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Results of a longitudinal study of employment outcomes for Australian ILS graduates

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Abstract

This paper reports on the results of a longitudinal study of employment outcomes for graduates from first qualifying courses in Information and Library Studies at Curtin University of Technology, Western Australia. Curtin University of Technology offers qualifying courses in librarianship and records management, and students can graduate with either a three year undergraduate qualification or a one year graduate qualification. Surveys of graduates have been conducted at five yearly intervals (1994, 1999 and 2004), and have collected data relating to the employment outcomes of graduates for all years between 1987 and 2002. The results of the three surveys now constitute a substantial longitudinal study of employment trends in the Australian library and information professions. The survey data includes reporting on the type of work achieved by graduates, their continuity of employment, their level of work in terms of 'professionalism', and their type of employment contract. A summary of the information gathered from the three surveys is provided, with an emphasis on mapping the changing employment landscape for library and information studies graduates in Australia.

Introduction

This paper reports on a longitudinal study of employment outcomes for students completing Library and Information Studies (LIS) courses at Curtin University of Technology, Perth, Western Australia. The first survey was conducted in 1994 (Curtin University, 1994), with the population drawn from students completing courses from 1988-1992 and the second survey was undertaken in 1999 and covered graduates from 1993-1997. The results of the two previous surveys were reported in Genoni, Exon & Farrelly (2000). The most recent survey was conducted in 2004 and included graduates from 1998-2002. In each case the survey was delayed by some 18 months following the most recent course completions in order to allow those graduates sufficient time to find employment and establish themselves in the workforce.

LIS at Curtin University is currently taught within a Department of Media and Information. The academic group responsible for these courses has been involved in a number of internal university restructures and held different names during the period covered by the surveys, having previously been a School of Information and Library Studies, a Department of Library and Information Studies and now a discipline area known as Information Studies. Current first qualifying courses consist of a Bachelor of Arts (Librarianship and Corporate Information Management) – BA(LCIM), a Graduate Diploma (Information and Library Studies) – G.Dip.(ILS) and a Graduate Diploma (Records Management) – G.Dip.(RM). Graduates of each of these courses are eligible for professional membership of the Australian Library and Information Association and/or the Records Management Association of Australasia.

All courses are offered in both internal (on-campus) and external (off-campus, distance) modes. Because graduates are located across Australia, measured graduate employment outcomes will therefore be largely uninfluenced by regional employment trends. This is important, as Western Australia is a resource rich state that may experience different economic cycles from other areas of Australia.

The survey is conducted as part of the ongoing monitoring of graduate outcomes which is deemed necessary in order to understand changing patterns of employment that in turn contribute to curriculum design. The survey includes two major sections headed ‘Current Employment’ and ‘Employment History’, and results from both of these sections are reported in the paper. The survey also includes a series of supplementary questions that relate to graduates’ assessment of their completed course and its value in preparing them for the workplace. The responses to these questions are not reported in this paper.

Recent research into LIS graduate destinations

Reports on recent research into LIS graduate destinations are increasing. Longitudinal research investigating the employment market for graduates has been conducted by the Department of Information Studies at the University of Sheffield, England. The research has been limited to graduates of the Department’s MSc Information Management programme only, and therefore differs from the survey reported here which draws its results from respondents who have completed either degree or graduate diploma level qualifications.

A recent report of the University of Sheffield research is given by Quarmby, Willett & Wood (1999). This report noted the evolving nature of work being undertaken by graduates, with an emerging emphasis on the “important role played by database management and design, searching for information and the Internet” (p. 155). It was also reported that for the period over which the surveys have been conducted (1965 – 1996), there “has been little change in the percentage of graduates whose current post remains within the LIS field and wastage remains at around one-fifth of graduates” (p. 154).

Marcella and Baxter (1998) reported on the career progression of four cohorts of graduates from postgraduate courses in Information Analysis offered at the Robert Gordon University in the UK. While the course content offers little parallel to the course content of the Curtin studies reported in this paper, Marcella and Baxter record the growing spread of employment opportunities for information studies professionals in the UK. These authors also provide a useful summary of earlier career survey work carried out in the LIS sector in the UK.

A longitudinal study of graduates of a one-year Graduate Diploma has been reported by the Department of Library and Archival Studies at the University of Ghana. A series of four surveys has been conducted which covers graduates from 1970–1997. The report on the most recent survey noted “the increase in the number of respondents working in non-library/information-related jobs” (Alemna, 1997, p. 40) although it should be noted that the research was based on very small numbers of graduating students and the evidence supporting this conclusion is not clear.

Aina and Moahi (1999) report on the relevance of training received by graduates of the Department of Library and Information Studies at the University of Botswana. The findings concentrate on satisfaction levels of the educational programs undertaken and indicate that although eight different programs are studied, the majority of graduates come from certificate and diploma courses. Interestingly, employment in a library is a pre-requisite to entry to a program and over half of the respondents indicated dissatisfaction in their current library job with the reasons being low salary, low profile in the organisation, no prospects for promotion, lack of excitement and challenge. However, “(s)urprisingly, certificate and diploma holders were involved in managerial functions” (p. 228).

Other related research has focused on identifying trends in information sector employment. Various sources for the data have been used. These include a longitudinal study of government collected manpower statistics from the United States (Martin, 1998), and a study of graduates from the MLS at the University of Pittsburgh focusing on those who have left the profession (Detlefsen and Olson, 1991). Moreiro (2001, p. 31) reports that in a 1995 study of Spanish library and information science graduates, the trend of fellowships as the prevailing vehicle for hiring students continued in his next longitudinal study of graduates for the period 1996-99: “fellowships and temporary work accounted for over 60% of the jobs held by students” while they were still studying. The types of positions they occupied once graduated ARE not covered in this paper, with “internships and fellowships [becoming] the means of selecting personnel for businesses” (p. 34).

The longitudinal model has been used by Yaker (2003) and includes demographic comparisons between graduates of archival studies, history and LIS in the US. Students from archives education programs from 14 LIS Schools responded to this national survey which, while concentrating on demographic and educational outcomes, did pay some attention to the employment of the graduates. There is some relevance of this data to the Curtin work because of the records management and archives unit offerings in all of the programs. Yaker (2003, p. 312) found that the chief employing sector of the US archives graduates was the educational sector, i.e. in colleges and universities, and a significant number of the LIS and history graduates were also employed here. Low numbers of archival graduates enter the corporate sector with weak employment indicated for archivists in the museum sector.

In Australia recent research has attempted to identify emerging markets for LIS graduates outside of those professions which typically employ these graduates (Brittain, 1996), and studied an evolution in the type of demand for library and information sector skills and qualifications by examining newspaper advertisements for information professionals (Willard and Mychalyn, 1998). Another major Australian study was that conducted for the Australian Library and Information Association by the Australian Centre for Industrial Relations Research and Training (ACIRRT) in late 1997. This involved the distribution of 1600 questionnaires to a cross section of Australian library workers. The results of this survey were reported by the Australian Centre for Industrial Relations Research and Training (1998).

Pember's (2003) study of recordkeeping graduates at Curtin University for the period 1992-2000 revealed that the employment rate was ninety-eight percent, with graduates occupying permanent positions or those on continuing contract. Pember does not report on the types of jobs these graduates occupied.

Willard, Wilson and Cole (2003) expand on previous work and report data on the employment experiences of graduates of the University of New South Wales LIS programs for the period 1997-2001. The findings indicate that 26% of respondents occupied "librarian" positions in their first positions utilising information management skills. Another significant position held was information officer and there were individual cases where new job titles were being used (e.g. web manager, network officer, data controller).

The survey

The survey instrument has been maintained in as consistent a form as possible over the duration of the three surveys. Some adjustments have been necessary in order to allow for the introduction of new courses and to allow for small errors and omissions in the initial survey.

In all, five first qualifying courses were offered during the survey period: a Bachelor of Applied Science in Information and Library Studies (B.App.Sc (ILS), a Bachelor of Applied Science in Records Management (B.App.Sc. (RM), a G.Dip.(ILS) And G. Dip.(RM), and the new BA (LCIM). The two Bachelor of Applied Science degrees were being phased out in favour of the new BA(LCIM), which qualifies graduates to work as both librarians and records managers.

Surveys were distributed to all identified graduates from the relevant courses for the period under review. Distribution was by post using last known residential addresses acquired from the University's student records. Under these circumstances it was inevitable there would be some graduates who did not receive a survey due to a change of address. It might be speculated that this method of distribution has biased the responses in one of several ways. It is possible, for example, that younger graduates may be more mobile and therefore more likely to have changed address and hence less likely to receive a copy of the survey. It is also possible that graduates who have been unsuccessful in finding employment within the profession will be less likely to respond to the survey than those who have.

For each survey a number of survey forms were returned unopened, and it is very likely that additional copies went undelivered. For each of the surveys, however, a satisfactory response rate was achieved, as shown in Table 1. These vary from 36.6% to 48.6% of useable surveys (i.e. surveys that were not returned unopened).

Table 1: Responses to surveys

Survey years	Total despatched	Returned to sender	Replies received	% of useable surveys
1988-1992	419	27	159	40.6
1993-1997	367	44	157	48.6
1998-2002	338	29	113	36.6

Survey results

The first section of the survey consisted of questions relating to the respondents completed course of study. As shown in Table 2, the majority of respondents had completed their studies at the undergraduate level.

Table 2: Qualifying course completed, all graduates

Course	1988-92 %	1993-97 %	1998-2002 %
B.App.Sc.(ILS)	42.7	54.5	44.2
G.Dip (ILS)	57.3	33.1	33.6
B.App.Sc.(RM)	n/a	6.5	10.6
G.Dip. (RM)	n/a	5.8	8.8
BA (LCIM)	n/a	n/a	2.7
Total	100.0	100.0	100.0

n/a = data not available as these courses were introduced subsequently.

The first graduates from the undergraduate program in records management, the B. App.Sc.(RM), completed the course in 1992. The G.Dip.(RM) commenced in 1994. The new degree stream of the BA(LCIM), combining the studies of librarianship and corporate information management (records management) at the undergraduate level, commenced in 2000. This new course replaced the B.App.Sc.(ILS) and B.App.Sc. (RM). The results from this new combined undergraduate course, which had very few graduates in the last survey period, have been omitted from this paper.

The age of the graduates is indicated by the results presented in Table 3.

Table 3: Age at completion of course, all graduates

Age	1993-1997 %	1998-2002 %
up to 21	6.4	5.3
22-24	11.5	6.2
25-34	23.6	24.8
35-40	36.3	23.0
41-50	18.5	34.5
51+	3.8	6.2
Total	100.0	100.0

Age data is not available for the 1988-1992 survey.

The figures in Table 3 indicate that the information professions attract a decidedly mature age group of students. For the two survey periods for which the age of graduates was obtained, 58.6% and 63.7% of graduates respectively were over 35 years of age at the time of graduation. Over 40% of respondents to the most recent survey were 40 plus years of age at the time of completing their first qualifying degree. Notwithstanding the possibility that the younger and more mobile members of the profession may be under-represented in the survey responses, this nonetheless indicates that the problem of a ‘greying’ profession may not find a long-term solution from the ranks of the recent graduates.

Current employment

A series of questions asked respondents to assess their current employment and their employment history since completing their first qualifying course. Respondents who were in work were asked to report on the current ‘area’ in which they are working and their responses are summarised in Table 4.

Table 4: Area of work, all graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Librarianship	69.2	62.6	61.7
Records management	10.5	7.9	16.8
Archives	0	5.0	4.7
Computing & Info Systems	1.5	2.9	0.9
Other information work	9.0	12.2	10.3
Unconnected with information	9.8	9.4	5.6
Total	100.0	100.0	100.0

When the results are compared between the three surveys it can be seen that the balance between the occupational groups has remained steady. The only notable shift is the growth in respondents reporting they are working as records managers - from 7.9% in the previous survey to 16.8% in the current survey. This in part, however, is a reflection of the percentage of respondents who are qualified records managers, up from 12.3% (1993-97), to 22.1% (1998-2002).

There has also been a decline in the number of graduates undertaking work unconnected with information (from over 9% in the previous two surveys to 5.6% in the most recent survey). An optimistic interpretation would be that this result indicates an upturn in demand for information workers which has resulted in a smaller loss of graduates to other occupational groups.

Those who were working in 'other information related work' or 'work unconnected with information handling' were asked to describe the nature of their work. Of those who reported being in 'other information related work', their descriptions of their employment included a range of jobs which would appear to include a component of quite traditional library and/or records management skills. For example:

1993-1997

- 'Indexer, thesaurus compiler, website, information inquiry service'
- 'Knowledge management'
- 'Cataloguing and archiving petroleum data'
- 'Youth resource and information broker designing database relevant to needs of young people'
- 'Cultural heritage officer for a local council. Duties include research, gathering and disseminating information and cataloguing and maintaining a technical library'

1998-2002

- 'Project management including records management projects and activities.'
- 'Assistant local historian/curator. Involves library skills.'

Other jobs reported as being 'information related' included a range of tasks, including a number for which a qualification in an information related qualification would be understood to be relevant preparation.

1993-1997

- 'Information consultant'
- 'Writing information briefs and project plans'
- 'Administrator in tertiary education'
- 'Administration work that involves information handling and organization of data in the computer system'

1998-2002

- 'Research assistant, tasks include proofreading, editing, grant applications, information searches, compiling statistics.'
- 'Medical research.'
- 'Research.'
- 'Assisting partner in chemistry consultancy.'

- ‘Bibliographic research and project management.’
- ‘Mainly work as a clerk but have recently done more library work.’
- ‘Administration – secretarial, research.’

Interestingly, the word ‘research’ occurs in the description of five of these jobs from the 1998-2002 survey. This is perhaps an indication of growing employment opportunities in this area. These responses suggest that graduates are prepared to look beyond traditional library and information jobs, and appreciate that the skills they acquire in the course are transferable to other occupational groups.

Seven respondents from the most recent who indicated that their current employment consists of ‘work unconnected with information handling’. A number of these indicated they currently work in the education and training sectors (‘TAFE lecturing’; ‘vocational education and training officer’; ‘manager of training services’; ‘secondary school teacher’). Some of the responses would appear to represent failed career changes – for example one responded, ‘casual merchandising and retail, the same job I had at the beginning of the course’.

The reported area of work can be provided for graduates from both professional groups and is shown in Tables 5 and 6.

Table 5: Area of work, Librarianship graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Librarianship	69.2	69.4	77.1
Records management	10.5	3.2	3.6
Archives	0	2.4	0
Computing & IS	1.5	1.6	1.2
Other information work	9.0	12.9	10.8
Unconnected with information	9.8	10.5	7.2
Total	100.0	100.0	100.0

Table 6: Area of work, Records Management graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Librarianship	n.a.	6.7	4.8
Records management	n.a.	46.7	66.7
Archives	n.a.	26.7	23.8
Computing & IS	n.a.	13.3	0
Other information work	n.a.	6.7	4.8
Unconnected with information	n.a.	0	0
Total		100.0	100.0

The figures in Tables 5 and 6 indicate that the clear majority of graduates find information related work within their area of speciality, but that there is some ‘leakage’ between the professions of Librarianship and Records Management. Not surprisingly, the number of Librarianship graduates finding work as records managers declined significantly after the advent of the Records Management qualifications – from 10.5% in the 1988-92 survey, to under 4% in the two subsequent surveys.

Records Management graduates appear to be in particularly high demand within their professional area, with over 90% in the most recent survey finding work within records management or the cognate occupation of Archives. This result is supported by Pember (in prep.) whose work reveals undersupply of graduates in the records management area.

A greater percentage of Librarianship graduates than Records Management graduates find employment outside of the traditional information professions. In all 18.1% of ILS graduates reported having either ‘other information work’ or work ‘unconnected with information’. This was the case for only 1 (4.8%) of Records Management graduates. This may be the result of either the strong demand for records managers or a belief by employers that a librarianship qualification prepares graduates for a wider range of work.

The figures in Table 7 indicate an increase in the workforce participation of graduates

Table 7: Type of current employment, 1988-2002, all graduates

	1988-92 %	1993-97 %	1998-2002 %
Full-time	60.9	68.1	70.5
Part-time by choice	19.9	14.6	18.8
Part-time prefer full-time	5.8	8.3	4.5
Unemployed, looking for work	8.3	4.5	4.5
Unemployed, not looking for work	3.2	1.3	.9
Studying full-time	1.9	3.2	.9
Total	100.0	100.0	100.0

The measure of ‘satisfactory employment’ (that is, respondents working either ‘full-time’ or ‘part-time by choice’) has risen from 80.8% (1988-92); to 81.7% (1993-97); to 89.3% in the most recent survey period. The increase in those working full time (from 60.9% to 70.5%) has been particularly strong. These increases in employment have been matched by corresponding decreases in those graduates either looking for work, or looking to increase their work from part-time to full-time.

It might be speculated that these results overstate the employment outcomes, *if* it is assumed that those who are successfully settled in a career are more likely to respond to the survey than those who have been dissatisfied with the employment outcome. Nevertheless the trend over the course of the three surveys is encouraging and represents an improved rate of workforce participation.

Indications of improving employment trends for recent graduates were also apparent when respondents were asked to report on their employment history since graduation. The results of these responses are shown in Table 8.

Table 8: Continuity of employment, 1988-2002, all graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Continuously employed	60.3	78.8	83.2
Casual, but fairly continuously employed	14.1	7.7	9.7
Initially difficult, eventually employed continuously	10.3	6.4	1.8
Long undesired periods of unemployment	12.2	3.8	4.4
Continuously unemployed	1.3	2.6	0
Never sought work	1.9	0.7	0.9
Totals	100.0	100.0	100.0

There has been a marked increase in the ‘continuously employed’ category for the new graduate respondents since the 1988-92 survey, from 60.3% to 83.2%. When this result is combined with the category ‘casual, but fairly continuously employed’ the results rise from 74.4% (1988-92), to 86.6% (1993-97), and 92.9% (1998-2002).

There are corresponding indications that graduates are being absorbed more rapidly into the workforce, with the category ‘initially difficult, eventually employed full-time’, decreasing across the three survey periods from 10.3% (1988-92), to 6.4% (1993-97) and 1.8% (1998-2002).

Also worth noting is the decline in the respondents reporting they had been ‘continuously unemployed’. The figure has fallen from a high of 12.2% (1988-92), to a consistent result 3.8% (1993-97) and 4.4% (1998-2002).

The figures in Tables 9 and 10 indicate that the improvement in employment outcomes has been experienced by both Librarianship and Records Management graduates.

Table 9: Continuity of employment, 1988-2002, Librarianship graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Continuously employed	60.3	80	81.8
Casual, but fairly continuously employed	14.1	7.5	9.1
Initially difficult, eventually employed continuously	10.3	6.7	2.3
Long undesired periods of unemployment	12.2	3.7	5.7
Continuously unemployed	1.3	1.5	0.0
Never sought work	1.9	0.7	1.1
Totals	100.0	100.0	100.0

Table 10: Continuity of employment, 1988-2002, Records Management graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Continuously employed	n.a.	68.4	90.9
Casual, but fairly continuously employed	n.a.	10.5	9.1
Initially difficult, eventually employed continuously	n.a.	5.3	0.0
Long undesired periods of unemployment	n.a.	5.3	0.0
Continuously unemployed	n.a.	10.5	0.0
Never sought work	n.a.	0	0.0
Totals		100.0	100.0

The rate of Librarianship graduates experiencing continuous or near continuous employment has improved from 74.4% (1888-92), to 87.5% (1993-97), and 90.9% (1998-2002).

The results for Records Management graduates should be treated with some caution due to the low number of participants (n=22), but for the recent survey period all respondents had experienced either continuous or near continuous employment. This accords with anecdotal evidence which indicates the heavy demand for skilled and qualified workers in this area, and also represents a marked improvement over the previous survey period.

Acknowledgement of the professional readiness of graduates was tested by seeking a response regarding the status of their employment. The results are shown in Table 11.

Table 11: Current employment status, 1988-2002, all graduates

Current employment status	1988-1992 %	1993-1997 %	1998-2002 %
Professional/ highly skilled	72.5	72.1	73.8
Para-professional/ skilled	15.9	20.8	21.5
Semi-skilled	8.0	6.4	3.7
Unskilled	3.6	0.7	0.9
Total	100.0	100.0	100.0

Results over the three surveys record a marginal increase in the rate of ‘professional’ and in particular ‘para-professional’ work, with a resulting decline in ‘semi-skilled’ and ‘unskilled’ work. The slight increase in the reporting of para-professional employment may indicate more graduates working in ‘Library Technicians’ positions in the early stages of their career. This may be the result of either employers being more prepared to use professionally qualified applicants in these positions, or an increased willingness by graduates to use these positions in order to

gain experience. It is notable that the increase in para-professional work appears to have come not at the expense of professional work, but rather a decrease in the percentage of respondents reporting they are in ‘semi-skilled’ or ‘unskilled’ work. This data is further examined in Tables 12 and 13.

Table 12: Current employment status, 1988-2002, Librarianship graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Professional/ highly skilled	72.5	70.5	71.1
Para-professional/ skilled	15.9	21.3	22.9
Semi-skilled	8.0	7.3	4.8
Unskilled	3.6	0.8	1.2
Total	100.0	100.0	100.0

Table 13: Current employment status, 1988-2002, Records Management graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Professional/ highly skilled	n.a.	75.0	90.5
Para-professional/ skilled	n.a.	25.0	9.5
Semi-skilled	n.a.	0.0	0.0
Unskilled	n.a.	0.0	0.0
Total		100.0	100.0

The data in Tables 12 and 13 indicate that the growth in ‘para-professional’ work recorded in Table 11 has been derived from the Librarianship graduates rather than the Records Management graduates. The percentage of Librarianship graduates reporting that had ‘professional’ level work has been remarkably consistent across all three surveys, while the ‘para-professional’ category has increased from 15.9% (1988-92) to 22.9% (1998-2002).

Respondents were also asked to indicate if they were employed on a permanent or some more limited-term basis. The first two surveys suggested a lack of support for the anecdotally popular view that the rate of permanent employment had declined in the Australian workforce, with a corresponding increase in the amount of contract or casual work. Indeed a ‘remarkable consistency’ was noted in the figures from the 1988-92 and 1993-97 surveys (Genoni, Exon & Farrelly, 2000, p. 252).

Table 14: Nature of employment contract, all graduates

	1988-1992 %	1993-1997 %	1998-2002 %
Permanent/ tenured	70.9	70.9	82.2
Limited term contract	21.6	23.4	12.1
Casual	7.5	5.7	5.6
Total	100.0	100.0	100.0

The data from the most recent survey, shown with the earlier data in Table 14 suggests that the level of permanent/tenured employment has increased in these five years: up from 70.9% in 1993-97 to 82.2% in 1998-2002, and that limited term contracts have fallen commensurately (from 23.4% of respondents in 1993-97 to 12.1% in 1998-2002). The trend in casual employment remained very similar for the most recent survey periods: 5.7% in 1993-97, and 5.6% in 1998-2002. These results therefore indicate that, despite impressions to the contrary, the resistance to casualisation in the information workforce remains strong.

As a further indicator of post-graduation professional activity, respondents were asked to indicate if they had been engaged in further study. Table 15 lists the results

Table 15: Study undertaken since graduation, all graduates

Study since graduation?	1988-92 %	1993-97 %	1998-2002 %
Yes	28	23.1	25.7
No	72	76.9	74.3
Totals	100	100	100

The result for those who have undertaken further study since graduation is reasonably consistent for all three surveys.

Of the 36 respondents to the 1993-97 survey who indicated they had undertaken further study, 28 provided details. Of these 28, 12 (42.9%) had taken further courses in LIS disciplines. From the 1998-2002 survey, of the 29 who had indicated they had undertaken further study, 25 provided a description of that study. Nine of these had gone on to higher education in information and library studies (8 Masters and 1 honours). Other common choices included further study in management/administration (5) or computing/ multimedia (3). Other choices were apparently unrelated to ILS and included nursing, occupational health and safety and applied linguistics. These choices may in some cases, still be related to an information related career. For example, the graduate who undertook further study in nursing is now working as a 'medical researcher', a career which clearly marries the two streams of his/her academic background.

Discussion and conclusion

The three surveys reported above were conducted against a frequently pessimistic background regarding the outlook for graduates in information professions, particularly librarianship. The findings of these surveys, conducted over a fifteen year period, are however quite encouraging. In so far as they indicate trends, then it is towards an increasing percentage of graduates finding full employment in their post-graduation phase, with increasing expectations of professional work and improved job security. The trends are particularly encouraging for those with records management qualifications, but the indicators are also positive for those with a librarianship qualification.

The Curtin University LIS data offer a parallel comparison with a similar study carried out by the University of New South Wales (Willard et. al., 2003) who report that "while the bulk of their graduate positions were in libraries and information centres ... there were also positions which indicated less mainstream library and information activities" (p. 209). The Willard et al. data also covered studies in LIS, records management and archives.

It is, however, reasonable to sound some caution. As indicated at the outset, although the surveys received an acceptable response rate the data is far from being comprehensive. While the trends are encouraging, each survey collected returns from less than 50% of possible respondents.

It is also the case that, for a complex variety of reasons, Curtin University is now educating and qualifying less library and information studies graduates. For example, the 1988-1992 survey form was sent 419 graduates, all of whom were qualified to practise as librarians. The 1998-2002 survey was sent to 338 graduates of whom 289 were qualified to practise as librarians. In other words, employment outcomes are a reflection of supply as well as demand.

In addition, the wider employment situation has improved in Australia across the course of the three surveys. The period covered by the first survey coincided with an economic recession and high unemployment, which fell from a high of just under 10% in 1982 to approximately 6.5% in 1988, increasing to just over 10% in 1993 (Wilkins, 2004). Unemployment has gradually returned to more historically 'normal' levels over the ensuing decade. In August 2003 it was officially 5.8% (Costello, 2003) and in March 2005 was 5.1% (ABS, 2005).

It is also the case that the figures reported above are indicative of trends in early career employment only. Although it is encouraging that recent graduates are finding more satisfying employment outcomes than was the case in previous years, this does not of course provide a full picture of their career trajectory or expectations.

Despite these reservations there are a reasons to be cautiously optimistic about these figures. They represent a picture of a profession which is experiencing a strong demand for qualified practitioners, and in which graduates have an increasingly strong opportunity to find full employment at a level commensurate with their education.

Concern regarding the ageing workforce has prompted the libraries of the Australian Technology Network (ATN) to prepare for this demographic change (Whitmell & Assoc., 2004). Yet the study reported in this paper has shown that the workforce is already ageing when it enters the LIS programs of study at Curtin University. Some of the recommendations flowing from the Whitmell & Assoc. report include encouraging professional development and higher education amongst existing younger staff, paying more attention to the development of leaders and managers, and recognition of creativity and leadership in existing staff. Interestingly, the report recommends that recruitment into the ATN libraries place less emphasis on "specific skills and positions and more on flexibility, adaptability, leadership potential and learning capacity" (p. 3). Curtin University of Technology LIS teaching, learning and research practices will need to continue to take into account these employment characteristics in the preparation of future graduates.

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