

Who'd be a Nurse? Some evidence on career choice in Australia

by

A.M. Dockery and A. Barns



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About the Authors

Dr Mike Dockery

Mike completed his PhD by publication at the end of 2002 on the topic of the evaluation of Australian labour market assistance policies and now holds a Post-doctoral Research Fellow with the School of Economics and Finance at Curtin University. He has previously held Research Fellow positions with Centre for Labour Market Research (CLMR) and Institute for Research into International Competitiveness where he worked extensively as a consultant for government and private organisations, concentrating in the areas of labour economics, vocational education and training, regional analysis, economic impact and evaluative studies. His Doctoral and ongoing research has focussed on the application of longitudinal (panel) data to applied labour market issues, working for clients such as the Australian Bureau of Statistics, the Department of Family and Community Services and the National Centre for Vocational Education Research. He is currently working with data from the Longitudinal Surveys of Australian Youth and Australia's first representative household panel survey (HILDA) to investigate the school-to-work transition, labour market outcomes for Indigenous Australians and the links between labour market experiences and various aspects of well-being.

Angela Barns

Angela Barns earned a First Class Honours degree in Social Work at Curtin University and is a member of the Vice Chancellor's List. In 2001 Angela commenced PhD studies on a post-graduate scholarship through the Australian Research Council Strategic Partnership Industry Research and Training Grant project on Women's Career Choice. Angela is currently in the last stages of her thesis and is also teaching with the Department of Social Work & Social policy at Curtin University.

Any questions on queries related to this discussion paper should be directed to:

Dr A. M. Dockery,
Curtin Business School
GPO Box U1987,
Perth WA 6845

Mike.Dockery@cbs.curtin.edu.au

Abstract:

In the context of on-going shortages of nurses, both in Australia and overseas, this paper looks at the factors shaping the decision to enter nursing as a career. Evidence from four different Australian sources is drawn upon: a national panel survey of young school leavers, a survey of first year university students in WA, a survey of Registered nurses in WA and in-depth interviews with 30 young women studying for their WA Tertiary Entrance Examinations. The results concur with previous studies that have found entrants to nursing courses to be of average-to-below academic ability and socio-economic status, to have an affinity for caring and to place greater relative emphasis on balancing family and work rather than on career success. A number of new insights into the factors influencing the decision to become a nurse are also unearthed. These further highlight the importance of perceptions of gender roles in society and are consistent with psychological and feminist approaches to career choice.

I. Introduction

The labour market for nurses appears to be perennially in the spotlight (Jones 1997). Regular media reports appear of nurse shortages, even of a 'nursing crisis' (for example, ABC, 2002) and there have been a large number of government reports into the nursing labour market. Bloch and Nowak (2003) review 15 State and Federal reports published on nursing in Australia since 1994. Despite the high demand for nurses, the occupation's status as the most highly feminised of careers acts as a barrier to the recruitment of school-leavers to nursing courses with almost half the potential pool of new entrants effectively excluded. Both the shortage of nursing workers and the high degree of gender segregation are common to other western economies, suggesting neither is due to institutional and policy effects in Australia but rather intrinsic characteristics peculiar to the occupation of nursing.

And if there really is a 'crisis' it seems set only to deteriorate further. The ageing of the nurse labour force in Australia means that a large proportion of the current workforce will be due to retire in the near future. Regular accounts of widespread dissatisfaction among the nursing workforce also points towards high rates of wastage from the occupation among existing workers. Issues relating to nurses' workforce experiences and retention are addressed in a companion paper (Dockery 2004).

Given the ageing population of nurses alongside the 'wastage' of existing nurses, the supply of new entrants into nursing becomes a critical factor in addressing the 'crisis'. Recent decades have also hosted a growing interest in the role of gender in occupational choice; and in particular how women's career expectations may have changed with the dramatic shifts in the social and cultural norms relating to the interrelationships between women, work and family. Thus it is likely that the analysis of changing career expectations of women and their role in occupational choice may provide some useful insights into developments within the nursing labour market. Equally, the nursing occupation provides an excellent context in which to study these social and cultural developments.

Beginning with a contextual overview of the relationships between gender, nursing and career choice, this paper draws on data from three surveys and material gathered through thirty in-depth interviews to explore factors influencing young people's career choices and in particular the characteristics and factors associated with the choice to pursue a career in nursing. One of the surveys is a publicly available panel survey of youth followed from Year 9 through to the early stages of their working lives. The other two are a survey of first year students at Western Australian universities and a survey of Registered Nurses in WA designed and conducted as part of a broader research project into the relationship between women's changing gender roles and their labour market participation, with special reference to highly feminised occupations¹. The in-depth interviews were undertaken with 30 young women studying Year 12 (TEE) at a number of high schools in Perth, Western Australia.

Following a brief review of relevant literature and description of the four data sources, Section 4 draws upon the youth survey to investigate the characteristics of those youth who at a young age indicate an interest in becoming a nurse. Section 5 uses the responses from the Registered Nurse and first-year university student surveys to explore retrospectively why people did or did not choose to enter nursing. The statistical analysis is brought into context through the contemporary stories told by young women school-leavers in the in-depth interviews (Section 6) and the discussion in the concluding section (Section 7).

2. Context

Since the 1960's, with the changing socio-political milieu and the advent of second wave feminism, the number of women, both young and older, participating in paid work and entering male-dominated occupations, has increased dramatically. In Australia the labour force participation rate for females has increased from 36 percent in 1966 to 56 percent in 2003. Such emancipatory changes have challenged the restrictions imposed upon women through traditional and dominant codes of sex-roles and disrupted the rigid occupational boundaries long endemic in patriarchal capitalist contexts. In dismantling patriarchal occupational boundaries, young women's career choices have shifted from the rigid confines of the domestic domain and feminine-stereotyped careers, such as nursing, to a broader choice of non-traditional and male-dominated professions (Boughn, 2001). For many young women in Western societies, the last few years of high school are imbued with notions of the future; of 'where', 'when' and 'how' they will 'be' as they journey through their transition from childhood to adolescence to young adulthood (Pascall, 1997; Gilbert and Taylor, 1991). Whilst such questions would once have been readily answered with the 'marriage-husband-children' trilogy, current conceptualizations of 'being', emphasise the role of career, as a means of symbolizing the passage to becoming an adult woman and as a site of and vehicle for self-expression, fulfilling potential and achieving actualisation (Astin, 1984).

Within this context traditional female-oriented occupations, such as nursing, are currently experiencing severe labour-crises due to the rapid decrease in the number of trained personnel and new recruits (Nowak, 1998; Buerhaus, Staiger and Auerbach 2000b). Further research identifies an inextricable link between the current supply crisis

¹ The project was undertaken through a Linkage Grant from the Australian Research Council and with the support of the Western Australian Department of Health.

and, the social and economic devaluation of nursing (Firby, 1990); the failure of nursing to adjust to women's demands for alternative career patterns and vocational demands (Nowak, 1998; Robinson, Murrells and Marsland, 1997; Hirsch and Schumacher, 1995; Coffman *et al*, 2001); the lack of appropriate and innovative recruitment advertising (Jones, 1997; Mee, 2001); and the over-reliance on intrinsic reward to the neglect of extrinsic remuneration (Bellmore, 1998; Firby, 1990).

In focussing upon overall supply, these studies have been concerned as much with retention of trained nurses as with supply at the entry level. Other research has concentrated more directly upon the initial decision to enter nursing as a career, and the factors influencing this decision among young Australians is the focus of this current paper. There are a number of theoretical approaches to occupational or career choice. The standard economics treatment of the career choice decision is to assume that individuals are rational and utility-maximising. Young people are seen to choose one from the range of potential occupations so as to maximise their expected lifetime utility. Their expectation regarding lifetime utility is in turn based upon their expectations of occupation-specific earnings and other job characteristics, such as status and working conditions, and their level of income that is independent of occupational choice.

As Orazem and Mattila (1991: 103) point out, this approach can be seen to boil down to a rather uninformative truism that free and rational agents will choose the career that they think will be best for them. However, challenges to the economic orthodoxy do arise through the relative weighting afforded to different variables and the extent to which individuals are seen to have 'free' choice of occupations (see Preston and Nowak 2003). Where economics emphasises the role of expected earnings and other job-related characteristics, psychological approaches stress instead the importance of social factors; family influences and the socio-economic and occupational status of parents; and the fit between the occupation's image and individual's view of their self. Feminist critiques stress the role of social conditioning and various forms of discrimination in effectively limiting women's ability to freely enter occupations on an equal footing with their male counterparts.

While the degree of occupational stereotyping by gender has greatly reduced, it is still the case that young women's expectations about time spent in family and other non-market roles will influence their career decisions. Dolton and Makepeace suggest the high proportion of female teachers can be attributed to complementarity between teaching and family support, including "the relatively low number of hours which have to be spent at school and their convenient location during the day, the timing and quantity of holidays, and ease to which one can leave and return to the occupation after a career interruption." (1993: 1394). Nursing has also been seen as such an occupation. As new generations of women place greater emphasis upon career and the conditions in other occupations change to ensure women are treated fairly, including efforts to accommodate career breaks for family reasons (eg. maternity leave), then these traditional 'female' occupations will lose their attractiveness and suffer a loss of entrants.

In looking at the causes of nursing shortfalls in the US, Buerhaus *et al* (2000a, 2000b and 2000c) note two trends consistent with expanding career opportunities for women contributing to the fall in new nursing graduates. First, the decline in propensity for college freshmen to consider nursing as a career and to enter nursing has occurred only among women, not among men. Second, while the average high school grades of female

freshmen interested in nursing have always been lower than the average for women interested in other careers, relative grades for those interested in nursing have fallen markedly since 1976 (Buerhaus *et al* 2000b: 234-235). Green (1988) had previously noted a 75 percent decline in the proportion of university freshmen wanting to be a nurse between 1974 and 1986 and a general decline in young women's interest in jobs traditionally seen as 'women's work', particularly among the more academically able. By 1986 more female university and four-year college students aspired to be doctors than aspired to be nurses, a complete turn-around from the late 1960s when nursing aspirants outnumbered women wanting to be doctors by more than three to one (Green 1988: 47). A similar trend has been identified among English youth (Firby 1990). A 1997 study of nursing students in New South Wales also found that applicants to nursing courses in that State had average to below average marks in high school (Lawler, Ahern, Stanley and West, 1997).

A desire to care for patients and strong employment opportunities are the two main motivations identified from studies which ask individuals why they wanted to become a nurse (Boughn and Lentini 1999: 156). From their own study based on interviews with 16 nursing students, Boughn and Lentini (1999) argue that a desire for power and empowerment, which arises from patients' dependence upon nurses and their skill, is an equally important motivation in choosing nursing. Attitudinal differences may also partly explain the choice of nursing as a career. Green finds that US nursing students place higher value on raising a family, helping others and making a theoretical contribution to science; but place less value on financial prosperity when compared to other students (1988). An important limitation to the empirical literature on the decision to enter nursing is that the majority of studies analyse characteristics of nurses or nursing students *ex-post* — after the decision to enter or not to enter nursing has been committed to. For non-fixed variables the possibility arises that differences in characteristics of nurses arise because of that choice, rather than those differences influencing the career decision-making process. For example, it is highly likely that a person's values, priorities and self-perceptions will change once they have committed themselves to a given career.

3. The surveys and datasets

3.1 The First Year Student Survey (FYSS)

Early after the commencement of the university year, the FYSS was sent to a random sample of 4,500 students across the five Western Australian universities. Students enrolled in nursing were over-sampled. The survey generated a response rate of approximately 34 percent, with responses received from 1012 female and 491 male students. The survey covered a range of factors directly involved in respondents' decisions to attend university and their occupational choice, as well as background demographics and some attitudinal data. It is as yet unclear as to why the sample is so biased toward females as only a very minor portion of this bias can be attributed to the over-sampling of students from nursing courses.

From the sample returns, we remove those who are undertaking a university preparation or bridging course and those for whom their course was inadequately described or missing. This left a total sample of 1,439 (960 females and 479 males)

which included 159 nursing students. Only 12 responses were received from male nursing students and given the low number these are excluded from the analysis.

It is important to note that, as with most other studies, the data is collected after the individual has made their choice on which university course to attend, at least at a broad level. Hence their views on how they see themselves in their future working lives will be mediated by having made that choice. Their expectations about working life cannot necessarily be interpreted as having shaped the decision on what career to pursue. The same must be said about other responses, such as expectations and priorities in family formation and social attitudes, though probably to a lesser extent since such views are not so directly related to one's anticipated career or occupation. A series of questions explores retrospectively the factors that led the individual to make their choice. Generally, however, the data reveals these young peoples' expectations conditional on having made the first step along a career path that is at least broadly defined.

3.2 Registered Nurses Survey (RNS)

In August and September, 2003, a self-completion questionnaire was mailed to a random sample of 5000 persons drawn from the registrar of nurses held by the Western Australian Nurses Registration Board. Registration with this board is compulsory to work as a Registered Nurse (RN) in Western Australia. Thus the survey can be seen as a random sample of currently practicing RNs in Western Australia, with the exception that if people leave the profession and/or move out of Western Australia there will be somewhat of a delay before they lapse from the registry. Hence the population may better be described as 'recently practicing' RNs.

A total of 1884 surveys were returned, giving a healthy response rate of 38 percent. Thirteen observations for which gender is not identified are omitted. Ninety-five percent of the respondents were women and around 85 percent indicated that they were currently employed as a RN. Of those who were not currently employed as a RN, roughly 40 percent were employed in other occupations and 60 percent had left the labour force.

The RNS questions explore the characteristics of the respondent's job and working environment; attitudes towards the nursing profession; attitudes towards gender roles relating to work and family; and reflections on their original decision to pursue a career in nursing.

3.3 The Longitudinal Surveys of Australian Youth

The Longitudinal Surveys of Australian Youth comprise a series of panel surveys of young Australians aimed at collecting information on the transition from school to work. Detailed background and technical information on these and associated surveys, the Australian Youth Survey and the Youth in Transition surveys can be found in a series of information papers from the Australian Council for Education Research (ACER) and available on their website.² The data used in this study come from a panel survey of youth who were first surveyed as Year 9 students in 1995, the year in which nearly all turned 14. The sample was selected by a two-stage process in which a

² <http://www.acer.edu.au>.

random sample of schools was selected, and then a random selection of Year 9 classes from within those schools.

The data come from self-completed questionnaires administered in 1995 and 1996 and telephone interviews conducted in each year from 1997 to 2000. From an initial panel of 13,613 valid returns, the attrition rate over the five waves to 2000 stood at 42 percent as shown in Table 1. A total of 6,792 individuals participated in all six surveys.

In the 1996 survey, the youth who intended to stay on at school to at least the end of Year 10 were asked “what job do you plan to work in when you have finished your studies (after leaving school, or after finishing your further study)?”. We use data from the 1995, 1996 and 1997 surveys to investigate factors associated with an intention to become a nurse. This data has an advantage over the FYSS data with respect to modelling occupational choice in that the data is collected prior to that career choice having been realised, reducing the likelihood of endogeneity. Although some variables collected in 1997 - one year after the data on career plans were collected - are used, most of these items are relatively ‘fixed’. The LSAY also provides useful data relating to attitudes and personality traits.

Table 1: LSAY 1995 cohort: Sample responses

	1995 (Age 14)	1996 (Age 15)	1997 (Age 16)	1998 (Age 17)	1999 (Age 18)	2000 (Age 19)
Valid Responses	13613	9837	10307	9738	8783	7889
Surviving (%)	100.0	72.3	75.7	71.5	64.5	58.0

3.4 In-Depth Interviews with Young Women in TEE

During August-October 2002, 30 young women in their final year of school were invited to participate in in-depth interviews relating to their career decision making journeys. Three senior high schools in the Perth metropolitan areas were approached and 10 young women from each agreed to participate. The interviews were used to gather in-depth and anecdotal evidence which reflects lived experience and for listening to ‘social actors’ own voices, language and words’ (Pilcher and Coffey, 1996: 3). The interviews covered an array of issues relating to the young women’s meanings of career decision making, including issues of creating a working future and thinking about work and family. The interview material was collated and interpreted through NVivo and manually before being developed into discursive fields, concepts and practices.

4. Who wants to become a nurse? Evidence from the LSAY

In 1996, those youth who intended to stay on at school to at least the end of Year 10 were asked “what job do you plan to work in when you have finished your studies (after leaving school, or after finishing your further study)?” At this stage the vast majority of the cohort was in Year 10, aged 15. The LSAY’s question of future job orientation was an ‘open’ question and the responses have been coded according to the categories set out in the Australian Standard Classification of Occupations (ASCO) (1997). The issue of aggregation is important as the ‘picture’ generated from the participants’ responses

can vary considerably depending upon the ASCO level used. A case in point is that of the sub-category of 'NFD' (not fully defined) which appears against coded responses for many occupational groups. For example, in relation to the classification of 'School teacher', separate categories exist for pre-primary teachers, primary teachers, secondary teachers and special education teachers. Responses indicating 'school teacher' are allocated a code of 'School teacher – NFD'. Given this, the popularity of school teaching as an occupation, relative to that of 'Lawyer', is masked by the many categories that appear within the classification of school teaching, and it becomes somewhat of an arbitrary choice as to what constitutes a fair comparison. A high degree of aggregation (ASCO major categories) will mask important components of the story, whilst a finer degree of aggregation creates questions of comparability.

These limitations aside, classifying the responses to the 4-digit level (See Appendix Table A1), the occupations of teacher, lawyer, designer/illustrator, cook, journalist, policeperson, accountant, doctor (general medical practitioner) and physiotherapist can be identified as popular intended-vocations for young people of both sexes. The most common single occupation cited was that of 'childcare, refuge or related worker', primarily due to its appeal to female respondents. Other occupations attractive to young women included psychologist, registered nurse and hairdresser. Supporting the gender-occupation link noted above, male-dominated fields such as computing and engineering; trades, such as vehicle mechanic; and specific professions, including aircraft pilot and sportsperson featured prominently among the intended-vocations for young males.

In particular relation to the broad field of health-related professions, the responses clearly indicate that such occupations hold a stronger attraction for females than males, particularly if the occupation of veterinarian is included. Registered nurse was the 7th most popular intended occupation recorded among Year 10 females³, with 3.4 percent of the female respondents to this question indicating that they planned to become a registered nurse. Similar to the issue relating to the classification of 'School teacher' noted above, there is some doubt as to respondents' differentiation of registered and enrolled nurses, as only 0.1 percent of female respondents were recorded as intending to work as an enrolled nurse. Given this, it appears the response of 'nurse' may have been taken to mean 'registered nurse'. Contrasting the high number of young women indicating a preference for nursing as an occupation, only 0.2 percent and 0.1 percent of males expressed an intention to become a registered and enrolled nurse, respectively. That is, only 6 out of 2,827 young males responding to this question indicated that they planned to enter nursing. Given that so few males plan to become nurses, it is only possible to consider the female sample of the LSAY in the following analysis of the factors associated with that choice.

To analyse the 'traits' of those choosing to become a nurse, the 'average characteristics' of those who plan to become nurses were compared with other selected groups based on the young women's stated intentions in the 1996 (Year 10) survey, and with the overall sample population. Four sub-groups are identified: those who intend to leave on completion of Year 10 or before (including those who had already left school at the

³ Under the ASCO coding then in place, "registered nurse" was classified as 2-digit category under para-professionals (3400), but as the only subcategory, it also has a 4-digit classification "3401 Registered Nurse".

time of the survey); those who plan to stay on to Year 12; those who plan to go on to University; and those who indicated nursing as a career choice. These groups are not mutually exclusive; as those who want to become nurses are a subset of those who want to go on to university, who in turn are a subset of those who plan to complete Year 12. The means for each group and for all females for a range of variables are reported in 7, and the meaning and construction of the row variables are given in the following discussion. Unless otherwise indicated in the table, the data for the variables was collected in the 1995 survey. Recall that the data on intentions was collected in 1996, when the majority of the students were in Year 10. Hence, the 1997 data relates to the individual's situation one year on, though only a few of these variables (eg. parents' employment situation) are likely to have changed over that year.

With respect to socio-economic background, school performance and attitudes towards school there is a clear and predictable pattern in the differences in the means between those planning to leave school early, those who plan to complete school and those who plan to go on to university. An immediate observation is that the nursing aspirants are most similar to the broader group who plan to complete Year 12, rather than those aiming to go to university. The relationships between each of these variables are explored in further detail below.

- School performance

The measures used in the LSAY survey to capture academic ability or achievement include standardised reading and mathematics scores for tests administered in 1995, and self-ratings of how well the individual is doing in various subjects relative to other students in their year. In each of these fields, the nursing aspirants record lower scores than the wider group who intend to complete secondary school, and considerably lower than those who intend to enter higher education. Comparing nurses to other students who intended to complete Year 12, the nurses' lower scores on the reading and maths tests are highly significant, whilst the lower self-ratings of performance in English and maths are weakly significant.⁴ Of the differences in the means for the remaining self-ratings, none are statistically significant.

When we compare nursing aspirants to all other females in the sample, again their maths and reading tests scores in 1995 are significantly lower, as is their self-rated performance in mathematics in 1996. However, nurses rate themselves as performing better in physical education and health; a difference which is weakly significant. In relation to the early school-leavers, the nursing aspirants' superior means on academic performance variables are statistically significant in all cases, while their inferior means relative to the group who plan to go on to university are statistically significant for the two test scores and for the self-rated performance in English, maths, humanities, science and technology subjects.

- Socio-economic background

To represent dimensions of socio-economic status, a 'wealth index' and parents' education and occupation were recorded. The LSAY asked students to respond to a series of questions relating to the occupation and highest level of education attained by

⁴ Based on standard t-tests of the differences between means for the two populations.

both parents. If the parents were not currently working, the respondents were asked to describe the job their mother or father had before they stopped working. Unfortunately there are a considerable number of missing observations for these data, partly due to responses of 'home duties' not being coded as an 'occupation'. The variables constructed are dummy variables indicating whether the parent has a higher educational qualification (degree or diploma) and whether the parent worked in a managerial, professional or para-professional job. For the latter, those parents for whom 'home duties' was recorded are classified as non-professional.

Table 2: Selected mean characteristics conditional on stated plans in Year 10, LSAY.

	Plans to leave after Yr 10 or sooner	Plans to complete Year 12	Plans to go to university	Wants to be a nurse	All Females
Std reading tests (score/20)	12.0	14.2	14.8	13.3	14.0
Std maths test (score/20)	10.5	12.7	13.4	11.8	12.5
English not 1 st language at home	4.1%	9.4%	12.3%	8.1%	9.3%
Had a disability	1.3%	1.3%	1.2%	3.2%	1.4%
Father is a nurse	1.0%	0.4%	0.5%	1.7%	0.5%
Mother is a nurse	3.1%	7.7%	8.5%	12.2%	7.2%
Father's occ manager/prof/para-prof	21.6%	38.6%	44.7%	36.0%	36.7%
Mother's occ manager/prof/para-prof	17.2%	29.4%	34.9%	33.6%	28.1%
Father's education – degree or diploma	8.8%	29.0%	36.2%	20.0%	27.3%
Mother's education – degree or diploma	11.0%	27.9%	33.9%	21.0%	26.4%
Self-assess – how doing at school in 1996 (1= very poorly, 5=very well)					
— English	3.37	3.85	4.02	3.71	3.78
— Maths	2.98	3.47	3.66	3.23	3.41
— Humanities and social sciences	3.19	3.79	3.96	3.68	3.71
— Economics and business	3.23	3.73	3.86	3.72	3.66
— Science	2.95	3.64	3.85	3.60	3.56
— Arts	3.70	4.07	4.15	4.04	4.03
— Languages	2.95	3.78	3.89	3.70	3.72
— Technology	3.52	3.83	3.93	3.68	3.78
— Physical education and health	3.35	3.75	3.79	3.87	3.71
Wealth Index (weighted)	36.4	41.8	43.2	41.9	41.3
Lived in sole parent home (1997)	12.7%	13.1%	12.3%	13.7%	13.1%
Number of siblings (1997)	2.4	2.1	2.1	2.5	2.1
Number of younger siblings (1997)	0.9	1.1	1.1	1.3	1.1
Sole parent family & younger sibling (97)	6.1%	7.8%	7.2%	11.3%	7.7%
Mother lived at home and worked (1997)	56.5%	68.4%	70.5%	75.2%	67.0%
Father lived at home and worked (1997)	66.1%	77.1%	78.5%	79.6%	76.2%
Factors – things I would like to do (1996)					
— Businessperson	-0.06	0.01	0.06	-0.09	0.00
— Handy-woman	-0.20	0.01	0.00	-0.18	0.00
— Problem solver	-0.30	0.05	0.23	0.01	0.00
— Artist	-0.24	0.03	0.11	-0.17	0.00
— People-person	0.18	-0.02	-0.08	0.32	0.00
— In power	-0.29	0.03	0.12	-0.20	0.00

Whilst no direct measure of wealth or income is available, in the 1996 survey, students were asked to identify whether a range of consumer goods, such as a washing machine, microwave, computer and swimming pool, were present in their home. Based on the

number of these assets present in the home a 'wealth' index was constructed such that items that were less commonly present were given a higher weighting than those more commonly identified. The index ranged from zero, indicating that none of the items were present, to 100, if all items were present in the home.

There are no statistical differences between nurses and the wider sample, and again those who want to be nurses sit in-between the early school leavers and those who plan to go onto university in terms of these proxies for socio-economic status. The proportion of nurses with professional fathers is statistically higher than the proportion for early school-leavers (significant at the 1% level) and lower than for the university aspirants (at the 10% level). The higher proportion of nurses with professional mothers compared to those planning to leave school early is also highly significant, while the difference in the means of the wealth index for these two groups is weakly significant.

- Family/background characteristics

It seems clear that students who have a parent who is a nurse are more likely to state that they also wanted to be a nurse. The small cell counts here mean the statistical inference is not strong. Those who plan to become nurses also have a higher average number of siblings compared to the group as a whole, but the figure is very similar to that for youth who do not plan to go on at school beyond Year 10. The motivation behind including this variable is that young females with siblings may have taken caring roles for their siblings at various times and that these experiences may attract some to occupations in which the work would involve elements of caring. Following this logic, it is likely to be women with younger siblings that are most likely to have taken on carer roles, and particularly so in sole-parent families. As can be seen from the table, the mean number of younger siblings is highest for nurses, and the differences in means between nurses and each of the other groups is highly significant. Nurses are also more likely to have lived as older siblings within sole-parent families – 11.3 percent of the nursing aspirants did so compared to 7.7 percent for the sample as a whole, however the difference fails to gain significance at the 10 percent level. The figures are consistent with the hypothesis that experiences in a carer role during one's upbringing may be a factor that encourages youth to enter occupations such as nursing, but certainly not proof.

A higher proportion of those wanting to become a nurse also reported having a disability 'which entitles you to receive special funding or access to special education support services'. As the numbers involved here are very small the difference is not statistically significant, but it is conceivable that the experiences of young women with special needs— which may involve contact with working nurses — also prompts them to consider nursing as a career. A higher proportion of the nursing aspirants also had working mothers when asked in 1997. The difference is weakly significant when nurses are compared to the sample population and highly significant when compared to the early school-leavers. A significantly lower proportion of the early school-leavers had fathers in work compared to any of the groups.

- Factor scores — personality traits

In 1996 the students were asked how much they thought they would enjoy doing each of 18 different activities, such as fixing things, acting in plays, chairing meetings, etc. The responses to these questions are analysed to test if we may gain some insight into the attitudes and personality traits of the individuals.⁵ A principal components analysis was carried out to identify linear combinations of the responses (factors) that could be used to summarise the patterns of responses between individuals. As always with factor analysis the choice of how many factors to retain is somewhat arbitrary (see Kline 1994). Based on the proportion of variance explained by each factor and how meaningful the combination of highly weighted questions appeared, we calculate scores for six factors relating to enjoyment of the different activities. The factor scores calculated are standardised to have a mean of zero for the population (in this case the female sample population) and a standard deviation of one. The six factors appear to neatly describe six different personality types:

- Businesswomen – this factor is most strongly correlated with individuals indicating that they would enjoy keeping accounts for a small business, doing the banking, office work and working with figures.
- Handywomen – loads on working with machines and tools; repairing things and building things.
- Problem solvers – correlates with thinking your way through problems, solving problems and puzzles, helping other people and working with figures.
- Artists – felt they would enjoy writing stories, poems, plays etc., painting or drawing, and acting in a play.
- People-people – loads on perceived enjoyment with helping cater for a party, helping other people, going shopping and selling things.
- Power people – correlates with enjoyment of getting other people to do things your way – influencing others, organising or chairing meetings and selling things; and is negatively correlated with an enjoyment of helping other people.

Although we retained these six factors for use in the analysis, it should be acknowledged that the final two factors only explain a relatively small proportion of additional variance (around 5 percent each) in the matrix of responses.

The means for the factor scores are reported in the lower part of Table 2. By construction, the mean for the population as a whole is zero for each factor. The nursing aspirants are clearly 'people-people', and the differences in means on this factor score are highly significant against each of the reference populations with the exception of the early school-leavers. Indeed, on this set of factors the nursing aspirants are most like the early school-leaver group. Compared to the remainder of the sample population, nurses have significantly lower mean scores with respect to the handy-woman, artist and "power-person" factors.

⁵ Series of questions on attitudes towards school (1995 survey) and on personality traits such as how popular or outgoing you are, how open to new experiences and so on (1997 survey) were also analysed but no association with the decision to do nursing was identified.

4.1 Multivariate analysis

There will be multi-correlations between many of these associations and our variable of interest, the intention to become a nurse. To assess the independent effect of individual variables on planning to become a nurse (ie. holding the values of others constant) a multivariate regression is estimated. As the dependent variable is binary, taking on a value of one if the individual did indicate that they wanted to be a nurse and zero otherwise, the standard logistic regression model is estimated.

Since the marginal effect between some continuous variables and the intention to do nursing may not be uniformly positive or negative, it is useful to recode them into discrete intervals. The maths and reading scores are replaced with their quartiles. The self-assessment of performance in other subjects is captured by four dummy variables – above average, about average, below average and the omitted category of not doing any subjects in that area. The wealth index is also entered as dummy variables representing quartiles. As for the maths and reading scores the variable for the lowest quartiles is omitted, making this the 'comparison' category against which the effects of other variables are compared.

Only a handful of variables remain statistically significant in the logistic regression on the likelihood of a young female indicating that she intended to become a nurse. Results are shown in Table 3. Young women who scored in the second or third quartiles in the standardised reading tests are more likely than those with low reading ability to intend to become a nurse. The effect is not statistically significant for those in the top quartile, while the maths scores were also insignificant. Those doing economic and business subjects and assessed themselves as performing above average, about average or below average all showed a higher likelihood of wanting to become a nurse, and the coefficients are of similar magnitude. Thus the variable is reduced to a simple dummy indicating whether or not the respondent was doing these subjects. The opposite is true for young women doing arts – irrespective of their self-assessed performance, doing an arts subject is associated with a significantly lower likelihood of considering nursing as a career. Those who perform better at physical education at school appear more likely to want to do nursing.

Table 3: Logistic regression results for likelihood of intending to become a nurse at age 15 (Year 10): LSAY female sample.

Variable	Coefficient estimate		Pr > ChiSq
Intercept	-5.245	***	<.0001
Reading achievement score (1995)			
– top quartile	0.447		0.243
– second quartile	0.700	**	0.022
– third quartile	0.554	*	0.087
– bottom quartile	—		
Does econs/business subjects (1996)	0.409	*	0.061
Does art subjects (1996)	-0.656	***	0.003
Performance in Physical education (1996)			
– better than average	0.735	*	0.056
– about average	0.509		0.208
– below average or doesn't do	—		
Number of siblings (1997)	0.154	**	0.022
Sole parent family & younger sibling (1997)	0.443		0.166
Mother lived at home and worked (1997)	0.512	**	0.042
Factors – things I would like to do (1996)			
— People-person	0.350	***	0.004
Observations	3523		
Degrees of freedom	11		
	Chi-Square		
Likelihood Ratio score	43.33	***	<.0001
Score	42.14	***	<.0001
Wald	40.94	***	<.0001

Notes: ***, **, * denote statistical significance at the 1, 5 and 10% levels, respectively.

The coefficient on the number of siblings is significant at the five percent level, and in the modelling this dominated the effect of having younger siblings. The estimated effect of being from a sole parent family and having younger siblings was significant in some models, but not in the specification reported here. Nursing aspirants were more likely to have working mothers and to be 'people-people' in terms of the types of things they like doing. None of the other factor scores designed to capture personality traits were significant.

For the variables included, only the negative coefficient on participation in arts subjects and the positive coefficient on being a 'people-person' are highly significant in statistical terms. But what do they mean in practical terms? If all the explanatory variables from the model reported in Table 3 are evaluated at their means, the predicted likelihood that this 'average', female Year 10 school student would say that she wanted to become a nurse is 2.1 percent. Table 4 calculates that predicted likelihood conditional upon varying selected characteristics. It can be seen the effect of being above average at physical education is very large – these young women are three times as likely (3.6%) to want to become a nurse than those who consider themselves to be below average or who do not do physical education (1.2%). So while this effect is only weakly significant in statistical terms, its estimated magnitude is large. The effect of being a student taking arts subjects is both large in magnitude and highly significant – other things held equal the effect of being an arts student reduces the predicted likelihood of wanting to be a nurse from 3.4% to 1.8%. For the 'people-person' factor score, the predicted likelihood is calculated for scores of -1 and +1. As the scores are generated to have a standard

deviation of 1, this range encompasses two-thirds of the sample. Put another way, one sixth of people would fall into each of the two tails: 17 percent with scores below -1 and 17 percent with scores above $+1$. Those with a $+1$ score are predicted to be twice as likely to nominate nursing as their intended career.

Table 4: Predicted likelihood of a Year 10 female wanting to become a nurse, LSAY (percent)

Effect (Case 1 versus Case 2)	Predicted likelihood of wanting to become a nurse	
	(Case 1)	(Case 2)
Reading achievement score (1995)		
- top quartile v. bottom quartile	2.1	1.4
- 2nd quartile v. bottom quartile	2.7	1.4
- 3rd quartile v. bottom quartile	2.3	1.4
Does econs/business v. does not (1996)	2.5	1.7
Does art v. does not (1996)	1.8	3.4
Performance in Physical education (1996)		
- better than average v. below ave or n.a	3.6	1.2
- about average v. below ave or n.a	2.4	1.2
No siblings v. 2 siblings (1997)	1.5	2.0
Sole par family & younger sibling v. otherwise (1997)	3.1	2.0
Mother at home and worked v. otherwise (1997)	2.5	1.5
Factors – things I would like to do (1996)		
— People-person score -1 v. score $+1$	1.5	2.9

5. Why did nurses do nursing?

As has been reported, the LSAY data tells us something about the characteristics of the persons who are more likely to become nurses and possibly some indication of causal relationships. However it does not contain direct information on why individuals made particular career choices. The RNS and the FYSS did ask nurses/nursing students what factors had been important to them when they chose nursing as a career.

5.1 The RNS

Analysing the data from the RNS, McCabe and Nowak (2003) note that financial reward appeared to be of relatively minor importance compared to other factors one might associate with job satisfaction, such as working with and helping people and contributing to the community. Further, differentiating between the older and younger cohorts of respondents, the priority placed on the various reasons for entering nursing appears to have changed little over the years. The most noticeable differences relate to initial earnings. The older cohort placed far more emphasis upon the ability to earn while studying; provision of accommodation while training and the fact that training was provided on the job. Possibly this reflects that the older cohort had a shorter time-horizon in mind when assessing the attributes of a career, with many expecting to leave the workforce once starting a family. Thus pay-offs in the early years were given greater weight in their considerations. However, the actual level of the starting salary is not considered important by either cohort.

McCabe and Nowak (2003) only consider factors in which more than half of one or both of the cohorts rated the factor to be either 'important' or 'very important', and report the proportions doing so. Table 5 below reports the means for the responses, which are measured on a five-point scale ranging from 1 (of no importance) to 5 (very important). On this measure, the factors seen by female nurses as the most important in the decision to choose nursing as a career are the ability to help others, interesting and challenging work, the ability to work closely with people, job security, mentally challenging work and skills always being in demand. For male nurses, the factors that rate the most important are interesting and challenging work, job security, ability to help others, ability to work closely with people and training being provided on the job.

It seems both men and women nurses rank, retrospectively, factors associated with making a social contribution and enjoyment of their work more highly than financial rewards. However, reviewing the factors for which there are significant differences in the means for female and male nurses, it is clear that men rank salary matters more highly than women, while female nurses place greater emphasis upon flexibility — the ability to leave the job and return later, to combine work and family commitments, opportunities for travel and skills always being in demand. Women nurses do report placing greater priority upon helping others and working with other people.

Table 5: Importance of factors in choosing nursing as a career: by gender, RNS (means for scale of 1=no importance, 5=very important).

	Female Nurses ^a	Male Nurses ^a	T-test ^b
Starting salary	2.5	3.1	***
Future earnings potential	2.9	3.4	***
Interesting and challenging work	4.2	4.0	*
Nursing was a good career for women	3.2	1.7	***
Nursing skills always seemed in demand	3.8	3.5	**
Ability to leave the job and return later	3.7	3.1	***
Community respect for nurses	3.3	3.0	*
Ability to help others	4.3	3.8	***
Mentally challenging work	3.8	3.7	
Job security	3.9	4.0	
Ability to combine work and family commitments	3.2	2.7	***
The profession was perceived to carry prestige	2.8	2.5	*
Ability to make a strong contribution to society	3.6	3.3	*
Ability to work closely with people	4.0	3.8	**
Flexible hours of work	3.2	3.1	
Opportunities for promotion/advancement	3.0	3.1	
Opportunities for travel	3.6	3.2	***
Pleasant working conditions	2.9	2.9	
Opportunities for creativity and originality	2.6	2.9	**
Exciting work	3.5	3.2	*
Ability to be with my friends doing nursing	2.0	2.0	
Career adviser's/teacher's advice	1.6	1.4	**
Parental advice	2.2	1.6	***
Responsibility and autonomy in profession	3.0	3.1	
Time required to qualify for the profession	2.6	2.7	
Ability to earn whilst studying	3.6	3.7	
Training was provided on the job	3.7	3.8	
Accommodation was provided while training	3.0	2.5	***

Notes:

a. number of observations ranges from 1714 to 1745 for females, and from 71 to 91 for males depending on the incidence of non-responses;

b. Standard t-test for the difference in means between two samples. ***, **, * denote the differences in means for males and females is statistically significance at the 1, 5 and 10% levels, respectively.

5.2 The FYSS

Are these career priorities of those who became nurses any different to the priorities of those who chose other careers? The RNS data does not enable us to compare the nurses' 'value set' to that of workers in other occupations. The FYSS, however, asked the first year students to rate a range of factors according to their importance in deciding on their current course of study, as well as the importance of selected job characteristics that they might look for in an occupation. Table 6 compares the means for female nursing students with those for female and male students in other tertiary courses.

Table 6: Importance of factors in choosing current course and what students are looking for in an occupation, FYSS (means for scale ranging from 1=no importance, 5=very important)

Factors in deciding current course of study	Female Nursing students ^a	Other Female students ^{a,b}	Male Students ^{a,b}
Future earnings potential	3.4	3.3	3.7 ***
Good career opportunities	4.5	4.1 ***	4.2 ***
Career adviser's/teacher's advice	1.8	2.3 ***	2.4 ***
Course is considered prestigious/high status	2.1	2.5 ***	2.8 ***
Time it will take to qualify for chosen profession	2.4	2.1 ***	2.2 **
Able to earn money as part of my studies	2.1	1.8 ***	1.9 *
Practical experience is a significant component	3.9	2.8 ***	2.8 ***
Accommodation provided while studying	1.3	1.3	1.4
Cost of the course (HECS/other)	2.4	1.9 ***	1.8 ***
Availability of scholarships/other support	2.0	1.6 ***	1.6 ***
Qualification should make me highly employable	4.5	3.8 ***	4.0 ***
School-based work experience programme	1.6	1.7	1.6
Previous paid work experiences	1.8	1.4 ***	1.4 ***
Other work experiences (eg. voluntary work)	1.9	1.8	1.6 ***
Course is general - provide range of opportunities	3.0	3.2	3.2
My ability to do course/meet course demands	3.9	3.8 *	3.7 **
What are you looking for in an occupation?			
Graduate starting salary	3.1	3.1	3.4 ***
Future earnings potential	3.7	3.7	4.0 ***
Interesting work	4.7	4.6	4.4 ***
Good career opportunities	4.6	4.3 ***	4.3 ***
Ability to leave workforce and return later	4.3	3.4 ***	2.9 ***
Community respect for occupation	3.9	3.3 ***	3.0 ***
Working to help others	4.6	3.8 ***	3.1 ***
Challenging work	4.2	3.7 ***	3.5 ***
Job security	4.3	3.7 ***	3.6 ***
Potential to combine work and family commitments	4.2	3.6 ***	3.1 ***
Professional prestige/high status	2.6	2.9 ***	3.0 ***
Ability to make a strong contribution to society	4.1	3.7 ***	3.3 ***
Working closely with people	4.4	3.7 ***	3.2 ***
Flexible hours of work	4.0	3.2 ***	3.0 ***
Opportunities for promotion/advancement	3.6	3.5	3.6
Opportunities for travel	3.9	3.8	3.6 **
Pleasant working conditions	3.6	4.0 ***	3.8 *
Opportunities for creativity and originality	2.7	3.6 ***	3.5
Exciting work	4.0	4.2 ***	3.9
Responsibility in job	4.0	3.7 ***	3.6 ***

Notes: a. Number of observations ranges from 142 to 147 for nurses, 800-813 for other females and 463-467 for males; b. . ***, **, * denote that the mean is significantly different from that for the nursing sample at the 1, 5 and 10% levels, respectively, according to the standard t-test for the difference in means between two samples.

Looking first at the factors influencing the choice of course, there are many significant differences in the ratings between the three groups, but the similarities are perhaps more striking. The three most important factors for each of the groups are identical and rank in the same order — career opportunities, the qualification making them highly employable and ability to undertake the course. It is also true that the means for nurses on career opportunity and employability are higher than for both the comparison groups. For nursing students, practical experience ranks alongside their ability to do the

course, and for men future earnings potential ranks equal with ability to do the course. It is clear that current financial concerns are important for students who chose to do nursing – their mean ratings for availability of scholarships or other support, the cost of the course, time taken to qualify and ability to earn money as part of studies are all significantly higher for the female nursing students than for other male and female students. This suggests that nursing students may come from lower socio-economic backgrounds and have a lower capacity to finance their university education. Nursing students rate the importance of the prestige or status of the course significantly lower than students in other courses, particularly lower than male students.

In terms of what these first year students are looking for in an occupation, 'interesting work' ranks highest for all three groups. Good career opportunities rank second for other females and for males, and third for nursing students. So again similarities in the priorities of these groups of students are quite robust. The mean for 'working to help others' is the second highest for the female nursing students. The mean ratings for this factor, along with working closely with other people and ability to make a contribution to society, are significantly higher than for other female students and male students. Community respect for the occupation also rates as more important for nursing students. Interestingly, professional prestige or status is given a very low priority by all groups. Factors associated with combining work and family life are rated as more important and rank more highly for nurses than is the case for females studying other courses. These include the ability to leave the workforce and return later, potential to combine work and family commitments and flexible hours of work. As would be anticipated, males do not cite these as important characteristics of jobs. We caution again that these are 'ex-post' priorities, observed after the choice of course has been made. We cannot strictly interpret the decision on what course to undertake as having been "caused" by the individual's reported priorities regarding courses and careers. Rather, the two are jointly endogenous.

More direct information on the reasons behind students' choice regarding nursing is obtained from a series of questions in which non-nursing students were asked whether they had ever considered doing nursing and, if so, why they did not eventually do so. The survey identifies 114 females and 10 males who indicated that they did consider nursing (respectively 14 percent and 2 percent of the female and male non-nursing students). While only these students were supposed to respond to the following question on reasons for not choosing nursing, in fact quite a few other respondents did complete the question and we tabulate these responses as well. Table 7 reveals the frequencies with which reasons for not choosing nursing were selected from a list of possible reasons. The first set of columns shows frequencies for those who had at some stage given serious consideration to doing nursing, and the final three columns the frequencies for everyone who responded (thus the first set are a sub-sample of the second set). The stated reasons are ranked according to the frequencies in the final column.

Table 7: Why didn't you choose to major in nursing? Frequencies of responses, FYSS
(multiple responses permitted)

	Those who had seriously considered majoring in nursing			All those who responded to the question		
	Male	Female	Total	Male	Female	Total
Nursing does not pay well	2	36	38	18	53	71
Selected more generalist course to keep options open	2	34	36	6	45	51
Profession poorly regarded by public	3	18	21	10	23	33
Parent's didn't want me to	2	18	20	6	23	29
Did not meet entry requirement	3	14	17	3	16	19
Boring	1	2	3	7	10	17
Too hard	1	5	6	5	9	14
Careers advisor advised against it	1	4	5	3	6	9
Takes too long to qualify	1	3	4	3	5	8
Too many females in nursing	2	1	3	3	1	4

It can be seen that both sets of responses tell a similar story. There are too few males who had considered nursing to make much of their responses. For the other groups, however, the perception that nursing does not pay well is clearly the main stated deterrent. For females — and particularly females who had seriously considered nursing — wanting to do a course that would lead to a wider range of job options came a close second. The perception that the profession is poorly regarded by the public and parents actively dissuading the student from entering nursing were also commonly selected reasons. Around half as many students cited these two reasons as cited concern over low pay. The RNS provides further evidence that parents tend not to encourage young people to enter nursing. Of the female nurses responding to the relevant questions, 42 percent disagreed with the statement that their mother actively encouraged them to do nursing and 48 percent disagreed that their father actively encouraged them.⁶ For male nurses, the corresponding figures are 62 percent and 65 percent. Despite this, the vast majority of nurses agree that their parents were happy with their decision to become a nurse — 81 percent agreed their mother was happy with the decision, and 74 percent that their father was happy with it.

6. Family and career expectations

A common reason given for the high concentration of females in nursing is that it is an occupation that is conducive to combining work, child-bearing and later child-raising commitments. That is, women can leave and re-enter the occupation or work flexible hours with a lesser penalty in terms of earnings and employment opportunities when compared to other occupations. If we accept this argument, we would expect those who enter nursing to have greater intentions or expectations of marrying and forming a family. Around 92 percent of the female students anticipated having children at some stage, and there is no significant difference between those doing nursing and those doing other courses. However, the nursing students did anticipate having more children and having them at an earlier age. When asked how many children they anticipated having,

⁶ That is, they responded either “disagree” or “strongly disagree”. The availability of a “neither agree nor disagree” option would suggest that these responses do reflect a degree of active discouragement on the part of the parent. “Not-applicable” and missing responses have been removed from the denominator in calculation of the percentages.

the mean for nursing students was 2.60, compared to 2.36 for other female students (difference significant at the five percent level), and the mean response for the age they expected to have their first child was 25.8 years compared to 27.3 years for other female students (difference highly significant). Only around three percent of those females expecting to have children indicated that they might not return to the paid workforce, and there is no difference between the samples on this proportion. There is some evidence that nurses anticipate returning to the workforce more quickly than other female students.

There is limited evidence that the women who chose nursing do have different attitudes toward gender roles in work and family than the other female students. Respondents indicated whether they agreed or disagreed with a range of twenty different statements. For brevity, we report results in Table 8 only for the five statements for which the difference in the means for the nursing students and other female students is statistically significant. It could be said that the nursing students have a stronger perception of the traditional gender roles for men and women, rather than one of equality in the roles between the sexes. Compared to other female students, they believe men have better promotional prospects in the workplace, that it makes sense for women to care for dependents as they earn less than men and that caring for dependents is a more of a women's role. Across all female students, there is strong agreement for statements suggesting that young women now have more opportunities than in previous generations and strongest disagreement with the sentiments that men's careers are more important than women's or that women should care for dependents as men earn more.

Table 8: Attitudes to gender issues; nursing students and other females, means for scale ranging from 1 ('strongly disagree') to 5 ('Strongly agree'), FYSS

Statement on Gender Issue	Female Nursing students ^a	Other Female students ^{a,b}	
'Stay-at-home' mothers are respected by the general community	3.0	3.1	*
I believe women and men have the same promotional prospects in the workplace	2.5	2.8	***
It is a woman's role to care for the family	2.7	2.5	*
Women earn less than men so it makes sense, economically, for them to care for dependants	2.2	1.9	***
More women than men want to care for their dependants	3.2	3.1	*

Notes:

a. Number of observations ranges from 98 to 146 for nurses and 530-812 for other females;

b. ***, **, * denote that the mean is significantly different from that for the nursing sample at the 1, 5 and 10% levels, respectively, according to the standard t-test for the difference in means between two samples.

Students were also asked how they saw themselves in the workforce over the first 10 years after graduation. The differences between the perceptions of female nursing students and those of other first-year tertiary students are again inspected. A number of the items relate directly to well-known characteristics of nursing work – eg. working shifts, working in the public sector, not working from home and so on. These are of little interest and are not reported in the Table 9 below. For the other statements, means for the two samples are calculated for a response scale ranging from 1 (definitely not) to 4 (yes definitely) in reference to how likely the respondent saw themselves

experiencing each outcome. A higher number therefore indicates stronger expectation of that outcome occurring in the first 10 years after graduation.

Table 9: How do you see yourself over the first 10 years following graduation? Means for scale ranging from 1 ('no, definitely not') to 4 ('Yes, definitely'), FYSS

Factors in deciding current course of study	Female		
	Nursing students ^a	Other Female students ^{a,b}	
Work full-time for the whole 10 years	2.46	2.63	**
Have periods of time out of the workforce	2.58	2.67	
Put job ahead of any personal commitments	1.91	2.08	**
Have job security	3.39	3.04	***
Work away from home (eg. out of town)	1.90	2.29	***
Do further study	3.05	2.59	***
Work part-time	2.52	2.12	***
Be based interstate	1.93	2.20	***
Be based overseas	2.13	2.16	
Have multiple employers at the same time	2.13	2.13	
Change jobs/employers frequently	1.99	1.97	
Follow your partner to another town for work	2.77	2.73	
Supervise other employees	3.04	2.61	***
Select jobs to balance work & other interests	3.20	3.08	*
Undergo a major change in career direction	1.99	2.04	
Change jobs to suit lifestyle	2.30	2.35	
Climb high on ladder of success	2.75	3.06	***

Notes:

a. Number of observations ranges from 98 to 145 for nurses and 530-748 for other females;

b. ***, **, * denote that the mean is significantly different from that for the nursing sample at the 1, 5 and 10% levels, respectively, according to the standard t-test for the difference in means between two samples.

Concentrating on those differences that are statistically significant, a clear difference is that nursing students anticipate placing lesser emphasis upon work and career in their lives, yet also having greater job security. They see themselves as being less geographically mobile in their work and more likely to do further study in the first 10 years of their career than females in other courses.

7. Interviews with young women in TEE

Employing NVivo, a computer program used in qualitative data analysis, the transcripts of the interviews with 30 young women were collated and coded through a process of what Ely et al (1997: 206) aptly describe as the 'sorting and lifting' of patterns, themes and issues. Through this process a richly detailed account of the social, economic and political positioning of nursing as a 'possible career choice' was gathered. As can be read, the young women's views and understandings (written verbatim) provide context for the three surveys used within this paper.

Of the 30 young women interviewed, only 3 identified nursing as a career of 'first choice'. The remaining 27 young women selected careers ranging from landscape architecture to journalism. The lack of interest in nursing and a preference for an eclectic array of non-traditional careers can be partially understood as 'evidence' of second wave feminism's dismantling of occupational boundaries and the burgeoning of

new industries within late capitalist, post-industrial economies (Harris, 2004: 40-41; Poole and Langan-Fox, 1997: 4-6)

- 'Just the whole idea of helping people'

Exploring the meanings made by two of the young women who chose to study nursing, commitment to working for change and a desire to make a difference, were integral to their motivations. Characterised through notions of 'care' and 'helping people', a career in nursing was described as both socially meaningful and personally fulfilling. With a focus on Midwifery and Oncology, Lucy⁷ views nursing as a way of expressing her passion for 'helping people':

... just the whole idea of helping people like having someone depend on you to help them back to health...Midwifery because I'm just fascinated with the whole idea of, I think it's the most wonderful thing to happen, it's the absolute ultimate miracle... It's just so exciting...and oncology I don't really know. I guess it's because it's generally your long term patients and also it's a really time when they need help (pause) ...you can spend longer times with people and it's a more personal level of care.

In expressing a commitment to being 'altruistic', Felicity also mentions the shortage of nurses as informing her decision to become a nurse:

Felicity: *Well I feel like I'm doing something just not for myself, like and the lack of nurses as well, and after my work experience I just realised the opportunities, like I met so many people that have been nursing and all the fields that they're into they don't just deal with patients they do lots of other things like educational things, what's their eating like, community nurses and all that sort of stuff really appeals to me, and I'm really not interested in money; for me the meaning of life is really just to get by, just enjoy the things you've got whereas if I just make all this money, then I don't feel that's fulfilment for myself.*

- 'You can do different sort of stuff'

As identified in both the FYSS and the RNS and as discussed by the three young women who identified nursing as their career of preference, an important feature of nursing as a career was its diversity and universality. Diversity was described both in terms of perceived promotional opportunities and sites of practice; different places and locations - a "passport to work and travel" (Bosco, Styles and Ward, 2001). For Jo and Felicity such opportunities made nursing a particularly attractive career:

Jo: *... with nursing you can travel a lot with it and you can work your way up and you can do different sort of stuff...I wouldn't travel by myself, I just wouldn't like to do that, so I think it would be if the husband was there I'd say right this is what I want to do and if he says yeah fine, let's go, then I'd do it, or maybe if my family suddenly said well, let's go, then I'd go and do nursing up there. I could use my flexibility if I really wanted to, I can do Perth, Geraldton, Carnarvon or I can*

⁷ All names used are pseudonyms and any personally identifiable information has been removed.

do Ayers Rock (sic)...I could do school nursing which I don't think I'd want to do but I could if I wanted to.

Felicity: *...after my work experience I just realised the opportunities, like I met so many people that have been nursing and all the fields that they're into they don't just deal with patients they do lots of other things like educational things, what's their eating like, community nurses and all that sort of stuff really appeals to me.*

- Nursing careers and family careers

The issue of 'flexibility' was raised in relation to nursing as a career which facilitated time spent out of the labour market, such as through childcare. Whilst recognising nursing's potential in this way, each of the three young women were adamant that this was one of many benefits rather than a prime consideration in choosing nursing as a career;

Felicity: *Oh I want to have a family and everything like that, but I don't base my career on trying on be able to support something that isn't there yet and wanting like this car or 'for my family' which I don't have*

Whilst acknowledging its diversity, Jo was determined that the possibilities of her future life did not influence her career decisions in the now;

I suppose when I think about it, I'm not thinking about having kids and getting married, in that sense, but a lots (xx?) of people think about careers and because of that they want to be able to support the family and stuff but I'm just thinking a lot more short term, so I'll see what happens.

However, in later discussions relating to family and career balance, Jo's acknowledgement that she would 'get bored' with full-time childcare, was accompanied by an awareness of the ease with which a woman could re-enter nursing;

You'd want a job that you could go back to and something like nursing...But if its something you have to build your way up, it makes it a lot harder because you have to have all the references but if you have a straight degree and something you've been in, then you can just jump back into it...

- Just Like Mum, Sister...

Similar to the influential bond between a father's educational and career trajectories and that of a son (Taylor, 1968), the influence of maternal career and employment status in relation to a daughter's consideration of nursing as a career was identified as a significant factor in both decisions to either pursue or not pursue nursing (David et al, 2003). For some of the young women, their mothers' involvement in the broader health field and subsequent reports of nursing 'disaster' stories acted as powerful deterrents to selecting nursing;

Lily: *I think I'm put off by the fact that my mum does it. She comes home from work and she tells me all the disgusting stories and having to change and fix people's sheets and...she's always tired...*

Tara: *I never really thought about (nursing) because my mum is a doctor and is always encouraging me not to go near the medical field because she found it really hard and she doesn't like some of the things she ends up treating*

Of the three young women who chose to undertake nursing, their mothers were identified as enthusiastic and supportive. For Lauren, her mother's career as a nurse provided emotional and academic support;

Lauren: *She sort of got the attitude of whatever you do I'm fully behind you 110%... she can provide so much knowledge about nursing because she's been one for years... It's nice to have her there but in the same way she doesn't make me feel like I have to do, like it's a duty or anything like that*

Felicity's sister who is currently undertaking nursing was also identified as a positive mentor and support, particularly in relation to the opportunities which nursing could facilitate;

Felicity: *And my sister does it, so it's kind of like, I've seen opportunities that have sort of come to her*

- Why not?

Whilst three young women were intensely committed to nursing as a career, many others were adamant in their rejection of nursing as an option. Citing a diversity of issues including the social devaluation of nursing, the monotony and routine of nursing practice and the work conditions, the young women were well-versed in their critiques of everyday nursing as a possible career choice. For Jenny and Penelope, alongside a personal distaste for needles and blood, the lack of financial remuneration and negative image of nursing was a deterrent;

Jenny: *...I don't like all that kind of needles and that kind of thing and also it sounds bad but it's not really well paid enough and it's not getting very good publicity either*

Penelope: *I really like looking after people and I am really compassionate but I hate blood... I don't like having to clean up blood (or) ...having to take people to the toilet*

Reflecting on family and friends' experiences of nursing, both Lily and Rachel identified inflexible hours, low public regard and as Alex states, minimal financial reward as reasons for not considering nursing as a career;

Rachel: *...I don't like the hours because one of mum's friends do it and they've got really bad hours...they get a low income... they don't get the hours that they really want and stuff and they don't get regarded*

Alex: *Very low standing. They don't have enough money to be high enough up in social standing*

Reflecting the relationship between cultural constructions of women and work and economic discourses (Poole and Langan-Fox, 1997), Zena extends this consideration of financial reward to include the link between supply/demand and social status;

Zena: *I put it all to economics, I put it in the same way because I think it used to be what we demanded, like what society demanded. We demanded doctors because they save lives and all the rest of it. And it's kind of like doctors' rank in society went up. I was thinking they (nurses) do the bulk of the work but nothing really happened in that sort of a way...*

As described in Zena's comment, Julie also refers to the devalued status of nursing within what can be defined as the hierarchy of professions (Poole and Langan-Fox, 1997);

Julie: *Mum goes the other day 'oh have thought about doing nursing?' And I'm like 'no way, that's like second best, that's like nurses are just there because they can't get into medicine!' And like nursing is like a girly job because they have to like clean up wee and wipe old people and all that stuff*

These hierarchies are both historical and gendered; their continuing dominance can be evidenced within everyday practices which re-produce the taken-for-granted dichotomy between nursing and medicine. Zena acknowledges that when she speaks of nurses and nursing her voice intonates devaluation compared with the more prestigious career of medicine;

Zena: *The name has been belittled and it's like I'm prejudiced in the sense that when I actually hear 'Oh she's a nurse or she's a doctor', you automatically think; 'oh she's a doctor' (positive voice emphasis placed on 'doctor' – sounding impressed) or 'She's a nurse' (sounding with contempt – said as a put down).*

Relating nursing's perceived low status and prestige to traditional conceptualisations and stereotypes of women and work, and specifically, the gendering of occupations, Lucy describes what she claims are the two dominant stories of nursing;

Lucy: *Personally I think there's two different views, one is great respect and 'Wow they are absolute champs, they're spending all the time caring for people, showering people' and the other view is 'Oh they don't do real jobs it's the doctors, they're whining about not enough work' and I think that's the two main ones and personally I think they're arrogant idiots who think it's just the doctors I mean they obviously do great things but nurses do so much good stuff*

Reflecting further on the relationship between gender and nursing, Zena suggests that nursing's relegation to the status of 'women's work' has had adverse effects within the current era of increased career choices for women;

Zena: *...I think a lot of women are purposely choosing not to do it because 'I will not be a nurse, I will not be just a plain teacher, I will go into something that*

is bigger than that, better than that' and the problem with men not getting into nursing is the continuation of the idea that women are nurses.

Lily: *I think that when most of my friends were considering a career, a lot of people don't think of nursing because it doesn't have that kind of prestige or ...like its not really an impressive career...its like teachers and police, you respect them for what they're doing but no one wants to do that. Then there's the aspect that there's no respect at all...I think people think its more of a simple thing, like you know, people think that teaching or nursing is like an easy career to do. It might have kind of some basis in kind of history, the fact that those were the kind of occupations that women went into and I guess traditionally they are the ones that would let women into them... mum tells me there seems to be quite a few male nurses but still not very many and its not something I think a lot of guys would go into. I think it does seem to be women's work*

That the recruitment of men into nursing has been identified as a key strategy acknowledges the repercussions of constructing nursing as women's work. Researchers also describe how young women studying nursing are frequently portrayed as the 'victims' of deterministic assumptions. As Novi and Meinster (2000: 74) propose "choosing a female-dominated profession ... may represent a choice for value congruence rather than the compromising of interest and prestige in the face of traditional role expectations."

- If it was like the sort of stuff you see on TV

Whilst many of the respondents in the survey rationalised their choice of nursing in relation to 'interesting and challenging work', for the young women interviewed, nursing was mundane and monotonous. With its long hours for little pay and social devaluation, 'real' nursing lacked the glamour which infused its portrayal in popular culture and in particular, television programs such as *E.R.*, *Chicago Hope* and *All Saints*;

Anais: *It just doesn't appeal to me, it's a bit boring... Um, if it was like they do the sort of stuff you see on TV, I mean I don't even know exactly what they do do, but I think that's (what) ...people like to ... think that's what they'll do. Not just like the same old thing every five minutes.*

An interest in the role of television programs in promoting nursing as a potential career choice has been noted by many researchers (Reid, 2000; Bacon, McKenzie and McKendrick, 2000: 31) as an area for further researcher. In particular, Bacon, McKenzie and McKendrick (2000: 31) suggest that the recent up-grade in the public's perception of nurses may be linked to "more realistic portrayals of nurses through medical television drama series". However, television programs, particularly the medical 'reality TV' programs such as RPA (Royal Prince Alfred Hospital), could also be deterring in their graphic portrayal of everyday medical practice. Whilst seeking to work with people Linda describes how a recent episode of RPA brought her face-to-face with the realities of nursing;

And you see like these shows like RPA, like this guy had this cist on his tongue then when they pulled it out it was like that big, they cut it open and it was like all white puss with all yellow stuff. I almost threw up. It was so gross

8. Conclusions and discussion

The exploration of the three surveys and interview responses provides a number of insights into the status of nursing as a career option for young Australian. As a very broad summation, the evidence is consistent with nursing being a profession that has very limited appeal to many young people. It remains the case that very few males are attracted to nursing. Those women who planned to become a nurse are not academically gifted, but rather their academic performance at high school is average or slightly below average. They are quite typical of the group of young people who intend to complete Year 12, but are not as successful at school or from as high a socio-economic background, on average, as female students who in Year 10 had set their sights on going to university. People who have entered nursing also differ in their values and attitudes. Nurses express a greater priority for caring for and helping others, contributing to society and balancing work and family life. These findings, which are all in line the existing literature from overseas and the limited Australian evidence, along with some new insights allows a reconsideration of the competing models of the determinants of career choice in relation to nursing.

An interesting addition to the emphasis on work/family flexibility is found in the FYSS in which female nursing aspirants rated issues such as nursing's low rates of skills atrophy and flexible working hours as more important than both female and male students studying other undergraduate courses. Female nursing students also intend to have more children and at an earlier age than other female university students. There is evidence that those who are financially constrained or seeking early financial returns, as opposed to longer term rewards, are attracted to nursing. The availability of scholarships or other support while training, the cost of the course, time taken to qualify and ability to earn money while studying are all given greater emphasis by nursing students. Framed within human capital theory all these situational factors can be read as consistent with those individuals expecting to leave the labour market relatively early in their working lives or who plan significant career breaks. However, in terms of assessing who is likely to enter nursing and what policy measures are required to increase nursing intakes, it is abundantly clear that one must look well beyond the economists' paradigm of the utility maximising individual. Factors stressed by psychological and feminist approaches, particularly those influencing individuals' perceptions of gender roles are a very important part of the story.

Such arguments could easily be construed to resemble Catherine Hakim's (1996) controversial proposal that there are two types of women; 'careerist' or 'domestically-oriented'. This categorisation fits with the traditional human capital model in which women accept the sexual division of labour in which men are the breadwinners (Becker, 1974) and indeed the data from the FYSS support the notion that women interested in following a career in nursing hold more 'traditional' views relating to gender roles in work and family than other professionals. However, as can be read within each of the data analyses, and as is expressed within the interview material, it is not that nursing aspirants and nurses do not value the longer-term promotional opportunities or financial remuneration rather, such factors are part of a focus on broader definitions of

not only what activities, events and actions constitute a 'career' but the diversity of understandings as to what constitutes 'career fulfilment and satisfaction' (Poole and Langan-Fox, 1997: 29). This more fluid and dynamic account is in keeping with the findings from a longitudinal study of young university graduates conducted by Castleman and Reed (2003: 4);

“young professionals want both career and family but at this stage their orientation is far from any passive adaptation. They may be unable to see the details of their futures clearly...but they are not disposed to compromise what they regard as satisfying lives that include both career and family accomplishments”.

Evidence from both the LSAY and in-depth interviews indicate that having a mother who works as a nurse (or, to a lesser extent, some other relative) increases the likelihood of entering nursing; although instances of negative impacts were also noted. We discover an interesting observation from the LSAY that nursing aspirants had a higher number of siblings and specifically, younger siblings than aspirants of non-nursing careers.⁸ The data from the LSAY also indicate that the young women are more likely to have lived within a sole-parent family. The picture that can be read from this data suggests that these young women may have developed an affinity with the role of 'carer' in their family life. These influences of family composition and role models clearly do not fit comfortably within the human capital model.

The possible link between family composition and career/occupational choices is interrelated with the issue of the family's negotiation of gender roles and in particular, the crucial role that the household performs in initiating young people into the world of work (Aronson et al, 1996). In their research, Aronson et al (1996) found that young women consistently spend a greater number of hours than their male counterparts caring for a younger sibling/s hence reinforcing the notion that care work is woman's work; young women become the substitute mother whilst the adolescent male exemplifies the traditional father-figure who spends little time in the actual caring work of children. Aronson et al's (1996: 29) study further shows that young women are consistently allocated chores which conform to the gender stereotype of being female, such as laundry and kitchen duties whilst adolescent males are responsible for tasks such as yardwork and jobs which require heavy lifting.

A common theme amongst all the nursing aspirants highlights that nurses are very much 'people-people'; they like the idea of working with and helping other people. The LSAY data shows that the young women who identified nursing as a potential career shared characteristics related to the people-people personality factor. This was replicated within the FYSS and the RNS in which 'helping people and contributing to the community' were rated as most relevant and of a high significance to people choosing to pursue nursing as a career. The lower average scores on the 'power-person' personality factor derived from within the LSAY seems at odds with Boughn and Lentini's (1999) interpretation of the desire to care and help as being intricately related with a desire for power and control. The interview material supports the caring notion as being an 'altruistic' tendency with each of the young women who identified nursing as their

⁸ A higher than average number of siblings for nurses has been confirmed using data from the Household, Income and Labour Dynamics Survey (see Dockery 2004).

career of choice indicating a willingness to be of benefit to those who are vulnerable and in need. This emphasis on relational activities is consistently reflected in other research which has investigated entry-level nursing students' perceptions of nursing (Bosco, Ward and Styles, 2001).

Common to each of the data sets was the preference given to intrinsic over extrinsic reward suggesting that nurses place less priority on career and longer term financial rewards, greater priority on family and a strong priority on working with people. This emphasis on an 'ethic of care' or what Marini, Fan, Finley and Beutel (1996: 50) refer to as the 'valuing of work for its inherent interest and importance', is in keeping with other research which suggests that although the gap is narrowing (Marini et al, 1996), young women still attach more importance and value to the social rewards of work than their male counterparts. As is highlighted within this paper, according to the RNS data, whilst both women and men identified intrinsic benefits as of most importance in their decision to become a nurse, within the nursing population men ranked financial remuneration (salary matters) more highly than women. This lack of focus on monetary remuneration has also been associated with nurses leaving the profession as Professor Lumby (2004: 15), the Executive Director of the College of Nursing indicates; "research internationally shows that nurses are leaving our (Australian) system for a multitude of reasons and that pay is not their first concern".

However, this is not to suggest that for all nurses/nursing aspirants, extrinsic rewards were not considered at all. Rather as is evident in the RNS data and the interview material, the definition and content of extrinsic was broadened to include travel opportunities and an ability to engage with a diversity of practice fields. This valuing of both 'intrinsic and extrinsic' rewards suggests that the dichotomy between material/prestige and relational/creative values is becoming less relevant and appropriate. Recent research relating to women and careers suggests that the rigid division between intrinsic and extrinsic rewards and work and family issues are unhelpful in as much as they ignore the fluidity between and within such concepts. Such blurring of boundaries is reflected in research by Fiorentine (1988) and Morinaga, Freize and Ferligoj (1993), which states that women's articulation of traditionally male-prized career rewards, particularly status-attainment goals, has increased dramatically, although not surpassing the preference given to intrinsic work goals (Beutell and Brenner, 1986). Within the survey data presented in this paper, women nurses identified issues such as work/family flexibility as of greater importance than male nurses. Such evidence is in keeping with broader debates relating to women's 'double burden of care' and the critique proffered by feminists, that women in the labour market are still bearing the social, cultural and economic responsibility for their families (Probert, 2002; Pocock, 1998; Lee and Strachan, 1999).

For both males and females the perception of nursing being a low paid and regarded occupation is a significant deterrent to choosing nursing as a career. Moreover, there is clear evidence of 'rebellion' among young women against entering stereotypically 'female' occupations. From a policy perspective, it seems vital that the appeal of nursing is broadened in order to attract more career minded individuals and men in particular. When one stresses the many differences between those entering nursing and others and the institutionalisation of gender roles that lies behind the factors determining the decision to enter nursing, as the preceding analysis has just done, that task may appear insurmountable in the immediate future. However, we should not lose sight of the

marked similarity between females and males, and between nurses and non-nurses when it came to expressing the main priorities in relation to their choice of course and what is important to them in a job. Nursing clearly does offer those main attributes of good employment prospects, interesting work and the capacity to make a social contribution. And after all, to put it in Zena's words:

Zena:... when I really think about it, where would the world be without nurses?

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Appendix

Table A1: Most frequent planned occupations (ASCO 4-digit level) by gender, LSAY 1995 Year 9 Cohort

Females			Males		
ASCO	Description	%	ASCO	Description	%
6601	Childcare, refuge or rel'd wrkr	7.0	4601	Vehicle Mechanic	5.8
2605	Lawyer	4.7	2707	Computing professional	4.9
2903	Psychologist	4.5	4705	Cook	3.9
2805	Designer/Illustrator	4.2	2701	Accountant	3.8
2807	Journalist	3.9	2200	Building prof/engineer NFD	3.8
2403	Primary school teacher	3.4	3301	Aircraft pilot	3.2
3401	Registered nurse	3.4	4401	Carpenter and joiner	3.2
4927	Hairdresser	3.1	2805	Designer/Illustrator	3.1
2400	School teachers NFD	3.0	2201	Architect/landscape architect	2.8
2701	Accountant	2.8	2107	Life scientist	2.8
2107	Life scientist	2.6	2605	Lawyer	2.7
2323	Veterinarian	2.6	3501	Policeman/policewoman	2.5
2401	Preprimary school teacher	2.4	2313	Physiotherapist	2.0
5101	Office secretary/stenographer	2.3	4309	Electrical mechanic	1.9
4705	Cook	2.3	4315	Office equip/computer servicer	1.9
3501	Policeman/policewoman	2.2	2211	Electrical/electronic engineer	1.8
2301	General medical practitioner	2.2	2807	Journalist	1.8
2803	Photographer	1.9	3915	Sportsperson or related worker	1.6
2313	Physiotherapist	1.8	2301	General medical practitioner	1.5
6609	Travel steward	1.8	2400	School teachers NFD	1.4
2817	Actor or related professional	1.7	1401	Farmer or farm manager	1.4
8999	Other labourer/related worker	1.4	4409	Plumber	1.3
6507	Travel agent	1.4	4903	Cabinetmaker	1.3
2800	Artist or related prof NFD	1.4	4205	Boilermaker/welder	1.1
2303	Specialist medical practitioner	1.4	4103	Metal fitter or machinist	1.1

Notes: NFD – not fully defined.