

## **Educational Attainment in Australia: A cohort analysis**

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### **EXECUTIVE SUMMARY**

The decision to invest in education is influenced by a large number of economic, social, family, personal and institutional factors. Many of these changed during the 1960s, 1970s and 1980s. Several of the more important of these changes are not expected to have impacted equally on the schooling decisions of males and females. This expectation appears to be borne out by the aggregate school participation rate data. Over the four decades from 1960 to 1999, there was an increase in the male school participation rate of 24 percentage points and a 32 percentage point increase for females. The gender school participation rate differential in favour of males narrowed progressively, particularly during the 1970s, to the point in 1985 where the participation rates of males and females were the same. Since 1986 the school participation rate of females has exceeded that of males. There was also a significant increase over the period in female participation in higher education relative to that of males.

Using the *Youth in Transition Survey*, this paper attempts to explain differences in the schooling decision of two cohorts, namely individuals born in 1961 and 1970. The aims are to establish whether the way in which education decisions are made differ across cohorts, and to assess whether any such differences can be related to the institutional reforms that occurred over the 1960 to 1980 period. The study emphasises differences in schooling decisions across gender.

The main measured factors that affect an individual's schooling decision at a point in time are ability, school type and family background. Participation in school is positively associated with individual ability, enrolment at a non-government school and having parents with high educational attainment. These findings are consistent with previous Australian and overseas research. Attention is in particular drawn to the dominant role played by ability in these and related analyses. Miller, Mulvey and Martin (2001), for example, use an alternative research methodology to show that the greater part of the variance in educational attainments is due to genetic endowments, thus downplaying to some extent the role of family background, which is generally considered as an indicator of the inequality of schooling opportunity.

The study shows the main factors that have contributed to the change in educational attainment of the younger (1970) cohort compared to the older (1961) cohort are individual ability, the parents' educational attainment, family size and attendance at Catholic and other Independent schools. The approach taken in this study permits the relative importance of each of these influences on the change in educational attainment over time to be established. Reasons for the links between each influence and educational attainment are discussed, and implications drawn out. For example, the positive value for the parents' educational attainments reflects the growth in the education of parents over time. It also shows that the inheritance of attributes such as education will have some impact on the individual's success in later life. The positive values of the explained component for the school types variables follow the growth in retention rates for individuals in non-government schools over the decade.

With regard to differences in educational attainment across gender, the analyses show that male and female schooling have increased at similar rates over the decade under review, with the mean female schooling level increasing only slightly faster than the mean male level of schooling. The slight increase in female schooling relative to that of males is due almost entirely to differential rates of change in the characteristics of males and females, including individual ability, parent's education, family size, wealth and attendance at Catholic schools. In comparison, changes in the estimated coefficients play a minor role in explaining the

gender difference in schooling. Such changes, which reflect changes in the way measured variables are linked to educational attainment, are generally attributed to the role of external factors, such as social and labour market reforms. Accordingly, the results suggest that major changes in the labour market with a focus on females per se during the 1970s and 1980s, specifically the Equal Pay for Equal Work decision of 1969, the Equal Pay for Work of Equal Value decision of 1972 and the Sex Discrimination Act of 1984, have had little impact on the difference in schooling between males and females. This may be because female schooling decisions are made on the basis of within-gender comparison of the advantages associated with higher levels of education.

The findings reported in this study indicate that, in terms of cohort analysis, further attention in research needs to be devoted to the time periods covered, so that the cohort analysis can overlap the much wider period covered in typical cross-sectional studies such as Le and Miller (2001). Attention also needs to be devoted to the role of the father's occupational status and the educational attainments of both the mother and father. The role of these dimensions of family background in affecting decisions other than the school leaving decision should also be investigated. Included here are the associations between family background and the type of school attended. Such analysis would provide understanding of some of the important changes documented in this study and referred to simply as 'changes in means'.

The analyses show that labour market reforms that have a focus on females per se are not likely to have a major impact on female schooling decisions. However, any increases in the income and other advantages associated with higher education among females may have an influence. It is also evident that school type has a considerable bearing on school leaving decisions. The reasons for this are in need of examination. Moreover, the importance of ability in comparison to family background factors in contributing to differences in educational attainment is consistent with other research in this area using different data sets and analytical techniques (e.g., Miller, Mulvey & Martin 2001). In the context of the decompositions advanced in this study, as changes in the ability variable are generally considered to be outside the scope of education policy, changes in educational attainment might arise only through changes in the way individuals of different levels of ability make decisions. To this end the curriculum in, or advantages offered by, the various levels of education may need to be the focus in order to achieve the change in coefficients that have been shown by the decomposition analyses as being needed in order for there to be a major impact on educational attainments.