

Inter-sectoral transfers: Sense, status, prevalence and purpose

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Abstract

Using data from the Longitudinal Surveys of Australian Youth (LSAY) program, transfers in both directions between the VET and higher education systems are examined. There is disagreement about the frequencies of these transfers (Harris, Sumner & Rainey, 2005; Moody, 2005). The LSAY data sets, being based on nationally representative samples of young people who are surveyed over time, are used as a basis for estimating the extent of transfers in both directions. The course completion status of young people who move between the sectors is examined. Reasons for non-completion of courses prior to transfer are also reported. In addition, these data sets reveal the extent to which VET courses provide a pathway into higher education for school non-completers. Transfer from VET to higher education is shown to be approximately 50 per cent greater than transfer from higher education to VET. However, inter-sectoral transfer is relatively modest at around ten per cent of all enrolments in the two sectors. Transfers between courses within the sectors are three times as high as movement between the sectors.

The prevalence and direction of inter-sectoral transfers and reasons for them may be of interest to policy makers and managers in both sectors.

Introduction

In the past, it has been accepted that the most common direction of student transfers between the VET and higher education sectors has been from VET to higher education. This has been called 'upward transfer'. Harris, Sumner and Rainey (2005) claimed that 'reverse transfer' from university to the VET sector was greater than upward transfer. Moodie (2005) argued that the Harris et al. claim is wrong. Indeed, some difficulties in the data collection reported by Harris et al. give rise to concerns that their estimates of student transfers between the sectors may not be sufficiently robust to warrant the conclusions that were drawn.

Moodie (2005) used cross-sectional data from DEST higher education statistics, but in an earlier paper (Moodie, 2003, pp. 7-8), he referred to some difficulties with these data. Harris et al. (2005, p. 13) also noted concerns about the quality of the data. Those responsible for admissions decisions in universities may not report the reasons for their decisions to those who supply data to DEST. Moodie also referred to some apparent inconsistencies between the proportions of Australian residents commencing bachelor degrees who reported a TAFE qualification as their highest award and the proportions admitted to degrees on the basis of prior TAFE study. While there are quite plausible explanations for these differences, they do raise some doubts about the accuracy of the data.

In the Harris et al. study, response rates were 15.2 per cent and 6.5 per cent respectively for commencing higher education students with VET experience, and commencing VET participants with previous higher education experience (Harris et al., 2005, p. 20). The authors acknowledged these low rates, but argued that they were adequate for the study purposes.

The major limiting factor with this study was the survey, in particular the low response rates, largely resulting from difficulties encountered in undertaking the online survey and in using the incomplete database on TAFE students. ... The findings from all three sources are notably consistent and serve to increase confidence in the robustness of the information and reinforce the

key messages. Thus the low response rates are less of a problem than if only one source had been used. (Harris et al., 2005, p. 21)

The differences in the conclusions reached by Harris et al. (2005) and Moodie (2005) and the availability of relevant data in the LSAY program were drivers for the present investigation.

The present study uses data collected as part of the DEST funded Longitudinal Surveys of Australian Youth (LSAY) research program. The data for this study are drawn from the survey of young people who were first contacted in 1995 when they were in Year 9 at school and who have been questioned annually since that time. Survey participants have been asked about their school and post-school study experiences. Their reported involvement in up to four post-school courses to 2004 has been used as a basis for this analysis. These data form a basis for attempting to resolve the differing conclusions of Harris et al. (2005) and Moodie (2005), and provide additional information relevant to the movement of students within and between the two dominant post-school sectors.

Literature Review

Disagreement about the extent of inter-sectoral transfer in both directions is partly a technical issue and partly a matter of urban mythology. Some technical aspects of the debate are developed in this paper. Some mythology has emerged in recent years as the rate of higher education to VET transfer has come to public attention. In the past, the dominant direction of transfer was accepted to be from VET to higher education. An increase in higher education to VET (reverse) transfer has been taken to indicate that higher education courses do not make graduates as 'work-ready' as do vocationally focused VET sector programs. Evidence for this view is rather weak. In a survey of employer views about the work readiness of graduates, employers expressed a range of concerns about the skills of graduates, citing deficiencies in oral communication, problem solving and creativity. Employers reported that VET sector graduates were less skilled than university graduates (AC Nielsen Research Services, 2000). Students, however, give employment-related reasons for moving between sectors, especially from higher education to VET (Harris et al., 2005, pp. 14-15).

Beliefs about the reasons for inter-sectoral transfers are less important than the policy implications of transfer, and these should be informed by accurate data on the extent and direction of transfer and on the reasons for it. If the higher education and the VET sectors serve different groups of entrants and are pathways into quite different labour markets, there is no reason to be concerned about transfer and little impetus to facilitate it. For those young people who choose a post-school pathway and then discover that it is not what they had expected, it is desirable that they are able to move to an alternative program, even one in a different sector, and to take as much credit for their prior learning with them as is possible. This minimises their loss from the investment of time they have made in what was recognised later as a poor first choice.

If inter-sectoral transfer is seen as facilitating the development of complementary forms of human capital, then there is reason to identify and remove barriers to it.

In the past, students transferring between courses within higher education had some guidelines on credit transfer. More recently, some universities have established generalised credit transfer arrangements for young people moving from VET to higher education. However, as Moodie (2003) has shown, there is considerable variation within the unified higher education system in credit transfer policies for people moving from the VET system. The VET system has a well established policy on the recognition of current competency. However, many students seem to find the cost and time involved in seeking such recognition to be unwarranted, and instead choose to enrol in the relevant units of competency. These arrangements are the focus of a DEST commissioned study.

There is evidence that parts of the VET and higher education sectors serve similar 'input' markets. In a recent study (Curtis, forthcoming) the profiles of entrants to apprenticeships and traineeships, non-apprenticeship VET (TAFE), and higher education were compared. The

profiles of higher education and TAFE entrants were broadly similar, although the barriers to university entrance were higher. For example, entry into university courses was associated with higher levels of literacy and numeracy achievement than entry into TAFE programs. Apprenticeships, in particular, had a rather different profile. Apprenticeships were an important pathway for school non-completers and for males, whereas the other pathways favoured females and school-completers. A more detailed investigation is required to determine the extent to which the two sectors, and especially the non-apprenticeship component of VET, serve different labour markets.

In research cited by Harris et al. (2005, pp. 14-15) students indicated that they had transferred to the VET sector in order to gain employment-related skills, whether or not they had completed their higher education program. Reasons for upward transfer also included enhancing their employability. It is useful to examine the completion status of students who move between sectors and the reasons given by those who transfer with either complete or incomplete qualifications. Both Ainley and Corrigan (2005) and McMillan, Rothman and Wernert (2005) have examined reasons for leaving VET sector programs. Most young people indicated that the courses were not what they had expected. Similarly, McMillan (2005) found that lack of interest in the initial course was the main reason given by the small number of young people who left the higher education sector without completing their initial course and transferred to the VET sector.

TAFE institutes have had a role in enabling people who left school early to complete Year 12. In recent years, this role has been assumed by specialist secondary schools catering for adult re-entrant students. In the present analysis, the completion of secondary level education in a TAFE institute was classified as an informal program.

Research Questions

1. What is the prevalence of transfer from VET to higher education and from higher education to VET?
2. What is the course completion status of young people who transfer, in either direction, between the VET and higher education sectors?
3. What is the school-completion status of those young people who move from initial post-school VET courses to university? That is, does VET provide a pathway to university for school non-completers?

Methods

Data Sources

The data used for this study are from the LSAY cohort of young people who were in Year 9 in 1995 (the Y95 cohort). In this analysis, their participation in post-school programs was tracked to the end of 2004.

The longitudinal structure of the data sets has enabled the pathways of young people from school, through post-school education and training, and into the labour market to be tracked. This is advantageous compared with some other data sources that provide snapshot views of young people in a given year.

The LSAY data also have some disadvantages. Unlike the annual DEST data collections on higher education that are a census, the LSAY data are from a sample of 13,631 young people who were in Year 9 in 1995. Attrition had reduced the sample to 6,876 by 2001 and to 4,660 by 2004. Sample weights are used to adjust the designed under-and over-sampling of sub-groups and for subsequent differential attrition. Despite the use of sample weights, a small amount of attrition bias is apparent. For example, using 2001 weighted data, 79.8 per cent of young people reported completing Year 12. This proportion was found to be 82.2 per cent based on weighted 2004 data, even though only a handful of students had completed Year 12 in the intervening three years.

A further difficulty is that the data are based on self-report responses to survey questions. While this is very common practice, it can lead to some bias. For example, NCVET data on apprenticeships (eg Ball & John, 2005) show a higher attrition rate, about 30 per cent, than do other sources (eg Ainley & Corrigan, 2005), who estimated a rate of about 10 per cent based on LSAY data. Similar discrepancies exist for non-apprenticeship VET programs (McMillan et al., 2005). Several reasons have been postulated for these differences including recording a change of institution or employer in national data collections as a non-completion. A further reason for possible bias is a likely under-reporting, in LSAY questionnaire responses, of participation in programs from which respondents withdrew very soon after commencement. Under-reporting of commencements of programs will lead to under-estimates of rates of transfer to alternative programs, both within and between sectors. Two per cent of school non-completers (0.04% of the sample) reported that they had gained direct entry into university courses. While this is possible, it is a very unlikely event, and these cases may represent young people in dual sector providers saying they are at university when they are doing VET sector programs in those institutions. Thus, some self-report bias is apparent in the data.

A final and important limitation of the present study is that it is limited to people aged 23 or less. The LSAY sample was recruited in 1995 when they were in Year 9 at school and most were 14 years-old. Harris et al. (2005) indicated that many of the new entrants to the VET sector who had higher education experience were older than the average age of new entrants to the sector. Thus, the present study will not include later transfers between sectors. Much of the growth in the VET sector, especially non-apprenticeship VET over the last decade has been in older age groups. It is likely that among older individuals, there are some people with prior university experience. The LSAY data, which focus very strongly on early labour market transitions, cannot address the later transitions of older Australians, and other data sources must be used to examine late stage education and training experiences.

Thus, each of the three studies (the present study; the one reported by Harris et al. (2005); and Moodie's (2005)) has data limitations. A judgement of the most likely rates of transfer needs to be made, based on the consistency of the findings of these studies and the robustness of their data sources and methods.

Analytic Methods

The figures and tables presented below are based on cross-tabulations of cumulative data from the LSAY Y95 cohort to 2004. Unless otherwise specified, data are weighted frequencies based on respondents who persisted in the survey into 2004. The weights are designed to compensate for under- and over-sampling and for differential attrition from the original designed sample.

Because of the different profiles of participants in apprenticeship and non-apprenticeship VET programs, the VET sector has been segmented. For this study, traditional apprenticeships and traineeships have been combined and reported as new apprenticeships and they are shown separately from non-apprenticeship (TAFE) programs. Thus transfers between apprenticeships, non-apprenticeship VET courses and higher education courses are reported. Curtis (forthcoming) has shown that traditional apprentices, trainees, TAFE and university participants all have different socio-demographic profiles and there is a case for reporting transitions between these four program types separately.

Results

Of the Y95 cohort, 11.5 per cent had left school during or by the end of Year 10, 8.6 per cent completed Year 11, with 79.8 per cent having completed Year 12 at school (2001 data). School completers are more likely than non-completers to undertake post school programs. Although most non-completers do undertake some education or training, 29 per cent do not, while only ten per cent of school completers cease their formal study at that point. (See Figure 1).

For school non-completers, apprenticeships are the most common form of post-school program, followed by no study and then non-apprenticeship VET (TAFE) programs. While it is possible for school non-completers to enter university directly, this is an unlikely outcome. The almost two per cent of school non-completers who said they gained entry to university are likely to be studying at TAFE, possibly at dual sector institutions, and have misreported their destinations.

For school completers, higher education is the dominant destination, followed by TAFE, apprenticeships and finally no further study.

Transfers between first and subsequent post-school programs

The main issue being addressed in this paper is the disagreement between Harris at al. (2005) and Moodie (2005) over the relative magnitudes of upward and reverse transfer between the VET and higher education sectors.

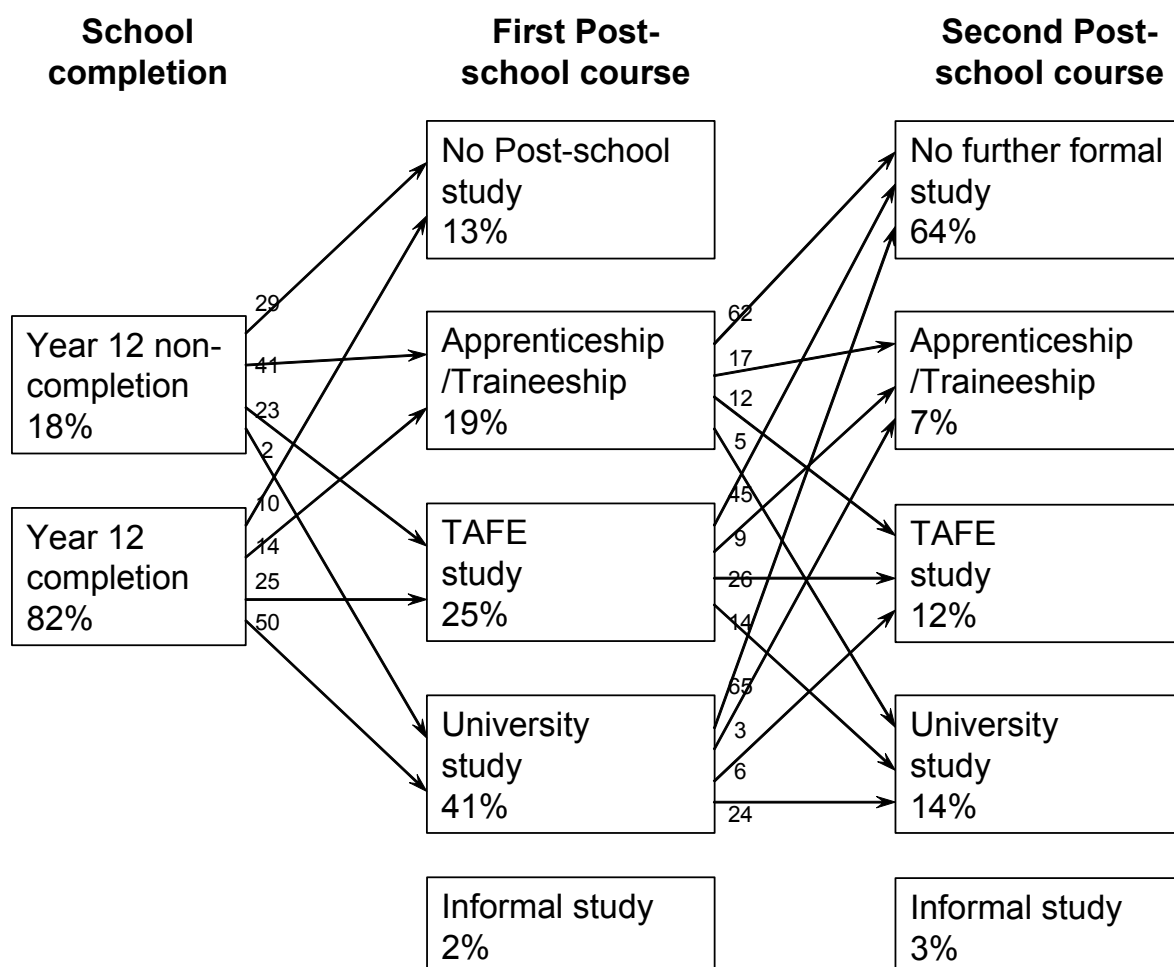


Figure 1: Progression from school through first and second post-school programs

The data in Figure 1 are based on transfers between the first and second post-school courses. For transfers from one type of program (for example, TAFE) to subsequent programs, the percentages shown in the figure can be compared. However, the figures for transfers from two sources, for example TAFE and higher education, to other destinations cannot be compared directly, as they have a different basis. The higher education sector caters for 41 per cent of the cohort while TAFE courses are taken by 25 per cent. In order to compare the absolute rates of transfer, the frequencies of transfer corresponding to the percentages shown in Figure 1 are presented in Table 1. This table shows that, despite the number of people enrolling in a university course as their first post-school program is substantially higher than

TAFE enrolments, the number of TAFE to university (upward) transfers is greater than the number of reverse transfers (163 compared with 109). If the apprenticeship and TAFE numbers are combined, the total number of upward transfers (203) exceeds the number of reverse transfers (172).

Table 1: Frequencies of transfers between post-school program types

First post-school program	Second post-school program					Total
	None	Apprenticeship	TAFE	University	Other	
None	621	0	0	0	0	621
Apprenticeship	540	153	104	40	40	877
TAFE	522	107	302	163	55	1149
University	1244	63	109	455	46	1917
Other	41	11	22	8	15	97
Total	2968	334	537	666	156	4661

A more complete picture of transfers is found by considering all transfers from one course to the next; that is from a first post-school course into the second, from the second to the third, and from the third to the fourth. Participation in up to four post-school programs was monitored. Of the sample of 4660 individuals, 12 people (0.26% of the sample) had commenced a fifth program. Their final course type was not included. Data on all transfers is shown in Table 2. Post-school programs are identified as new apprenticeships, non-apprenticeship (TAFE) courses, and university courses. Courses identified as 'other' are informal and non-award programs.

Table 2: Transfers between all post school programs and any successive program (row percentages)

Prior post-school program	Subsequent post-school program					Total
	None	Apprenticeships	TAFE	Uni	Other	
Apprenticeships	67.7	13.5	10.5	4.5	3.6	100
TAFE	54.6	6.8	22.1	12.1	4.4	100
Uni	70.8	2.9	4.8	19.4	2.1	100
Other	54.8	6.0	17.1	13.4	8.7	100

Three features of this table are noteworthy. First, most people complete a program and do not move on to a subsequent one. This reflects the fact that most people commenced one post school program and did not proceed from that into another. However, just over one-third of the sample did undertake a second post-school program. Second, when people did move into a subsequent program, most remained within the sector (or sub-sector) in which that had undertaken the prior program. There is one exception to this if new apprenticeships are split into traditional apprenticeships and traineeships. Trainees who do undertake a subsequent program are slightly more likely to proceed with a TAFE course than another traineeship. Third, in examining transfers between the VET and higher education sectors, a greater proportion of TAFE students move into higher education (12.1%) than move from higher education into TAFE (4.8%). Taking into account the greater size of the higher education sector, the ratio of upward to reverse transfers is approximately 1.5. Although transfer within sectors is more common than transfer between them, it is worth noting that almost one student in eight who commence a non-apprenticeship VET course moves to university. It is possible that a proportion of this upward transfer results from unsuccessful university applicants pursuing TAFE study and re-applying for later university entrance.

Some TAFE courses are nested. That is, within a training package, there may be qualifications at several levels in which the requirements of the lower level qualification are a sub-set of the units required for the higher level program. Where nested qualifications exist, some providers encourage young people to enrol in a lower level course initially and then transfer to the higher level program once they have achieved the lower level units. This is a flexible approach, as it provides young people with optional exit points. However, it may result in some TAFE students reporting, quite properly, their completion of two awards when their original intention may have been completion of the higher level one.

It is interesting to note that the programs with the highest rates of non-transfer, that is those courses from which people do not move into subsequent programs, are those that are the longest and that have the most favourable employment outcomes. These include bachelor degrees and apprenticeships. When apprenticeships are separated from traineeships, apprenticeships have a non-transfer rate of just over 80 per cent.

The completion status of first courses for inter-sectoral transfers

Whether or not people complete their first post-school program may influence their propensity to undertake a subsequent one and the sector in which they undertake their second program. Data to examine these relationships are presented in Table 3. Only those whose first post-school program was in the VET or higher education sectors are included. Most non-completers move into a subsequent program, but there are differences by program type. Three-quarters of university students who do not complete their first program undertake a second program, while just over half of VET sector non-completers move into another program. It is possible that some apprentices and TAFE course participants find desirable employment without completing their programs. The dominant destination for subsequent programs lies in the area where the first program was commenced.

For first course completers, a much smaller proportion moves into a second program. This is particularly noticeable for university graduates. Most university graduates experience very successful labour market transitions gaining well-paid full-time work readily. Traditional apprentices have similar employment outcomes to university graduates, while trainees have outcomes comparable with TAFE course graduates. Among successful graduates who do undertake subsequent study, the tendency to do this in the arena of their first program is again apparent.

Table 3: Propensity to undertake second post-school programs and type of program by initial program type and success

First post-school program	Second post-school program					Total
	None	Apprenticeship	TAFE	University	Other	
Program incomplete						
	First program incomplete					
Apprenticeship	44.4	27.4	20.0	5.2	3.0	100.0
TAFE	39.4	13.9	29.3	13.9	3.5	100.0
University	24.7	8.9	14.1	50.2	2.1	100.0
Total	31.4	12.8	19.0	34.2	2.6	100.0
	First program complete					
Apprenticeship	61.5	17.4	11.0	4.8	5.3	100.0
TAFE	42.1	7.7	28.3	16.3	5.6	100.0
University	81.6	1.0	2.0	12.7	2.6	100.0
Total	65.7	6.9	11.5	11.7	4.1	100.0

Given the differences in the proportions of young people who choose to enter a second post-school program, by both first course type and completion status, it is instructive to examine

the second course destinations as proportions of those who undertake a subsequent program, rather than as a proportion of all first course participants. These data are shown in Table 4. The strong tendency for students to remain in the arena of their first post-school program is again apparent, for both those who were successful and those who were unsuccessful in their first program.

Table 4: Second course type by first course type and completion status as a proportion of second course participation

First post-school program	Second post-school program type			
	Apprenticeship	TAFE	University	Other
First program incomplete				
Apprenticeship	49.3	36.0	9.3	5.3
TAFE	22.9	48.4	22.9	5.7
University	11.8	18.8	66.7	2.8
Total	18.7	27.7	49.8	3.8
First program complete				
Apprenticeship	45.2	28.6	12.4	13.9
TAFE	13.4	48.8	28.1	9.7
University	5.5	10.9	69.3	14.3
Total	20.2	33.5	34.3	12.0

Among young people who commence apprenticeships, almost half of those who undertake a further program whether they completed the first or not, continue in an apprenticeship. Among those who were unsuccessful in their first program, there is a slightly greater tendency to undertake TAFE study, with relatively few entering higher education.

About half of initial TAFE course participants remain in that sub-sector for a second course, whether their first course was a success or not. Those who were successful were slightly more likely to enter higher education for their second program than those who were not successful. Apprenticeships were more attractive to unsuccessful initial TAFE course participants than to successful ones.

About two-thirds of continuing university students remain in that sector, whether they completed their first course or not. However, there is a greater tendency to move to a TAFE program or to an apprenticeship among those who did not complete a first course than among those who were successful in their first course.

Three observations appear to emerge from these analyses. First, it seems likely that employment opportunities influence decisions to continue with subsequent post-school programs for young people in both major sectors. Second, young people, whether successful or not tend to continue their studies in the sector in which they began their first programs. It is possible that their career goals have remained largely intact, even if they were not successful in their first course, and that they perceive their chosen sector as the vehicle through which to realise those goals. Third, where young people were unsuccessful in their first program, there is a slight tendency to 'fall back' to a less desired pathway.

VET as a pathway to higher education for school non-completers

The extent to which VET sector study, either apprenticeship or non-apprenticeship VET, provides a pathway into higher level of study for school non-completers was investigated. Those who left school without completing Year 12 and later returned completed Year 12 at a TAFE institute or a senior secondary college or specialist adult re-entry school have been counted as school completers if they did indeed complete Year 12. Thus, TAFE as a location for Year 12 completion has been excluded from inter-sectoral transfers.

The frequencies of school non-completers entering a first post-school program and then transferring into a subsequent program are shown in Table 5. Thirty-seven per cent do no post-school study at all and a further 46 per cent do only one post school program. The remaining 17 per cent commence a second program. However, as for school completers, non-completers tend to undertake their subsequent program in the same sector as their first.

Table 5: Frequencies of first and second post-school course destinations for school non-completers

School non-completers First post-school program	Second post-school program					Total
	None	Apprenticeship	TAFE	University	Other	
None	310	0	0	0	0	310
Apprenticeship	254	26	18	2 ^b	10	310
TAFE	88	20	48	1 ^b	10	167
University	9 ^a	1 ^b	0	1 ^b	0 ^b	11
Other	27	0 ^b	5 ^b	0 ^b	0 ^b	32
Total	688	47	71	4 ^b	20	830

Notes a. This number is thought to represent a degree of misreporting of enrolment

b. These cell sizes are too small to draw firm inferences.

The very low frequencies of school non-completers who enter any type of VET sector program, apprenticeships or TAFE courses, and then move into higher education indicate that this is a very uncommon event, but the numbers are too small to draw any firm conclusions about the extent of this transfer. It may be concluded that it is a low frequency occurrence and that vocational programs in the VET sector do not provide pathways into higher education for school non-completers.

Summary

This study has examined the post-school education and training programs undertaken by a stratified sample of young people – up to age 24 years. Most young people (87%) undertake some post-school education or training program. Approximately half do only one program and just over one-third commence a second program. Of those who do undertake a second or subsequent study program, most do it in the sector in which they commenced their first post-school course. That is, transfer between courses within sectors is greater than inter-sectoral transfer.

When young people do transfer between sectors, and this occurs in about eight percent of first post-school course enrolments, upward transfer is approximately 50 per cent higher than reverse transfer.

Where young people have been unsuccessful in their first post-school course, most persist in the sector where they began their program. However, there is a slight tendency for them, compared with successful first-course students, to adopt a ‘fall-back’ position to a lower status program. This ‘fall-back’ tendency appears to be a relatively weak second-order effect.

The evidence provided by the LSAY Y95 cohort indicates that the VET sector does not provide a pathway into higher education for school non-completers.

Conclusions and Implications

This study has used LSAY data and is restricted to young people in the 15 to 24 year-old age group. These are young people making an initial transition to the labour market. The study therefore excludes people who undertake later stage study in either the VET or higher education sectors, whatever study they may have undertaken during their early labour market transitions. Late stage participation in education and training may serve a rather different function from initial post-compulsory education participation, and it is instructive to examine

separately inter-sectoral transfers during initial labour market, and later stage career, transitions.

The main focus of this study has been to provide an alternative source of evidence on the extent of transfer, both upward and reverse, between the VET and higher education sectors during an initial post-compulsory transitional phase. Analysis of the LSAY data for the Y95 cohort reveals that upward transfer is approximately 50 per cent higher than reverse transfer. This finding is consistent with Moodie's (2005) conclusion and does not support the findings reported by Harris et al. (2005).

Although considerable attention has been paid to inter-sectoral transfer, it is not a common phenomenon. Its relative infrequency may have several competing explanations. Moodie (2003) compared the Australian situation with the circumstances of the United States of America where two-year community colleges are important feeders into four-year colleges and universities. Indeed, the VET sector was imbued with a broad educational charter (Australian Committee on Technical and Further Education, 1974) which has been shed substantially in recent years with an increasing focus on vocationalism. The VET sector is not the only source of vocational and technical education. The higher education sector is 'vocational' and always has been, although it has always maintained a general and liberal education focus in many of the programs offered. However, the two sectors are distinct in Australia and appear to serve different client groups and lead to different career outcomes.

The limited transfer between the two main post-school sectors may reflect a range of interests and perceptions. The relative status of universities makes them a desired location for post-school study, and most secondary students who intend to undertake further studies nominate universities as their preferred destinations (James, 2002). The high status of universities may reflect perceived traditions, but it may also be a result of the favourable employment outcomes experienced by university graduates. The returns to TAFE study and traineeships are less favourable. Indeed apprenticeship, and for males rather than females, is the only component of VET with comparable labour market outcomes.

The relative isolation of each of the post-secondary pathways may lie in the goals and perceptions of entrants. Young people form career goals based on matches between perceptions of self and a knowledge of career demands and returns (Gottfredson, 2002; Holland, 1985). If this is the reason for low rates of transfer, and if young people's perceptions are well formed, then these low transfer rates are not a problem. However, if young people do make poorly formed initial choices, and there is some evidence for this (Ainley & Corrigan, 2005; McMillan et al., 2005), then the provision of better information to young people about courses and their outcomes is required. Further, when students do realise that they have taken the wrong path, any unreasonable barriers to transfer to a more appropriate pathway should be identified and removed.

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