide multi-stage area sample of private dwellings (about 30,000 houses flats etc) and covers about one half of 1% of the population of Australia or about 75,000 persons aged 15 and over². This implies that the sample of persons aged say 15 to 19 would be about 7,000 and the sample at single years of age about 1,500. As illustrated in the ABS publications the sampling standard errors are 25% or more when the Australia-wide estimate is less than 5,000 persons.

112. The achieved sample size for the most recent (1997) four-yearly Education and Training survey was about 14,000 dwellings or about 23,000 completed interviews of persons aged 15-64 years, or an average of about 500 persons for each single year of age.

113. It is a general conclusion that the ABS sample surveys can provide very useful national data and some estimates at State level but they cannot always provide the detailed estimates of education and employment by single years of age for all States and by demographic group.

114. The LSAY samples are relatively large (around 13,500 in the original Year 9 sample and 11,500 at the point of the initial telephone interview two years later). The persons in each sample are surveyed every year and a new cohort is generally selected every few years. In the year 2000 it is intended that LSAY will collect data from three samples: the Y98 cohort (those who were in Year 9 in 1998 and who will have a modal age of 16 in 2000); the Y95 cohort (those who were in Year 9 in 1995 and who will have a modal age of 19 in 2000); and the Y75 cohort (those who were born in 1975 and who will be aged 25 in 2000). The most recent LSAY samples are substantially larger (for the age ranges they cover) than the ABS sample surveys. LSAY therefore offers considerable potential for reliable population estimates for a

² These surveys include people staying in Australia but who do not have permanent resident status, though they may be residents for the purposes of statistical collections. That is overseas students whose period of stay in Australia is longer than one year may be counted in the collections.

wide range of social and educational sub-groups. This is separate from the virtue of the LSAY of providing data on changes over time for the same cohort.

115. One limitation of the LSAY data is that it is collected only on a new Year 9 cohort every three years or so. For providing estimates by age the collection of data from students in Year 9 rather than students at a single year of age may also be a limitation – especially as the States and Territories vary in their age-grade distributions. Grade-based samples do provide benefits in terms of minimising data collection burdens on schools. They are also important for studying school effects.

7.1.3 Multiple sources of data and discrepancies in estimates

116. The surveys often provide estimates that are considerably different to the data from the administrative collections. In part this is due to differences in scope, to sampling error as already considered, and also to various forms of non-sampling error.

117. The ABS surveys provide estimates of school student numbers quite close to those in the administrative collection for schools. However, there are considerable differences in the ABS survey estimates of numbers in post-secondary education and the numbers in the administrative collections. Table 3 gives a broad indication of this. The data from the ABS May survey in the table below is that reported in 1999 for enrolment at any time in 1998. The total for universities from the ABS survey far exceeds the administrative total. The total for ‘TAFE and other’ from the ABS May survey include students in privately funded training and might be expected to exceed the administrative count.

Table 3: Alternative estimates of students, Australia 1998 (thousands)

| | ABS May survey | Administrative collections |
|----------------|----------------|----------------------------|
| TAFE and other | 1,043 | 1,535 |
| University | 837 | 672 |
| Total | 1,880 | 2,207 |

Source: ABS (1999) 6227.0, NCVER, DETYA

118. A particular source of non-sampling error for the ABS monthly data collection and the annual May survey is the collection of the information from ‘a responsible adult’ on behalf of the whole household. This affects the distribution of enrolment in post-secondary education among the major sectors. It appears also to lead to a major underestimation of part-time enrolment. The problem is at least partly avoided in the four yearly Survey of Education and Training where the survey is directed at individuals in each household surveyed.

119. At the present time, if answers are to be provided to the key questions, it will be necessary:

- to use multiple sources of data;
- to establish the quality of the data from each source;

- to undertake work on the source of apparent inconsistencies among various data sets; and
- to review the costs and benefits of methods of reducing these inconsistencies.

7.2 Comparison of required and currently available data: overview

7.2.1 Overview

120. Table 4 attempts to summarise the link between the required and existing data and is a synopsis of the more detailed analysis provided in the next section. In interpreting this table it needs to be recognised that none of the existing data sources can fully provide the required data without either substantial extension or change for the reasons outlined above. What this table identifies is whether existing data can provide some relevant information at reasonable levels of accuracy without major change.

Table 4: Required and Existing Data: An Overview

| Core and Supplementary Questions | The Data Required | Existing Data with Some Changes | Existing Data with Major Change | New Data Needed |
|---|--|---------------------------------|---------------------------------|-----------------|
| <p>6 to 14</p> <p>Are all children enrolled and attending compulsory schooling and if not why not?</p> <ul style="list-style-type: none"> • How many people aged 6 to 14 are not enrolled and attending approved schooling? • Does the proportion not enrolled or not attending increase with age? • Are there common demographic characteristics among these people? • Why are these people not attending school? | The number of Australian resident young people enrolled in approved schooling in each State and Territory at age 6, 10 and 14 at 30 June in total and by demographic group. | ABS 4221.0 | | |
| | The estimated total Australian resident population in each State and Territory at age 6, 10 and 14 at 30 June in total and by demographic group. | ABS 3201.0 | | |
| | The number of Australian resident young people enrolled in approved schooling but not attending in each State and Territory at age 6,10 and 14 at 30 June in total and by demographic group. | | | Yes |
| | Attitudinal survey of a sample of young people aged 14 in each State and Territory including views on schooling, schooling intentions and associated reasons. | LSAY ABS 6227.0 | | |

Table 4 continued

| | | | | | |
|--|---|--|---|--|--|
| <p>15 to 19</p> <p>What are young people in transition doing in relation to education and work?</p> <p>Are some of their activities unlikely to lead to satisfactory pathways to employment or further education and training?</p> <ul style="list-style-type: none"> • What proportion in each cohort are participating in structured learning? • What proportion of early school leavers are in full-time employment? • Where are young people learning? • What are their levels of attainment? • Why do young people leave schooling early? | <p>The number of Australian resident young people by labour force status and whether in full time, part time education or training, for each of the ages 15, 16, 17, 18 and 19 and for each demographic group.</p> | <p>ABS 6203.0 ABS 6227.0 Census LSAY (over time)</p> | | | |
| | <p>The number of Australian resident young people in education in each of the education sectors and whether full or part time, for each of the ages 15, 16, 17, 18 and 19 and for the required demographic groups.</p> | <p>LSAY (over time)</p> | <p>NCVER VET Statistics ABS, 4221.0 DETYA, Select High Ed Statistics</p> | | |
| | <p>The number of Australian resident young people who have attended year 12, completed a senior school certificate, completed an AQF qualification or university qualification, for each of the ages 15, 16, 17, 18 and 19 and for the required demographic groups.</p> | <p>ABS 6227.0 ABS 6278.0 Census LSAY (over time)</p> | | | |
| | <p>The attitudes of Australian residents aged 15 – 19 who have left school, to their schooling and learning, the reasons why young people either did not complete or did not attend the final year of schooling.</p> | <p>LSAY</p> | <p>ABS 6278.0</p> | | |
| <p>20 to 24</p> <p>(a) What qualifications are being achieved by young adults?</p> <ul style="list-style-type: none"> • Are young adults obtaining multiple qualifications? • Is there an increasing proportion of young adults not receiving a qualification for their learning? • What types of qualification are being obtained? <p>(b) Are young adults participating in structured learning and work?</p> <ul style="list-style-type: none"> • What proportion of the age cohort participated in structured learning? • What form did their learning take? • What was their work status? | <p>The number of Australian resident young adults of age 20 and 24 by level of qualification received</p> | <p>ABS 6227.0 Census LSAY (over time)</p> | | | |
| | <p>The number of Australian resident young adults of age 20 and 24 who have attended or are attending structured learning but who do not expect to obtain a qualification.</p> | <p>ABS 6227.0 ABS 6278.0 LSAY (over time)</p> | | | |
| | <p>The number of Australian resident young adults of age 20 and 24 with more than one post secondary qualification by the sectors and level of qualifications.</p> | <p>ABS 6278.0 LSAY (over time)</p> | | | |
| | <p>The number of Australian resident young people in education/ work in each of the categories for each of the ages 20, 21, 22, 23 and 24 and for each demographic group</p> | <p>ABS 6203.0 ABS 6227.0 Census LSAY (over time)</p> | | | |
| | <p>The number of Australian resident young people in education in each of the education sectors and whether full or part time, for each of the ages 20, 21, 22, 23 and 24 and for the required demographic groups.</p> | <p>ABS 6227.0 LSAY (over time)</p> | <p>NCVER, VET Statistics ABS, 4221.0 DETYA, Select High Ed Statistics</p> | | |

121. The ABS *Transition from Education to Work* survey can provide useful information on the education/work situation for individual ages in the 15–19 age range across Australia but errors become too large when it is further divided by State/Territory or demographic group. Most of the references to LSAY include “over time” in parentheses because LSAY generally does not cover all of the single years of age concerned in any one round of annual data collection.

122. Table 4 indicates that between them the currently available data sets would, with some changes, enable the construction of measures to address most of the questions identified in the Framework.

123. The major gap in the current data collections appears to be at the stage of compulsory schooling (ages 6-14), and relates to *the numbers enrolled in approved schooling but not attending on a regular basis*. The issues surrounding enrolment and attendance are complicated by different legislative requirements in the States and Territories. It is understood that a Working Party is currently examining definitional and measurement issues relating to enrolment and attendance by Indigenous students. That work may provide a basis for collaborative work among school authorities on developing comparable definitions and measures of school enrolment and attendance by students as a whole.

7.2.2 *Some examples of what can be done with existing data*

124. In this part three examples of what can be done with the existing data are provided. One example is provided for each of the three main stages of the overall Framework.

125. Table 5 shows how existing total full time enrolments and estimated population compare for persons in the compulsory years.

Table 5: School Participation in Compulsory Years

| Age | Full Time Enrolments August 1998 | Population June 1998 | Difference | % Difference |
|-----|--|-------------------------|------------|--------------|
| 6 | 263,779 | 263,375 | -404 | -0.15 |
| 7 | 267,384 | 267,938 | 554 | 0.21 |
| 8 | 266,571 | 268,131 | 1,560 | 0.58 |
| 9 | 260,319 | 262,139 | 1,820 | 0.69 |
| 10 | 258,180 | 260,596 | 2,416 | 0.93 |
| 11 | 258,328 | 259,961 | 1,633 | 0.63 |
| 12 | 258,689 | 264,161 | 5,472 | 2.07 |
| 13 | 260,660 | 263,621 | 2,961 | 1.12 |
| 14 | 258,089 | 265,172 | 7,083 | 2.67 |

Source: *Schools Australia 1998* (ABS 4221.0) and *Population by Age and Sex 1998* (ABS 3201.0).
Note that between censuses the age distribution of the population is an estimate.

126. While some of the differences identified in Table 5 will arise from part-time enrolments, enrolments in TAFE and home schooling, these preliminary figures suggest that by age 14 around 3 per cent number of young people are not enrolled in approved schooling. To obtain a complete picture of young people *not attending* approved schooling, these figures would need to be adjusted for part-time and home schooling, for the numbers enrolled but not attending, and for overseas students.

127. Table 6 focuses on the 15-19 year-old age group. It maps the distribution of young people by single year of age across each of the categories of education attendance and labour force status. It shows the proportions who are in either education (full-time or part-time) or in employment (full-time or part-time), or in neither or in both. The data would allow further disaggregation in terms of the major sectors of educational attendance (schools, VET and higher education).

Table 6: Education and Employment Status of Young People in the Transition Years 15 to 19 Australia 1999

| Education Attendance | Employed Total | Employed Full-Time | Employed Part-Time | Unemployed | Not in the Labour Force | Total Labour Force | Total Population | In full-time education, full-time employment, or part-time education <i>and</i> employment |
|----------------------|----------------|--------------------|--------------------|------------|-------------------------|--------------------|------------------|--|
| Aged 15 | | | | | | | | |
| Full-time | 22.4% | 0.0% | 22.4% | 8.8% | 64.5% | 31.2% | 95.7% | 96.7% |
| Part-time | 0.3% | 0.3% | 0.0% | 0.1% | 0.2% | 0.4% | 0.6% | |
| Not attending | 1.6% | 0.7% | 0.9% | 1.3% | 0.9% | 2.8% | 3.8% | |
| Total population | 24.2% | 1.0% | 23.2% | 10.2% | 65.6% | 34.4% | 100.0% | |
| Aged 16 | | | | | | | | |
| Full-time | 30.1% | 0.2% | 29.9% | 7.4% | 51.3% | 37.6% | 88.9% | 94.5% |
| Part-time | 2.3% | 2.0% | 0.3% | 0.4% | 0.0% | 2.7% | 2.7% | |
| Not attending | 5.2% | 3.2% | 1.9% | 1.6% | 1.6% | 6.8% | 8.4% | |
| Total population | 37.7% | 5.5% | 32.2% | 9.4% | 52.9% | 47.1% | 100.0% | |
| Aged 17 | | | | | | | | |
| Full-time | 30.5% | 0.6% | 29.9% | 5.1% | 38.8% | 35.5% | 74.3% | 88.6% |
| Part-time | 6.7% | 5.5% | 1.2% | 0.6% | 0.2% | 7.2% | 7.5% | |
| Not attending | 12.1% | 7.5% | 4.5% | 4.2% | 1.9% | 16.3% | 18.2% | |
| Total population | 49.2% | 13.6% | 35.6% | 9.9% | 41.0% | 59.0% | 100.0% | |
| Aged 18 | | | | | | | | |
| Full-time | 22.0% | 0.9% | 21.1% | 4.7% | 21.9% | 26.6% | 48.5% | 79.0% |
| Part-time | 12.5% | 10.7% | 1.8% | 0.9% | 0.5% | 13.4% | 13.9% | |
| Not attending | 25.4% | 18.0% | 7.5% | 7.0% | 5.1% | 32.5% | 37.6% | |
| Total population | 59.9% | 29.5% | 30.4% | 12.6% | 27.5% | 72.5% | 100.0% | |
| Aged 19 | | | | | | | | |
| Full-time | 22.2% | 1.2% | 21.0% | 2.9% | 17.3% | 25.1% | 42.5% | 75.5% |
| Part-time | 13.1% | 11.9% | 1.2% | 0.5% | 0.3% | 13.6% | 13.9% | |
| Not attending | 30.1% | 19.9% | 10.2% | 8.2% | 5.4% | 38.3% | 43.6% | |
| Total population | 65.5% | 33.1% | 32.4% | 11.6% | 23.0% | 77.0% | 100.0% | |

Source: ABS *Transition from Education to Work*, Cat No 6227.0 May survey 1999, unpublished data

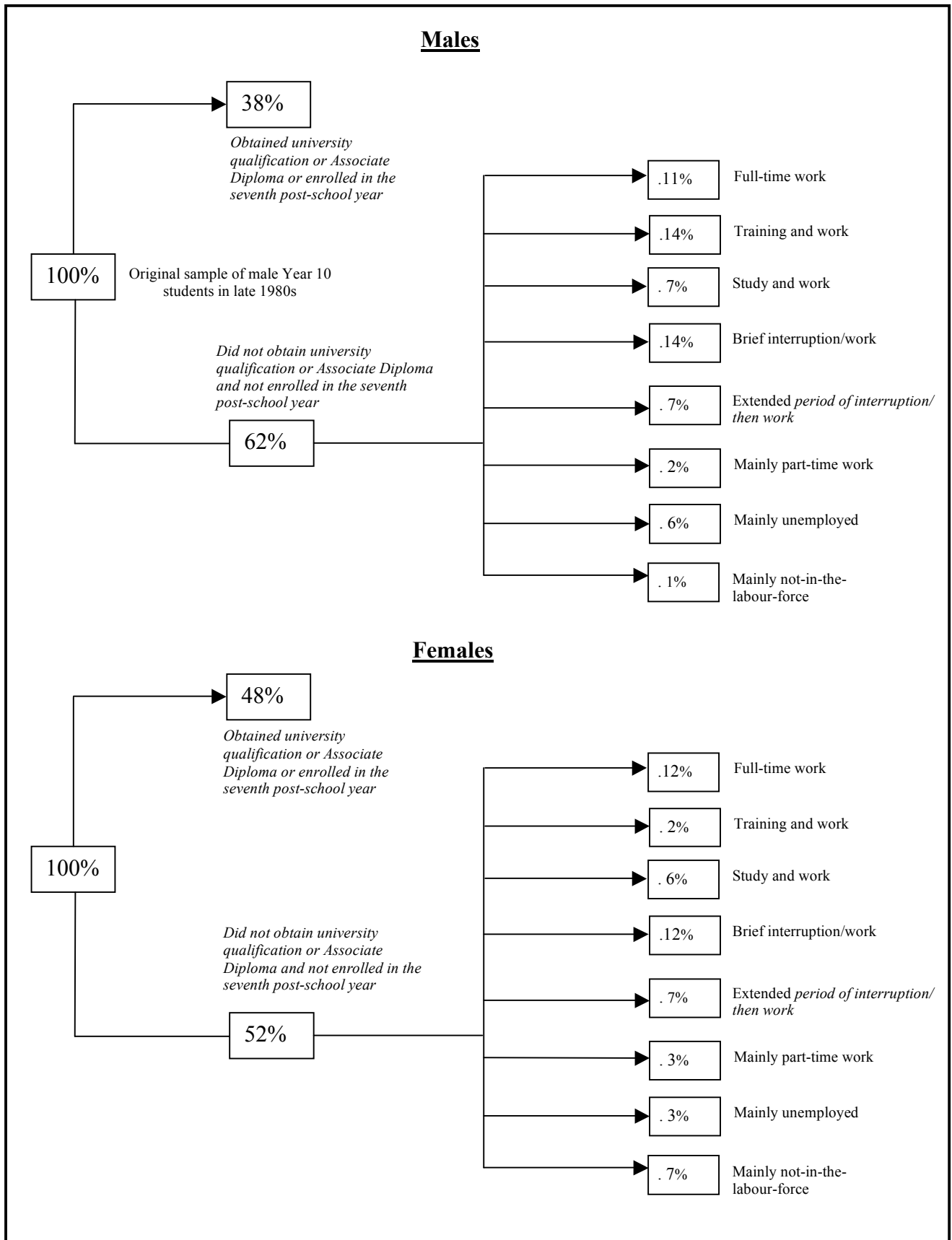
128. The shaded cells represent categories of activities that work by the Dusseldorp Skills Forum and ACER has suggested are associated with an above-average likelihood of difficulties in making a transition to full-time employment by the mid-twenties. These are the persons who are *not* included in the final column headed “in full-time education, full-time employment, or part-time education *and* employment”. The fact that the proportion increases substantially between the ages of 17 (11.4%) and 18 (21.0%) suggests that the period immediately after leaving Year 12 is critically important in determining young people’s transition to full-time employment. Although not all young people in such categories could be considered “at risk”, and correspondingly not all young people in the other categories could be considered “not

at risk”, if the proportions in the shaded boxes were to rise over time – or be markedly higher than in other countries – this could indicate major policy concerns.

129. Figure 1 looks at part of the Young Adult 20 – 24 age group and uses data from the LSAY program analysed by Stephen Lamb and Phillip McKenzie to map the post-school pathways followed by young people who left school in the late 1980s. It documents the proportions of males and females who had obtained university or TAFE Associate Diploma qualifications by their early twenties and the principal pathways followed by those who did not obtain such qualifications. The data show that female school leavers were more likely to obtain university or advanced TAFE qualifications than young men, but that young women were also more likely to be on post-school pathways involving mainly part-time work or being outside of the labour force altogether.

130. Data such as those in Figure 1 enable the construction of indicators of the *flow* of young people from one activity to another. Indicators of flow are important measures in their own right (e.g. the proportion of school leavers who enter higher education is important for both planning and monitoring purposes) as well as providing insights on the causal factors involved in shaping the pathways that young people follow. For example, the LSAY data from which Figure 1 are derived show that students’ social background, geographic location and early school achievement in literacy and numeracy are important predictors of the likelihood of obtaining tertiary qualifications or full-time employment after leaving school.

Figure 1 Pathways of school leavers over the first seven years after leaving school in the late 1980s, by gender (LSAY data)



7.2.3 Comparison of required and currently available data: detailed analysis

7.2.3.1 Stage 1: Compulsory schooling (6 to 14)

131. The core and supplementary questions for this stage identified in the December report are:

Are all children enrolled and attending compulsory schooling and if not why not?

- How many people aged 6 - 14 are not enrolled and attending *approved* schooling?
- Does the proportion not enrolled or not attending increase with age?
- Are there common demographic characteristics among these people?
- Why are these people not attending school?

132. The possible measures for this group include:

- The number and proportion of young people aged 14 who are not attending or enrolled in approved schooling;
- Changes in the participation rate during the compulsory years of schooling;
- The demographic characteristics of those aged 14 and not attending or enrolled in approved schooling; and
- The attitudes of young people to schooling.

133. Table 7 outlines the data required and the data available. It also provides comments on the data problems and areas for future development.

Table 7: Required and Existing Data for Compulsory Schooling Stage (6 to 14)

| The Data Required | The Data Currently Available | Comment |
|--|--|---|
| <p>Enrolments</p> <p>The number of Australian resident young people enrolled in approved schooling in each State and Territory at age 6, 10 and 14 at 30 June in total and by demographic group.</p> | <p>The number of full time students enrolled in schools in each State and Territory at age 6, 10 and 14 in August in total and by selected demographic groups not necessarily identical to those required.</p> <p>(ABS 4221.0)</p> | <p>The current data concentrates on full time <i>enrolment</i> at school rather than all young people attending approved schooling including part time, home schooling and TAFE.</p> <p>Current definitions of demographic group are not consistent across all States and Territories.</p> <p>Because small numbers will be important in determining participation for these age groups minimising errors in the statistics will be critical.</p> <p>Disability is not included as a demographic group as numbers are controlled by funding levels and a common definition may not be seen as achievable</p> |
| <p>Population</p> <p>The estimated total Australian resident population in each State and Territory at age 6, 10 and 14 at 30 June in total and by demographic group.</p> | <p>The estimated population in each State and Territory at age 6, 10 and 14 at 30 June in total and by demographic groups not necessarily identical to those required.</p> <p>(ABS 3201.0)</p> | <p>Resident population includes overseas persons who indicate they intend to stay more than 12 months.</p> <p>The errors in these estimates would almost certainly make any estimation of numbers not enrolled by State/Territory and demographic group impossible.</p> <p>Current definitions of demographic group are not consistent across all States and Territories.</p> <p>Because small numbers will be important in determining participation for these age groups minimising errors in the statistics will be critical.</p> <p>Disability is not included as a demographic group as numbers are controlled by funding levels and a common definition may not be seen as achievable</p> |
| <p>Enrolled but not attending</p> <p>The number of Australian resident young people enrolled in approved schooling but not attending in each State and Territory at age 6,10 and 14 at 30 June in total and by demographic group.</p> | <p>Not collected nationally although individual States and Territories have some measures of the extent of the differences between enrolments and attendees at school.</p> | <p>There appear to be considerable differences among the States and Territories in the definitions and measurement of enrolment and attendance.</p> |
| <p>Attitudes to schooling</p> <p>Attitudinal survey of a sample of young people aged 14 in each State and Territory including views on schooling, schooling intentions and associated reasons.</p> | <p>Some individual schools undertake surveys.</p> <p>The LSAY identifies some of this information, but only for those young people who were at school in Year 9.</p> | <p>Attitudes of young people who left before age 15 could be obtained from other surveys eg Education and Training or Transition from Education to Work</p> |

7.2.3.2 Stage 2: Transition from schooling (15 to 19)

134. The core and supplementary questions for this stage identified in the report are:

- ⇒ What are young people in transition doing in relation to education and work?
- ⇒ Are some of their activities unlikely to lead to satisfactory pathways to employment or further education and training?
- What proportion in each cohort are participating in structured learning;
- What proportion of early school leavers are in full-time employment;
- Where are young people learning?
- What are their levels of attainment?
- Why do young people leave schooling early?

135. The possible measures for this group include:

- The proportion in each cohort of those:
 - in full-time education or work;
 - not in education or work;
 - in part-time work, part-time education or both;
 - attending approved schooling, VET courses or University;
- The levels of completion of schooling and attainment in terms of the AQF;
- The attitude of young people to schooling and learning.

136. Table 8 provides detailed comments on the currently available data sources and identifies the key areas for future development.

Table 8: Required and Existing Data for the Transition Stage (15 to 19)

| The Data Required | The Data Currently Available | Comment |
|---|--|--|
| <p>Education and labour force participation</p> <p>The number of Australian resident young people by labour force status and whether in full time, part time education or training for each of the ages 15, 16, 17, 18 and 19 and for each demographic group</p> | <p>The number of young people of ages 15 – 19 (in single years) by labour force status and by full time attendance at a tertiary institution or school.</p> <p>(ABS 6203.0)</p> <p>The number of young people in the age ranges 15 – 19 and 20 – 24:</p> <ul style="list-style-type: none"> ◆ Who applied to enrol in HE/TAFE by outcome and labour force status; ◆ Who were attending an education institution in the previous year, by type of attendance in current year and labour force status; ◆ Who have left school by highest year of school attended. <p>(ABS 6227.0)</p> <p>(ABS Census)</p> <p>The number of young people in the LSAY samples by labour force status and whether f/t or p/t in education.</p> <p>(LSAY)</p> | <p>While all of the required data components would be reflected in 'Transition from Education to Work' and 'Labour Force', the small sample size used to produce those reports would mean that any disaggregation beyond the first level (either State/Territory, age or demographic group) would be subject to such large sampling errors as to be unusable.</p> <p>Existing publications do not disaggregate data in the required format.</p> <p>Detailed data should be available every five years from the Census, though work on reconciling census and survey estimates will be necessary.</p> <p>LSAY samples have mixed ages and numbers may not enable effective disaggregation for some sub-groups.</p> |
| <p>Participation by education sector</p> <p>The number of Australian resident young people in education in each of the education sectors and whether full or part time, for each of the ages 15, 16, 17, 18 and 19 and for the required demographic groups.</p> | <p>The number of young people attending school full time, attending Government funded Registered Training Organisations (RTOs) and universities, full or part time, for each of the ages 15, 16, 17, 18 and 19 and for the required demographic groups.</p> <p>(NCVER, VET Statistics)</p> <p>(ABS, 4221.0)</p> <p>(DETYA, Selected Higher Education Statistics)</p> <p>Data for these statistics are also collected as part of the Transition from Education to Work survey undertaken by the ABS and in the Census every five years but are not published in the proposed form.</p> <p>(ABS, 6227.0) (ABS Census)</p> <p>The number of young people in the LSAY samples by education sector and whether f/t or p/t.</p> <p>(LSAY)</p> | <p>Published statistics from the administrative collections do not always exclude non-residents.</p> <p>The administrative data are likely to double count an unknown number of young people who may attend more than one institution in a year.</p> <p>The numbers of young people identified as attending post secondary education and training in the ABS survey differ from the figure provided by the administrative collections. If the data from the two sources is to be linked these discrepancies will need to be rectified.</p> <p>Current sector based statistical collections do not include all participants eg. students studying through the Internet, part time school students and many students enrolled in privately funded RTOs.</p> <p>Current surveys may double count young people attending in more than one sector.</p> <p>LSAY samples have mixed ages and numbers may not enable effective disaggregation for some sub-groups.</p> |

Table 8 continued

| | | |
|---|---|---|
| <p>Educational attainment (qualifications)</p> <p>The number of Australian resident young people who have attended year 12, completed a senior school certificate, completed an AQF qualification or university qualification, for each of the ages 15, 16, 17, 18 and 19 and for the required demographic groups.</p> | <p>The number of young people in the age ranges 15 – 19 and 20 – 24, by educational attainment.</p> <p>The number of people in the age range 15 – 64 by labour force status and educational attainment</p> <p>(ABS 6227.0) (ABS 6278.0)</p> <p>The Census should provide required information on a five yearly basis.</p> <p>(ABS, Census)</p> <p>Year 12 completion data</p> <p>(DETYA from BOS data)</p> <p>The LSAY can provide this information for their Year 9 cohorts (currently every three years).</p> <p>(LSAY)</p> | <p>Refer to comments on population and sample size above</p> <p>Definitions and measures of Year 12 completion and certification differ among States and Territories.</p> |
| <p>Reasons for early school leaving</p> <p>The attitudes of Australian residents aged 15 – 19 who have left school, to their schooling and learning, the reasons why young people either did not complete or did not attend the final year of schooling.</p> | <p>The number of people aged 15 to 19 who were in or marginally attached to the labour force or in f/t or p/t education and who did not complete secondary school by the main reason for non completion.</p> <p>(ABS 6278.0)</p> <p>LSAY collects this information for its samples.</p> <p>(LSAY)</p> | <p>Population of ABS survey excludes people not marginally attached to the labour force but this is likely to change in future surveys.</p> <p>LSAY does not collect data from those who left school before Year 9.</p> |

7.2.3.3 *Stage 3: Attainment and continuous learning (20 to 24)*

137. The core questions for this stage identified in the report are:

- (a) What qualifications are being achieved by young adults? and
- (b) Are young adults participating in structured learning and work?

138. The supplementary questions on qualifications are

- Are young adults obtaining multiple qualifications;
- Is there an increasing proportion of young adults not receiving a qualification for their learning; and
- What types of qualification are being obtained?

Information in support of these questions may not need to be obtained for every age in the range. Data for the age 20 and age 24 cohorts might be sufficient.

139. The measures for this set of questions at ages 20 and 24 could then include:

- The proportion who have taken instruction in final year school subjects;
- The proportion who have obtained a final year of secondary schooling credential;
- The proportion who have obtained a certificate, diploma or degree as classified by AQF;
- The proportion with multiple post-school qualifications; and
- The proportion who have attended post school structured training but have not received an associated qualification.

140. The supplementary questions about young adults participating in structured learning and work are:

- What proportion of the age cohort participated in structured learning?
- What form did their learning take? and
- What was their work status?

141. The measures for these questions could then include:

- As for those in the transition years, the proportion in each cohort
 - in full-time education or work;
 - not in education or work;
 - in part-time work, part-time education or both;
 - attending approved schooling, VET courses or University;
- The proportion in each age cohort who participated in university or VET or other courses.

142. Table 9 provides detailed comments on the currently available data sources and identifies the areas for future development.

Table 9: Required and Existing Data for the Attainment and Continuous Learning Stage, 20 to 24

| The Data Required | The Data Currently Available | Comment |
|--|---|--|
| <p>Qualifications at ages 20 and 24</p> <p>The number of Australian resident young adults of age 20 and 24 by level of qualification received</p> | <p>The number of young adults in the age group 20 – 24 by level of qualification received based on the ABSCQ qualification classifications.</p> <ul style="list-style-type: none"> • (ABS) and Census <p>The number of young people in the LSAY samples by qualification</p> <ul style="list-style-type: none"> • (LSAY) | <p>Refer to comments on population and sample size above</p> |
| <p>Enrolled, but not completing a qualification</p> <p>The number of Australian resident young adults of age 20 and 24 who have attended or are attending structured learning but who do not expect to obtain a qualification.</p> | <p>The number of persons aged 15 – 64 who attended non recognised study.</p> <p>(ABS 6227.0)</p> <p>The number of persons aged 15 – 64 who were in or marginally attached to the labour force or in f/t or p/t education and who had enrolled for but not completed an educational qualification in the past five years.</p> <p>(ABS 6278.0)</p> | <p>Future surveys for ABS 6278.0 will include all persons aged 15 – 64.</p> <p>The LSAY samples may provide information on this question (LSAY)</p> |
| <p>Multiple qualifications</p> <p>The number of Australian resident young adults of age 20 and 24 with more than one post secondary qualification by the sectors and level of qualifications.</p> | <p>The number of young adults with more than one post secondary qualification with details on up to three qualifications</p> <p>(ABS 6278.0)</p> <p>The number of young people in the LSAY samples by full range of qualification</p> | <p>Future surveys for ABS 6278.0 will include all persons aged 15 – 64.</p> <p>LSAY samples have mixed ages.</p> |
| <p>Education and labour force participation</p> <p>The number of Australian resident young people in classified by their education and labour force participation for each of the ages 20, 21, 22, 23 and 24 and for each demographic group</p> | <p>The number of young people of ages 20 – 24 (in single years) by labour force status and by full time attendance at a tertiary institution or school.</p> <p>(ABS 6203.0)</p> <p>The number of young people in the age ranges 20 – 24:</p> <ul style="list-style-type: none"> ◆Who applied to enrol in HE/TAFE by outcome and labour force status; ◆Who were attending an education institution in the previous year, by type of attendance in current year and labour force status; ◆Who have left school by highest year of school attended. <p>(ABS 6227.0)</p> <p>Census data should provide required information.</p> <p>(ABS Census)</p> <p>The number of young people in the LSAY samples by labour force status and whether f/t or p/t in education.</p> | <p>While all of the required data components would be reflected in 'Transition from Education to Work' and 'Labour Force', the small sample size used to produce those reports would mean that any disaggregation beyond the first level (either State/Territory, age or demographic group) would be subject to such large sampling errors as to be unusable.</p> <p>Existing publications to not disaggregate data in the required format.</p> <p>Full details should be available every five years from the Census.</p> <p>LSAY samples have mixed ages and numbers may not enable effective disaggregation for some sub-groups.</p> |

| | | |
|--|--------|--|
| | (LSAY) | |
|--|--------|--|

Table 9 continued

| | | |
|--|---|--|
| <p>Education participation by sector</p> <p>The number of Australian resident young people in education in each of the education sectors and whether full or part time, for each of the ages 20, 21, 22, 23 and 24 and for the required demographic groups.</p> | <p>The number of young people attending school full time, attending Government funded Registered Training Organisations (RTOs) and universities, full or part time, for each of the ages 15, 16, 17, 18 and 19 and for the required demographic groups.</p> <p><i>(NCVER VET Statistics)</i></p> <p><i>(ABS, 4221.0)</i></p> <p><i>(DETYA Selected Higher Education Statistics)</i></p> <p>Also collected as part of Transition from Education to Work survey (<i>ABS 6227.0</i>) and in the Census</p> <p>The number of young people in the LSAY samples by education sector and whether f/t or p/t. (<i>LSAY</i>)</p> | <p>Published statistics from the admin collections do not always exclude non-residents.</p> <p>The data are likely to double count an unknown number of young people who may attend more than one institution in a year.</p> <p>The numbers of young people identified as attending post secondary education and training in the ABS survey differ from the figure provided by the administrative collections. If the data from the two sources is to be linked these discrepancies will need to be rectified.</p> <p>Current sector based statistical collections do not include all participants eg. students studying through the Internet, part time school students and many students enrolled in privately funded RTOs.</p> <p>LSAY samples have mixed ages and numbers may not enable effective disaggregation for some sub-groups.</p> |
|--|---|--|

7.2.4 Demographic groups

143. Research suggests particular groups may be prone to early leaving or to a problematic transition from education to working life. The NEPM Taskforce is seeking to report all its measures by State/Territory and gender, for Indigenous students and students with disabilities and also by the following student background characteristics:

- ♣ socioeconomic status (SES);
- ♣ geographic location; and
- ♣ language background.

7.3 The next steps in data development

144. The previous sections have considered the extent to which currently available data would address the questions identified in the conceptual Framework. The analysis indicates that between them the currently available data sets would, with some changes, enable the construction of measures to address most of the questions identified in the Framework. This conclusion is based on a detailed consideration of the major data sets, along with the construction of some illustrative measures based derived from the data.

145. The major gap in the current data collections appears to be at the stage of compulsory schooling (ages 6 to14), and relates to the numbers enrolled in approved schooling but not attending on a regular basis. The key issue in this regard seems to be that the States and Territories have different legislative definitions concerning enrolments and attendance, which makes it difficult to obtain nationally comparable data.

146. At the other two stages in the Framework (ages 15 to 19 and 20 to 24) there are a great deal of data available from the ABS, LSAY and the various administrative collections prepared by the education and training authorities. The ABS and LSAY data collections have significant potential to address the Framework questions because each of them collects information from the whole age cohort, and from individuals within the cohort about a wide range of their education, training and labour market activities.

147. The main difficulty is that no single data source would be able to supply all of the necessary information. It will therefore be necessary, if answers are to be provided to the key questions, to use multiple sources of data. In doing so it will be important to review the definitions and methodology used by each source, and to resolve apparent inconsistencies among various data sets. Such inconsistencies are particularly apparent in estimates of post-school participation in education and training.

148. The ABS sample surveys can provide very useful national data and some estimates at State/Territory level but in general they cannot always provide detailed estimates of education and labour force participation by single years of age in the 15 to 24 age band for all States/Territories and by some key demographic groups. The LSAY data sets generally have much larger samples at individual years of age than the ABS, and thereby allow more disaggregated population estimates, but LSAY does not survey the full age range from 15 to 24 at any one time. Therefore to address many of the Framework questions ABS and LSAY data will need to complement each other.

149. The largest numbers on any single age group are usually available from the administrative data collections for the various education and training sectors operated by the respective school authorities, Boards of Study, NCVET and DETYA. It is difficult at the present time to bring the administrative data collections for schools, VET, and higher education into a common Framework. And as discussed they do not cover persons not enrolled.

150. The contribution of the administrative collections to the overall Framework is likely to be significantly greater within those States that have adopted a standard ID number that students retain as they move through the various education and training sectors.

151. The consultations have identified that the highest priority for future developmental work is on measures concerned with stage 2 of the conceptual Framework, namely the transition years from 15 to 19. This age group is seen as a particularly high priority for policy makers, and because their education and labour force activities are generally not as diverse as those in the 20-24 age group, it should be possible to develop key indicators more quickly and economically.

152. Developmental work therefore needs to proceed to construct indicators based on existing data sets in regard to the 15-19 age group around the following measures:

- The proportion at each year of age from 15 to 19:
 - in full-time education or work;

- not in education or work;
 - in part-time work, part-time education or both;
 - attending approved schooling, VET courses or University;
- The levels of completion of schooling and attainment of 19 year-olds in terms of the AQF.

153. In the past in Australia, considerable attention has been given to a single statistic such as the apparent school retention rate to year 12 or the Finn measure of participation and attainment by age 19. It is possible to produce a single statistic for work and education or qualifications for 15 to 19 year olds but there is a tendency for oversimplification in such indicators. The OECD tends to provide a range of data relating to an area of concern rather than a single statistic³.

154. If a single statistic *is* needed, a measure that could be selected from the range of measures suggested for 15 to 19 year olds is:

- The percentage of persons aged 15 to 19 not positively attached to education or employment (eg as in last column of Table 6).
 - by single years of age and gender for the national estimates and larger States;
 - for the five year age group for all States and Territories;
 - for the five year group - some other demographic statistics⁴.

155. The currently available sources could be used to provide current data and time series (where feasible) for the key measures and to write a short report based on them which includes a precise identification of the data sources' strengths and limitations, including their comparability with international indicators. It would be important in this work to examine the extent to which the data can support analyses of the movement of young people from one activity to another as well as their participation at a given point in time.

156. The steps in using the existing data could include:

- Using ABS survey data (eg Transition from Education to Work) to provide a completed Table 5 for each State/Territory and for each age level.

³ The OECD in *Education at a Glance* its major report on education indicators provides a range of data and not just a single statistic on each of its indicators. For example it has four indicators on transition from school to work. Indicator 4 is the reasons for unemployment of youth not in school. The data supplied include redundancy, quits and job of limited duration. These are not reducible to a single statistic.

⁴ Similar single statistic measures can be devised if required for the other stages. For example for the compulsory years a possible measure would be: The percentage of the population aged 14 not enrolled. For the 20 to 24 age group a single measure for qualification could be: The percentage of persons aged 20 to 24 who have completed year 12 and/or a post-school qualification. A similar measure to that for 15 to 19 year olds for labour force and education participation can be constructed though the meaning of such a single statistic is more complex for females given the increasing withdrawal from the labour force for family duties

- Using LSAY data to provide education/employment data on a similar basis and compare with Transition from Education to Work data.
- Supplementing these estimates by detailed analyses of within-sector participation based on administrative data.
- Using ABS, LSAY, NCVER and Boards of Study data to measure the completion of schooling and attainment of 19 year-olds.

157. Attention could be given in such a report to sources of inconsistency between data collections, the priority for improvement in data quality and range, and the practicality and cost of reformed collections.

7. Conclusion and further work needed

158. The conceptual Framework developed in this paper and its associated measures and data requirements will provide a valuable picture of the performance of the education system and its contribution to life long learning. The Framework introduces a number of important new features:

- It covers the age range 6 - 24, the period in which most institution based learning occurs and the period during which formal education has greatest impact;
- It is person focussed, treating all 6 - 24 year olds as clients of education and training;
- It identifies three key stages in young people's movement through education and training: the ages of compulsory schooling, the ages of transition from schooling; and the ages of attainment;
- It focuses on those that do not continue learning as well as those that do;
- It introduces an open structure that can be adapted as the learning environment changes and develops.

159. The associated measures, which use both administrative and survey data, will show what is happening in relation to participation, retention, completion and attainment more effectively than the current battery of measures which suffer from their narrow focus. The Framework is consistent with, though more extensive than, that proposed by the OECD in its recent work on young people's transition from education to work.

160. As with existing measures these proposed measures also suffer from one important limitation and that is that they are lagging measures. Research suggests that a young person's attitude to learning and participation in education is significantly affected by what happens in the early years of schooling and in the transition from primary to secondary education. If this is correct then measures focussed around the end of schooling may be reflecting what happened up to ten years ago. In addition important changes to school curriculum such as the introduction of VET in Schools programs may lead to changes which are not seen in the measures for several years.

161. This limitation means that in addition to the measures proposed in this report there is a need to develop measures that can provide more immediate feedback on likely future changes in participation, retention, transition and completion/attainment. These measures may relate to literacy and numeracy and like skills and they may also include student attitude surveys that tap dimensions known to be associated with educational participation and attainment, such as engagement with schooling and peer relations.

162. The following steps are suggested.

7.3.1 *Develop a transition strategy for the new Framework*

163. The change in focus contained in this Framework will take some time to implement. A transition strategy that not only enables the shift in data collection and presentations but which also explains the changes to users is essential. Among the issues to be considered are (a) which types of data should be collected every year, and which could be collected every few years, and (b) which data would need to be collected for the whole cohort of a single year of age, and which could be adequately collected from a sample.

7.3.2 *Data development*

164. To help focus these efforts, a schedule could be developed for the progressive inclusion of data on key measures in the *National Report on Schooling* and other relevant publications.

165. The further developmental work on measures to support the conceptual Framework needs to be consistent with the work being conducted by other Taskforce consultancies on measures of students' learning outcomes and definitions of students' social and demographic background characteristics.

166. In conducting this further work it would be important to have representatives of the key data collection agencies (ABS, ACER, DETYA, NCVET and school authorities) meet together, and with the Taskforce, to discuss and where possible resolve data inconsistencies, and plan future developments.

7.3.3 *Identify and develop 'leading' measures*

167. An important task is the identification of 'leading' measures which can give more immediate indication of potential changes in participation and attainment:

- ◆ These measures would focus on the early years of schooling and the years immediately prior to the end of compulsory schooling;
- ◆ They would use current research to identify factors that influence young people's intentions to continue with schooling and learning;
- ◆ These "leading" measures could include literacy, numeracy and IT skills as well as measures of alienation and interest in schooling and learning.

7.3.4 *Integrate the range of NEPM Taskforce performance measures*

168. This Framework has concentrated on performance measures associated with participation, retention, transition and completion/attainment. The NEPM Taskforce is also developing a range of performance measures to cover other aspects of schooling. In our view it is important that all these measures be placed together within some integrating Framework. The Framework proposed here could provide the basis for this broader Framework through its emphasis on individual learners and its identification of three key stages as young people move through the education and training system.

Attachment A Consultations

| | |
|----------------------|---|
| Michael Waterhouse | NSW Department of Education and Training |
| Barry Barnes | NSW Department of Education and Training |
| Phil Daniels | NSW Department of Education and Training |
| Paul Leitch | Education Queensland |
| Michael Byrne | Education Queensland |
| Helga Kolbe | Department of Education, Training & Employment |
| David Hanlon | Tasmanian Education Department |
| Peter Allen | Department of Education, Victoria |
| Ian Hind | Department of Education, Victoria |
| Claire Robinson-Pope | Department of education, Victoria |
| Peter Hamilton | Education Department of WA |
| Alan Dodson | Education Department of WA |
| Terry Gaston | Education Department of WA |
| John Harris | Education Department of WA |
| Mel Butler | Australian Bureau of Statistics |
| Beth Wright | Australian Bureau of Statistics |
| Mark Askew | Catholic Education Office NSW |
| Alan Dooley | Catholic Education Office of SA |
| Chris Evans | DETYA |
| Geoff Parkinson | DETYA |
| Wendy Witham | DETYA |
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| Brendan O'Reilly | DETYA |
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Attachment B The International Context

Current international indicators of transition

The 1998 edition of the OECD's Education at a Glance contains four indicators of the transition from school to work.

Indicator D1: The education and work status of the youth population, by age group and gender, 1996 (%)

| Age | In education | | | | Not in education | | | Total |
|---|-----------------------|----------|------------|------|------------------|------------|------|-------|
| | In work-study program | Employed | Unemployed | NILF | Employed | Unemployed | NILF | |
| <i>Australia</i> | | | | | | | | |
| 15-19 | M | 29 | 6 | 39 | 17 | 6 | 3 | 100 |
| 20-24 | M | 20 | 2 | 9 | 53 | 8 | 8 | 100 |
| 25-29 | M | 11 | 1 | 3 | 65 | 6 | 15 | 100 |
| <i>Country mean (15 countries)</i> | | | | | | | | |
| 15-19 | | 10 | 3 | 62 | 10 | 36 | 5 | 100 |
| 20-24 | | 3 | 2 | 23 | 46 | 9 | 9 | 100 |
| 25-29 | | 1 | 1 | 5 | 66 | 9 | 12 | 100 |

Indicator D1 was used for the first time in 1998. It has three distinctive features in terms of current Australian developments:

- It covers the age range 15-29 years;
- It covers the whole cohort within 5-year age bands
- It classifies young people's activities into seven mutually exclusive activities.

Only about half of the 29 OECD countries were able to supply data for this indicator.

In terms of better meeting Australian needs, at least four refinements would be needed for this indicator:

- Express the age range by single year of age instead of 5-year bands
- Distinguish part-time from full-time education
- Distinguish part-time from full-time employment
- Separate out apprenticeships and traineeships from the employed category.

Indicator D2: Expected years in education, employment and non-employment between the ages of 15 and 29 (change between 1985 and 1996), by gender

This is also a new indicator for the 1998 edition of EAG. Only 12 countries were able to supply data for this indicator. Australia was not among them, although in principle it should be able to. This indicator provides a measure of changes in the transition process over time eg whether young people are spending longer in education.

Indicator D3: The reasons for youth unemployment: Distribution of unemployed 15-24 year-olds not in education by self-report of the most important reason for unemployment, by age group, 1996

This is a new indicator for the 1998 edition. Fifteen countries (almost all of them in Europe) supplied data for this question. Australia was not among them. The indicator provides a measure of the extent to which youth unemployment is largely concentrated among first-entrants to the labour market, those in temporary jobs, those affected by redundancy, or those who have voluntarily left their job.

Indicator D4: Youth unemployment by age group, gender and highest level of educational attainment, 1996

This is the longest established of the transition indicators used in the EAG. Almost all of the OECD countries (25 of 29) were able to supply data for this indicator, including Australia. Several non-OECD countries also supplied the data. In recent editions the youth unemployment rate has been supplemented by the youth unemployment to population ratio.

The November 1999 report from the OECD Thematic Review of the Transition from Initial Education to Working Life has attempted to move the recent developments in transition indicators along even further. It proposes a comprehensive framework for transition indicators that could lead to improved analytical insights and policy formation (see Appendix 5 of the report). That document also provides an assessment of the extent to which indicators are currently available which would enable judgments to be made as to whether key goals of effective transition policies are being met (see Appendix 7 of the report). Edited extracts from the report now follow.

Edited extracts from the report: OECD Thematic Review of the Transition from Initial Education to Working Life: Appendix 5 - A comprehensive framework for indicators of the transition from initial education to working life

Purposes

1. The Thematic Review of the Transition from Initial Education to Working Life has drawn heavily upon available education and labour market indicators. In the process it has become apparent that these address only part of the spectrum of transition issues, and that many gaps exist in any attempt to build a comprehensive framework of transition indicators. Developing better international indicators of transition from initial education is one element in contributing to an understanding of the underlying issues and problems confronting member countries. In common with indicators in other fields, indicators of the transition from initial education to working life should be able to serve three main purposes. They should:

- Inform the process of policy formation and allow key transition policy issues (such as the effectiveness of different pathways, the costs and benefits of extended transition periods, or when it can be said that transitions have been “successful”) to be addressed;
- Reinforce public accountability by allowing judgements to be made about the quality and effectiveness of the systems that assist young people’s transitions; and
- Provide insight into the comparative functioning of transition systems.

2. More specifically, a framework for indicators of the transition from initial education to working life should:

- Describe the context, duration, processes and outcomes of transition, as well as the relationships between these; and
- Place transition in a lifelong learning context.

3. Such a framework would enable the above dimensions, in turn, to be related to individual characteristics such as:

- Gender;
- Educational attainment; and
- Family or social background.

The duration of transition

4. Indicators of the duration of the transition should be able to span a period commencing at the end of compulsory schooling (or earlier in those countries in which pathways diverge before this point), progressing to the end of upper secondary education or its equivalent, and extending into the typical period(s) of tertiary education. Single year of age data over the entire 15-29 age span would be of great

value in providing a picture of educational and labour force activity over this time span.

5. The length - and lengthening - of the transition is a key policy issue in many countries, both because of its implications for public costs, and because of its impact upon the supply of qualified labour at a time when populations are ageing. Hence it would be useful, in addition to simple descriptions of the length, to have indicators that were able to shed light on the varying reasons for the length, as these reasons will have different policy implications. These could include:

- Extended full-time participation in education, arising both from movements between courses and programmes at the same level as well as from progression from one level to another; or
- Unsuccessful attempts to enter higher education; or
- Extended periods of joint participation in both education and the labour market; or
- The incidence and duration of military/national service; or
- Delay in obtaining work upon leaving full-time study, both as the result of extended periods of job search and as the result of periods of educational and labour market inactivity for reasons such as travel.

6. A comprehensive framework of transition indicators would be able to describe the periods that young people typically spend in different forms of activity -- for example the periods spent in education, in unemployment and in full- or part-time employment, or in various combinations of these.

7. Longitudinal data sets are essential for describing many of the key features of the transition process: for example the proportion of time that young people spend in the first five years after initial education in employment, unemployment and out of the labour force. They are also important in helping to relate many features of the transition context to transition outcomes.

8. A comprehensive framework of transition indicators would also allow many of the features of the school context that are important in the transition to working life to be described: for example the nature and quality of career information and guidance services; and the relationships between the school and its community, including its community of employers.

The transition process

9. A comprehensive framework of transition indicators would describe the nature of the pathways in which young people participate during upper secondary education or its equivalent. A simple framework would separately describe:

- General education pathways;
- Vocational education pathways that are school based;
- Vocational education pathways of the apprenticeship type; and
- Participation in labour market programmes or other safety net programmes.

10. It would also be of value to separately describe:

- Vocational and technical pathways that differ by level of educational attainment;
- Those vocational pathways that are intended to qualify young people both for work and for tertiary study, and those intended to qualify them for work only, whether these are school-based or of the apprenticeship type; and
- Vocational and technical pathways by field of study.

11. Indicators of the extent and nature of young people's involvement with work places during the transition period should be seen as essential. These should separately identify involvement in:

- Apprenticeship type arrangements;
- Part-time employment whilst a student; and
- Unpaid or paid periods of workplace experience as part of educational programmes such as those characteristic of US and Canadian co-operative education, Swedish APU periods, and Australian school-industry programmes.

12. In a policy sense it is as important to know about continuation from one level of education to another or to know about continuation in second programmes of study at the same level as it is to know about movements from education to the labour market or otherwise out of education. Thus transition indicators should be able to describe flows at key points in the transition process (the end of compulsory schooling; the end of upper secondary education; the end of tertiary education), not simply at the point at which young people leave school (or its equivalent). Longitudinal data sets are of great value for such purposes.

Transition outcomes

13. To date work on outcomes has largely focused upon labour market outcomes. But it is important to see transitions also in educational terms, and to provide indicators of qualifications gained:

- By type;
- By level;
- By field of study.

14. Labour market indicators of transition (from whatever point the young person leaves education) need to be richer than simply employment or unemployment rates (taking account in both instances of the importance of presenting indicators separately for students and non-students). There is a need also to look for the elements of "successful transitions" and define a set of indicators which could appropriately describe these transitions.

- *Employment* indicators need to be able to describe the characteristics of the employment that those leaving education enter and how these characteristics relate to their educational background, i.e. level of education and field of study. Such indicators could describe:
 - ⇒ Part-time, casual, temporary and other insecure forms of employment separately from employment that is full-time or permanent;
 - ⇒ Earnings; and
 - ⇒ The occupation or industry of employment.
- *Unemployment* indicators need to separately describe the qualitative nature of unemployment: for example the extent of long- versus short-term unemployment; and periods spent in searching for a first job after leaving education.
- *Inactivity indicators* are needed to supplement employment and unemployment indicators. There would be a need to separate out family responsibilities from other reasons for inactivity.

Extract from Appendix 7: The availability of indicators of key transition goals

The report sets out seven basic goals that all transition policies should aim for. The Appendix describes the extent to which indicators relevant to those goals are currently available in different OECD countries. This edited extract lists the goals and indicates the OECD's assessment of their current availability for Australia. Also included is an indication of whether the indicators would be covered in the proposed conceptual framework developed in this paper.

Goal 1 High proportions of young people completing a full upper secondary education with a recognised qualification for either work, tertiary study or both.

- Not currently available for Australia
- Would be covered under the proposed framework.

Goal 2 High levels of knowledge and skill among young people at the end of the transition phase.

- Not currently available for Australia
- Would be covered under the proposed framework.

Goal 3 A low proportion of teenagers being at the one time not in education and unemployed.

- Currently available for Australia
- Would be covered under the proposed framework.

Goal 4 A high proportion of those young adults who have left education having a job.

- Currently available for Australia
- Would be covered under the proposed framework.

Goal 5 Few young people remaining unemployed for lengthy periods after leaving education.

- Currently available for Australia
- Would be covered under the proposed framework.

Goal 6 Stable and positive employment and educational histories in the years after leaving upper secondary education;

- Currently available for Australia
- Would be covered under the proposed framework.

Goal 7 An equitable distribution of outcomes by gender, social background and region.

- Currently available to some extent for Australia
- Would be covered under the proposed framework.