

Skill acquisition and use across the life course  
Current trends, future prospects

*Bill Martin*

National Institute of Labour Studies,  
Flinders University



Program 2:  
The nature of the labour supply

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The views and opinions expressed in this document are those of the author/project team and do not necessarily reflect the views of the Australian Government, state and territory governments or NCVER

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# Foreword

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In 2004 the National Centre for Vocational Education Research (NCVER) invited proposals from consortia of researchers to address issues on changing work skill needs and work organisation arrangements and their implications for the vocational education and training (VET) sector. NCVER subsequently contracted the National Institute of Labour Studies, Flinders University, and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne, to undertake a body of work in this area.\*

This research was undertaken under the National Vocational Education and Training Research and Evaluation program, a national research program managed by NCVER and funded by the Department of Education, Science and Training on behalf of the Australian Government and state and territory governments.

Many social commentators consider that people's life pathways are now not as predictable as perhaps they were during much of the second half of the twentieth century. According to them, we can no longer be confident that people will make an ordered transition from school to work, possibly via university or the VET sector, and then live independently, marry, have children etc. People are increasingly undertaking life pathways that don't conform to this traditional pattern; for example, couples increasingly live together before marriage, women continue to work when they have children, and the incidence of single parenthood has risen. And changes in how people combine education with other life-course transitions will influence how they make their skills available in the labour market throughout their lives.

This report examines the extent to which people's life trajectories are changing and the implications of this change for the VET sector and finds that this sector is significantly more affected by changing life-course patterns than are universities: VET has become the preferred route for older people beginning first qualifications, single parents and others in a whole range of non-standard life pathways. This presents challenges and opportunities for the sector—a challenge to accommodate these students successfully, and an opportunity to contribute to new sources of non-traditional skills to the national supply of skilled workers.

Tom Karmel  
Managing Director, NCVER

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\* A full list of research reports resulting from this research consortium is given in appendix 1.



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# Key messages

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This study investigates whether, between 1981 and 2001, there have been significant changes in the timing and sequencing of the major life transitions of Australians, such as partnering, parenthood, entry to and exit from paid work and post-secondary education, and the implications of these changes.

This report is part of the larger research program, 'A well-skilled future: Tailoring VET to the emerging labour market'.

- ✧ The life-course patterns of Australians have changed steadily, with the proportion following unconventional life trajectories slowly increasing between 1981 and 2001. Nevertheless, a majority of people continue to follow well-established conventional life-course pathways. These trends are likely to continue.
- ✧ The widespread acceptance of working motherhood and living alone are the major changes in standard life-course patterns. The withdrawal of prime-aged men (between 25 and 54 years) from the labour force and the rise of single parenthood are amongst the rising instances of unconventional life trajectories, as is an increased number of people beginning post-secondary education after their 20s.
- ✧ The vocational education and training (VET) sector has been significantly more affected by rising unconventional life trajectories than the university sector. In particular, its part-time student body has a growing proportion of people following unconventional life courses, notably commencing post-secondary education late, being single parents, and being prime-aged men without full-time work.
- ✧ Given the continuation of existing patterns of skill utilisation through the life course, the VET sector has an important opportunity for catering to the special circumstances of its increasingly unconventional part-time student body, thereby enhancing the employment opportunities of these relatively disadvantaged groups and increasing the supply of relevant skills to the Australian labour market.
- ✧ People in trades occupations display a distinct pattern, whereby they obtain training and enter the occupations by their mid-20s and then steadily exit the occupations over their working lives, beginning this exit soon after they qualify. This is in contrast to people in professional occupations who are trained and enter the occupations by their later 20s but who do not leave the occupations in substantial numbers until retirement.

# Executive summary

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This report is a component of a research program entitled 'A well-skilled future: Tailoring VET to the emerging labour market'. This research program examines the evolving labour market and changing work organisation and management in the context of the vocational education and training (VET) sector and its role in the development of the appropriate levels, types and quantities of skills required to satisfy the future demands of Australian industry. The research reports have been produced by a consortium comprised of researchers from the National Institute of Labour Studies, Flinders University, and the Centre for Post-compulsory Education and Lifelong Learning of the University of Melbourne.

Many people follow conventional life-course pathways. In a predictable order and at predictable ages, they complete school, possibly undertake post-secondary education, enter paid work, partner, have children (and, if they are women, withdraw from paid work permanently or temporarily), and so on. Both researchers and policy-makers have found it useful to understand the standardised life-course model that guides most people through the key adult statuses. Recently, many commentators have suggested that established life-course models have been changing, altering the acceptability and frequency of various combinations of adult statuses. For example, combining motherhood with paid work has become more common and more acceptable. Other commentators have suggested a fracturing of standardised life-course models, such that people's life trajectories are becoming much less likely to follow standard models and are much more unpredictable. This report asks whether either of these kinds of change is evident in Australia. It focuses on the likely future of skill-acquisition and skill-utilisation patterns in Australia, given the change in life-course patterns it finds.

There is no systematic existing research on this topic in Australia. However, the possibility of important life-course change is suggested by a range of research findings. These include: an apparent increased diversity in young people's pathways through the school-to-work transition; more people living alone; more women combining paid work and motherhood; and increased labour market uncertainty, especially for men in prime-age groups (25–54). Changes like these have fuelled the claims of some social theorists concerning fundamental changes in life-course patterns. At the same time, overseas research looking systematically at how life-course patterns are shifting has found only limited evidence of change. Indeed, some overseas research has come to the conclusion that life-course patterns are more remarkable for their stability than for their change.

This report uses census data from 1981 to 2001, mostly taken from 1% household sample microdata files, to examine recent change in the life-course patterns of Australians. It confirms a number of well-known trends. First, Australians partnered and became parents at progressively later ages between 1981 and 2001, although it seems unlikely that further delaying of partnering and parenthood will continue. Second, women's labour force participation has increased, so that a majority of women at every age group are now in the paid labour force. At the same time, men at prime ages have become less likely to be working, primarily because of a weakening labour market for men with low formal skills. Third, a successively greater proportion of each cohort of young adults has undertaken post-secondary education, as opportunities have expanded over the period. Post-secondary education opportunities have also been taken up by people at older ages. And women's participation in post-secondary education has sharply increased at all ages, so that it now equals or exceeds that of men.

Against this background, this report develops two standardised life-course models—a ‘traditional’ model and a ‘modernised’ model. These models stipulate the normal progression through key life events such as post-secondary education, entry to paid work, partnering, parenthood etc. They differ in that the latter allows for women to undertake paid work and motherhood simultaneously. They imply that only certain combinations of statuses are possible if people conform to the models. There has been very little change in the overall proportion of adult (20 and over) Australians who are in non-conventional statuses at each Australian census since 1981, with about 36–38% being non-conventional on the ‘traditional’ model and about 25% being non-conventional on the ‘modernised’ model. However, evidence of change is much more substantial in the mature-adult age ranges (30–49) where, according to the ‘modernised’ model, the proportion in non-conventional statuses rose from about 26–27% in 1981 to 36–37% in 2001. More people in a wide range of non-conventional statuses explains this change. Amongst the most significant contributors are men’s falling labour force participation, the rise of single parenthood, people undertaking their first post-secondary education after their 20s, and increasing proportions living in groups with other adults after their 20s.

What do these changes mean for where skill acquisition takes place in the life course? A synthetic cohort analysis<sup>1</sup> of census data from 1981, 1991 and 2001 shows a quite sharp increase in the proportion of people in their 20s who undertook conventional post-school training, hardly surprising, given the well-known post-secondary education expansion during this period. However, amongst older cohorts, it appears that change was more differentiated, with a greater number of larger shifts in the proportion of women than men who completed qualifications at ages from 30 onwards. Moreover, women’s increased acquisition of post-secondary qualifications was probably more marked in non-degree qualifications than in degrees and above.

As a result, the composition of the post-secondary student body displayed much stability, but also some significant elements of change. First, the proportion of full-time students in conventional life-course statuses hardly changed between 1981 and 2001 (remaining at about 21–24%), although a smaller proportion was in training immediately after leaving school and more were upgrading existing qualifications. Secondly, the age distribution of college of advanced education/university students hardly changed, while that of TAFE/college<sup>2</sup> students aged somewhat. However, the proportion of part-time students in non-conventional life-course statuses increased sharply to just over half by 2001. Moreover, virtually all of this increase in diversity amongst part-time students was in the vocational education and training (VET) sector. The rising proportion of VET students in non-conventional life-course pathways arose from a variety of sources, including increasing proportions taking their first post-school qualification after the age of 29, more single parents, and more prime-aged men without full-time jobs.

The second focus of research was on how people offer their skills on the labour market over their lives, and whether this is changing. A limited synthetic cohort analysis of occupational pathways was used to examine this issue. It shows that patterns of skill utilisation are quite different across different occupations, and amongst women compared with men. Two key points in relation to skills imparted by the VET sector have been identified. First, tradesmen (the gendered term is intended) generally obtain their training and enter their occupations by their mid-20s. However, rather than remaining in their occupations as, for example, professionals tend to, they begin leaving

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<sup>1</sup> A synthetic cohort analysis involves tracing the characteristics of a particular cohort (group of people the same age) between censuses. For example, we might look at the number of people aged 20–24 with university degrees in 1996. By 2001 this group will be aged 25–29. A synthetic cohort analysis compares the number of 20 to 24-year-olds with degrees in 1996 with the number of 25 to 29-year-olds with degrees in 2001. Any increase in the number with degrees is due to people in this cohort gaining degrees during the period during censuses (i.e. between 1996 and 2001).

<sup>2</sup> This refers to census data collected between 1986 and 2001. In 1986 the category is ‘TAFE college’, since at that time technical and further education (TAFE) colleges were virtually the only source of VET qualifications. In 2001 the category is ‘technical or further educational institution (including TAFE colleges)’. Although these are self-report data, we can be reasonably confident that the 2001 category would capture most registered training organisations, public and private. The term ‘TAFE/college’ will be used throughout this report to cover this group.

them almost immediately and continue to do so at a fairly steady rate throughout the working-age ranges. Second, male clerical, sales and service workers appear likely to be gradually promoted to more responsible positions over their careers, thus reducing their involvement at more routine levels of these occupations at older ages. However, many women in these occupations leave their jobs (or, probably, reduce their hours) at prime childbearing ages, and then re-enter them at older ages. These older women are an important source of entrants to the more elementary and intermediate levels of these occupations. While the data are far from perfect, there is no evidence that any of these patterns of skill utilisation is changing substantially, beyond the generally increasing labour force participation of women which makes them more likely to use their skills at older ages.

Overall, there is evidence of both substantial stability and some change in the life-course patterns of Australians, and these trends will almost certainly continue. For the VET sector this has several key implications. First, training young school leavers will continue to be an important role for VET institutions, as will upgrading the qualifications of those who obtained their initial post-secondary education through a conventional training pathway. At the same time, the proportion of VET students, particularly those who are part-time and those who are not on conventional life-course trajectories is likely to continue to rise, making the VET student body increasingly diverse. Many of these students are relatively disadvantaged—single parents, men unable to find full-time jobs, people over 29 without post-secondary qualifications—and their labour market prospects will be substantially improved if they obtain VET qualifications. Some of these students will be men who can help to ease skill shortages arising from the steady outflow from traditionally male trades occupations, if they are successfully trained at later-than-traditional ages. Many are women who, if they acquire the relevant skills, may also help to supply upgraded skills to the elementary and intermediate clerical, sales and service occupations they tend to enter anyway.

# Introduction

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People experience a series of major transitions during the course of their lives. These usually include the move from school directly to paid work or to post-secondary education, leaving the parental home, partnering and/or marriage, becoming a parent and farewelling dependent children as they set up independent households and retirement. Life-course researchers have confirmed the common-sense observation that these transitions frequently happen in a predictable order. There is, so to speak, a 'standardised' pattern of life-course transitions. Partnering tends to follow completion of school and any immediate post-secondary education. For men, it also follows entry into full-time paid work. Becoming a parent happens once any post-school training is completed, partnering is secure and, for men, a stable place in the labour market has been established. Other transitions are similarly predictable.

While this standardised model has never described everyone's experience, it has served both researchers and policy-makers well. For researchers, it provides a useful basis for understanding the social processes that affect important outcomes. For example, much research has focused on the factors that affect how successfully young people will make the transition from school to work and the kinds of jobs they will achieve (for example, Lamb & Mackenzie 2001). For policy-makers, assumptions (often tacit) about the standardised life course often underlie decisions about how key institutions should be designed. For example, vocational education and training (VET) institutions and universities might assume that most people complete post-secondary education immediately after school and before they enter the full-time workforce, that they will not have family responsibilities at this time, and so on. Workforce planners might assume that, after men complete their post-secondary education, they will make the skills they obtain available to the labour market on a full-time basis until retirement. They might assume that once women have partnered and have children, they will withdraw their skills from the labour market until their children reach a certain age or leave home.

Stated in these bald terms, examples of the standardised life-course model raise immediate questions about the usefulness of the model in the twenty-first century. Much recent research and experience have emphasised changes in life-course patterns that apparently break down the applicability of the standardised model. Many have claimed that, compared with 20 or 30 years ago, fewer young people make linear transitions from school through post-secondary education to full-time work (for example, Dwyer & Wyn 2001). Instead, they may delay or take breaks from study, or combine paid work with study, or partner before their study is completed. Similarly, the standardised model tends to assume that children are almost always raised in dual-parent households and that women do not undertake paid work while children are young. Yet neither assumption is plausible in early twenty-first century Australia.

Life-course change may take two forms, both of which are posited in the existing research literature. It may be that standardised life-course patterns continue to exist, but have changed substantially over recent years. Where the standardised model prescribed that women withdrew entirely from the labour force when children were born, its modernised successor involves women combining paid work, often part-time, with child rearing. Similarly, the expectation that people only live with a partner once they are married and after men enter full-time jobs, may have been modified to a model where cohabitation precedes marriage and often before a man takes up his first full-time job. On this analysis of life-course change, the task of researchers is to understand

and describe the new standardised life-course model or models. That of policy-makers is to adapt the design of institutions to allow for the new standardised life-course models.

In the second form of possible change, the very notion of standardised life-course models would break down. Departures from the twentieth-century standardised life-course model would be almost infinitely varied and complex, so that there was no identifiable new model of life-course transitions and status combinations. Instead, there would be an increasingly unpredictable ordering of events, such as post-school education, full-time employment, partnering or becoming a parent. Each person would construct his/her own path through these statuses, determined by his/her own life strategies and largely unconstrained by social expectations or institutional requirements. For researchers, this form of change would pose the challenge of understanding the logic or logics that underlie people's life-course strategies. For policy-makers, it would require that institutions develop a new flexibility and adaptability as the life-course circumstances amongst citizens they deal with become almost infinitely diverse.

The aim of this report is to assess the extent of life-course change amongst Australians over recent decades, consider likely future patterns of change, and examine the implications for the VET sector. With the focus on implications for the VET sector, the report pays particular attention to changes in the place of skill acquisition in the life course and changes in the ways skills are used in the labour market over people's working lives. The report begins by briefly reviewing what existing Australian and overseas research has shown about patterns of life-course change. It then presents original research, using census data, systematically examining the evidence for change in life-course patterns of skill acquisition, living arrangements and participation in paid work. The implications for post-secondary education are then assessed directly by examining the changing life-course stage profile of students in Australian technical and further education (TAFE) institutions and universities. Finally, the report examines varying patterns of skill usage through the life course. Throughout, there is a concern with whether we are witnessing the emergence of a small number of new standardised life-course patterns or the proliferation of life-course pathways. In conclusion, the report considers the implications of the changes and patterns it has uncovered for the VET sector.

# Life-course change: Existing research

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## Background

A focus on the life course has generated important insights into how key life events, such as education, training and labour market entry, are typically placed within a person's life. In general, the life-course approach focuses on when and in what order people make key transitions in their lives. Such transitions include completing schooling, entering or leaving paid work, or marriage. In its initial formulation, this approach focused on understanding the predictable stages experienced by most people as they completed schooling, undertook some post-school education or training, entered the labour market, married, became parents, raised children and retired (Elder, Johnson & Crosnoe 2003). While the life course was certainly seen to vary (for example, between men and women), the approach tended to emphasise the forces that produced fairly standardised life-course patterns. Institutional and normative factors were the focus in explaining these common patterns.

Comparative studies of institutional forces emphasised that variation in the structure of schooling and post-schooling education systems, and in their articulation with the workplace have significant effects on people's trajectories through these systems (for example, Kerckhoff 2003). For example, where education systems are clearly stratified relatively early, and where education and training are strongly specific in their vocational content, a number of distinct and quite restrictive pathways are constructed in the transition from school to work. In such systems, there is relatively little room for people to follow trajectories outside the institutionally structured pathways. By contrast, less stratification in education systems and less specificity in vocational content of education produces less distinct pathways and more variability in people's trajectories. However, even this variability is institutionally circumscribed.

At the same time, norms significantly affect how people navigate the institutional structures they face. For example, much variation in the life courses of men and women is not due directly to institutional structures, but to how people understand these structures through the lenses of their expectations of what is appropriate for men and women. Other normative statuses that affect how people respond to institutions might include their age or whether or not they are parents. So the life-course patterns we observe represent the results of how people use their normatively based understandings of appropriate choices in the context of the institutional structures that surround them.

## Post-secondary pathways

This approach is readily applicable to many people's trajectories through Australia's education and training system in the recent past. Our systems of apprenticeships, other technical and further education (TAFE)-based courses and university qualifications represented a stratified set of alternatives available to students leaving school. The vocational specificity of these courses varied, being much higher in the apprenticeship and other TAFE-based programs than in many university courses, although the latter was generally quite high. Even training following initial employment was quite often organised by employers, again representing institutional structuring. The result was a set of fairly clear pathways from school through post-school training into paid work. Combined with norms about what training was appropriate for different groups (for example, certain training

is for men and/or young people but not women and/or older people), these pathways would account for most people's trajectories through the training system into paid work. Moreover, shifts in institutional arrangements and in norms could account for change in their trajectories. For example, the growth in mature-age (and part-time) university students was made possible when, in the early 1970s, universities began admitting people who were well past school leaving age and had never completed secondary schooling. On the normative side, changes in societal expectations about women's roles have allowed women to follow with relative ease pathways that had previously been virtually closed to them.

## Life-course pattern changes

The life-course approach's emphasis on institutional and normative structuring implied that the major source of change in life-course patterns would be institutional or normative changes, and that these would simply produce alterations in existing well-structured pathways. However, in the last ten or 15 years, many life-course researchers have come to consider the hypothesis that institutional and normative structuring of people's life-course trajectories has been greatly weakened (Beck & Beck-Gernsheim 2002; Giddens 1991; Macmillan 2005). This would mean that it is much less possible than in the past to predict individuals' life-course patterns by simply knowing what institutional conditions they face and what normative environment they inhabit. One result might be that training and education institutions find themselves dealing with unexpected changes in client groups, perhaps shifts in gender or age composition. Another might be that overall skill stocks shift unexpectedly because the age composition of people being trained changes, or because new groups do not make their skills permanently or fully available on the labour market.

What points to weakened links between people's life-course trajectories and the institutional and normative circumstances in which they take place? One set of shifts relates to a possible weakening of the effect of social expectations (norms) on people's life-course pathways. For example, many analysts see increased diversity in pathways between school and full-time work and evidence that young people see themselves as 'making up' their own trajectories from school to work in new ways (Dwyer & Wyn 2001). Another commonly cited example is the growing diversity in the life-course patterns of women, particularly in relation to childbearing and combining motherhood with paid work. New patterns of later-life engagement with the labour market and of the transition to retirement represent a third example. Here, people appear to be more willing to invent their own pathways in this later part of their careers (Moen 2003). Changes like these are sometimes viewed as one side of 'individualization' (Beck & Beck-Gernsheim 2002). They represent the weakening of the effect of social expectations on people's goals and the choices they make to fulfil their goals.

## Institutional changes

The other set of shifts relates to the reconfiguration of some (possibly many) institutions so that they are less prescriptive about how people should engage with them and more likely to require people to construct their own paths. Shifts towards more flexible working arrangements and more malleable organisational structures are often seen as fitting this picture. These changes may effectively require people to reduce their reliance on organisationally supplied career pathways and consciously construct their career trajectories, including their education and training decisions (Martin & Wajcman 2004). A second example is change in government support for education and training that turns people into decision-makers about their own education and training 'investments' through such policies as income-dependent loans (for example, the Higher Education Contribution Scheme [HECS]). Changes to the social security system that require people to take more active roles in their trajectories, especially in negotiating combinations of paid work and income support, provide a third example. In a similar vein, changes to superannuation arrangements require people to more actively manage their own retirement provision. Changes like these are sometimes viewed as the other side of individualisation, emphasising that increased life-



course diversity may be being virtually forced onto people by changes in how institutions engage them (Beck & Beck-Gernsheim 2002).

There is no systematic research in Australia attempting to provide an overall assessment of these ideas. However, some research focused on several specific life transitions does support its general tenor. Perhaps most significantly, studies of young people's experiences in moving from full-time schooling through post-secondary education to the labour market suggest increasing diversity in pathways. Rather than a simple linear trajectory from school to post-secondary education to full-time work, this research suggests new patterns of complex movement between statuses, including combinations of paid work and post-secondary education and frequent deferral of study (Dwyer et al. 2003; see also Lamb & Mackenzie 2001).

## Family life-course changes

There is other disparate evidence for life-course change in Australia, especially around family formation and living arrangements. The increasing labour force participation of women and the increasing acceptance of combining paid work, even careers, with motherhood indicate, at the least, the possibility of an important shift in the standard life-course model for women (Evans 2000). Another important shift has been the rapidly increasing frequency of cohabitation before marriage: 30 years ago cohabitation before marriage was a rarity, today it is the most common pattern (de Vaus, Qu & Weston 2003a, 2003b; Dempsey & de Vaus 2004). Increased diversity in life-course patterns associated with 'destandardisation' of life-course trajectories is suggested by the increase in numbers of people of prime adult ages living alone (de Vaus, Qu & Weston 2003a).

International research has attempted to make a more systematic assessment of changing life-course patterns. Amongst the most systematic work has been that arising from the German Life History Study. Attempting to assess the 'destandardisation' hypothesis directly, Brückner and Mayer (2005) recently compared the experiences of birth cohorts born between 1920 and 1971. They conclude that Germans' life-courses do indeed seem to have become somewhat less standardised with respect to family formation, but that there is little evidence for such destandardisation in education, training and work. Indeed, they find 'increasing *de-coupling* of events in the connections between the school-training-work nexus and family formation' (2005, p.48, emphasis in original). Educational and workplace institutions appear to exert a powerful influence on how young Germans move from school to work and this militates against destandardisation in these areas, even producing homogenisation—the experiences of men and women have become increasingly similar!

Swedish research presents a similar mixture of stability and change, although in a different institutional context. Johnsson (2000) reports significant change in the timing of first cohabitation and changes in the average age at which people have their first child. There is also evidence of increasing family dissolution. Education, particularly post-secondary education, has become less tightly structured into the life course and is taken at increasingly variable ages. Moreover, the connections between such life events as partnering, childbearing, education and obtaining a full-time job have become less structured, so that diversity of statuses has increased. At the same time, lifetime work experience seems to have changed little, continuing to be strongly shaped by the opportunities of the labour market and workplace organisations.

These two examples illustrate the fact that systematic assessment of life-course change is still in its infancy, even in countries with much more developed traditions of life-course research than Australia. Even the impression of a mixture of change and stability remains uncertain—research on the early life course in Mexico, again a very different society from Sweden, Germany or Australia, suggests much more limited change in early life-course patterns (Fussell 2005). Yet life-course change clearly has profound implications for a society. In the past decades or so, with fairly limited systematic data, many analysts have come to the view that institutions and norms have become much less directly prescriptive in relation to life-course pathways, and that life trajectories have become more diverse and unpredictable. If this hypothesis is correct, we face a world where the

impact of institutional and normative change on life-course patterns is far less predictable than in the past. In relation to education and training, the focus of this report, this would mean a much more diverse set of pathways to post-secondary qualifications and more diverse use of the skills they impart through the life course. While the current project does not directly confront the source of change in life-course patterns, its focus is on providing a first systematic understanding of what those changes look like, an essential step in understanding their likely impact in the long-term.

# Broad indicators of life-course change

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An initial assessment of the extent of life-course change in recent decades can be gained by examining how the proportion of people in key life-course groups has changed over time in age groups. For example, we can examine how the living arrangements of 20 to 25-year-olds have changed. Is there increased diversity in the household structures in which this age group lives? We can ask similar questions of other age groups and in relation to other key life-course patterns, and we can ask whether the patterns of change are the same for men and women. This analysis provides a broad assessment of the extent to which basic life-course patterns are changing. It summarises much of what is already known on this issue and forms an essential context for the more detailed analysis that follows.

Here, the focus is on three key life-course experiences: living arrangements, paid work, and post-secondary study. In each case the conventional life-course pattern proposes that people will move through statuses in a predictable order. For example, with regard to living arrangements, the conventional life-course pattern for men involves living with parents, followed possibly by living alone, followed by living with a wife, followed by living with a wife and children, followed by living with a wife only (once children leave home). While census data do not allow us to trace the individual pathways people follow through these statuses, they do provide a snapshot of how people are distributed into them at the time of each census. Broad claims of life-course change predict that we will observe increasing diversity in living arrangements over time at each age group. This increased diversity would reflect the results of people following increasingly diverse life-course pathways. Similar patterns of increased diversity might be expected when we focus on paid work and post-secondary study.

We used census data for 1981, 1986, 1991, 1996 and 2001 to examine these issues. In each case, we examined changes in the proportions of people in defined age groups who fall into various categories. Detailed graphs showing the patterns are in appendix 1 in the Support Document. Below, we summarise the main features of these analyses.

## Living arrangements

People's living arrangements are intimately tied to their family and relationship circumstances. To examine how living arrangements are changing, we classify people into six categories<sup>3</sup>:

- ✧ living with parents
- ✧ living with a partner, but no dependent or independent children
- ✧ living with a partner, and dependent or independent child/children (includes a few rare households where other adults are present)
- ✧ living as a single parent with children

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<sup>3</sup> For the purposes of this analysis, we have excluded people living in 'non-private' dwellings such as boarding houses, dormitories, university colleges etc.

- ✧ living alone, or with independent child/children only
- ✧ living with other adults but no children of one's own.

Amongst young adults (aged 20–29), there was a dramatic decline in the proportions living in couple households containing children, providing strong evidence of delayed partnering and childbearing amongst more recent cohorts. Let us compare the situation in 2001 with that of 1981: 56.8% of men aged 25–29 lived with a female partner and children in 1981, but by 2001 the proportion had fallen to 30.8%. Living with a partner but no children also declined substantially amongst 20 to 24-year-olds, but not amongst 25 to 29-year-olds (in fact it increased amongst women in this age group, reflecting older partnering and childbearing). Instead of living in couple households, young people do display increasingly diverse living arrangements. Some are consistent, with a pattern of delaying traditional life-course transitions rather than altering them entirely. Both men and women delayed leaving the parental home, although men tend to stay in the parental home longer than women: the proportion of women aged 20–24 living with parents rose from 27.9% in 1981 to 40.4% in 2001, while the proportion of men aged 25–29 doing so rose from 14.6% to 23.5% in the same period. However, the proportions living alone or with other adults have steadily increased amongst both men and women, suggesting that an increasing proportion of people may live with their partners only briefly in adulthood. Indeed, by 2001 about a quarter of 25 to 29-year-old men and about a fifth of women lived in such arrangements.

The declining incidence of conventional-couple living arrangements is also evident amongst those in their 30s. In this age group, the proportion of people living as couples with children declined substantially (generally by about 20 percentage points). Although the proportion living with a partner but no children increased, the overall proportion living in a couple relationship still declined over time, generally by about 10–15 percentage points. Some of this change is clearly due to the delaying of partnering and childbearing. However, the rise in non-conventional living arrangements, particularly single parenthood for women and living alone for both genders, is clearly a secular trend of rising significance.

Amongst men in their 40s, the decline in couple-living is also evident, although it is much less pronounced than in younger age groups. The effects of delaying childbirth can be seen in the rise between 1996 and 2001 in the proportion of 45 to 49-year-olds who live in couples with children, and the fall in the proportion living without children. However, the proportion living in non-conventional arrangements also steadily increased in this age group. For example, the proportion of women who were single parents or who lived alone virtually doubled to around 20% of this age group between 1981 and 2001.

Shifts in living arrangements amongst older people (those over 50) have been less dramatic than amongst younger age groups. However, there is still evidence of declining couple-living, and a rise in living alone.

These results summarise a number of well-known trends in family-formation patterns in Australia over the past 20 to 30 years. First, successive cohorts have partnered, particularly in the formality of marriage, and had children at progressively later ages. The result is the declining proportion who partner and have children in their 20s and 30s. However, in addition to this later partnering and childbearing, successive cohorts have also become more willing to live alone and/or to avoid parenthood altogether. Australia's declining birth rate is partly explained by smaller family size, but also by an increasing proportion of people who never have children. Thus, living arrangements have certainly become more diverse at every age group, in the sense that the model of adulthood represented by a couple family with children has become progressively less dominant. However, it does remain the dominant model, with about three-quarters of people in their 40s in 2001 still living as couples, with or without children.

The future of these trends is undoubtedly a matter of considerable uncertainty. However, it seems unlikely that simply extending existing trend lines will accurately predict the future. Recent data suggest the long-term decline in Australia's birth rate may have ceased (McDonald 2005), implying

that the proportion of people who never have children may not continue to rise. However, it also appears that the rise in living alone and in single parenthood continues, showing few signs of moderating (de Vaus, Qu & Weston 2003a).

## Paid work

When people begin, suspend or end paid work is a second key transition in most standard life-course models. For men, the standard model requires full-time work following the completion of education until retirement, while for women it typically involves full-time work until marriage or childbearing, followed by complete or partial withdrawal from paid work and, possibly, re-entry once children reach school age/adulthood. Women's changing patterns of workforce participation are well known and clearly represent a shift in the standard life-course model that allows women to combine motherhood with some paid work.

Our analysis focused on the proportions of men and women at various age groups who were working full-time, working part-time or not working for pay (including looking for work). The analysis showed a rise in part-time work and a decline in full-time work for the youngest age group (20 to 24-year-olds). Men and women in the second half of their 20s show diverging trends. Amongst men, but not women, the overall proportion in paid work declined between 1981 and 1991, although it has not changed since. This decline was due almost entirely to a fall in the proportion in full-time work, with the proportion in part-time work hardly changing. In contrast, the proportion of women in paid work has steadily increased, with rises in both part-time and full-time work.

There are also contrasting trends in the paid work participation of men and women in their 30s and early 40s. Successive cohorts of men display falling participation in paid work until 1991, with nearly 20% not working for pay since that year. Again, this decline is largely due to a falling proportion in full-time work, with only a small part of the decline being taken up by part-time work. In contrast, the proportion of women not working has steadily declined, primarily due to a rise in part-time employment. Amongst women in their early 30s, the proportion in full-time work has also risen.

The trend is similar for older age groups, except that the proportion of women in both part-time and full-time work has increased. This reflects a growing tendency for women to re-enter the full-time workforce once children have left home. Again, men's falling labour market prospects are reflected in a decline in the proportion in full-time work and an increase in the proportion not in paid work, especially between 1981 and 1991.

The place of paid work in the life course has clearly changed over the past two decades. Combining motherhood with paid work has become increasingly common amongst women, often with part-time rather than full-time work. This, together with generally rising labour force participation amongst women, means that a clear majority of women at every age up to the late 50s are now in the paid workforce. At least in large part, this change represents a widely accepted shift in life-course models that sees paid work as a normal choice for women, whether they have children or not. In contrast, men's declining labour force participation is not predominantly a chosen shift towards a life course that does not require that they work full-time through much of their adult life. Instead, it reflects declining opportunities for men, especially those with low formal skills (Richardson 2003).

The most dramatic changes in women's labour force participation patterns may be over, although trends towards more women working are continuing. Since men's participation in paid work is largely a product of labour market conditions, it is not surprising that the stronger labour market of recent years has seen an easing in the decline in men's labour force participation. However, it seems unlikely that the men most vulnerable to exclusion from paid work will see a rapid re-establishment of their place in the labour market. Perhaps more significantly in the long run, it is also possible

that the changes in men's participation in paid work may represent the beginnings of a shift to viewing paid work as less central to men's life course in later adult life. Whatever the case, there is clearly increased diversity in men's and women's labour force status over the past 20 or 30 years.

## Post-secondary education

In the conventional life-course model, most post-secondary education and training occurs immediately after secondary schooling and precedes full-time employment. Educational institutions construct qualification programs and relationships with employers on the expectation that most students will conform to this model. Conventional life-course models also allow for some study to upgrade knowledge or qualifications after full-time employment has commenced, and educational institutions often provide programs catering to this pattern. Undertaking post-secondary education out of sequence in the life course is a potentially important indicator of shifting life-course patterns, whether towards the development of altered standard life-course models or towards the proliferation of pathways characteristic of a 'de-standardisation' of the life-course.

Again using census data, we examined the proportion of people who were undertaking full-time and part-time post-secondary education across age groups. At every age there are significant increases in the proportion of people studying, consistent with the substantial expansion of post-secondary education since the early 1980s. Beyond this, there are also significant variations in just how expansion has occurred for men and women at different age groups.

Amongst the youngest age group, the growth in educational participation has been primarily in full-time study. Indeed, the proportion of men aged 20–24 studying part-time has remained at about 10% since 1981. At the same time, the proportion studying full-time has ballooned from 8% to just over 20%. Women's educational participation has risen even faster, with the proportion studying part-time doubling to 10% and the proportion studying full-time increasing nearly four-fold (from 6.8% to 25%) to surpass that for men. This pattern would be consistent with a much greater proportion of young people undertaking a conventional 'training' pathway between school and work, without any significant shift in life-course models.

Although the proportion of people studying in their later 20s is much lower than the proportion in their early 20s, the pattern of change is similar. However, part-time study continues to be more common than full-time for this age group. Again, it is notable that men's increased participation in study is almost entirely in full-time study. Moreover, by 2001, women in this age group are as likely as men to be studying full-time and more likely to be studying part-time.

Men's participation in study in their 30s is largely through part-time study and is consistent with educational upgrading in the conventional life-course model. In line with this interpretation, the proportion of men undertaking such study did not change between 1981 and 2001, although there was a significant increase in the very small proportion studying full-time. By contrast, women's participation in both full-time and part-time study increased sharply, to the extent that, by 2001, they were as likely as men to be studying full-time and more likely to be studying part-time.

Most conventional life-course models see very limited utility for men or women to undertake study in their 40s and 50s. However, the proportion of Australians aged between 40 and 54 who are studying has consistently increased and is not far below the level observed for the 35–39 age group. Indeed, the proportion of women aged 40–54 studying part-time had nearly tripled to 5.6% by the 2001 census.

Increased participation in post-secondary education does not necessarily represent a shift in life-course models. It can simply mean changing proportions of cohorts following conventional life pathways. Some of the shift in educational participation is consistent with such change—notably the rising proportion of young people in full-time study. But women's rising participation in study, so that it now equals or exceeds men's at each age group, provides further evidence of acceptance

that women's life pathways may include sustained engagement with training and the labour market even after parenthood. In addition, the rising educational participation of older age groups, particularly those over 40, may indicate some shift towards more diverse life-course patterns.

## The rise of the non-conventional life course?

There have clearly been significant changes in living arrangements, participation in paid work and patterns of post-secondary education over the past two decades. The implications of these changes depend significantly on how they fit into the life course. Many of the changes are consistent with shifting proportions of people in different, but conventional, life-course pathways. However, these shifts may also arise as conventional pathways fall away and are replaced by new or more diverse ones. Conventional life-course pathways involve certain combinations of living arrangements, paid work and study at various ages. Such conventional pathways also indicate that other such combinations represent people on non-conventional life-course paths. For example, a man aged 20–25 in full-time study with no paid work and living with his parents holds a combination of statuses that is consistent with a conventional pathway involving the completion of post-secondary training before partnering or full-time work. By contrast, a man in the same age group studying full-time for a first qualification, working part-time, and living with a partner and child is in a set of statuses that indicate a non-conventional pathway. In this latter case, partnering and childbearing appear to have preceded the completion of post-secondary education and entry into a full-time job. This section of the report uses census data to assess whether there are shifts in the combinations of such statuses that suggest increasing 'non-conventional' life-course patterns and also examines which non-conventional statuses are most common.

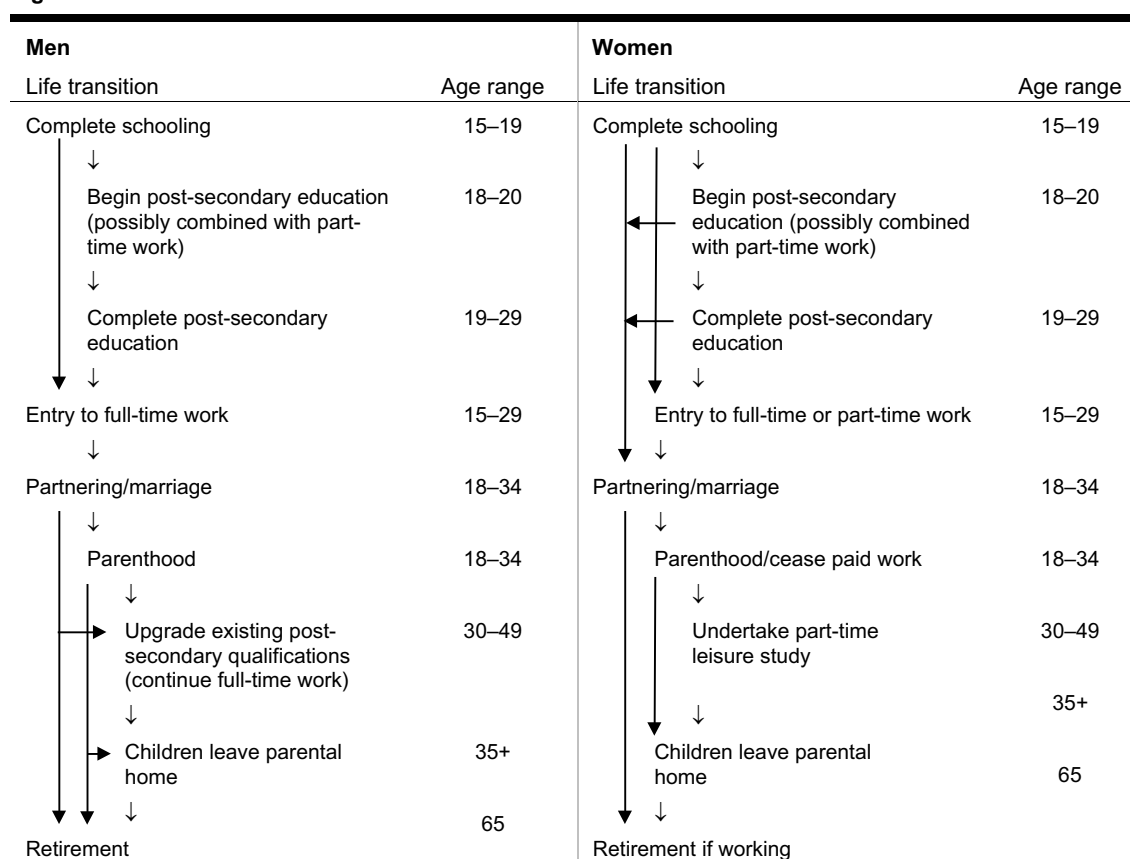
This analysis requires specification of a 'conventional' life-course model. While the details of any such model may attract some dispute, its broad contours should not be controversial. In this report, two such models are used: a 'traditional' model of the conventional life course; and a 'modernised' model. For men, both models involve a core ordered life-course pattern of leaving school, possibly undertaking post-secondary education, beginning paid work, partnering, having children, and finally retiring from paid work. For women, both models involve a core life trajectory of leaving school, possibly undertaking post-secondary education, possibly beginning paid work, partnering, having children, and finally retiring from paid work. The 'modernised' model encompasses three widely accepted and important modifications to the more traditional model. First, while the traditional model does not allow that women may undertake some paid work in combination with motherhood, the modernised model allows this possibility. Secondly, the modernised model allows more variation in how and when people retire, particularly taking into account the legitimacy of 'early' retirement from 55 onwards. Third, the modernised model allows that some people may never partner, living alone through most of their adult life. Clearly, both models are gendered in the sense that men's and women's life-course patterns are different.

Figure 1 represents the main features of the 'traditional' model as flow charts for men and women. The 'modernised' model differs from the traditional only in that women may continue in full-time of part-time work after becoming parents, and that both men and women may not partner, continuing to live alone in adulthood. Table 1 displays the combination of statuses that logically follow from the life-course patterns in figure 1. These may be viewed as 'conventional' status combinations, within each life-course model. For example, table 1 shows that the traditional life-course model requires that a man aged 30–34 should live alone (that is, prior to partnering), or as a husband with or without children, be undertaking no study or studying part-time (if he has already completed some post-school qualifications), and be working full-time.

A clear implication of suggestions of life-course change is that the proportion of people who are not in a conventional life course should rise over time. Table 2 shows the percentage of Australians who fell into each of seven main life-course status categories at each census from 1981 to 2001. First, the results show that 'non-conventional' life-course statuses were not particularly unusual,

even in 1981. In that year, just over 30% of people were in such statuses using the more stringent ‘traditional’ model and just over 20% were non-traditional even on the ‘modernised’ model. By 2001, the equivalent figures were 38% and 26%. Because these figures represent a ‘snapshot’ at each census, they certainly underestimate the proportion of the population whose life-course trajectories have involved ‘non-conventional’ status combinations at some point. Second, most of this rise in non-conventional status occurred between 1981 and 1986. Although there may be a continuing shift towards non-conventional life-course patterns, it is quite slow. The declining proportion of Australians in the ‘worker’ category, particularly between 1981 and 1986, suggests that a significant part of the growth in non-conventional life-course statuses may be due to declining labour force participation amongst men.

**Figure 1 Traditional conventional life-course model**



While the results in table 2 indicate the net result of any changing life-course patterns, the ageing of the Australian population may disguise significant trends. Table 3 focuses on the modernised life-course model and shows the distribution of Australians into life-course statuses for four age groups. It indicates that there were more significant changes in life-course patterns between 1981 and 2001 than table 2 suggests. These changes involve both shifting proportions of people taking trajectories that form part of the modernised life-course model *and* increasing proportions of people aged 30–50 in non-conventional statuses.



**Table 1 Combinations of statuses associated with traditional conventional and modernised conventional life-course models**

Age	Gender	Living arrangements	Study	Work
<i>Traditional conventional model</i>				
20–29	Male and female	At home, alone, group	Full-time	Part-time
20–29	Male and female	At home, alone, group	Part-time	Full-time or part-time
20–29	Female	Couple no children	Full-time	None
20–29	Female	Couple no children	Part-time	Full-time or part-time
20–29	Male	At home, alone, group, couple no children, couple with children	None	Full-time
20–29	Female	At home, alone, group, couple no children	None	Full-time or part-time or none
20–29	Female	Couple with children	None	None
30–34	Male	Alone, couple with children, couple no children	None or (part-time and previous post-school)	Full-time
30–34	Female	Alone, couple no children	None or (part-time and previous post-school)	Full-time or part-time
30–34	Female	Couple with children	None	None
35–49	Male	Couple with children, couple no children	None or (part-time and previous post-school)	Full-time
35–49	Female	Couple no children	None or (part-time and previous post-school)	Full-time or part-time
35–49	Female	Couple with children	None	None
50–64	Male	Couple with children, couple no children, alone	None	Full-time
50–64	Female	Couple with children, couple no children, alone	None	None
50–64	Female	Couple no children, alone	None	Full-time or part-time
65+	Male and female	Couple no children, alone	None	None
<i>Modernised conventional model</i>				
20–29	Male and female	At home, alone, group	Full-time	None
20–29	Male and female	At home, alone, group, couple no children	Part-time	Full-time or part-time
20–29	Male	At home, alone, group, couple no children, couple with children	None	Full-time
20–29	Female	At home, alone, group, couple no children	None	Full-time or part-time or none
20–29	Female	Couple with children	Part-time or none	Part-time or none
30–34	Male	Alone, couple with children, couple no children	None or (part-time and previous post-school)	Full-time
30–34	Female	Alone, couple no children	None or (part-time and previous post-school)	Full-time or part-time or none
30–34	Female	Couple with children	Part-time or none	Part-time or none
35–49	Male	Alone, couple with children, couple no children	None or (part-time and previous post-school)	Full-time
35–49	Female	Alone, couple no children	None or (part-time and previous post-school)	Full-time or part-time
35–49	Female	Couple with children	Part-time or none	Part-time or none
50–64	Male	Couple with children, couple no children, alone	None	Full-time
50–64	Female	Couple with children, couple no children, alone	None	Part-time or full-time or none
65+	Male and female	Couple no children, alone	None	None

**Table 2 Proportion of Australian population aged 20 and over in traditional conventional and non-conventional life-course statuses, 1981–2001**

Life-course status	Year				
	1981 %	1986 %	1991 %	1996 %	2001 %
<i>Traditional model</i>					
Non-conventional	31.5	36.5	37.1	37.2	38.4
Conventional					
Training	1.3	1.2	2.1	2.1	2.1
Worker	37.5	34.6	33.1	32.9	32.8
Female non-worker	7.9	7.4	6.9	6.6	6.0
Mother	9.5	8.5	7.2	6.1	5.3
Upgrading training	1.5	1.5	1.8	2.2	2.2
Retired	11.0	10.4	11.8	12.8	13.2
<i>Modernised model</i>					
Non-conventional	21.2	25.2	25.2	25.2	26.2
Conventional					
Training	1.3	1.2	2.2	2.2	2.1
Worker	38.3	35.3	33.8	33.8	33.8
Female non-worker	7.9	7.4	6.9	6.6	6.0
Mother	9.5	8.5	7.2	6.1	5.3
Upgrading training	1.6	1.7	2.1	2.5	2.5
Retired	13.0	12.9	14.3	15.3	15.8
Working mother	7.3	7.7	8.4	8.3	8.2

Source: Calculated from household sample files for 1986–2001 censuses

In every age group under 50, the proportion of people who are ‘workers’—men employed full-time and women without children employed full-time or part-time who are not upgrading their qualifications—has steadily declined. Most pronounced amongst those aged 35 to 49 years, this trend is due to the declining proportion of men at these age groups who are in full-time work. At the same time, the proportion who are ‘mothers’—coupled women with children who are not working—has also steadily declined. In the age groups under 35, this trend arises from the delayed parenthood we noted above. Amongst the 35 to 49-year-old group, it has more to do with the adoption of the ‘modernised’ life-course model in which women may combine work and motherhood, as evidenced by the rising proportion of this age group who are ‘working mothers’—coupled women with children who are working full-time or part-time. Finally, the expansion of pathways involving post-secondary education is demonstrated in the rising proportion of 20 to 29-year-olds who were ‘training’—undertaking full-time or part-time study for a first qualification<sup>4</sup> while not working or working part-time—or ‘upgrading training’—working full-time and undertaking part-time study after completing a post-secondary qualification.

Alongside these shifts across different ‘modern conventional’ pathways, table 3 also shows a steady rise in the proportion of 30 to 49-year-olds in non-conventional statuses. Whereas over a quarter were in such statuses in 1981, the figure was well over a third by 2001, a ten-percentage point increase. This is a significant change in 20 years and indicates growing diversity in life-course pathways over this period. Table 3 also reveals little change in the proportion of those in their 20s and over 50 who are in non-conventional pathways.

<sup>4</sup> Census data contain information about qualifications already completed by a person, as well as whether or not he or she is currently studying. Thus, it is possible to distinguish current students studying for a first qualification from those who have already completed a first qualification.

**Table 3 Proportion of Australian population aged 20 and over in modernised conventional and non-conventional life-course statuses by age, 1981–2001**

Life-course status	Year				
	1981 %	1986 %	1991 %	1996 %	2001 %
<b>20–29</b>					
Non-conventional	18.5	20.5	22.9	21.2	21.8
Conventional					
Training	5.0	4.9	9.4	10.3	11.3
Worker	51.5	50.3	45.9	47.1	46.1
Female non-worker	4.0	4.1	4.8	3.8	3.4
Mother	12.2	11.0	7.8	6.7	5.5
Upgrading training	3.7	4.1	4.6	6.7	8.2
Working mother	5.0	5.0	4.6	4.1	3.7
<b>30–34</b>					
Non-conventional	25.9	29.0	33.2	34.5	36.3
Conventional					
Worker	39.3	35.4	33.7	34.1	35.4
Female non-worker	0.9	1.2	1.1	1.3	1.1
Mother	18.0	17.2	14.6	13.5	11.9
Upgrading training	2.4	2.5	3.1	2.9	3.3
Working mother	13.5	14.7	14.2	13.7	12.0
<b>35–49</b>					
Non-conventional	27.2	29.9	33.0	34.5	37.6
Conventional					
Worker	40.2	38.1	35.6	35.0	33.2
Female non-worker	4.1	3.7	3.1	2.9	2.0
Mother	12.8	11.6	9.8	8.6	8.1
Upgrading training	1.3	1.5	2.0	2.2	1.9
Working mother	14.5	15.2	16.4	16.8	17.2
<b>50+</b>					
Non-conventional	16.8	23.2	16.2	15.9	16.0
Conventional					
Worker	26.9	22.6	23.6	24.7	27.8
Female non-worker	16.1	14.8	14.1	13.5	12.0
Mother	1.9	1.4	1.4	1.0	1.1
Upgrading training	0.0	0.0	0.0	0.0	0.0
Retired	37.1	37.0	43.5	43.8	41.4
Working mother	1.2	1.0	1.2	1.2	1.7

Source: Calculated from household sample files for 1986–2001 censuses

What kinds of non-conventional statuses increased over this period? Table 4 shows the proportion of people in the 30 to 34 and 35 to 49 year age groups in various non-conventional statuses at each census. The declining labour market for men, particularly low skilled men, clearly contributed significantly to change, with the proportion of 30 to 49-year-olds, who were non-conventional because they were men without full-time work, rising from about 7% to 11% between 1981 and 2001. However, many other non-conventional status combinations contributed to the rise: there were more single parents; more people undertaking post-secondary study for the first time after their 20s (particularly in their early 30s); more people living with other adults (particularly in their early 30s); and so on. Overall, then, while the worsening labour market for men could explain a little under half of the rise in non-conventional statuses over the period, a range of other changes in

how people combine living arrangements, work and study also contributed. This picture reinforces the image of slow but steady increase in the diversity of life-course pathways in the middle years of adult life.

**Table 4 Proportion of Australian population aged 20 and over in specific non-conventional life-course statuses by age, 1981–2001**

Life-course status	Year				
	1981 %	1986 %	1991 %	1996 %	2001 %
<i>30–34</i>					
Man not working	7.1	8.4	11.1	11.4	11.1
Single parent	5.3	5.1	4.9	6.2	6.6
Woman not working	0.9	1.2	1.1	1.3	1.1
First post-secondary study and aged over 29	2.6	2.7	3.8	3.8	4.0
Group living	3.6	5.8	7.9	6.9	7.2
<i>35–49</i>					
Man not working	7.0	8.3	10.7	11.5	11.9
Single parent	5.1	4.8	5.4	6.2	7.5
Woman not working	4.1	4.6	4.3	5.2	5.5
First post-secondary study and aged over 29	1.5	1.5	2.2	2.4	2.5
Group living	2.4	4.3	3.9	3.6	3.6

Source: Calculated from household sample files for 1986–2001 censuses

With the exception of men’s labour force participation, there is every reason to believe these changes can be projected into the future. For the VET sector, a key issue is whether people in these increasingly common non-conventional life-course statuses are also becoming more common amongst their students. Increasing participation in post-secondary education at every age suggests that they are, and, in the remainder of this report, we examine this issue. A related issue is whether any increase in non-conventional life-course trajectories affects patterns of skill utilisation across the life course. We briefly turn to this issue in the last section of the report.

# Post-secondary education in the life course

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Although the rate of change in life-course patterns may not be as rapid as some pundits have suggested, the previous section of this report does establish that there have been significant changes in the sequence of key life-course transitions. Some of these changes represent shifts in the proportion of people undertaking established ‘modern’ life trajectories, while others arise as people take non-conventional pathways. The result is increased diversity in life-course trajectories. But what effect do these changes have on post-secondary education? In this section of the report, we focus on how these changes may be translating into where education is located in the life course, both in terms of the age at which it occurs and its place in life-course sequences.

A ‘synthetic cohort’ analysis provides a useful starting point to understanding changes in how post-secondary education occurs in the life course. Our analysis uses census data covering the 20 years from 1981 to 2001 to further assess change in when such education is undertaken.<sup>5</sup> Table 5 shows the change in the proportion of various birth cohorts having either some post-secondary education, or degree-level or higher education for each of seven five-year birth cohorts between 1981 and 1991 and between 1991 and 2001. The effect of post-secondary educational expansion can be seen amongst the youngest cohort. Whereas 9.5%<sup>6</sup> of men and 9.3% of women aged 20–24 in 1981 gained degree qualification or higher in the next ten years, 13.0% of men and 15.0% of women in the equivalent 1991 cohort did so. In other words, significantly more of the later cohort gained a degree in this life-course stage. Similarly, the proportion in the youngest cohort who gained some qualifications was much greater in the later period than in the earlier one, especially for women.

However, the evidence that educational expansion affected older cohorts is much more mixed. For men, it is only for the youngest cohort that the proportion gaining a qualification for the ten-year period from 1981 to 1991 is any different from that for the period from 1991 to 2001. For men 25 and over, post-secondary educational expansion hardly shifted the timing of obtaining qualifications at all. This pattern is broadly consistent with the fairly slow increase in the proportion of men studying at ages over 29 noted in the previous section. In contrast, the proportion of women aged 25 and over who gained a first post-secondary qualification over the 1991–2001 period is significantly higher than for the 1981–91 period at every age group. The same is true for those who gained the qualification of a degree or higher for the first time. In other words, women substantially increased their propensity to obtain post-secondary qualifications at every age. Again, this is consistent with the pattern described in the previous section of this report. It is particularly striking, given that the later cohort was already more educated than the earlier one.

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<sup>5</sup> Available census data have some limitations for our study. First, the census collects data only on the highest post-secondary qualification held by people, so that the synthetic cohort analysis can only be conducted at either the top or bottom of the hierarchy of qualifications. Significantly for this study, VET qualifications are intermediate and hence it is not possible to calculate the number of people who gain a VET qualification across a period using a synthetic cohort analysis of census data.

<sup>6</sup> There are a number of reasons to be cautious about the absolute accuracy of this figure. First, the figures in table 5 do not remove the effects of immigration. Focusing on change in the proportion of each cohort with particular levels of qualification reduces the impact of this issue. The distribution of post-secondary qualifications amongst new immigrants in each period is somewhat different from that for the resident Australian population at the beginning of the period. But the difference is not huge (at most about 15 percentage points, but falling in older cohorts), and recent immigrants make up a small proportion of each cohort anyway.

But this shift was noticeably larger in relation to obtaining a first post-secondary qualification as opposed to obtaining a first degree. For example, the proportion of women in the 30–34 cohorts who gained a first degree in the subsequent ten years went from 5.5% for the 1981 cohort to 6.4% for the 1991 cohort, a small increase. However, the proportion in the same cohorts who obtained a first post-secondary qualification jumped from 4.3% for the 1981 cohort to 6.9% for the 1991 cohort, a substantial increase. Without being definitive, these results suggest that mature women's increased propensity to undertake post-secondary qualifications was concentrated in the non-university sector. In fact, it may be that almost all of the shift in the timing of post-secondary education that occurred between 1981 and 2001 involved women over the age of 24 undertaking non-degree qualifications.

**Table 5 Acquisition of post-secondary qualifications: Synthetic cohort analysis, 1981–2001**

Age at beginning of decade	Increase in percentage with degree qualifications or higher+		Increase in percentage with some post-school qualifications+	
	1981–1991	1991–2001	1981–1991	1991–2001
<i>Men</i>				
20–24	9.5	13.0	18.3	25.4
25–29	6.0	6.2	8.5	9.6
30–34	4.8	4.5	6.2	6.5
35–39	4.1	3.4	4.7	4.7
40–44	3.1	2.2	3.7	3.4
45–49	2.5	1.3	2.5	2.9
50–54	2.1	1.1	1.6	2.7
<i>Women</i>				
20–24	9.3	15.0	10.3	19.9
25–29	6.7	7.3	5.0	8.7
30–34	5.5	6.4	4.3	6.9
35–39	4.6	5.7	3.3	5.5
40–44	3.4	4.7	1.9	4.4
45–49	2.3	3.8	0.9	3.0
50–54	1.8	3.0	0.1	2.0

Note: + Table entries represent the change in the proportion of each cohort who had the relevant post-school qualifications during the decade indicated. Thus, approximately 9.5% of the cohort of men aged 20–24 in 1981 gained degree qualifications between 1981 and 1991; 25.4 % of the cohort of men aged 20–24 in 1991 gained their first post-school qualification between 1991 and 2001.

Source: Calculated from special tables prepared by the Australian Bureau of Statistics (ABS)

While the shifting place of post-secondary education in the life course is an important change, we are also concerned with how education is combined with other life-course statuses. A direct measure of this issue is provided by examining whether an increasing proportion of those enrolled in post-secondary education is in 'non-conventional' life-course statuses. Table 6 shows the life-course status of full-time and part-time post-secondary students. It reveals a clear and quite sharp growth in the proportion of part-time students who are in non-conventional life-course statuses, but only a much more limited and unsteady increase for full-time students. For the latter, the main shift is a growth in those upgrading training, all of whom are people in their 20s undertaking a second post-secondary qualification. The growth in non-conventional life-course statuses amongst part-time students is remarkable, with a shift from 38% being in such statuses in 1981 to 52% in 2001. The two main contributors to this shift have been expansions in the proportion of part-time students who are single parents and the proportion undertaking post-secondary study for the first time after the age of 29.

**Table 6 Life-course status of Australians currently undertaking post-secondary education, by full-time or part-time status, 1986–2001**

Life-course status	Year				
	1981 %	1986 %	1991 %	1996 %	2001 %
<i>Full-time</i>					
Non-conventional	21.0	21.3	22.5	24.4	23.9
Training	70.9	67.8	69.3	63.1	60.5
Upgrading training	8.2	10.9	8.1	12.5	15.7
<i>Non-conventional due to:</i>					
Single parent	2.0	2.2	3.4	2.8	3.0
First post-secondary study and aged over 29	5.3	5.9	7.0	7.4	6.3
Man not working	2.7	3.3	4.9	6.0	5.6
<i>Part-time</i>					
Non-conventional	38.0	44.2	46.2	47.1	51.9
Training	30.1	20.8	23.3	18.2	16.5
Upgrading training	31.9	35.0	30.5	34.7	31.6
<i>Non-conventional due to:</i>					
Single parent	2.8	3.4	3.8	5.6	6.7
First post-secondary study and aged over 29	15.5	17.4	18.2	18.8	20.2
Man not working	4.1	4.7	7.1	6.6	6.6

Source: Calculated from household sample files for 1986–2001 censuses

The age of those currently undertaking post-secondary education at each census provides a picture of the age composition of the student body and allows further assessment of changes in the life-course sequencing of education. In particular, it will tell us whether the growth in non-conventional enrolments may be associated with a change in the age distribution of the student population. Table 7 shows this distribution for the TAFE/college and CAE<sup>7</sup>/university student bodies at each census since 1986. (The data are not available for the 1981 census.) There has been a clear ageing of the TAFE/college student body, with the proportion aged over 40 increasing from about 15% to 23% between 1986 and 2001. At the same time, the proportion of students who are under 20 has fallen substantially. CAEs/universities have not experienced the same shift in the age distribution of their student bodies. These results suggest that much of the disproportionate growth in educational upgrading and of people undertaking first post-secondary qualifications after their 20s has been in the TAFE/college sector, rather than in CAEs/universities.

The remaining question is whether the expansion in non-conventional life-course statuses amongst part-time students is common to both sectors, or concentrated in one. TAFE/college students have always been significantly more likely to be in ‘non-conventional’ statuses than CAE/university students (see table 8). Indeed, by 2001, almost half of all TAFE/college students held statuses that fell outside the modern conventional life-course model, compared with just under 30% of university students. Most TAFE/college students are part-time, whereas only a minority of CAE/university students are part-time: in 2001, just over two-thirds of TAFE/college students were part-time compared with a little over one-third of CAE/university students. In general, table 8 shows that the expansion in the proportion of students in non-conventional life-course statuses is indeed largely confined to the TAFE/college sector, with part-time TAFE/college students showing a

<sup>7</sup> College of advanced education.

particularly clear growth.<sup>8</sup> While about 44% of part-time TAFE/college students were in non-conventional life-course statuses in 1986, the figure rose steadily to about 54% by 2001.

**Table 7 Age distributions of Australians currently undertaking post-secondary education, 1986–2001**

Age	Year			
	1986 %	1991 %	1996 %	2001 %
<i>TAFE/college</i>				
Under 20	30.9	26.9	23.4	24.6
20–24	21.0	21.9	24.2	20.1
25–29	13.0	12.4	13.3	12.1
30–39	20.3	22.4	20.8	20.1
40–49	9.0	11.5	13.2	14.9
50+	5.7	5.0	5.2	8.1
<i>CAE/university</i>				
Under 20	22.8	23.6	20.7	20.0
20–24	30.9	33.5	33.5	35.7
25–29	14.2	12.7	13.7	14.0
30–39	20.9	18.4	18.9	16.8
40–49	7.9	9.2	10.0	9.5
50+	3.3	2.5	3.2	4.1

Note: CAE = college of advanced education

Source: Calculated from household sample files for 1986–2001 censuses

Moreover, table 8 confirms that the single most important contributor to this shift was probably an increase in the proportion of students undertaking post-secondary study for the first time after the age of 29, but that growth in enrolments from people in other non-conventional life-course statuses was also significant—single parents<sup>9</sup> and men without jobs increased their share of part-time TAFE/college enrolment substantially. The life-course trajectories of TAFE/college students have been becoming significantly more diverse, primarily because the part-time student body has become more diverse. At the same time, the proportion of CAE/university students in non-conventional life-course statuses hardly changed over the period (with the possible exception of a surge between 1996 and 2001 amongst part-time students). Thus, the TAFE/college sector appears to have borne the brunt of some quite significant shifts in the place of post-secondary education in the life course, particularly amongst its part-time student population.

The place of post-secondary education in Australians' life-course pathways undoubtedly changed significantly between 1981 and 2001. A much larger proportion of young people undertook post-secondary education, and most of them did so following a conventional 'training' pathway—waiting to partner and commence full-time work until their training was completed. A greater proportion of people also undertook conventional 'upgrading' of their qualifications. But people not on conventional life-course pathways also took up post-secondary education increasingly, so

<sup>8</sup> Like most other analyses in this report, the results in table 8 are calculated from the 1% household sample files for each census. The figures are therefore subject to sampling error. They are also affected by the extent of missing information (e.g. failure to indicate on the census form in which sector a full-time student is enrolled). These problems seem to be particularly significant in relation to the figure for non-conventional enrolments in the TAFE sector in 1986. For this reason, we suspect that the figure of 19.9% of 1986 full-time TAFE/college students being in non-conventional life-course statuses may be too low. We treat it, and the figures related to reasons for non-conventional status amongst this group in 1986, with caution.

<sup>9</sup> The steady rise in enrolments of single parents (almost all single mothers) is in contrast to the pattern of enrolments by working mothers who live with partners. Analyses not shown here indicate that the latter group (many of whom are included as 'conventional' educational upgrades in table 8) probably increased its share of part-time enrolments in *both* post-secondary sectors between 1986 and 1991, but that its share has not changed since then.



that the overall proportion of post-secondary students in non-conventional life-course statuses increased substantially. People in their 30s and 40s with no post-secondary education, men in the same age group without full-time jobs, single parents, and many others became more and more likely to undertake study at non-conventional points in the life course. The effects of these changes were not uniform across the post-secondary education sector. Although the proportion of each cohort studying at CAEs/universities increased significantly, the age composition and the proportion in conventional and non-conventional life-course statuses did not change. By contrast, the TAFE/college sector saw a sharp increase in the life-course diversity of its main student body, part-time students.

**Table 8 Life-course statuses of Australians currently undertaking post-secondary education by sector of enrolment by full-time or part-time status, 1986–2001**

Life-course status	Year			
	1986 %	1991 %	1996 %	2001 %
<i>TAFE/college full-time</i>				
Non-conventional	19.9	28.0	31.1	33.4
Training	71.4	64.8	57.1	51.5
Upgrading training	8.7	7.2	11.8	15.1
<i>Non-conventional due to:</i>				
Single parent	2.3	5.7	5.0	6.7
First post-secondary study and aged over 29	6.1	10.8	11.3	11.1
Man not working	2.8	6.6	7.8	8.9
<i>TAFE/college part-time</i>				
Non-conventional	43.6	46.4	47.9	53.7
Training	26.5	30.5	27.0	23.1
Upgrading training	29.9	23.0	25.1	23.2
<i>Non-conventional due to:</i>				
Single parent	2.7	3.2	5.6	6.9
First post-secondary study and aged over 29	19.8	20.9	21.9	23.8
Man not working	3.7	4.2	6.7	6.9
<i>CAE/uni full-time</i>				
Non-conventional	17.1	18.7	18.9	19.6
Training	67.9	72.1	67.4	63.3
Upgrading training	15.0	9.2	13.7	17.2
<i>Non-conventional due to:</i>				
Single parent	2.5	2.7	1.6	1.6
First post-secondary study and aged over 29	3.2	4.3	3.8	3.4
Man not working	4.1	7.2	5.2	4.4
<i>CAE/uni part-time</i>				
Non-conventional	41.8	40.6	40.8	45.2
Training	12.4	13.6	9.8	11.3
Upgrading training	45.8	45.9	49.3	43.5
<i>Non-conventional due to:</i>				
Single parent	4.3	4.5	5.2	5.6
First post-secondary study and aged over 29	11.1	11.6	12.1	13.3
Man not working	5.5	5.7	4.8	5.3

Source: Calculated from household sample files for 1986–2001 censuses

What of the future? There is every reason to expect that many of these trends will continue. The university sector seems likely to continue to cater primarily to people seeking qualifications as part of a conventional life-course trajectory, whether it is initial training or later upgrading. The main source of increased diversity in universities in recent years and into the future is from overseas students, not domestic ones. At the same time, the slow but steady increase in the proportion of people who undertake post-secondary education out of sequence in their life-course trajectories shows no signs of slowing and can be expected to continue to increase. The explanations for this change are undoubtedly complex and beyond the scope of this report, but they include rising skill needs, the restructuring of the social security system around neoliberal principles of self-motivation and self-reliance and, possibly, increasing opportunities for non-traditional groups to enter particular kinds of jobs. Many of those beginning post-secondary education at non-conventional points in their lives are also quite vulnerable—those without previous educational experience after school, single mothers, and men without full-time jobs. Their tendency to turn more and more to the TAFE/college sector is likely to continue, producing further increases in the life-course diversity of TAFE/college student bodies, especially part-time ones.

# Changing skill pathways?

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Changes in how people combine education with other life-course transitions will have important relationships with how they make their skills available on the labour market throughout their lives. In this section of the report, we focus on skill utilisation through the life course and whether it is changing. To achieve this, we examine occupational career pathways. Our analysis is based on synthetic cohort analyses of occupational group data. We take the number of people in a five-year age cohort in an occupational group at one census and compare this with the number in the same cohort (now five years older) at the next census. This allows us to calculate the minimum number of people who must have entered or left that occupational group during the period between censuses. For example, if 5000 people aged 20–24 were ski instructors in the 1986 census, and 6000 people aged 25–29 were ski instructors in the 1991 census, then at least 1000 people in this five-year birth cohort must have become ski instructors between 1986 and 1991. This analysis is not perfect—it cannot tell us exactly how many people in the cohort became ski instructors during the period (because the net increase of 1000 probably arose through some people leaving this occupation and more than 1000 entering it). However, it gives a sense of the minimum flows that have occurred into or out of occupational groups and allows comparison of flow patterns between occupations, across cohorts and across periods.

Major changes in the codes used to classify occupations by the ABS mean that direct comparison across censuses is not simple. However, the same occupation code was used in the 1986 and 1991 censuses, and the same revised code was used in the 1996 and 2001 censuses. Table 9 shows inflows and outflows into each major occupational group for five-year birth cohorts of men and women for the 1986 to 1991 period and the 1996 to 2001 period. Although the occupational classifications are not identical, they are similar enough to allow some comparison at this level of aggregation.

People enter occupational/skill groups in varying ways (table 9). They enter managerial occupations at a fairly steady rate until at least their mid-30s or 40s, and there is no net outflow from this group until a cohort reaches the age of 45. Women's entry is more concentrated at earlier ages than men's, probably because women find it difficult to re-enter career paths leading to managerial positions after they have left the workforce or have reduced their paid work time to have children.

In contrast, flow into professional occupations is heavily concentrated at the beginning of the career—until about 30. Paraprofessionals (or *associate professionals*) show a similar pattern, although it is not so pronounced. However, this pattern of concentrated entry early in the life course is noticeably sharper amongst men than women. Indeed, there is net entry of women into these occupations until the mid-to-late 40s. Like managers, professionals and paraprofessionals tend to show no net outflow until at least the mid-40s. These patterns fit well with standard managerial and professional careers: many people are appointed to managerial positions well into their careers after being promoted from other positions, whereas professionals enter professional positions immediately after completing their formal qualifications. It appears that neither professionals nor managers are likely to leave their occupations until retirement begins to beckon.

Amongst tradespeople and lower skill occupations the pattern is different. Most trade entrants are men. For example, if we focus on the cohort of young people who were aged 15 to 19 years in 1996, ten times more men than women had entered trades occupations by 2001. Men tend to enter trade occupations by the age of 25, and there is generally net outflow from them at subsequent ages. In contrast, women enter these occupations at a range of ages, so that, while there is net

outflow from them amongst women up to the age of 30 or 35 (presumably associated with childbearing), numbers actually remain steady or increase until they reach 45 or 50. Many trades occupations are highly gendered (few plumbers are women and few dressmakers are men) and the different life-course skill utilisation patterns of men and women in these occupations are likely to be built into occupational cultures, making women difficult to substitute for men.

Men tend to enter clerical, sales and service occupations at young ages, and there is evidence that they do move from elementary to intermediate skill jobs within these groups up to their late 20s. Table 9 shows that, between 1996 and 2001, there was net outflow of men from 'elementary' occupations in this group for all age groups and net entry to 'intermediate' jobs until the late 20s.<sup>10</sup> After this point, there was a steady loss of men from these jobs which is not countered by any net inflow to 'advanced' clerical and service positions. However, the net loss from all three groups of clerical, sales and service occupations for each cohort up to the 35–39 cohort is of similar magnitude to the inflow to managerial positions. While managers obviously come from a range of other occupational backgrounds, it is plausible that much of men's net outflow from the three clerical, sales and service occupations after their mid-20s results from skill upgrading during their careers.

Women show similar patterns to men in clerical, sales and service occupations in early career, with significant outflow from 'elementary' occupations and entry into 'intermediate' and 'advanced' occupations amongst the youngest age cohort. However, there was then significant outflow from these jobs until the mid-30s, presumably as women withdrew from paid work to have children. Their re-entry to these jobs appears to begin at the 'intermediate' skill level, so that many probably obtain jobs at similar skill levels to those they left. However, while there is net re-entry to these jobs until their mid-40s, the indications of skill upgrading and career progression found for men are not evident. Indeed, there may be a small surge in re-entry to 'elementary' sales, service and clerical occupations amongst women in their late 40s.

The patterns of steady outflow from labourer occupations at all ages for both men and women are consistent, with both some skill upgrading and some departure from paid work amongst this group.

A key question for studies of life-course skill utilisation is whether these patterns appear to be changing. In general, there is no evidence that there were major changes in these patterns through the life course in the period covered by these data, although a definitive assessment is not possible because of changes in the occupation code used by ABS and the level of aggregation of the available data. Nevertheless, the broad contours of occupational pathways described above apply to both the 1986–91 and the 1996–2001 periods. The future supply of skills and demand for training will be affected greatly by these patterns of skill utilisation across the life course. Two issues stand out with respect to the skills imparted by the VET sector. First, the steady departure of qualified male tradespersons from trades occupations after the mid-20s, although its magnitude is likely to be affected by variations in the labour market, can be expected to continue to produce periodic labour shortages in these occupations. This is because, once they leave these occupations, men do not appear to re-enter them in large numbers, and slowing of outflow may be unable to meet the shortfall in supply. Women's quite different life-course skill utilisation in these occupations could ameliorate these effects, but only if some significant barriers are overcome. Most importantly, the stereotypes and active barriers that prevent many women from considering these occupations would need to be sharply attenuated. In addition, the VET sector, employers and other authorities could encourage and assist the increasing inclination of women to undertake post-secondary study at non-traditional ages and in non-traditional family situations (as described in previous sections of this report). At present, it is likely that most of this education is in areas traditionally acceptable for women. The challenge is to extend it to non-traditional occupational training with a view to

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<sup>10</sup> In assessing skill trajectories for clerical, sales and service jobs, we focus on the 1996–2001 transition data. The more refined skill-based occupational coding of the Australian Classification of Occupations (ASCO), used in the 1996 and 2001 censuses, allows more direct assessment of skill pathways for this group. Moreover, to the extent that comparisons can be made, there are no indications that skill pathways for either clericals or salespeople are different in the 1996–2001 period from those in the 1986–1991 period.

increasing the supply of skills from women in these areas, with the assumption that, once trained, women will leave these occupations more slowly than men, as they do at present in traditionally female trades occupations.

**Table 9 Occupational inflows and outflows by sex, 1986–1991 and 1996–2001**

Occupational group	Age cohort at beginning of period							
	15–19	20–24	25–29	30–34	35–39	40–44	45–49	50–54
<i>Men 1986–91</i>								
Managers	16 500	23 300	26 100	22 200	5 600	-3 600	-11 800	-12 300
Professionals	30 600	23 300	6 000	-8 800	-5 800	-6 400	-4 800	-10 000
Paraprofessionals	17 700	9 500	6 800	-2 400	-1 700	-5 000	-6 400	-5 100
Tradespersons	27 200	-38 000	-21 300	-26 800	-23 600	-19 200	-15 300	-15 600
Clerks	16 200	-19 000	-14 100	-14 100	-9 000	-2 900	-400	-6 600
Salespersons	14 400	-6 600	600	-5 300	-1 900	-100	-600	-4 700
Labourers	14 200	-26 900	-23 800	-22 000	-23 000	-3 200	-18 400	-22 300
<i>Women 1986–91</i>								
Managers	10 200	14 400	12 700	10 900	8 300	2 600	-1 600	-5 300
Professionals	49 200	17 600	-3 000	11 100	4 700	800	-7 000	-4 500
Paraprofessionals	12 100	6 800	2 700	4 200	3 900	2 300	1 500	0
Tradespersons	1 700	-2 400	600	200	2 000	-3 800	-2 100	-800
Clerks	39 200	-40 500	-10 100	7 300	2 400	-5 800	-9 800	-15 200
Salespersons	-15 900	-19 200	-1 500	10 100	7 500	5 500	-5 600	-6 600
Labourers	17 600	-14 400	8 000	6 000	5 300	-500	-11 500	-21 300
<i>Men 1996–2001</i>								
Managers & administrators	9 200	16 900	20 300	15 400	7 200	-5 600	-19 600	-21 600
Professionals	46 700	31 300	6 600	2 500	-1 100	-7 700	-1 800	-5 300
Associate professionals	30 900	19 900	5 700	4 900	-4 600	5 200	-8 500	-10 500
Tradespersons & related workers	56 000	-18 200	-10 600	-14 800	-11 000	-6 300	-3 200	-13 400
Advanced clerical & service workers	2 400	-1 800	-1 600	-1 600	-300	-1 200	-500	-800
Intermediate clerical, sales & service workers	33 100	-6 600	-1 300	-7 000	-6 400	-1 200	-2 100	-6 900
Intermediate production and transport workers	14 500	4 700	-1 400	-8 800	8 500	-2 700	-9 000	-8 700
Elementary clerical, sales & service workers	-3 700	-14 200	-5 300	-3 500	-1 700	1 700	-600	-2 700
Labourers & related workers	-8 700	-13 900	-10 000	-8 200	-8 700	-5 300	-5 400	-1 100
<i>Women 1996–2001</i>								
Managers and administrators	5 400	11 900	7 600	3 600	3 400	-1 500	-700	-6 800
Professionals	60 500	44 500	-3 200	8 300	8 300	3 300	-7 600	-15 500
Associate professionals	30 600	17 600	5 900	4 300	6 200	5 400	-3 100	-5 900
Tradespersons & related workers	5 800	-4 600	-2 500	500	400	1 000	-2 800	-1 300
Advanced clerical & service workers	13 100	-4 400	-10 900	-5 800	0	-3 900	-6 300	-7 800
Intermediate clerical, sales & service workers	74 200	-28 800	-13 100	10 200	17 700	5 700	-5 000	-9 800
Intermediate production & transport workers	-100	-2 800	-2 600	-4 300	-1 300	-2 700	-2 500	-4 900
Elementary clerical, sales & service workers	-49 300	-35 200	-700	1 900	2 300	10 000	-5 000	-7 300
Labourers & related workers	-1 800	-6 700	-3 300	-2 200	1 400	-3 300	-7 500	-7 200

Note: The table shows the net increase or decrease in the number of people in each age cohort in each occupation across the period specified. For example, amongst the cohort of men aged 15–19 in 1986, there were 16 500 more managers in 1991 (when they were aged 20–24) than in 1986. Negative figures indicate a decrease in the numbers in a cohort in an occupation across the period specified.

Source: Calculated from household sample files for 1986–2001 censuses. Excludes those who migrated to Australia during each period.

The second issue in relation to VET-sector skills is the strong evidence that women in clerical, sales and service occupations re-enter the workforce after childbearing and remain in these occupations until retirement. This skill utilisation pattern can be placed in the context of changes in women's overall patterns of workforce participation and post-secondary education across the life course described earlier in this report. As previous sections of this report have shown, these patterns contribute to a VET student body that is increasingly non-conventional, especially because more students undertake their first post-secondary education after their 20s and more are single parents. To the extent that the VET sector can enhance its capacity to cater for such part-time students in areas that train people for clerical, sales, and service occupations, the sector will enhance the supply of skills that will be needed in these expanding occupations. Especially where these students are women, they can be expected to offer their skills on the labour market at least until conventional retirement ages.

# Conclusion

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In the face of frequent arguments that life-course patterns are being transformed in Australia and similar societies, this report has explored the record of life-course change in Australia since the early 1980s. The focus has been on patterns of skill acquisition and utilisation over people's lives. It has shown that there was significant change in life-course patterns between 1981 and 2001, particularly amongst mature adults—those aged 30–49. Some of this change has involved the development of new life-course models which are then followed by many people. For example, delaying partnering and parenthood to the late 20s or early 30s and combining paid work and motherhood within conventional marriages have become more acceptable and more common. But there is also strong evidence that more people are combining life-course statuses in unconventional ways. Some of this change is forced—low skill men have been forced out of the labour market as the range of available jobs has changed, raising the proportion of men in the 'unconventional' status of being without a job in prime working ages. However, rising proportions in other unconventional statuses are more likely to signal some decline in the power of standard life-course models to constrain people's actual life trajectories. In short, there is quite strong evidence of the proliferation of life-course patterns, although the rate of change is probably slower than many would have predicted.

Indeed, we should not think that 'unconventional' life-course patterns have now become the norm. Even in 2001, 60–65% of mature adults held a combination of statuses that was 'conventional' by the standards of a modernised life-course model. And the proportion in the conventional situations assessed in this report was much higher amongst people in their 20s (nearly 80%) and over 50 (around 85%). Although these figures underestimate the proportion of the population who holds an unconventional set of statuses at some time during their lives, it does indicate that most people still spend most of their lives in situations that conform to standard life-course models. While diversity will undoubtedly continue to increase, it is currently implausible to expect that most people will follow life-course pathways that do not largely conform to fairly standard models. Thus, understanding the impact of change in broad life-course patterns requires balancing the evidence of a gradual shift and proliferation of life sequences against the continued stability and relevance of established life-course models.

The effects of this combination of stability and change can be seen in shifting patterns of skill acquisition across the life course. On the one hand, conventional training pathways, in which people acquire post-school qualifications before commencing long-term employment, remain the most common route to obtaining skills after school. Indeed, the rising proportion of young women who have followed this pathway since the early 1980s, coupled with the expansion of post-secondary education, means that it has become a much more common route for young people during the period. Upgrading this training later in life has also become more common. At the same time, more and more people undertake post-secondary study at unconventional points in the life course. They commence study after their 20s, as single parents, as prime working-age men without jobs, or in any of many other 'non-conventional' statuses. There is no doubt that post-secondary education providers can expect these non-traditional students to continue to be a rising proportion of their campus populations, especially amongst part-timers.

However, the impact of these shifts in the placement of skill acquisition in the life course has fallen much more heavily on the VET sector than on the university sector. While the latter has seen only

very small changes in the overall composition of its student body, the former has experienced a sharp rise in the proportion of its students who are in 'non-conventional' life-course statuses. Much more than universities, the TAFE/college sector is the rising route of choice for: older people beginning first qualifications; single parents; men without full-time jobs; and those in a whole range of other non-conventional life-course statuses. There is every reason to believe that this trend will continue. To the extent that the VET sector can accommodate these students successfully, the sector will both enhance the employment prospects of a range of relatively disadvantaged groups and contribute new sources of non-traditional skills to the national supply of skilled workers. Of course, at the same time, the sector will continue to make a major contribution to conventional training pathways for school leavers and to upgrading the training of those who have already completed some post-secondary education.

Given patterns of skill utilisation across the life course, both of these contributions will be important for the national supply of skills. Male tradesmen show little sign of shifting their conventional life-course work patterns of entering their occupations by their mid-20s and then moving slowly out of these occupations over subsequent years, making conventional training pathways the preferred route for them. Similarly, many clerical, sales and service workers (especially men) enter their occupations early in their working lives, achieving varying levels of advancement through their careers, with some upgrading of training at appropriate points. At the same time, women's patterns of lifetime skill utilisation in these occupations suggest that their training undertaken as non-traditional students has already made a growing contribution to the relevant skill supplies. Enhancing this contribution, and attempting to expand it to trades training where women and older men have traditionally been excluded, could increase its importance in the future.



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# Support document details

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Additional information relating to this research is available in *Skill acquisition and use across the life course: Current trends, future prospects—Support document*. It can be accessed from NCVET's website at <<http://www.ncver.edu.au/publications/1747.html>>. This document contains specific data relating to living arrangements by sex and age, participation in paid work by sex and age, and participation in part-time and full-time post-secondary study by sex and age, in Australia between 1981–2001.

# Appendix 1: Skills consortium publications

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The following is the complete list of titles produced by the National Institute of Labour Studies, Flinders University and the Centre for Post-compulsory Education and Lifelong Learning, University of Melbourne, through the research project, A well-skilled future: Tailoring VET to the emerging labour market.

*Forecasting future demands: What we can and cannot know*

Sue Richardson and Yan Tan

*Future skill needs: Projections and employers' views*

Di Lowry

*Demographic impacts on the future supply of vocational skills*

Yan Tan and Sue Richardson

*Skill acquisition and use across the life course: Current trends, future prospects*

Bill Martin

*What is a skill shortage?*

Sue Richardson

*Changing forms of employment and their implications for the development of skills*

Sue Richardson and Peng Liu

*Changing work organisation and skill requirements*

Bill Martin and Josh Healy

*Social area differences in vocational education and training participation*

Richard Teese and Anne Walstab

*Participation in vocational education and training across Australia: A regional analysis*

Anne Walstab and Stephen Lamb

*Current VET strategies and responsiveness to emerging skill shortages and surpluses*

Jack Keating

*Matching supply and demand: International perspectives*

Jack Keating

*Impact of TAFE inclusiveness strategies*

Veronica Volkoff, Kira Clarke and Anne Walstab

*A well-skilled future*

Sue Richardson and Richard Teese



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The consortium, *A well-skilled future: Tailoring vocational education and training to the emerging labour market*, comprises researchers from the National Institute of Labour Studies in South Australia and the Post-compulsory Education and Lifelong Learning in Victoria. Its program of research aims to investigate future work skill needs and work organisation arrangements, and their implications for vocational education and training.

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