

***SALARY RELATIVITIES***  
***and the***  
***ACADEMIC LABOUR MARKET***

**OVAL RESEARCH CENTRE**

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# CHAPTER 1

## EXECUTIVE SUMMARY

### Background

#### ***Project Background***

This project was funded from the 2001 Higher Education Innovation Programme. In the words of the project brief, it arose from:

*suggestions from the higher education sector that academic salaries have declined in comparison to other groups in Australia and at an international level.*

#### ***Project Objectives***

The project brief identified the scope and purpose of the project as follows:

- identify occupation groups in Australia which are able to be used as valid comparisons for salaries of academics, for example, accountants, public servants, IT professionals;
- identify occupation groups in overseas countries which are able to be used as valid comparators for salaries of academics;
- conduct research into the salaries of Australian academics and of those professional occupation groups in Australia and the countries identified;
- develop a clear picture of academic salaries and how this compares with professional salaries in Australia and internationally;
- analyse salary relativities in the operation of the Australian academic labour market; and
- report on the findings of the research and provide advice to the Department on the outcomes.

#### ***Methodology***

The project team conducted five overlapping research projects to develop data that would enable it to analyse national and international academic salary relativities.

First, a *literature review* was carried out to identify and survey current research on both national and international salary relativities and movements.

Second, a *series of interviews* was conducted with senior management of thirteen universities. Senior management consisted of the Vice Chancellor or Deputy Vice Chancellor and/or senior staff concerned with staffing and human resources.

Third, a *benchmarking of academic and private sector occupations, job descriptions and salary relativities* was conducted by Mercer Human Resource Consulting, a major international human resource firm. This benchmarking procedure was conducted both in Australia and internationally. The

benchmarking process, which developed private and academic salary comparators for the academic and private sectors, was validated in discussions with executive deans from a university chosen from the sample of universities selected for interviews.

Fourth, the project team collected a number of *case studies* dealing with the issues raised in the interviews and salary benchmarking research.

Fifth, the project team analysed *recent Australian university employment advertisements*. This was carried out after the interviews had been completed in order to review and confirm issues raised.

### **General Conclusions**

1. Australian universities are making extensive use of salary loadings and other incentives to attract new academic staff and hold existing staff. The incidence, size and range of these incentives vary substantially from university to university and from discipline to discipline. (Chapter 4)
2. The main reason for the use of these incentives lies in the relative uncompetitiveness of Australian academic salaries with comparable private sector salaries in Australia and some overseas academic salaries. (Chapters 4 and 6)
3. There are two levels of Australian academic positions that are the most difficult to fill: those at the bottom end of the salary range, associate lecturer and those at the top end, professor. (Chapters 4 and 6)
4. The difficulty of filling positions at the lower end represents a possible major problem, as it may reflect the declining attraction of academic careers. (Chapter 4)
5. There is evidence of a major shortfall of academics expected in the English-speaking world over the next decade that could make it even more difficult for Australian universities to recruit staff. (Chapters 3 and 8)

### **Detailed Findings**

#### **Recruitment of academic staff**

- Australian universities recruit their academic staff from four main sources: from their own student bodies, with the students entering the lowest salary bracket under a variety of arrangements; from other Australian universities; from the Australian private and public sectors and from overseas universities or research institutions.
- Some staff are recruited from university research degree programs; however, a number of universities indicated that in certain professional employment markets, university salaries are so uncompetitive that few research students seek university employment.
- Universities reported that staff recruited from both private and public sectors were often offered higher salaries than their academic qualifications and research record would normally entitle them, as a way of matching their non university salaries.
- Research-intensive universities typically employ a number of academics recruited from the international academic labour market. They indicated that Australian academic salaries have become uncompetitive with international salaries and as a result appointments of overseas staff were dependent on the further incentives they could offer.
- There are major differences in the recruitment experiences among academic institutions. While the overall turnover of academic staff in full time positions is low, there are major differences in the

degree of difficulty experienced in filling positions, though all universities have some recruitment problems at the lowest and the highest positions.

- In those universities having significant difficulties in filling positions, salaries were a significant issue.
- The success rate in filling academic vacancies was bolstered in almost all of the universities visited through the payment of loadings to significant numbers of their academic staff. The proportion of staff receiving a salary loading in the universities visited varied between zero and twenty percent. In general these loadings were concentrated in particular faculties.
- These figures for salary loadings disguise the full extent of the lack of competitiveness of current academic salaries. To understand the full extent of this position, allowances would need to be made to quantify the effect of the increasing collapse of the associate lecturer position as a real part of the salary range.
- Universities report overall that they have had no major difficulties in recruiting staff, especially at levels B, C and D.
- The research-intensive universities visited indicated that they see themselves as competing in the international academic labour market and claim that the current levels of Australian academic salaries are uncompetitive.
- When attempting to attract overseas applicants, the universities find that these applicants use their higher overseas salaries and often better working conditions in bargaining with Australian institutions. This experience is matched by those universities wishing to develop a research specialisation who may need to attract high quality staff from overseas.
- Because of its relatively low academic salaries, compared to some key markets, Australia is lessening its ability to recruit quality academics from overseas, except for the occasional Australian wanting to return home.
- In those universities having difficulties in recruiting and retaining staff, most faculties claimed that the higher levels of salaries available in the comparable professional field were causing them difficulties in recruiting staff and, in some cases, in retaining them. These difficulties are leading to academic position and salary bracket creep.

### ***Attracting new entrants to academic ranks***

- There was a view among those interviewed, expressed to varying degrees, that academic life is losing its attractions for potential entrants at the lower levels of academic positions. This is an important issue because this pathway has been an important recruitment source for academics and is vital for the academy to continue to reproduce itself.
- Some respondents claimed to have noted a decline in doctoral applications which reflects a view among many better students that life outside academia is more rewarding and that academic life is no longer highly valued in the community.

### ***Widespread assumptions about the competitiveness of Australian academic salaries***

In discussions with case study participants and with the interviewees, the following assumptions were generally reported.

- Some Australian academic salaries are low when compared to those in the United States, Canada and the United Kingdom.
- Australia is suffering from an academic and research brain drain with at least some of our best staff moving overseas to enjoy the benefits of the better financial rewards in overseas academic or research institutions.
- Australian academic salaries are unattractive when compared to the more financially rewarding positions in the private and even the public sectors in Australia.
- Comparatively poor academic salaries are frustrating the appointment and retention of quality academic staff.
- The declining attraction of an academic career leads to the possibility that the Australian academic labour force will not be able to reproduce itself.

### ***Complexities in analysing the competitiveness of Australian academic salaries internationally***

- There is a widespread assumption in the academy that Australian academic salaries are uncompetitive. The exact picture is less clear and measuring such relativity is complex.
- Australia ranks fifth in the English speaking countries with average salaries (taking purchasing power parities into account). The estimated average salary in the UK is 55% of that in Australia. This data is highly averaged from the total salary expenditure divided by staff numbers unadjusted for FTE staff.
- Commonwealth Higher Education Management Service data (adjusted for purchasing power parities) indicates that salary relativities vary according to the positions being considered.

### ***Comparing academic salaries***

- Unqualified comparisons of academic salaries with those of other sectors are generally unrealistic, given that the teaching and research undertaken by academics makes academic positions different from most related professional positions in the private or public sector. On the other hand there have been major changes in the nature, structure and conditions of academic work leading to some convergence with non-academic employment.
- While differences in staff duties between the sectors may be evident, it does not follow that the academic labour market is not affected by the salaries being paid in related professions in the general labour market. The hierarchy of salaries according to disciplines being paid to some academic deans and other staff in Australia is an obvious reflection of the salary hierarchy in the general labour market.
- As yet Australia does not have the substantial salary differences by discipline paid in the United States and in Canada.

### ***Payment of academic salary loadings by Australian universities***

- While we could find no evidence of widespread differences among disciplines in academic salaries in Australia, the long accepted practice of the payment of a loading to clinical academics is an

acknowledgement that at least for those positions there are special circumstances that justify a loading. What we did find was that the range of disciplines and individual positions for which salary loadings were being paid has spread significantly beyond clinical positions.

- These incentive payments were most noticeable for disciplines in high demand in the general labour market such as information technology and some business areas but were also being paid to individuals across a range of other disciplines. They demonstrated that universities had to be prepared to offer salaries and other benefits beyond the “normal” if they were to succeed in attracting and retaining appropriately qualified staff.

### ***Payment of other benefits to academic staff***

- Despite suggestions that Australian universities are highly conservative in their human resource policies and practices, the evidence gathered in the project revealed a very wide range of incentives being used to attract new staff.

### ***Evidence of the lack of competitiveness of Australian academic salaries***

- Analysing the private sector salary data provided by Mercer (the international recruitment firm that provided this data) reveals that Australian academic salaries are generally lower than salaries for comparable positions in the private sector. This is true across all of the job families and levels compared but is most obvious in information technology.
- There are other indicators of the comparatively low rewards for academic work. The evidence from average weekly earning data reveals that there has been a significant decline in relativity when the movement in academic salaries is compared with that in average weekly earnings.
- Data about some key benchmarked positions provides further evidence of a relative decline in academic salaries.
- International comparisons of academic salaries reveal that Australian salaries, though well placed on international league tables when purchasing power parity (PPP) is taken into account, are not competitive with those in the main English speaking countries.

### **Areas for further research**

The project identified a number of areas that were considered worthwhile for further research. These include: the lack of attraction of academic careers, academic recruitment, performance pay, movement of academic staff in and out of Australia, the projected labour market for academics in Australia for the coming decade and academic salary scales and structures.

## CHAPTER 2

### INTRODUCTION

#### Project Background

This project was funded from the 2001 Higher Education Innovation Programme. In the words of the project brief, it arose from:

*suggestions from the higher education sector that academic salaries have declined in comparison to other groups in Australia and at an international level. There is a lack of empirical evidence to support the claim that academic salaries are lower than those paid to occupation groups in Australia and overseas. DETYA seeks to gather data on the market for academics in Australia, to gauge the extent to which salaries paid in Australia are competitive with those of identified occupational groups in Australia and overseas.*

#### Project Objectives

The project brief identified the scope and purpose of the project as follows:

- identify occupation groups in Australia which are able to be used as valid comparisons for salaries of academics (for example, accountants, public servants, IT professionals);
- identify occupation groups in overseas countries which are able to be used as valid comparators for salaries of academics;
- conduct research into the salaries of Australian academics and of those professional occupation groups in Australia and the countries identified;
- develop a clear picture of academic salaries and how this compares with professional salaries in Australia and internationally;
- analyse salary relativities in the operation of the Australian academic labour market; and
- report on the findings of the research and provide advice to the Department on the outcomes.

#### Project Team

The project team put together to undertake the research was Mike Horsley, Gayle Martin and Greg Woodburne with research assistance provided by Jo-Anne Bathurst and administrative services provided by the Oval Research Centre of the University of Technology Sydney. The project was initiated by Dr Gregor Ramsey and supported by Professor Andrew Gonczi, Dean of the Faculty of Education of the University of Technology Sydney. Maree Joulain prepared the final document.

## **Acknowledgements**

The team wishes to acknowledge its appreciation for the support and advice it received from the Steering Committee and from the staff of the Higher Education Group of the Department of Education, Science and Training.

The project was made possible only because of the cooperation of the universities contacted and their staff. The information gained from these contacts provided the indispensable flesh for the data collected as well as significant insights into the actual operations of the academic labour market in Australia.

## **Methodology**

The project brief envisaged that the team would be able to analyse existing data from recruitment firms and from official statistics.

While this was substantially the way in which the project proceeded, it had to be supplemented by an extensive literature search, interviews, benchmarking, case studies and validations.

## **Data for Valid Comparisons**

A key issue for the project was the gathering of reliable data on relevant private sector salaries and job descriptions and the comparison of this data with academic salaries. These in turn had to be placed within the context and operation of the academic labour market in Australia.

Even with this data, valid comparisons were difficult because the information publicly available on university salaries covers only the nominal pay rates established under the enterprise agreements and not the actual wages being paid to academics by each university; whereas, the salary information on private sector salaries revealed actual wages paid.

Information on loadings paid to academics shows the effects of the private labour market most readily. It was found that the academic area that was most likely to be receiving loadings was information technology, the area where in recent times there had been major pressures on salaries in the private sector market.

While comparing the salaries being paid was the prime task of the project, the salaries alone do not give a complete picture of the benefits available in a position. For example, on the one hand, academics enjoy the right of private practice, by which they are able to devote a part of their time to paid external work, a rare arrangement for salaried employees in the private sector; on the other hand, many private sector employees receive significant regular bonus payments in cash or in kind, an equally rare arrangement in academic institutions.

To address these issues and other data problems, the approach taken in this research has been to examine the academic labour market from a variety of perspectives and generate overlapping (and new) data. We have also chosen to draw from overseas examples to illuminate some of these issues; for example, the breadth and complexity of the academic labour market is seen most clearly in the United States, where the data available from the benchmarking of academic salaries demonstrates the wide range of salaries being offered even among institutions with similar sized budgets and similar profiles.

## **Limitations of this Study and Implications for Future Research**

Despite our efforts, we found that there is a wealth of material yet to be explored before more complete understanding of the ways in which the academic labour market operates in Australia may be obtained.

One task of the project then would be to identify these gaps so that further research could be completed to clarify the situation.

### ***Final Scope of the Project***

To provide some perspective on each of the issues raised above and on the academic labour market in general, we explored in the course of the study some more peripheral matters; however, determining what are valid comparisons and what the results of any such comparisons mean, remain key problems in any study of this kind.

The project team conducted five overlapping research projects to develop data that would enable it to analyse national and international academic salary relativities.

Initially a literature review was undertaken to identify and survey current research on both national and international salary relativities and movements.

Then a series of interviews was conducted with senior management of eleven universities. Senior management consisted generally of the Vice Chancellor or Deputy Vice Chancellor and/or management staff of the university concerned with human resources.

The third research project undertaken by the research team consisted of a benchmarking of academic and private sector occupations, job descriptions and salary relativities using data gathered by Mercer Human Resource Consulting, an international human resource firm. This benchmarking procedure was conducted both in Australia and internationally. The benchmarking process, which developed private and academic salary comparators for the academic and private sectors, was validated in discussions with executive deans from a university from the sample of universities selected for interviews.

Then the project team collected a number of case studies dealing with the issues raised in the interviews and salary benchmarking research.

Finally, the project team analysed recent Australian university employment advertisements. This was carried out after the interviews had been completed to review and confirm issues raised in the interviews.

These research methodologies are described below in greater detail.

## **Literature Review**

An extensive literature search was conducted covering, the issues of academic salaries, academic salaries comparisons, changes in the nature of academic work, job satisfaction of academics and international academic labour mobility. This was supplemented by a review of the submissions to the Higher Education at the Crossroads Review and material from the recent academic salaries review in the United Kingdom.

## **Comparative Salary Data**

The project team engaged a specialist body, Mercer Human Resource Consulting, to gather data on current private sector salaries for a selection of professions in Australia, Canada, the United Kingdom and the United States. These salaries were compared with academic salaries in their respective countries. These data were collected along with the job descriptions of the positions nominated. (Chapter 6) Salary ranges were further analysed using data from recent academic position advertisements. (Chapter 7)

It was not possible for Mercer to gather comprehensive private sector data for the United Kingdom, though some data on comparative salaries in the private and public sectors was available.

As part of the Mercer material, access was gained to the salary benchmarking data on academic management positions gathered by the College and University Professional Association for Human

Resources in the United States, which for the year 2001-02 was drawn from some 1444 higher education institutions.

Deans at one of the sample Australian universities used in the project were asked to validate the job descriptions used in the salary benchmarking conducted by Mercer to validate job descriptions and to lend face validity to the salary comparisons made.

## **Visits to Universities**

With the endorsement of the Steering Committee, the project team arranged visits to eleven universities representative of the range of universities across Australia.

The visits commenced on 22 July 2002, with the final visit being completed on 14 October that year. The visits revealed substantial differences among the universities in the labour markets in which they operate and their degree of difficulty in filling positions, retaining staff and the extent to which they offer supplementary loadings and other inducements in order to fill vacancies.

## **Case Studies**

Case study descriptions were gathered in two ways: through interviews with individuals who came to the attention of the project team during the study; and from public documents.

## **Development of Methodologies**

The majority of studies on academic salary relativities have been of a quantitative (econometric) nature. Normally such studies are valid and reliable when investigating closely defined and specified phenomena, especially where relationships can be examined and established empirically.

In approaching the analysis of academic salary relativities, the project team developed a mixed method approach in selecting and using a range of research methodologies. Mixed method analysis combines both qualitative and quantitative approaches in collecting and analysing data on a single research problem. The project team selected this approach for five reasons: triangulation; complementarity; initiation; development and expansion.

Triangulation refers to the way that the study has been designed to collect and analyse data from different sources and perspectives. It gives validity and reliability by collecting different evidence and data for further examination of central hypotheses. Triangulation then improves the robustness of conclusions when investigating group phenomena within real life contexts.

The exploratory interviews with senior university staff administrators about key human resource management practices were supported and enhanced by the analysis of job descriptions and comparisons with private sector positions. As well, some of the issues raised in the interviews were further investigated through analysis of job and position advertisements undertaken by those universities. Validation interviews with deans also collected data on the efficacy of the Mercer research and its meaning in the context of academic salary relativities, in specific faculties.

Mixed method analysis also allows for expansion, as triangulated data add breadth and scope to the data generated, the analysis undertaken and the conclusions reached about the research problems of academic salary relativities. As the study was limited in its duration, the project team decided a multi-method approach would not only increase the breadth of the study, but also generate data for analysis in the future.

The initial interviews with university management provided valuable information to design and validate the academic salary private sector salary benchmarking. As a result, data gained from one methodology informed the development of the others. This allowed the study to increase its validity, as patterns found

to be consistent from the results of one methodology were confirmed by the results of others, leading to one of the advantages of mixed method studies, multiple replication. In this way, the difficulties of recruitment at Level E and Level A were subject to further analysis, through the data gathered by the academic salary private sector benchmarking research. The characteristics of Level A and Level E recruitment were also confirmed by both the case studies and the analysis of job advertisements from selected universities.

Complementarity refers to the way that a number of research methodologies can examine overlapping or different facets of the same phenomenon. The project team undertook the validation of job descriptions through discussions with executive deans from a selected university, to confirm the strength of the academic and private sector salary benchmarks developed through the Mercer analysis. As well, the validation process also considered the validity and reliability of the case studies recorded by the project team.

Mixed method multi-methodology research is vital in reflecting the underlying complexity of investigating social behaviour in naturalistic settings. It is highly likely to reveal paradoxes and contradictions, and so generate fresh perspectives. A key feature of the mixed methodology used was its ability to allow the project team to identify a number of significant issues for further research.

## CHAPTER 3

# SIGNIFICANT TRENDS AND ISSUES IN ACADEMIC WORK

### The Academic Labour Market

This project was born out of the question “Are Australian academic salaries uncompetitive?” Before answering this question, the first issue to be addressed is the nature of the academic labour market. The following analysis refers to the largest and most complex of academic labour markets, that of the United States of America.

*The academic labor market is not encompassing and can be subdivided according to the characteristics of buyers (i.e., type of institution - from community colleges to internationally renowned research universities) and of sellers (e.g., academic disciplines). There is no academic profession; there are geographers and geologists, chemists and physicists. The academic labor market cannot properly be characterised as an occupational, industrial, or geographical labor market; it is much too segmented and there is too little substitutability.*

*Donald Light goes as far as to contend that the academic profession “does not exist”, that the academic man (or woman) “is a myth”. His argument is that while scholarship and science, which serve to advance knowledge, have the basic attributes of a profession, such as the power to recruit and train new members and the right to certify who is ultimately qualified, the activities of setting standards center on each discipline.*

*What exists, Light claims, are academic professions, one for each discipline: “Each discipline has its own history, its own intellectual style, a distinct sense of timing, different preferences for articles and books, and different career lines which shift as segments of the profession alter”. Furthermore, the concept of a single academic profession ignores some in the scholarly and scientific profession who do not work in institutions of higher learning and the bonds they may have with some who do. Light’s position is quite persuasive.*

Lewis, 1996, p.23

With such a variety of labour markets operating one would expect regular movements of academic staff and shortages of particular kinds, especially in periods of strong economic growth; but what evidence is there of recent serious shortages in the academic labour market worldwide?

*The Bett report in 1999 said that there were particular difficulties in recruiting and retaining academic staff in business subjects, information technology, electronic engineering, accountancy, law and some rarer specialisms. There were also problems in the retention of staff on fixed-term contracts. There were likely to be problems in departments of physics, chemistry, mathematics and engineering due to the age profile of academic staff, with up to one third of staff approaching retirement age in the next five years. In addition, there were recruitment and retention problems related to administrative staff in finance and IT. In general, the report concluded: “We are worried that these indications may be the harbingers of much more serious recruitment and retention problems to come in the HE sector.”*

*A survey of deans of science in UK universities in 2000 found that 79 per cent of the deans thought that the recruitment of postdoctoral research assistants had become harder. The vast majority of institutions believed it to be increasingly difficult to appoint good researchers at all levels (lecturers, postdoctoral and postgraduate students), and most institutions had left posts unfilled because of a lack of high-calibre candidates.*

*Other recent studies of recruitment and retention have highlighted particular areas of concern, such as the survey for the EPSRC on attracting sufficient high calibre British students to do PhDs, the analysis of the low take-up of PhD studentships in economics, and the analysis of the study intentions of undergraduates – which reported “pressure points in economics and business studies, mathematics/IT, engineering, physics and the biological and environmental sciences.”*

*The British Academy’s Review of Graduate Studies in the Humanities and Social Sciences, published in September 2001, reported a majority of heads of department saying there were currently problems attracting good quality UK PhD students. On recruiting academic staff, the report said “There are signs that some subjects are experiencing major difficulties in the recruitment of academic staff. These include Business Studies, Economics, Psychology, Law and Education.”*

Academic Staff Sub-Committee Trade Union Side, 2002, Pay Claim, pp.2-3

The issue of staffing shortages and in particular the potential problem of an ageing academic work force is not confined to the United Kingdom. In their recent study of changes in academic work, Anderson, Johnson and Saha examined the aging of academic staff in Australian institutions.

The project brief for their study pointed out that “Just under 30 per cent of academics are 50 to 59 years old and many can be expected to retire over the next ten years”.

*The global statistic in the project brief disguises considerable variation between fields of study, between universities, between males and females and between individuals.*

*This does not suggest to the authors that the ageing of academic staff is in itself and everywhere a problem; nor do the senior university personnel to whom we have spoken suggest that it is. Rather, it appears that there are particular problems in one area or another, which different universities are addressing in their own ways. There is also a problem when staff leaving are not replaced, or are replaced only by casuals.*

Anderson et al, 2002, pp.109-110

In this salaries project, our interviews, discussions and analysis of job advertisements, produced clear evidence that currently there is not a widespread shortage of suitable applicants for academic positions in Australia.

There was ample evidence, however that some institutions were able to recruit suitable staff only by offering significant inducements above what they would have seen as being appropriate and that these inducements are being offered more widely than is generally understood.

These inducements are not only being paid to attract staff, they are also being paid to retain staff who are being offered extra salary and/or support by other local universities.

Looking ahead, we are not in a position to predict the extent to which retirements combined with increasing student numbers will change the current position on the demand for academics in Australia.

A recent straw in the wind is that the Canadian Government has relaxed its constraints on non-Canadian academics being employed in Canadian universities.

The reason for this policy change by the Canadian Government is perhaps explained in a recent report on the next decade for Canadian universities released by the Association of Universities and Colleges of Canada.

In its 15 October 2002 press release, the Association said:

*- It's going to be a decade of enormous challenges for Canada's universities, according to a major new report released today by the Association of Universities and Colleges of Canada.*

*Entitled Trends in Higher Education, the 94-page report notes that, by 2011, universities will face a projected 20 to 30 percent increase in enrolment, or up to 200,000 new students. They also will need to hire as many as 40,000 new faculty members to respond to enrolment growth and to replace retiring professors. At the same time, universities will be expected to perform significantly more research if Canada is to reach the federal government's objective of being one of the top five countries in the world for research and development.*

The very large increase in demand for academics over the next decade, raised as a significant issue in Britain and Canada, may affect the supply of academics in Australia, as may the declining attractiveness of an academic career, the anticipated growth in student numbers and the growth in retirements among Australian academics.

## **Conceptualising Global Academic Labour Mobility and the Brain Drain**

Conceptualisations of the global labour academic market are contested as they are derived from varied perspectives of globalisation, of labour markets and views about the general nature of academic work.

For sociologists, explanations of the academic labour market are focused on the labour process and its location in workplaces and the workforce. In this view, academics are knowledge workers and the social processes operating in their labour market reflect the 'centre – periphery' model of the production of international scientific knowledge.

In a study of the life histories of 18 leading scientists in Australia, Connell and Wood (2001) argued that the issue of how to reproduce the scientific and professional workforce is a major concern for a country like Australia, at the periphery rather than the metropole of world science.

This view of the global academic labour market in the sciences sees the development of relationships, links and networks explaining the movement of scientists at different stages of their careers. It is the development of these relationships and networks that partly determines mobility in the global academic labour market, rather than salaries and salary differentials. Even though these differentials may be large between metropolitan and peripheral scientific institutions, and there are highly unequal structures in global academic remuneration, there are other forces at work in academic mobility.

Connell and Wood conclude that the current agendas of privatisation and commercialisation may exacerbate difficulties with the current 'centre – periphery' pattern and lead to the inability of Australia to reproduce its scientific workforce, a key determinant of economic success in the globalising world economy.

For economists, academic labour markets like any market will reflect the results of the process of supply and demand. Conceptualisation of the market will reflect economic analyses. Labour markets can be defined as broad, such as international, national, regional or state, where academic labour is bought or sold, or narrow, where the labour market is a segment consisting of buyers and sellers that have fairly clear and common information about the economic signals in the segment. This second runs parallel to the broader markets, and is little affected by them.

Cohesive markets, where information flows between the buyers and sellers, are reflected in the mobility of workers, which in turn determines the extent to which trends and conditions are likely to be similar for that specific labour market. A cohesive labour market for physicists could include the Australian physicists' labour market and the international physicists' labour market. In both markets there would be shared information and common understandings about labour market conditions for supply and demand for physicists almost to the level of who is available and who should be pursued.

For economists, making labour markets more efficient requires improvements in information flows so that the price signals in the market reflect the underlying conditions of supply and demand. In this view academic labour mobility reflects the price signals established by salary differentials. This contrasts with the sociological view that academic labour mobility, especially in Australia, may more importantly reflect career development and the operation of the centre- periphery processes involved in the production of both science and scientists. Of course, salary attraction may be a surrogate for career development.

For researchers of globalisation, the global academic labour market reflects the forces of internationalisation and globalisation that are reshaping the world economy and culture. Like other markets the academic global labour market is undergoing a reorganisation as individual and national markets respond to an emerging global culture that is reworking the nexus between local, national and global markets.

The flight of international academic labour to the United States has created considerable research interest in the concept of brain drain. Such research argues that highly skilled migrants represent an increasingly large component of global migration streams – and that a brain drain of academic labour imperils the economic growth of the 'drained' nation.

Explanations of global academic labour mobility from globalisation research emphasise political, social and cultural factors. From a globalisation perspective, brain drain is a serious concern for national governments interested in maintaining their scientific work force and infrastructure. From a globalisation viewpoint, academic salary differentials reflect a reshaping of the global academic markets as the processes of internationalisation and globalisation create a new international hierarchy of labour relations.

Australia is not immune from this international brain drain; nor should it be, since recent successive governments have seen Australia's future as being best served by the global market. The general failure of Australian business to invest in research and development and higher education institutions may be seen as imperilling Australia's economic future. This is less of an issue in a global market; you look elsewhere for the skills you need when you need them.

There is a perception by academics that widening academic salary differentials, especially between Australia and the United States of America, can be seen both as a measure of the global decline of our higher education and as a metric for Australia's global economic decline – bypassed by global forces in the structures of an ever more globalising capitalism. Since few Australian academics respond to international academic salary differentials in their areas of specialisation, and the universities only marginally so, perceived widening salary differentials are viewed by Australian academics as a metric for academic decay.

A factor in the brain drain of academics lies in the issue of the comparative global prestige of institutions. Clearly it is not just the salary that attracts academics to move to another institution, it is also the prestige of that institution in a general sense and that of the group with which they will work in a specific sense. A declining higher education system cannot continue to attract top flight academics, either from the home country or elsewhere.

This influence of institutional prestige is seen at its most obvious in the operation of the largest national academic labour market in the world, that of the United States of America:

*When hiring faculty, institutions commonly go to great lengths in their efforts to enhance, or at least, not to suffer a loss of prestige. As a rule, an institution will recruit from other institutions with a similar prestige ranking. As a consequence, for most individuals the academic labor market extends no further*

*than institutions similar to those where they are located or from where they earned their Ph.D. Those with prestigious sponsors have an advantage over those with less prestigious sponsors. Because prestige is intruded in this way in the academic labor market, employers are not interchangeable, and faculty who might appear to be so, that is, those with essentially the same skills, are also not interchangeable.*

Lewis, 1996, p.20

The recent attempts by some Australian universities to make themselves world class and so more clearly differentiate themselves from the other Australian institutions seems to indicate that these institutions recognise the need to compete in the global marketplace. These attempts are not without their critics:

*The crossroads paper comments 'there have been a number of recent calls for Australia to aim to have one or two "world-class" universities. On the face of it, the important criterion here seems to be the possession of a high-quality university system, rather than the existence of a 'world-class' university, whatever that is.*

Aitkin, 2002, p.1

If the Australian university "system" becomes stratified with a clear institutional league table, it would seem that an inevitable consequence of this would be much greater differences in the relativities among university academic salaries to reflect these standings. This is the situation in the North American academic labour market. A 'top' university is proud of the higher salaries it can offer; low salary relativities are the ones that remain hidden.

## **The Australian Academic Labour Market**

To the outside observer, there may seem to be only one national labour market for Australian academics. The information gathered, however, in the interviews with university administrations demonstrates that there are significant differences among Australian universities in the degree of difficulty they have in attracting and retaining academic staff. This results in differences in the salaries and benefits they pay to individual academics. This is consistent with the proposition that Australian universities are operating in more than one academic labour market and reflects the differences in the degree of difficulty in filling similar positions at different institutions.

There is currently no publicly available Australian data on individual actual academic salaries being paid, except in those cases where there is a requirement to reveal executive salaries. What we do know from our interviews and from our analysis of job advertisements is that the payments of loadings and other benefits offered by overseas universities is widespread as universities respond to the realities of their labour markets.

Given that there have been continuing claims by academics and others that academic salaries in Australia are uncompetitive with private sector salaries and overseas academic salaries, it would be very surprising if universities were not paying salary loadings and/or giving other benefits to individual academics or even groups of academics.

The precise extent to which the Australian universities have been able to avoid academic staff shortages by their negotiations with individual academics over salary and other benefits is not known. A reasonable assumption though is that those staff in receipt of loadings or other special benefits are receiving them only because the university would not have been able to attract them without such payments or benefits. In addition, we know from our interviews that in individual cases universities were not able to appoint their preferred candidate because they could not match salaries and other benefits.

## **Controlling Academic Wage Costs**

Universities worldwide in recent times have changed in many ways. The most important change has been their success in implementing policies aimed at achieving mass higher education. This policy change has not occurred in a vacuum: it has reflected the rapidly developing need for a more highly qualified labour force in a world where the ability to compete depends more and more on innovation and higher and more widespread skills in the work force.

Universities have changed not only by enrolling more and more students in ever widening fields of study but also in the ways they define their missions and manage their operations.

In acknowledging these changes, we must be aware that the way universities now tend to operate parallels similar changes taking place in the private and public sectors of the economy.

Employees in both the private and public sectors have become accustomed to rightsizing, downsizing, performance measurement and calls for productivity improvements in the context of ever tightening budgets. Their work environments have been transformed and many of them have ongoing concerns about their careers.

The traditional management of universities enabled university teachers and students to enjoy academic freedom and to research, teach and learn freely; in a context of collegiate decision-making, the appointment and evaluation of academics by their peers, and the guarantee of job security.

It is little wonder, given the upheavals in the world of work outside universities that among even the more sophisticated members of the public there is not much sympathy with the claims of academics that they are underpaid:

*On the face of it the plight of academics ought not to command much sympathy. They enjoy long holidays, and spend a lot of time thinking about their favourite recondite subject, subsidised (if stingily) by the taxpayer. The most glamorous or marketable of them can boost their earnings with consultancy or media work. These attractions have helped to compensate for the poor pay.*

*The Economist, 18/05/02*

The adoption of mass higher education has occurred at a time when there have been moves worldwide by governments to reduce funding for public sector activities, including education, and to turn to the private sector for the provision of services that were traditionally seen as the responsibility of government.

The impact on staffing and teaching of the drive by universities to cut wage costs is the aspect of these changes that causes most concern.

Universities have responded to the pressure on their budgets by attempting to contain academic wage costs, as they are the major part of their overall expenditure.

### **Casualisation of the academic labour force**

The conjunction of the new expansion and management policies has left universities faced with the difficult task of balancing constrained budgets while producing more graduates and maintaining the quality of their teaching and research.

A common approach taken in managing the budgetary side of this dilemma is to reduce the total cost of academic staffing by changing the mix of permanent, casual, part-time and sessional staff.

While this widespread increase in fixed term and part-time contracts for academics can be seen as a necessary response to budgetary pressures, the consequent decline in long term job security for many academics represents a major change in what has been previously a normal condition of employment.

The widespread increase in the proportion of part-time positions and fixed term contracts and the consequent decline in tenured positions have an impact beyond the security of current academic staff as the limiting of tenure significantly reduces the attractiveness of an academic career.

*The European experiences show that the academic career is surrounded with many uncertainties. Because of the limited chances of pursuing a career in academe, many universities have difficulty in attracting PhD students. Recruitment and retention of academic staff is increasingly problematic, making staffing a priority area. Poor academic pay is undoubtedly a factor behind the drain of young brains to the private sector. There is an increasing awareness, however, that the problem cannot be fixed simply by creating more positions and increasing salaries. The fundamental problem in Europe is the loss of appeal of the faculty job.*

Huisman et al, 2002 p.158

### **Increasing academic work loads**

A further widespread method of coping with increased student numbers without a corresponding increase in expenditure is to let student numbers grow without there being a corresponding increase in academic staff numbers.

While the actual increases in work loads that have resulted are important, what is also important are the perceptions of staff about their work loads and about the adequacy of their rewards.

In his 1999 study of *The Work Roles of Academics in Australian Universities*, McInnis concluded from the responses of 2609 academics from 15 universities that:

*The average working hours have increased since 1993 from 47.7 to 49.2 hours per week, but perhaps more importantly, 55 per cent of the sample believed their hours had **substantially** increased over the past five years.*

McInnes, 1999, p.xiii

In addition, he found that

*The level of general job satisfaction has dropped from 67 to 51 per cent, and there has been significant increase in the proportion who say their job is a source of considerable stress (from 52 per cent to 56 per cent).*

*The low overall level of job satisfaction is reflected in the low levels of satisfaction with salary and key work conditions. Satisfaction with salary has declined from a low base of 37 per cent in 1993 to just 31 per cent in 1999. Likewise, and perhaps more noteworthy, is the significant drop in satisfaction with job security from 52 per cent in 1993 to 43 per cent*

McInnes, 1999, p.xiii

From the information readily available it appears that a pattern has emerged in universities in which academic staff perceive that their working conditions and their career prospects have deteriorated while their salaries have stagnated or remain uncompetitive with those in the world of work outside universities.

### **Supplementing Academic Incomes**

In many cases the university salaries earned by academic staff (for their contracted activities) are supplemented by other income.

The opportunity for academics to engage in private work is an accepted part of academic working conditions in Australia. It may be expressed as the right to spend the equivalent of one day a week in private work or it may be expressed through limits being placed on the amount of money an individual may earn outside their university salary.

Apart from the need of academics to supplement their incomes, private practice provides a way for academics to keep abreast of current developments and practice in their fields of expertise. Private practice is also a way for the academic community to offer significant community service, by making its expertise more available to the public.

It was not possible in the course of this study to explore the effect on academics' acceptance of their university salaries of the level of their private earnings. The team nevertheless gained the impression from our interviews of university staff that for many academics their extra earnings were considered a regular part of their annual income.

### ***Financial rewards for academic staff performance in universities***

One way of maintaining staff morale in an environment of low salaries is to provide rewards for good performance.

Merit pay has been the subject of considerable research – to identify those human resource conditions under which merit and performance based pay systems will be effective. In Australia until 1993, the operation of a national higher education award system provided uniform remuneration across institutions. Since the introduction of enterprise bargaining, dispersion of salaries across institutions has proceeded and loadings and remuneration have led to the emergence of merit and performance based pay.

As this dispersion proceeds, universities in terms of their ability to raise extra income, in terms of their research output, their ability to measure performance, and their workplace culture, will develop significant differences in the remuneration and compensation they provide for their academic staff.

Grant (1998) conducted research on merit and performance based pay in Canadian Universities. In an analysis echoing the developments in Australian higher education he described the forces leading to the introduction of merit and performance based pay:

*Fiscal retrenchment by federal and provincial governments has placed pressure on Canadian universities to create a more market-driven system of higher education. Declining operating grants and greater reliance on tuition fees has meant recruitment and marketing campaigns in the search for enrolments; academic and non-academic programs are now the subject of intense scrutiny for their "cost effectiveness"; and joint-ventures with private partners receive enhanced priority in research funding. This trend is also apparent in the market for academic labour: Terms such as reengineering, outsourcing, downsizing and rightsizing, organisational flattening, and broadening are not unfamiliar to university administrators seeking greater flexibility in academic salary determination and greater faculty account-ability.*

Grant, 1998, p.1

Basic to the development of merit and performance remuneration is the attempt to link individual academic salaries to faculty and academic productivity. The main thrust of such remuneration systems is that past performance is rewarded so as to motivate future performance. Economists such as Lazear and Rosen (1981) have even described merit pay as a "rank-order tournament". Since the whole academic process for students is a 'rank-order tournament' its application to academic staff seems only fair; however, in this tournament academics actually compete for salary "prizes" on the basis of relative, rather than absolute, performance. This relativity is an important aspect of performance pay, because academic work, even research, and indeed much professional work outside the academy requires considerable cooperation and collegiality.

Grant in his research explored the impact of merit pay schemes.

He concluded that:

*As universities face greater restrictions in public funding, and administrators seek greater discretion over salary determination, departures from traditional seniority-based compensation systems can be anticipated. Merit pay schemes, however, offer no panacea. While the principle of performance-based pay receives some support, implementation of merit plans has proved more intractable. Their appropriateness will depend on the capacity to structure a system of monitoring and rewarding faculty output that is inexpensive, perceived by faculty to be "fair," and compatible with the institution's objectives and workplace culture.*

Grant, 1998, p.17

Grant's main conclusions have been confirmed by other research (Hansen 1988, Heneman 1992, and Sutton and Bergerson 2001).

Universities have attacked their cost pressures also by seeking additional income. One aspect of this approach has been the very substantial increase in activities for which the universities can charge substantial amounts of money. Typically these activities require the use of academic staff who are often paid amounts additional to their base salaries for their participation.

### ***The increase in commercial activities in universities and its impact on academic staff***

In addition to reducing costs in response to their budgetary pressures, universities have moved to supplement their incomes from governments by raising funds from other sources. As Australia does not have a history of major private philanthropy, Australian universities have found that the most ready source of additional income has been the overseas market for full fee paying students and development projects. To a more limited extent, there has been growth in local fee for service activities, including the offering of some full fee paying places in mainstream courses.

It is claimed that participation in these new activities has for many academics changed the nature of their work. Many now see themselves cast in entrepreneurial roles or at least pressured to act in this way. These new tasks moreover may in some cases be reflected as part of their standard load, that is, part of a normal academic workload. For other academics, such work may be seen as additional to the "normal negotiated workload" and is therefore rewarded with additional remuneration.

With the increased presence and success of the commercial arms of the universities, many academics are being contracted by these bodies to work under their auspices as individuals and not as members of the university staff.

The participation of academic staff in commercial activities varies from faculty to faculty. In those with a strong market for their services and expertise there are not only opportunities for individuals but also for the faculty itself with a proportion of the additional funds it attracts put to faculty use. With tight budgets, more commercial faculties can afford a variety of extras, even salary loadings, while their less commercial colleagues are left to battle.

While the increase in commercial activities in universities has been welcomed as a challenge by some, others see it a distraction from the main academic task.

## CHAPTER 4

# INTERVIEWS: SALARIES, RECRUITMENT AND RELATIVITIES

The project team conducted five research projects to develop the data to analyse national and international employment trends in salary relativities. This chapter discusses the responses of universities to a series of structured questions about the employment of academic staff relating to salaries, recruitment and salary relativities.

### Development of Questions

The questions for the interviews were developed as a result of the literature review and its evaluation. The questions were designed to elicit a wide range of human resource, staffing and salary information pertinent to the context of academic employment in universities, as well as more narrow salary relativity data. National and international salary relativity information could be understood only in this wider human resource context.

The questions were endorsed by the project steering committee, which included a vice chancellor. A pilot interview was conducted (with the vice chancellor of a non-sample university) to evaluate and refine the questions. The pilot interview also allowed the project team to evaluate and plan the interview process. Approximately one month prior to the first interview the questions were sent to the vice chancellors of the twelve universities selected for the interview sample.

Although it was expected that the questions would be used as the basis of a wide-ranging discussion about academia, staffing and salary issues, three universities prepared written responses to the original questions. In each interview the questions served as triggers for discussion about the academic staffing and salary situations within the universities. As a result, this research also reports on a range of academic staffing matters not included in the specific questions originally suggested to the universities.

The questions are set out in the following panel:

### RESEARCH: SALARIES RECRUITMENT AND RELATIVITIES

#### QUESTIONS FOR VICE CHANCELLORS

1. What proportion of academic staff at your university is being paid the standard rates from the EBA? Is this proportion increasing or decreasing?
2. How difficult is it for the university to fill its academic vacancies? Are these difficulties increasing? Which fields are the most difficult?
3. What have been the main strategies put in place to overcome these problems?
4. To what extent do you think you are competing in the professional field itself? What impact do salary levels in compatible professional fields have on your recruitment, retention and maintenance strategies?
5. How do you determine when the levels of salary or the conditions of service in the EBA

	should be varied or exceeded?
6.	To what extent do you offer competitive remuneration packages to attract academic staff? In your university, what are the most common kinds of incentives being paid/given to academic staff above standard rates?
7.	What proportion of academic staff at your university is being paid a loading? Are the loadings concentrated in particular faculties? Are the loadings based on market value or merit?
8.	To what extent if any has the university lost staff to overseas or other Australian universities because it could not match the salaries/packages offered?
9.	What information do you have on the kinds and levels of “incentives” being paid to special groups or individuals by the other Australian universities?
10.	To what extent do the employers of professionals in enterprises outside the university attract university staff from the various teaching and research fields?

## The Interview Process

Interviews were typically of two hours duration. In two instances interviews were only of one hour duration and in one instance the interview lasted three hours. Interviews typically included two members of the project team. In three instances, three members of the project team were present at the interview and in one instance only one member of the project team was present. In the other seven instances two members of the project team were present.

A range of university staff attended the interviews. All interviews were attended by the vice chancellor (5) or deputy vice chancellor (6) or the senior human resource management staff member (9) and or senior staff responsible for staffing, human resources or staffing negotiations. In most cases the senior staff present at the interview were also responsible for the university’s Enterprise Bargaining (EBA) negotiations. In one instance the vice chancellor was interviewed alone.

During each interview, notes were made by one of the project team of the discussions and conversations. These notes later formed the basis of the report. As well, all interviews (except one) were taped and used for later analysis and to confirm details contained in the notes made during the interview. After each interview the project team discussed the content of the notes to confirm the accuracy and reliability of the notes made. This chapter on university responses to the questions includes direct quotes and comments made by the interviewees – these are indicated in indented italics.

### ***The University Response Sample***

A sample of thirteen universities was selected for analysis after consultation with the Steering Committee. The selection criteria for this sample were designed to capture the variation and characteristics of institutions in the entire public university sector. These criteria for inclusion in the sample are set out in Table 4.1. Prior to the interviews one university withdrew and another chose a written reply without an interview.

**Table 4.1 Criteria for Sample Selection**

<i>Criteria for Representation of Universities in Sample</i>	
Go8	4
Regional	2
Metropolitan	9
Technology	3
States and Territories	8

The sample size represents one third of the total number of Australian universities. No private universities were included. Most universities are now multi-campus. (Prior to the interviews, one university withdrew from the sample.)

## Findings

### **Question 1 Payment of EBA rates**

Overall, most university academic staff within institutions are covered by the university's EBA with its staff association. Senior management staff, such as the vice chancellor, deputy and pro vice chancellors are not covered by the EBA. In some institutions, other senior staff such as executive deans, who have line, staff and financial responsibilities and accountability are also not covered by EBAs but have their employment terms and conditions registered in common law contracts.

Most universities report that these senior positions are covered by common law contracts rather than Australian Workplace Agreements (AWAs). The reason given for this development is the legal complexity of Australian Workplace Agreements. One university used AWAs in structuring its remuneration package for senior academic positions.

*AWAs offer us more flexibility above professorial level. We use AWAs to construct salary packages to retain key staff.*

Almost all salaries at the bottom of the academic position scale are covered by the existing EBA. This falls to 80 per cent at the top of the academic scale.

It appears that the very bottom salary steps in the Assistant Lecturer scale are being infrequently used by the majority of universities.

*we're employing fewer people at Level A and we've got a lot more at Level B than the university sector ... generally ... we are having trouble attracting people at Level A, because of the lowness of the salary ... so we tend to advertise lower positions A/B ... we're actually appointing a lot more at B than we used to ... and that's the way that we're getting around it ... you don't appoint at Level A with the market loading, we're tending to appoint at B ... I suspect that's happening at other universities*

Universities reported that they were increasingly unlikely to make employment offers at level A, preferring to opt for the employment of casuals on fixed contract.

*We hardly ever use level A. Most people come in at B and C...we were never convinced that the introduction of level A was a good move ... we are using level A more and more for things like post-docs*

These responses indicate a relative decline in the proportion of level A employment. The implication of this trend is that there is even less flexibility in the employment profiles of universities than would be assumed from the five level scales for academic positions. A number of universities reported that flexibility in this situation was related to the development of new types of employment.

*I'd like to think that we'd move back a bit more toward the old teaching fellow concept, of people coming in on a part-time basis while they pursue their PhD.... I know XX University has done that through their enterprise agreement, they've reinstated the concept of the teaching fellow to assist their research development ...*

Responses to this question raised two issues: the role of casual employment in academic employment and the way that academic employment seemed to be bunching in the middle of the salary scale. Casual employment is increasing in universities, for a range of reasons, and the management of casual staff is an increasing feature of university administration.

*... across the university system at the moment the way in which universities are both managing the workloads of their permanent staff, and in fact generating some of the money that's needed to pay those staff reasonable salaries, is through casualising a significant part of their teaching load ... at almost any university you go to now there's a lot of teaching and marking at a casual level, or the tutoring level ... done by casual staff, and that's what protects the ability of the university to pay full time staff and also to manage their workloads ...*

*... think we're probably approaching the point at which we have to think of universities as having ... a core of permanent staff, and around that core, a shifting mass of casual staff ... increasingly I think both from a quality assurance perspective and also from a HR/IR kind of perspective, the way in which we treat that group of casual staff who have become not just an add-on extra to the operation of the university but really essential to the operation of universities, will be something we will have to look at.*

### **Question 2/3 Filling Academic Vacancies**

Clark Kerr, the former President of the University of California proposed the idea that the modern university was a multi-versity. The multi-versity, according to Kerr (1963) was a 'whole series of communities and activities held together by a common name, a common governing body, and related purposes'.

Many historians of universities have pointed out the tensions created in universities by the joint operations of vocational and professional faculties focused on preparing professionals (medicine, engineering, law, finance, information and computing sciences) and the liberal arts faculties (arts, science, psychology) focused on preparing highly educated persons who positively influence the future direction of society.

Accordingly, within a university there are both shared and differential modes of operation, structures and organization by the different faculties. Thus, in interpreting the results of the interviews on the difficulty of recruiting staff, it is important to note that there are considerable differences not only between universities but between the faculties and disciplines within them.

All universities reported total academic staff turnover of less than 10 per cent with most reporting a low turnover of less than 5 per cent. These figures reflect a stable staffing profile and stable staffing situation.

*1992 the turnover rate for tenured academic staff was 6.8 per cent. Well today in 2002 it's 8.2 per cent ... to my mind anything under 10 per cent is relatively stable and low, I mean our general staff is up around 16-18 per cent.*

*... our turnover is very small ... the majority by far of the staff would have been here since day one ... turnover is mainly through retirement*

Mostly universities report overall that they have had no major current difficulties in recruiting staff; however, they report significant salary pressures, now being experienced in the recruitment of new staff. Although overall, universities were able to recruit appropriate staff it was evident that there were problems at both the lowest level (Level A - Associate Lecturer) in the salary and academic scale and at the higher levels (Level E - Professor) in the salary and academic scales. No major problems in recruitment for Levels B, C and D were reported.

Universities report both marked differences and similarities in recruiting staff. All reported that they have experienced difficulties competing for some staff in academic and professional markets such as information technology (IT) and/or some of the business disciplines such as finance and accounting. They have responded to this pressure by way of loadings, remuneration packages and special incentives.

For Sydney universities the cost of living is a significant factor in recruitment and staffing and for others the quality of regional life style and low cost of regional housing is also a significant factor in recruitment and staffing. Sydney's housing costs are leading to the need for a London style loading to attract senior or high demand research staff. For other universities, the quality of regional life and low costs may lead to the development of greater salary differentials in future EBAs as these lower costs are taken into account in regional universities.

All universities report major difficulties in attracting high quality overseas applicants because of the uncompetitive salary relativities – overseas salaries in key countries being seen as higher than those of Australian academic salaries. This perception also relates to the types of academic being sought by international recruitment, highly qualified leading researchers or administrators (“*we rarely get overseas appointments*”).

While Australia might be seen as having both lifestyle and professional attractions, salaries, benefits, working conditions and professional opportunities are perceived as not being up to the level available in North America or the United Kingdom. In these cases the university has to create both professional and remunerative packages tailored to suit the desired candidate. Often the cost of the professional incentives, such as research support, can be greater than the individual's remuneration.

*research facilities and research teams are additional costs ...*

*we lost a key person to the USA ... we not only lost them but then a number of staff in the same research team ... as soon as the teams are recognized then the Americans are very quick to make offers to a team ... not only salary but also funding for research infrastructure ... how can we compete ... its not just salaries that are uncompetitive ...*

Universities also report some difficulty in recruiting within a salary scale in disciplines where the university is trying to attract applicants from the Australian private or public sectors. In these situations it is typical to offer higher increment steps in the scale (than the universities would have hoped), or use a higher level appointment salary.

These appointments may cause problems with existing staff at lower levels, who see their opportunities for promotion blocked or feel that they are being asked to meet more onerous standards than some of those who have been recruited from industry. Several of the case studies in this report discuss this problem.

More difficult issues arise with the recruitment of professorial staff where the Australian university finds itself in competition with overseas institutions.

*Let me give you an example, when we were recently recruiting for a ... we had a person from the UK who was a serious contender (and this comes back to the point about UK and US salaries) and when his salary was converted to \$A it was \$400,000. There was no way we could compete ...*

Interviews revealed a trend to research specialisation as universities seek to plan strategically by concentrating their research efforts in their areas of natural advantage, causing them to increase their remuneration offers. Some universities claim that this pressure to specialise is leading to a position where they have to attract leading academics in these areas.

Interviewees expressed concern about the age profile of the current university academic staff. For many universities there is a large concentration of older staff at Levels C and at the higher salary scales of Level B. Even though the current staffing profile is relatively stable it is evident that in a short period of time Australia will have to some extent to reproduce its academic labour force.

*we've still got sort of a bulge at senior lecturer, we're light on associate lecturers, and professors have increased a bit, but what we would be seeing now is the cohort pushing us here ... our senior lecturers who are putting that pressure on are mature, and they are the same cohort that within the next five years will reach retirement age ... so that will be interesting ... where is the planning for this?*

### **Questions 4/8 Academic Competition**

The questions under this heading were designed to reveal aspects of the operation of the Australian academic labour market. These questions were extended and modified during the interview round so that a number of universities, towards the end of the round, were asked to comment on whether knowledge of overseas salaries play a part in recruitment, retention and maintenance strategies.

It is at the highest levels where there is significant salary competition from both the university sector and private and public sectors. It is at this level also where some higher salaries available in Canada, the US and UK present a range of problems and come to influence academic staff recruitment, retention and maintenance. It is also at this level that universities must develop specific remuneration strategies needed to attract staff of international research standing.

Some non-research-intensive universities have even argued that the push for research specialisation within the university sector has made it even more pressing for Australian universities to be able to attract staff with international standing. Achieving this has increased the strain on their budgets.

Most research-intensive universities reported that they had lost some staff to overseas universities as a result of salary differentials. There is a significant concern about the situation, that whereas previously Australian universities would attract overseas academics of international reputation as part of the normal academic recruitment process, this was now more difficult due to uncompetitive salaries. The following two comments reflect this:

*In our university six faculties have lost senior staff to overseas universities ... two faculties have lost staff to other Australian universities due to higher salaries ... but other faculties report no loss ...*

*We seek senior research staff overseas due to our research profile. We have difficulty matching salaries from overseas from the USA and the UK in particular. At the dean or director level we are able to pay \$150-200k maximum. Often a candidate will currently be on \$300k plus or \$200k US - so we will have to beef our package up with intangibles such as research infrastructure and other support. We can't push the salary up to those high levels so we try to provide other things ... Even at the lower level when competing with the overseas market we find that the best and brightest that we want to keep tend to be snaffled by overseas universities with bigger grants ...*

As emphasised previously, universities consist of a range of faculties, reflecting varied disciplines. Universities typically report that there are disciplinary features to the international uncompetitiveness of Australian academic salaries. Apart from high profile and high demand disciplines such as information technology, finance and business; foundational disciplines such as nanotechnology, particle physics and

genetic engineering also have niche and specific labour markets. In these newly developing areas there is the closest relationship between research and development in the area and the teaching and research of them in a university.

The level of salary uncompetitiveness is accentuated in such areas of high demand academic recruitment. Any university, for whatever reason competing in such fields, must develop specific recruitment and remuneration strategies.

As a result, universities reported that their international recruitment had become much more targeted as they find it harder to compete. A number of universities reported that they no longer rely on advertising internationally, but used existing staff to approach targeted individuals.

*Australia isn't on the radar screen of people overseas, and unless there are individuals who are particularly approached, then it's not something that people generally think about ... Australia's seen as a great place to live and recreate, but no one over there says 'I'm going to go to Australia to do leading edge work' ... Federation fellowships are trying to deal with that, to bring it back, so yes, you have to go in and tap them on the shoulder, and that requires a lot of intelligence about who you might, then you have them tapped on the shoulder ... We do not advertise internationally any more.*

Academic labour markets are not static. New requirements and skills are necessary as the nature of university work develops and changes. The development of new academic institutions such as cooperative research centres for example, creates new positions in the development and management and commercialisation of research.

At the same time that Australian salaries have become less competitive with their key competitors the nature of academic leadership has extended and broadened; leading international academics have greater diversity of skills and experiences and play greater roles in shaping the culture of academic groupings and strategic planning and development. It is in this newer, to some extent targeted, market that academic institutions must compete for the leading practitioners.

*One of the things that has changed in the last few years is the nature of the people we are trying to employ. We now want entrepreneur-ship and commercial experience ... It is even more difficult to attract these ...*

### **Question 5 Applying conditions and loadings outside the EBA**

Universities exhibit a wide variation in their management structures and governing systems. Some universities group faculties into larger organisational units (colleges) and college deans report to pro or deputy vice chancellors responsible for these aggregated units. Other universities are characterised by executive deans who report directly to the vice chancellor.

In some universities senior management exhibited shared decision making procedures with a group of senior pro or vice chancellors exercising more collegial decision making processes, in consultation with the university's human resource specialists. Some of the salary and remuneration implications of varied governing and organisational structures have been highlighted by high profile management controversies.

At the highest level of appointment to senior management, deans and executive deans, and vice chancellors exercised considerable decision-making responsibility. Vice chancellors and senior management are also involved in professorial and other appointments related to the strategic planning and positioning of the institution. Faculty and college leadership had more delegated responsibility for positions at academic Levels, D, C, B and A in the institution. The following comments reflect the process discussed in the interviews.

*We don't regulate that process. Our EBA covers minimum rates only so we are able to be flexible about how we manage above award rates. At higher levels either the vice chancellor or the DVC will negotiate directly.*

*By reference to the vice chancellor in situations where it is deemed critical to recruit and retain staff.*

*When we review senior executive remuneration at the end of each year we get market data from Human Resource Consultants ... the VC then makes a decision based on a range ...*

As more senior staff enter into salary negotiations at the highest levels, as remuneration becomes more complex, and as EBA negotiations involve increased senior management effort, universities are increasingly seeking the assistance of human resource specialists and consultants. A number of universities indicated that they engaged human resource consulting firms to undertake consultancies and management reviews, as the following comments show.

*We've just engaged Human Resource firm X to do a proper job evaluation ... Prior to that we used to do it a bit on an ad hoc basis. We used to do it fairly regularly for the vice chancellor, and maybe the deputy vice chancellor, but doing a formal review of the top positions, we've done it twice in 10 years.*

*Recent reflections on the University's strategic positioning would encompass those types of considerations ... and recommendations from Human Resource firm Y strategic positioning project ... talked about matching areas of discipline, trying to build them up as specialisations, talked specifically about attracting professorial staff ...*

*When we review deans' packages ... there is a performance component ... when we review senior executive remuneration at the end of each year we get market data from human resource firm Z ... the VC then makes a decision based on a range ...*

These developments were described as a new feature of the industrial relations and human resource environment, and reflected the growing centrality and core business nature of staffing, salary, industrial relations in the management of a university in the new millennium.

### **Question 6 Offering competitive remuneration packages**

Universities reported that they used incentives in addition to the use of loadings to overcome problems in filling positions and attracting and recruiting appropriate staff. These consisted of housing subsidies, research support (staff, travel, facilities, funds) flexible work programs, parental leave, outside earnings, superannuation (university super with a compulsory 18 per cent employer contribution on the salary component of the package is regarded as being generous), housing loans, reduced interest, staff development and training opportunities, reduced or no teaching, packaging of benefits.

Institutions vary considerably in the way they structure these incentives into their remuneration packages. These variations reflect both the location of the institution, the academic position under consideration and the type of institution.

Universities in Sydney increasingly use housing subsidies, whereas in other parts of Australia other incentives may be more appropriate such as generous relocation allowances to regional universities.

Increasingly, universities report that non-remuneration components can be extremely important in recruiting new senior (research) staff - often leading researchers require special research facilities and employment and transport of their current research staff as well. As one university expressed

*When the IT faculty recruited high flying researchers from overseas, they set up laboratories, new computer equipment, if they had research teams they offered to bring them too, they've also set up*

*scholarship schemes for PhD students here so they have that base ... Working up research, giving them the time to do it ... ground research support is one the major things that we can offer (technology university)*

It is at Level E at the top academic position, where most of the creativity in packaging occurs. As an example, in one university, senior professorial staff

*... received \$50 000 per year for each of five years for research on appointments- not their own personal benefits but for their research ... as well ... very often they'll negotiate a couple of post-docs and researchers to work with them.*

In another university a different mechanism used is

*sign on payments and actively trying to secure employment for the spouses of highflying academics.*

There is constant talk by the universities about the need for *flexibility* in staffing decisions. This appears to cover a variety of issues including accelerated progression, performance pay and terms of employment. It seems clear, however, that when it comes to packaging offers, the key inhibitor is the money available.

### **Question 7 The payment of loadings**

For the university sector as a whole, the use of salary loadings is increasing.

From the research sample of universities the highest percentage of staff in a university being paid loadings is about 20 per cent (Go8 and research intensive institutions) and the lowest being less than one per cent (typically regional institutions – “*We only have two staff in the whole university being paid a loading*”). Typically Australian universities have approximately five per cent of their staff being paid loadings above the standard EBA, concentrated in certain positions and disciplines.

Usually the payment of loadings reflects a number of factors: the type of discipline; the level of the academic position; the way that salary packages are constructed; and the type of labour market the academic position reflects.

Loadings usually occur and are applied in disciplines where:

- there is competition between university and private sectors;
- there has been shortages of skilled labour in the private and public sectors in such markets as IT and business fields such as finance.

Loadings can apply to whole faculties, especially in finance, business, economics and information technology and in some cases such loadings are funded from the commercial earnings of the faculty/school/discipline concerned.

*our loading proportions have been relatively stable in that it's been, confined to two faculties, although the faculties themselves may have grown because of the number of staff ... its been fairly stable for a number of years ...*

*a loading depends on income, if income goes down next year then loading goes down*

*Faculty X at one stage did have market loading across the whole faculty, though they then went 'oops' because they couldn't afford it and they're thinking about possibly revisiting that in the near future.*

Loadings can also derive from certain academic positions, for example, senior appointments within a faculty/discipline (“*Level D is a problem, if we offer loadings it is at this level*”) and/or for promotion

positions. Loadings usually reflect pressure from salary relativities in academic labour markets where there is private sector competition or international academic labour market competition. Even at Go8 and high intensity research institutions, many faculties do not pay loadings.

A number of universities reported that staff earn additional income from teaching above their agreed and negotiated teaching load, especially in summer sessions.

*almost 15 per cent of our staff earn additional income through above normal teaching – we pay a little bit extra for more teaching; however, this could not be construed as above award payments, but as a growing feature of academic employment.*

Several universities wishing to develop research specialisation in certain fields commented on the cost of the loadings necessary to attract the appropriate staff. Salary loadings are only one component of remuneration designed to attract the appropriate staff and can only be evaluated in the context of an entire package and the human resource practices occurring in the university sector.

There is a distinction, for example, between an incentive loading, that is, a figure being added to a standard salary and the placement at recruitment of staff at a higher increment or even on a higher grade of lecturer. An initial boost of \$10 000 more at the beginning of an appointment can add up over time. The latter is more common and is seen as a standard part of recruitment.

This process can often reflect the uncompetitiveness of university salaries. In the context of discussions about salary loadings there were considerable references to promotion and the levels of academic positions.

### **Question 9 The nature of incentives**

In analysing the responses in the interviews it was obvious that staff interviewed were extremely knowledgeable about the salary movements, human resources practices and the problems facing other universities. Each university was aware of the EBA agreements negotiated by other institutions and the nature of any differences in the sector. As well, there was wide knowledge of incentives, special loadings, remuneration packages and specific arrangements for staff across and among the sector.

Although the higher education sector has its own industry/ employer association and universities have developed a common voice on salary and funding issues through the AVCC, what was unanticipated prior to the interview process was the extent and depth of cooperation in human resources across the sector. Senior management and human resource leaders from universities shared information, even for strategic appointments in areas where institutions obviously competed.

*among most colleagues I've known for many years ... a lot more information is shared than anyone would acknowledge ... particularly amongst the say, those in my state ..., I mean we've built up a good rapport over the years, and you can pretty much get anything you want, but it's on a confidential basis ...*

*there are universities that traditionally do not share anything, though most universities HR networks are fairly open ... some universities are more open with their own staff, for example, there are some universities where some HR people are not necessarily aware of what's in senior staff packages, we're not them, and sometimes I think there's an odd perception of where the competition is or isn't, so we've done some sharing of information around research ...*

This cooperation was designed to ease the flow of information in the academic labour market and allowed the institutions to tailor and develop remuneration packages efficiently, given their funding constraints and staffing needs. In economic terms this free flow of information assisted the market in the improved allocation of human resources.

Without this flow of information the academic labour market could be deemed to be more inefficient. A feature of the United States academic market is the publication of current salary and other remuneration data by the American Association of Professors. The US market features a range of national benchmarks that act to provide the market with the information necessary for rational decision-making and labour market planning.

In the absence of such publicly available information and given the nature of the divergent human resource practices that is arising from the operation of the Australian EBA process, such cooperation provides a vital service to the market.

### **Question 10 Attracting staff from outside the university**

There is relatively little staff transfer between academia and professions, though salary movements in the professions (as discussed earlier) have an indirect influence on both academic salary and academic positions through entry-level employment.

*... we see an unusually high proportion of people coming in at C, D and E from the professions, without the same credentials or whatever you'd want to call it, that you'd expect in a more traditional university. Now that's an observation coming directly from other universities....*

*..I think some of the areas in which we recruit, the professional areas, the bigger problem is the relation between academic salaries and the salaries people are getting in those professions. That tends to inflate a little bit the initial level at which people start, within the usual sort of incremental point or step within the levels at which people start ...*

*... but you couldn't say that really we had mobility between professions and academia.*

There is some evidence that increasingly universities are integrating with professions, especially in an attempt to pay competitive salaries with partnership arrangements in medicine and graduate schools of management especially.

### **Institutional Differences, Variations and Flexibility Arising from the Interviews**

As well as the major findings discussed so far, the interview research established other conclusions about salary flexibility, the differences in human resource practices between institutions and the nature of salary competition between universities.

#### **Flexibility**

One conclusion from the interview responses is that human resource practices in the higher education sector exhibit far more flexibility than predicted. The Crossroads papers contained comment on the increasing necessity of workplace flexibility, the rigidity of current industrial structures and the limited progress being made toward meeting the workplace flexibility challenge. In such discussions the exact meaning of the term 'flexibility' is often not clear.

From the perspective of universities, salary and workplace flexibility refer to the new ways they have developed to attract, recruit, maintain and retain the staff they consider vital to meeting their diverse staffing needs. In this context all the institutions interviewed have increased their flexibility in salary and remuneration packaging. As well, most universities have developed plans for increasing flexibility through the current round of enterprise bargaining. We contend that the sector has responded flexibly and innovatively to current staffing issues and structures, as the following comments illustrate.

*as a sector we believe we are very flexible and innovative.*

*we have flexibility within salary bands, EBAs only set minimum salaries*

*the flexibility to engage people has dramatically changed since 1998 ... the issue is how can you work around your salary structure*

*the EBA does allow for flexibility ... the only situation where this might be a problem is if they do not allow for salary sacrifice.*

In addition there is considerable institutional variation in the ways that this developing flexibility is being exercised. From the role of salary loadings to payment of location allowances, universities are responding to their local, national and international academic labour market signals by developing flexible staffing and salary arrangements to meet their particular staffing needs and niches in the academic labour market. Nonetheless, the variation between universities can also be less than the variations between the faculties within a university. The proportion of the university that is comprised of professional faculties and the closeness of their relationship to private practice have forced many institutions to develop similar but varied flexible salary and staffing arrangements.

It is also noted that other conceptualisations of flexibility prefer the use of Australian Workplace Agreements so that individual employees' staffing arrangements can be more closely related to the strategic priorities and productivity needs of the employer.

The flexibility reported in the section above has occurred within the current framework of EBA negotiations between employees, staff associations and the National Tertiary Education Union (NTEU).

### **Faculty Variations**

Part of this emerging institutional flexibility is the development of significant differences in faculty remuneration within the same university.

It is important to note that flexible arrangements that do appear refer to those disciplines more closely related to private sector employment and are more influenced by salaries in those sectors. Although Level A salaries are uncompetitive in all faculties because of higher paid positions in the general private sector labour market, most of the newer flexible arrangements are concentrated in certain faculties.

### **Regional Variations**

Another finding for the interviews was the extent of regional variation in salary and staffing practices. Although institutions respond to Australia wide features of the academic labour market, and some sub-markets are cohesive, they also have developed significant regional variations. The varied history, specialisations, characteristics and location of universities have provided opportunities for regional universities especially, to develop individual responses to salary and staffing. Some of these can be identified in the following comments.

*we emphasise attraction like ...lifestyle, opportunity for research in our region ... as part of our salary negotiations*

*we have strong professional partnerships and connections due to our mission and history*

*we retain high quality staff due to family, infrastructure and lifestyle ... and the prestige of being a big fish in a small pond ...*

*we attract newish academics who see this institution as part of their career path*

*we are probably the largest employer in our region ... this affects the way we recruit and what we offer ...*

*as a regional university our market is different from metropolitan universities, we tend to draw Level A and some of our Level B's from the surrounding area, as we move up the scale we broaden our horizons ... our staffing profile is different.*

*Sydney is a real issue, in terms of attracting interstate and internationally, ... with the capacity for salary*

*our offshore competition is primarily from Singapore and Hong Kong, rather than other Australian universities.*

These regional variations have led to the development of specific institutional recruitment, retention and salary strategies, developments that are likely to increase national differentiation in future EBA round outcomes.

## **Competition in the Academic Labour Market**

The *Crossroads Overview* paper (2002, p.30) suggested that 'universities need to recognise that they too are businesses' a view echoed by those who promote the concept of the 'enterprise university' (Marginson, 2002). As universities increasingly come to resemble other corporate business entities it is not surprising that they become not only more competitive, but that their competition takes new forms. Although the extent of staffing cooperation and sharing surprised the researchers, competition for staff is vigorous.

Universities compete for staff and sometimes even develop specific packages to lure special staff from other (competitor) universities. Some of the interviewees have suggested that increased competition in high demand, hard to staff areas actually produces a salary spiral that does not necessarily reflect either the underlying or private market for the academic areas and the skills in apparent high demand and short supply. The nature of much staffing and salary competition is indicated by the comments below.

*we'd estimated we could probably afford about half of what they were offering, I didn't think we could afford it ... at the end of the day we had to find a way of coming within a reasonable distance*

*we are in competition with other universities that are after our best staff*

*some aspects of salary competition between us means that we jack up salaries for particular areas by competing against each other ... There seems little competition apart from the universities*

*I think even now we will acknowledge that the main competition is other higher education institutions for that particular faculty, not industry*

*there's not a significant movement of academics out into the private sector*

*it's just a fair competition, a mix of private organisations, professionals, other higher education institutions and some research institutions*

*to attract the same levels of skill will be very difficult, and it won't just be us, all universities will be facing this problem, we will be the competition and it will really hot up because the profile's very similar at most universities.*

One university even suggested that increasing PhD places in a high demand, short supply area of specialist knowledge (IT) to develop staff for the future would be counterproductive for the university. The end result of such a policy could result in the situation where the university could train its competitors' future workforce; resources may be more appropriately allocated by selective targeting of key staff from other institutions rather than increasing its own output of research students. These considerations are likely to be more important in future staffing planning.

## **Other Issues Arising from the Interviews**

Many other issues, not necessarily related to the original questions, arose during the lengthy interview discussions.

### ***Local labour markets***

Most academic staff are recruited from the local universities either as ex-students at the bottom of the academic scale, or from other universities. Most of the promotion positions below Level D and E are filled by internal promotion.

### ***Overseas labour markets***

Many of the senior management present at interviews had experience in United States, Canadian and United Kingdom universities. They made reference to the salary and remuneration systems operating in these countries in making comparisons with the current Australian situation.

Although the strongest academic labour markets, both in size and financial rewards are in the US and Canada, the UK is catching up following a great deal of concern about the brain drain from the UK to North America. There is some concern among some Australian universities that the Asian universities will become even more aggressive in recruiting staff from Australian universities.

### ***Other income for staff***

Depending on the expertise of the individual and perhaps the location of the university, staff can earn additional remuneration by acting as private consultants, though most universities have strict rules requiring approval of this work and disclosure of the monies earned. This area needs more research as it is not exactly clear how these procedures vary among different disciplines and different universities.

*Staff may earn up to a quarter of their salary through outside earnings but must contribute a proportion of salary to the university if their salary rises above 25 per cent of earnings.*

Staff may also earn additional university income by engaging in additional teaching in special programs, for example, overseas programs run by the university or in commercial programs or research conducted by a separately constituted research project or by the university's commercial arm.

### ***Federation fellowships***

Federation Fellowships attracted a range of responses from universities. Designed to lure back leading researchers who had moved overseas, the scheme provided federal funding to top up professorial salaries (to \$225,000) to provide internationally competitive salaries.

*Australia's seen as a great place to live and recreate, but no one over there says 'I'm going to go to Australia to do leading edge work', I mean I've never heard that phrase ever. Federation Fellowships are trying to deal with the situation ...*

### **Academic work and working conditions - unbundling**

There is a widespread view that the nature of academic work is continuing to change. Extreme versions of these views also suggest that the nature and even the character of the university is changing as a result – the ‘enterprise’ or ‘entrepreneurial’ university are descriptions of such developments. In one version of this argument, research, teaching, instructional design, course delivery, administration, quality teaching and assessment are increasingly being unbundled and becoming increasingly specialised.

New positions of faculty business manager and financial (cost) controllers, specialised marketing and management staff are seen as examples of this process at work in the academic world – as the following remarks made in the course of our consultations indicate.

*the intrusion of technology particularly is going to change the academic workplace ... those traditions of the teacher who does everything from whoa to go in curriculum design right through to delivery and assessment, who also is a scholar ... sooner or later I think we are going to have a difference, which will mean that those traditions of people who you and I would understand of what being an academic is, I think that's going to change, which will perhaps cause impacts on salaries and remuneration differentiation.*

*... one of the things I was trying to persuade a young colleague, a person who had invested in being an instructional designer and had been sent away to places like the top universities in the US, and I said look you're going to have a set of skills that are going to be very viable. Instead he came back, took up a traditional lectureship and said: 'look, I want to do a research career'. I actually said you know, with all due respect, the chances of accelerating through the system, being a traditional mixture of teacher and researcher, is going to be totally difficult. With this particular unique set of skills, about understanding instructional design in academic context, as an academic who really understood the use of technology and all the pedagogic issues, but they just, it was outside their comfort zone, they wanted to go back into being a traditional (academic).*

*I suspect more of that will happen, and that those people will beat a premium. So it won't always be that unbundling roles will lead to salary diminution in the first instance. I think people who spotted that as a market niche will be paid at a premium. Later on, you can see that some of that unbundling might lead to salary reduction, because they can separate out, they've got a marker, you know it's a bit like when you think about how we deal with casuals, someone who's doing marking or just someone who's doing tutorials, someone who's doing that, and that unbundling of skills might have the capacity to actually deflate salary.*

*We consciously want to take heads of school away from the academic environment and put them on managerial scales, the same as other universities. For heads of schools we'd probably have a revisionary appointment back to whatever they were, and they would maintain tenure, but we would take them off that and we're envisaging putting them on to a managerial packaging arrangement.*

## CHAPTER 5

# TRADITIONAL AND INTERNATIONAL COMPARISONS OF AUSTRALIAN ACADEMIC SALARIES

This chapter will briefly overview recent research on international salary comparisons relevant to Australian academic salary analysis. It will discuss:

- origins of the need for new international comparisons;
- the Commonwealth Higher Education Management Survey of Salaries;
- other international comparisons of salaries;
- Australian and United States salary comparisons;
- the academic salary benchmarking undertaken in the United States of America;
- data limitations in international comparisons; and
- comparisons between academic and private professional salaries in Australia and the United Kingdom.

It will also provide a brief commentary on this research as a precursor to the benchmarking data presented in Chapter 6.

### **The Need for New International Comparisons**

Only comparatively recently have international comparisons of academic salaries been attempted by a number of different institutions and organisations. Such new statistical academic salary analysis reflects concerns by governments, unions and professional bodies that the salaries paid to their nation's academics have become uncompetitive in the international global academic labour market.

This anxiety about a nation's academic salaries being uncompetitive springs from the concern that nations are in danger of losing the human resources required for a knowledge based economy as academics respond to international salary differentials and become mobile in pursuit of improved remuneration and conditions. In the United States, high salaries and improved conditions are a magnet to lure the best and brightest overseas academics to the United States, thus improving the position of the United States in the global knowledge marketplace.

International comparisons of academic salaries are difficult because of the variations in the structure of remuneration systems in the academic labour market from country to country. As a result, only recently have significant efforts to develop statistical comparisons of academic salaries in a range of countries been attempted.

## The CHEMS survey analysis

The most wide ranging comparisons of academic staff salaries and benefits have been developed by the annual CHEMS (Commonwealth Higher Education Management Service) survey from the United Kingdom. This survey, first conducted in January 2000, compares academic salaries in Hong Kong, Singapore, South Africa, United Kingdom, Australia, Canada and New Zealand. The initial data was collected for 1998-1999 but has been revised and is now available for 2000-2001 and 2001-2002.

The CHEMS survey uses academic salary, pension and medical aid schemes, leave entitlements and other benefits such as car and housing allowances in determining the comparisons of salaries paid to academics across the range of academic positions. The CHEMS survey converts local currencies into US dollars, which are then adjusted to take account of purchasing power parity using World Bank figures.

### Purchasing power parity

Purchasing power parity values reflect the number of monetary units needed in each country to buy the same representative "basket" of consumer goods and services as could be bought for a set number of US dollars in the USA. Applying PPP conversion factors to local salary figures provides a more accurate comparison of the 'real' value of academic salaries in different countries than can be achieved by conversion to US dollars using the market exchange rate, which can be highly volatile. The World Bank data used here are as at the end of 1996, but given generally low levels of inflation between 1996 and 1999, they are unlikely to have changed much (OECD PPP figures for 1998 for Australian (1.32), Canada (1.17), New Zealand (1.48) and the UK (0.66) are very close to those given here). Source CHEMS, 2000.

One of the main problems in salary comparisons is to relate salary for a range of academic titles. The survey developed a way of comparing staff titles by using a three point scale: bottom, middle and top and converted a range of academic positions into associate lecturer, lecturer, senior lecturer, associate professor and professor. Salary and other benefits were compared separately so that more meaningful salary package relativities can be made. The initial salary comparison is reported in Table 5.1. A revised power parity method was conducted in CHEMS 2001-2002 (Table 5.2).

## Analysis of the CHEMS Survey Results

The survey allows some measurement of the competitiveness of Australian academic salary and remuneration. The data shows that Australian academic salaries at all levels for all positions are uncompetitive with those of Singapore and Hong Kong. In comparison to the UK, Canada and South Africa, Australian academic salaries are either competitive or uncompetitive depending on the level and scale of the position being considered.

Australian academic salaries are clearly more competitive than those of New Zealand. Comparisons of other benefits and aspects of remuneration are generally inconclusive as each country provides a range of different benefits for academics.

**Table 5.1 Average Academic Staff Salaries by Country (US\$ per annum) (2000-2001)**

	Australia	Canada	New Zealand	Singapore	South Africa	UK
<b>ASSISTANT LECTURER</b>						
Bottom of Scale	26,874		25,461		30,378	
Middle of Scale	31,645		26,939		37,068	
Top of Scale	36,415		28,418		43,759	
<b>LECTURER</b>						
Bottom of Scale	38,326	29,437	31,820		40,865	27,732
Middle of Scale	41,907	36,764	35,270		53,137	32,037
Top of Scale	45,488	44,090	38,720		65,409	36,341
<b>SENIOR LECTURER</b>						
Bottom of Scale	46,918	36,990	41,707	43,988	57,312	37,563
Middle of Scale	50,493	46,633	47,070	62,975	68,301	42,276
Top of Scale	54,067	56,275	52,434	81,963	79,290	46,990
<b>ASSOCIATE PROFESSOR</b>						
Bottom of Scale	56,450	45,102	52,746	67,055	62,982	48,711
Middle of Scale	59,364	57,632	55,624	96,810	75,785	52,703
Top of Scale	62,279	70,161	58,502	126,564	88,587	56,695
<b>PROFESSOR</b>						
Bottom of Scale	72,441	56,179	60,220	107,362	75,094	57,329

Notes: (a) PPP Conversion Factors used here from the World Bank 1998:

Australia: 1.31; Canada: 1.18; New Zealand: 1.46; South Africa: 1.86; Singapore: 1.63; UK: 0.654.

Notes:

a) These figures include a “flexi wage component”, equivalent in 1998 to 1.75 months’ gross annual salary.

b) The salary figures in US dollars given here have been calculated to take account of purchasing power parity using conversion factor figures supplied by the World Bank. These figures are as at the end of 1996, but given generally low levels of inflation between 1996 and 1999, they are unlikely to have changed much (OECD figures for 1998 for Australia (1.32), Canada (1.17), New Zealand (1.48) and the UK (0.66) are very close to those given here). The PPP conversion factor figure for each country is shown in the top left-hand corner of the relevant section.

Academic Staff Titles: Although Australia, New Zealand and South Africa use the academic staff titles listed here, the UK, Hong Kong, Singapore and Canada use different systems. We have equated them as follows for the purpose of comparison:

	<b>Canada</b>	<b>Hong Kong</b>	<b>Singapore</b>	<b>UK</b>
Assistant Lecturer	Instructor/Lecturer	Lecturer		Lecturer A
Lecturer	Assistant Professor	Asst. Prof. I/Prof. II	Asst. Prof.	Lecturer B
Senior Lecturer	Associate Professor	Assoc. Prof. I/Prof. II	Asst. Prof.	Sr. Lectr./ Reader
Associate Professor	Professor	Professor I	Assoc. Prof.	Sr. Lectr./ Reader
Professor		Professor (Professorial scale)	Professor	Professor

Source: CHEMS Survey 1998–99

**Table 5.2 Average Academic Staff Salaries by Country (US\$ per annum) (2001-2002)**

	Australia	Canada	New Zealand	South Africa	Malaysia	Singapore	United Kingdom
<b>ASSISTANT LECTURER</b>							
Bottom of Scale	31,136		27,030	15,587			
Middle of Scale	37,007		28,800	17,668			
Top of Scale	41,997		30,164	20,163			
<b>LECTURER</b>							
Bottom of Scale	44,198	28,949	33,603	31,277	14,926		24,955
Middle of Scale	48,255	34,264	37,358	30,465	22,104		29,865
Top of Scale	52,446	39,337	40,902	44,722	32,154		37,141
<b>SENIOR LECTURER</b>							
Bottom of Scale	54,093	35,076	42,906	37,872		55,385	32,348
Middle of Scale	58,134	43,048	49,266	37,569		83,077	36,740
Top of Scale	61,595	50,952	55,399	51,465		110,769	43,436
<b>ASSOCIATE PROFESSOR</b>							
Bottom of Scale	65,067	43,183	55,711	45,037	28,385	83,077	43,457
Middle of Scale	68,084	54,151	58,968	43,429	33,247	120,000	47,004
Top of Scale	71,651	65,326	61,787	57,866	39,846	156,923	51,908
<b>PROFESSOR</b>							
Bottom of Scale	83,463	54,006	63,610	51,765	51,725	129,231	54,158

(a) The bottom of the scale has been used to each grade

The original data from the survey has been updated for 2001-2002. This updated data is provided in Table 5.2. The update shows international comparisons have changed little, despite relatively large salary increases in Australia as a result of the enterprise wage bargaining round in the late 1990s.

The Productivity Commission also developed international purchasing parity power using a ppp index in its publication, *University Resourcing: Australia in an International Context 2002*. The Productivity Commission's conclusions are included below.

*According to a survey of academic salaries and benefits by the Association of Commonwealth Universities, Australian academics are reasonably paid in comparison to their counterparts in some other Commonwealth countries, although much lower than in Singapore for the middle level of senior lecturer and above.*

*A feature of the Australian salary scales is the smaller spread between the lowest and highest paid academics. There is a 60 per cent difference from the bottom scale for lecturer to the top scale for associate professor in Australia, compared with a difference of more than 80 per cent in New Zealand, 100 per cent in the UK and 140 per cent in Canada. There is a 188 per cent difference between the bottom senior lecturer scale and the top associate professor scale in Singapore.*

*Information on average academic salaries in the United States in 1999 was obtained from a different source. These salaries are larger than all the other countries except Singapore and have presumably been adjusted upwards since 1999. The extent to which the average salary of senior lecturers is greater in the United States than Australia is understated. Furthermore, if current market exchange rates were used to express the US salaries in Australia dollar terms instead of PPP rates, the figure for senior lecturers in the US would be over A\$103,000 (compared with A\$66,146 for the middle scale of senior lecturer in Australia).*

### **International Comparisons**

A number of other international comparisons of academic salary spending power based on purchasing parity have also been attempted. Recently, the British higher education academic staff unions developed an international spending comparison of academic salary for 1998. This is set out in Table 5.3, together with an accompanying explanation of its statistical development.

The salary figures in the table show the purchasing power (parity) of average academic pay. Average academic pay has been calculated by deriving a figure to represent an average salary across all levels and positions. This average salary has then been adjusted by purchasing power parity analysis to produce a ranking of the real purchasing power parity of academics internationally. Analysis of these figures indicates that Australian academic salaries are generally uncompetitive with Canada, the United States, Italy and Finland. Australia is similar to France and Norway and more competitive than Spain, Germany and the UK.

### **Comparisons between Australian and US academic salaries**

The US academic labour market is the largest, most complex and sophisticated in the world. Developing meaningful average data on United States academic salaries is extraordinarily difficult. As a result making comparisons or averages of US and other overseas academic salaries presents a range of methodological problems that are not easily solved.

**Table 5.3 International comparison of academic pay**

Country	£	Note: All figures for this table have been derived from official OECD statistics, either those published in "Education At A Glance 2001" or in the datasets which underlie the tables and which are available from www.oecd.org OECD data on academic pay is in turn taken from the UNESCO/OECD annual survey of tertiary pay. Previous comparisons of academic pay have suffered from the fact that tax regimes, exchange rates, social benefits and living costs vary greatly. Hence gross pay comparisons are little guide to relative purchasing power. The table corrects for this by using the OECD Purchasing Price index, which takes benefits, taxes, exchange rates and living costs into account. It covers all teaching and teaching/research staff in tertiary level institutions, including part-time and fixed term staff.
Canada	72,700	
Italy	72,400	
United States	56,100	
Finland	47,100	
Australia	39,900	
France	34,500	
Norway	31,200	
Spain	24,900	
Germany	24,800	
United Kingdom	21,800	
Greece	20,800	
Mexico	18,400	
Turkey	18,200	
Japan	16,500	
Czech Republic	11,500	

The OECD dataset publishes spending on tertiary pay (defined as "compensation" which includes e.g. pension and other social benefits such as health care, which is a major factor in the U.S.A.) as a proportion of current expenditure, which is also published as a proportion of total tertiary spending. Those figures were used, together with OECD data on staff numbers purchasing power parties and total expenditure to calculate the table. The low placing of Japan may be due to a relatively high number of part-time staff, unfortunately the OECD does not publish full-time equivalent staff numbers. All figures relate to 1998, the latest available. Source: Academic Staff Sub-Committee Trade Union Side, Pay Claim, 2002, p. 18.

There are basically two major sources of data on United States academic salaries. The American Association of College Professors has developed a range of comparative data over a considerable time for use in academic salary comparisons. The American Association of College Professors (AAUP) under the leadership of Daniel Hamermesh from the University of Texas conducts a survey of US higher education institutions (in 2001-02 1,433 institutions) and incorporates National Center for Education Statistics (NCES) salary data collected by the Federal Government to produce a range of data that shows:

1. annual salary increases for academic positions;
2. trend series in academic salaries, compared to inflation;
3. comparisons of academic salaries between public and private universities;
4. comparisons of academic salaries to salaries of professional groups in the workforce; and
5. gender and institutional salary differentials.

Table 5.4 shows the average salary for academic staff at higher education institutions with doctoral programs (similar to Australian HEIs). The institutions are divided into public, private, church-related and all universities. The data set incorporates average salary for each academic level and percentage change 2001 to 2002.

**Table 5.4 United States Average Academic Salaries AAUP Survey 2001-2**

AVERAGE SALARIES FOR FULL TIME FACULTY MEMBERS, 2001-2								
Doctoral Institutions								
	All		Public		Private, independent		Church- related	
	Salary \$	1-year change	Salary \$	1-year change	Salary \$	1-year change	Salary \$	1-year change
Professor	94,788	+4.4%	89,631	+4.2%	112,534	+4.9%	99,426	+3.7%
Associate Professor	64,953	+3.8%	63,049	+3.5%	73,470	+5.1%	68,045	+4.5%
Assistant Professor	55,404	+5.3%	53,392	+5.1%	64,149	+5.2%	56,863	+6.9%
Instructor	37,959	+4.3%	36,832	+4.7%	43,372	+3.1%	47,205	+5.3%
Lecturer	44,025	--	43,337	--	46,590	--	42,433	--
No rank	47,160	--	43,962	--	53,009	--	53,073	--
All	72,183	+3.8%	68,717	+3.7%	86,004	+4.0%	74,959	+4.5%

Even a cursory glance at US average academic salary scales, given the current exchange rate, indicates that Australian academic salaries are uncompetitive with those in the US. The 2002 average academic salary in the US is almost double that of Australian academics at all positions and ranks. AAUP data also indicates that:

- US academic salaries and salary increases have exceeded inflation in the last 20 years;
- recent salary increases for academics have been highest for assistant professors “this market is most affected strongly by alternatives outside academe”; and
- a widening salary differential has developed between academic salaries at public and private universities.

AAUP has also developed data on:

- the relativities between academic and professional salaries; and
- gender differentials in academic salaries.

This data shows that except for the early 1990s, when private sector scientists’ average earnings equalled those of academic faculty, the earnings of all the other groups have consistently exceeded those of faculty. Also noteworthy is the generally rising relative pay in the four other occupations compared with that in academy over the past two or three years. There is little doubt that in the United States college and university faculty lost ground to other professionals beginning in the late 1990s.

*Compared with our relative rewards in the mid-1990s and even 1980, we are today less well rewarded than many other comparably educated professionals.*

*Within this relative poverty, academic institutions at least made progress compared with employers of other professionals in how they pay their female members and in the numbers of women they hire.*

AAUP Salary Survey, 2000–2001, p.4

### **Benchmarking United States academic salaries**

Most United States universities conduct comparisons of academic salaries between themselves and similar (competitor) universities. This is completed by using AAUP data and other data sets. These include the Association of American Universities Data Exchange (AAUDE) statistics on academic salaries and other data sets prepared by individual universities.

These benchmarks are widely circulated within the universities and provide a metric to compare salary relativities. They are used in salary negotiation within a university and to make decisions on academic levels and positions. This benchmarking is a key feature of the operation of the U.S. academic labour market.

### **Data limitations of International Comparisons**

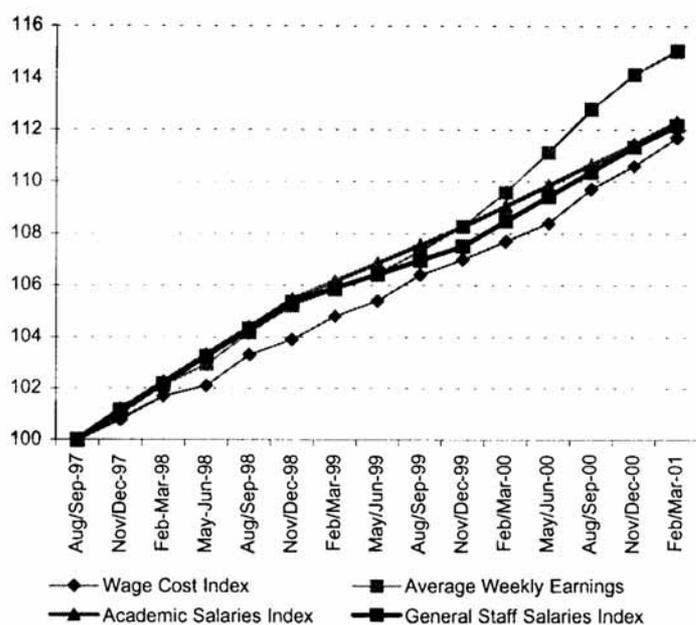
The international comparisons discussed so far suffer from a range of methodological difficulties. These include the fact that salaries are averaged across disciplines, regions and quality of staff. As well, international comparisons cannot distinguish between award and other award payments that have crept into remuneration systems. As well, averaging across disciplines and institutions may not capture variations that are important to the internal labour market within faculties, disciplines and regions.

### **Comparing Academic to Professional Salaries: Australia and International Data**

#### ***Australia***

A range of limited data is available to indicate relativities between academic and other salaries. The NTEU provides data using the comparators of Average Weekly Earning and Senior Lecturer Scale C1. This data is shown in Chart 5.1 comparing Academic Salary Index and Average Weekly Earnings.

The graph indicates that academic salary increases have consistently fallen behind Average Weekly Earnings increases since 1995. Post 1996, institutional differences in salaries developed as a result of the introduction of enterprise bargaining, as local productivity trade offs were made for varied salary increases. The limitations of using AWE for such comparative analysis mean such data must be interpreted carefully.

**Chart 5.1 Comparison of University Salaries and Average Weekly Earnings**

The NTEU also has submitted Wage Cost Index data to the Crossroads Review. This is shown in Table 5.5.

According to the NTEU, higher education rates have only just kept pace with the Wage Cost Index (WCI). In the four calendar years December 1997 – December 2001, higher education staff received increases averaging 13.5 per cent compared to 12.9 per cent for all workers. However, as the table demonstrates the rate of increase for higher education employees has been less than the increase for professional workers (14.9 per cent) and for managers (13.9 per cent).

**Table 5.5 Comparison of Higher Education Wage Outcomes with Movements in Wage Cost Index (December 1997 - December 2001)**

	DEC 1997	DEC 2001	% INCREASE
All Workers	101.2	114.1	12.9
Professionals	101.2	116.1	14.9
Managers	101.6	115.5	13.9
Academic Staff	100.00	113.5	13.5
General Staff	100.00	113.4	13.4

Sources: ABS Wage Cost Index, February 2002. NTEU Database (average outcome for Senior Lecturer and for Level 6 General Staff)

NTEU submission to *Crossroads*, 2002, p.48

## **Relativities**

Relativities have traditionally been a feature of the Australian industrial relations system. During the period covered by centralised bargaining comparators for academic salaries included positions such as Federal MHR, CSIRO Senior Research, NSW Teachers, Federal Public Service at certain grades.

These traditional comparators are discussed more fully in Chapter 6.

Other professions such as nursing and librarians, who have suffered similar declines in relativities as have academics, recently mounted campaigns aimed at partially restoring historical relativities.

## **United Kingdom**

The relative decline in academic salaries identified in Australia is a world wide phenomenon. In the UK the British higher education academic staff unions have produced data that show

- academic salaries were cut in real terms in nine of the years between 1990-91 and 2000-01
- while average earnings rose by 44 per cent over inflation from 1981 to 2001, academic salaries rose by only 7 per cent above inflation.

These details are identified by the Chart 5.2.

Following the 1997 report of the Dearing Committee on Higher Education in the United Kingdom, an independent review of pay and employment conditions in higher education under the chairmanship of Sir Michael Bett was established. The Bett Committee handed down its report in June 1999.

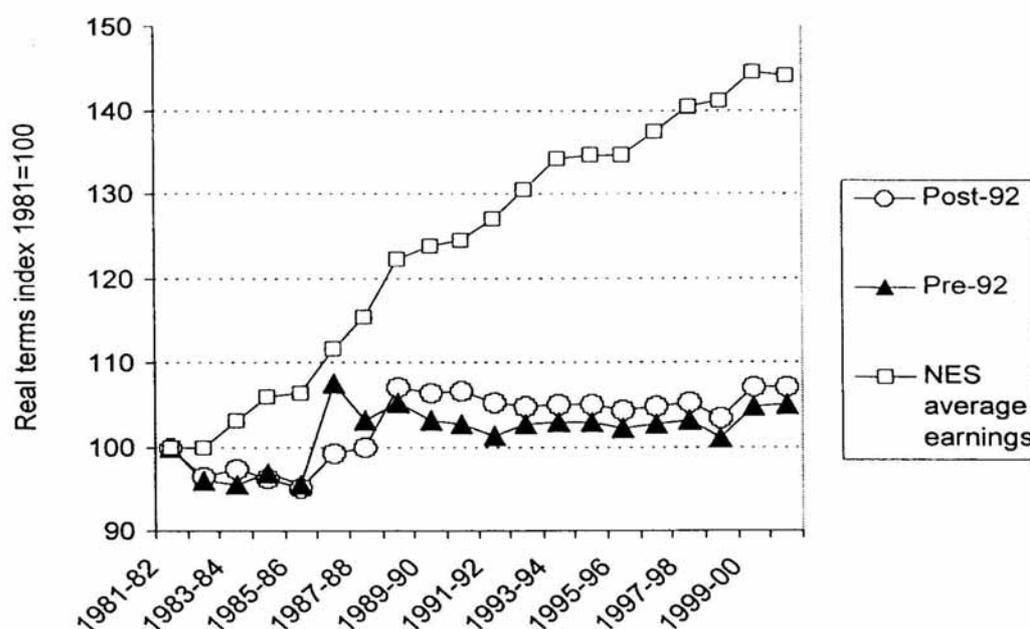
While the Report was concerned primarily with establishing effective national arrangements for the determination of salaries and conditions, its recommendations on salary levels reflected the evidence it had gathered on the disparities between salaries in higher education and comparable salaries in the work force at large. In particular, it identified the relatively poor salaries being paid to beginning and senior academics.

The Bett Report (1999), the CHEMS Survey (2001-2002) and the recent NATFHE (2002) analysis have all confirmed the decline in the relative salaries of academics in the UK. The Bett Report also developed some adjustment comparators and made recommendations on the size of academic salary increases needed to restore some of the lost relativities. These adjustments have since been reanalysed by NATFHE and enhanced to bring them into line with current benchmarks.

The recently released British White Paper *The Future of Higher Education* has acknowledged the continuing uncompetitiveness of academic salaries in Britain and its negative impact on the recruitment and retention of high quality academic staff. It saw therefore one of the challenges for higher education in the UK

*to recruit, retain and reward the calibre of academic staff needed to sustain and improve both teaching and research.*

DfES,2003,p.13

**Chart 5.2 Academic and academic-related pay and average earnings\* 1981-2001 (real terms)**

\* average of all full-time employees (manual and non-manual)

### Canadian Universities

In Canada, the issue of competitive academic salaries is exacerbated by the proximity of the United States, which makes the lure of higher salaries even more attractive. The Federal Government in Canada has responded to this challenge by providing major funding increases for research in Canadian universities, thus easing the financial burden on the provinces, which constitutionally have the responsibility for university funding.

### United States Universities

Universities in the USA have not been immune to the pressure on academic salaries from the private sector and from one another. Because of the availability of salary data, this competition among universities is continuous and well informed.

An example of the current salary pressures on state funded universities has been the phenomenon of business organisations providing targeted funding to supplement the salaries of university chief executives in order to prevent their being attracted to other universities or the private sector.

### Conclusions

The increasing provision around the world in university student places and in research funding will continue to increase the demand internationally for academics. This pressure will be exacerbated by the coming retirement of a significant proportion of the existing academic workforce.

Difficulties in recruiting academic staff will continue because of the comparative attractions of the private sector labour market. Private sector positions are increasingly attractive not only because of their better salaries and career prospects, but also because of the greater flexibilities being shown by employers.

Because of the combination of these factors, it seems most likely that Australian universities are going to face increasing competition for high quality staff. Being able to respond flexibly to this challenge in individual cases will go only so far. Universities will need access to additional funds if they are to continue to attract and hold academic staff.

A range of reports have established that, internationally, academic salary relativities with the private and public sector have declined. Chapter 6 re-examines traditional Australian data and develops new ways of conceptualising and measuring academic/private sector salary relativities.

## CHAPTER 6

# SALARY RELATIVITIES: A BENCHMARKING APPROACH

### Traditional methodologies

In his seminal research on academic salary comparisons Marginson (1991, p.50) suggested “If salary relativities remain on the agenda so will the issue of how to calculate the relative salary position of academics. This involves both methodological and socio-political questions. There is the question of ensuring that the salary comparisons are accurate in terms of their objectives and also the question of which comparisons are most appropriate.”

The fact that in the past a particular salary comparison was made does not justify the continued use of that comparison. The question is what is the significance of each salary comparison in the present?

Marginson’s (1991) research analysed academic salary movements in comparison to:

- Prices – academic salaries in real terms (using CPI data);
- Average Weekly Earnings (AWE) – relative salary changes (using ABS AWE data);
- CSIRO salaries (senior lecturer to principal research scientist) (using CSIRO and academic salary scales);
- Senior public sector salaries (using senior lecturer and professor to senior public service salary scales);
- Public sector engineers (using academic and public sector engineering salary scales);
- New South Wales teachers (using academic and teaching salary scales); and
- Private sector comparison engineers (using data from the Association of the Professional Engineers in Australia and The Royal Australian Chemical Institute).

After analysing this and other international academic salary comparative data Marginson confirmed that

*there has been a relative decline in academic salaries since the 1970s. This decline is severe when the comparators used are prices, AWE or international academic salaries. If better information on private sector earnings was available, the decline in relation to some comparative private remuneration (for example accountants) would probably be even more severe.*

Marginson, 1991, p.70

At the time Marginson conducted his analysis a number of problems in developing such comparators were identified. In particular the chief problems in private sector academic salary comparisons were seen as “lack of information”. ***“The private sector is not one homogeneous sector. The academic labour market is linked to the private sector not in one unified labour market ... but in a large number of separate discipline specific labour markets with some fluidity and overlap ... also the area of non – salary benefits needed to be handled with care as these are more prevalent in the private sector ... many***

***academic professionals prefer to be compared with the self employed segment of the professionals concerned, rather than the wage and salary segment.”***

Since this research was conducted in the early 1990s such salary relativity analysis has become more difficult and confronts greater methodological and technical difficulties. Although academic salary AWE comparisons and academic salary have continued to be undertaken (Chapman, 2002, p.8) comparisons with New South Wales teachers, CSIRO researchers, members of parliament and the public sector have fallen out of favour due in part to some of the technical difficulties in making comparisons.

In comparisons with the public sector, the development of ever more complex Senior Executive Service remuneration packages meant that there was no longer one point to compare professorial and other academic salaries. Similar issues also make comparisons with teachers, CSIRO researchers and members of parliament difficult. As well, the academic salary scales have undergone dispersion with the introduction of enterprise bargaining, and academic salary scales now represent award minimum rates and do not take account salary loadings, external income and supplementary payment. Nevertheless, some traditional comparative data have been developed in this research. The following salary band comparator, Table 6.1, data has been developed for 2002.

The data reported for 2002 in Table 6.1 is static and based on nominal salaries. Time series and other analysis may be needed to develop more statistically valid comparators.

Norton in his exploration of the ‘Unchained University’ used the What Jobs Pay (2002) guide to develop a measure of academic salary relativities.

*The book What Jobs Pay provides something of a guide to average local pay differentials, though averages greatly understate total pay for those reaching the peaks of their professions. It puts the average lifetime earnings of a university lecturer at around \$2.3 million. Other university graduates, however, can earn more. Pharmacists average around \$2.5 million, as do electrical engineers. Computing professionals are a bit higher at \$2.6 million. Geologists hit the \$3 million mark, as do lawyers, and general practitioners and corporate treasurers reach \$3.6 million and \$3.7 million respectively. While academics do tend to be motivated by the intrinsic rewards of the job, that motivation is weakest in areas most necessary to professional training. In business and administration, for example, 66 per cent say they are motivated by intrinsic interest, compared to 81 per cent in the humanities and social sciences. About a third of business academics are open to temptation from business. It is surely not completely a coincidence that it is the areas of study with high-paying professions recruiting from the same talent pool that are rated worst for teaching by their students.*

Norton, 2002, pp. 41-2

Apart from the considerable research comparing academic salaries and average weekly earnings (Chapman 2002), the fragmentary nature of research in comparing academic and private professional salaries is evidenced by the literature. As Marginson admitted:

*at this stage we lack detailed models of most of those specific public and private sector labour markets within Australia which affect the supply of and demand for academic labour ... there is also a lack of data on the salaries paid in some of these labour markets ...*

Marginson, 1991, p. 33

Table 6.1 Salary Band Data

Area of occupation /Salary Scale	Band A \$37,000 - \$52,000	Band B \$53,000 - \$64,000	Band C \$65,000 - \$78,000	Band D \$79,000 - \$100,000	Band E \$101,000 - \$102,000
CSIRO Salary Scale	Level 3 Step 2 - \$38,319 Level 3E Step 8 - \$45,880 Level 4 Step 3 - \$51,056	Level 4 Step 4 - \$53,091 Level 5 Step 1 - \$57,302 Level 5 Step 2 - \$59,646	Level 6 Step 2 - \$68,284 Level 6 Step 3 - \$73,461 Level 7 Step 1 - \$78,413	Level 7 Step 2 - \$80,648 Level 8 Step 1 - \$93,554	Level 8 Step 2 - \$101,727
Library Staff  NSW Govt. Library Staff used as basis for salary figures given.	Library Technician Grade 1 Year 2 - \$38,365 Library Technician Grade 2 Year 1 - \$47,850 Library Technician Grade 2 Year 3 - \$51,294 Librarian or Archivist Grade 1 Year 2 - \$38,356 Librarian or Archivist Grade 1 Year 5 - \$45,223 Librarian or Archivist Grade 2 Year 1 - \$49,360	Library Technician Grade 2 Year 4 - \$53,842  Librarian or Archivist Grade 2 Year 3 - \$53,842  Librarian or Archivist Grade 3 Year 1 - \$58,951  Librarian or Archivist Grade 3 Year 3 - \$63,158	Librarian or Archivist Grade 4 Year 1 - \$67,647  Librarian or Archivist Grade 4 Year 4 - \$73,390  Librarian or Archivist Grade 5 Year 2 - \$78,563	Librarian or Archivist Grade 5 Year 3 \$81,089  Librarian or Archivist Grade 5 Year 4 \$83,840	
Australian Nuclear Science and Technology Organisation  - Research Scientists	Research Scientist - Class 6 \$40,958 Research Scientist - SO Class 1 \$42,187 Research Scientist - SO Class 2 \$47,482	Research Scientist - SO Class 2 \$53,441 Research Scientist - SO Class 3 \$56,696 Research Scientist - PRS \$58,396	Research Scientist - PRS \$65,725		
Teaching	Unpromoted Teachers Step 4 \$41,000 to Step 13 \$56,516	Executive Teacher - Primary School \$58,200 Assistant Principal Primary School - \$59,947 Primary School Principal Grade 6 (PP6) \$61,883 Head Teacher in TAFE Band 1 - \$60,520	Primary School Principal Grade 3 (PP3) \$76,780 Head Teacher TAFE Band 2 - \$65,757 Senior Head Teacher TAFE Step 1 - \$65,757 Senior Head Teacher TAFE Step 2 - \$67,385	Primary School Principal Grade 1 (PP1) \$86,778 Primary School Principal Grade 2 (PP2) \$80,023 High School Principal Grade 2 (PH2) \$86,778 High School Principal Grade 1 (PH1) \$90,572 TAFE Cluster Manager and Manager, Education and Training Resource Centre \$88,122 Nurse Manager Grade 7, 1 <sup>st</sup> Year \$81,215  Nurse Manager Grade 9, 2 <sup>nd</sup> Year \$94,364	
Nursing- NSW Nurse's Association Data Award pay rates - Public Hospital (as at 28.02.02)	Mothercraft Nurse 5 <sup>th</sup> Year \$36,065 Registered Nurse - 4 <sup>th</sup> year \$38,883 Registered Nurse - 7 <sup>th</sup> Year - \$44,936 Clinical Nurse Specialist \$48,698	Clinical Nurse Consultant - Grade 1 Year 1 - \$58,528 Nurse Manager Grade 1 Year 1 \$58,528 Nurse Educator 4 <sup>th</sup> Year - \$59,869 Nursing Unit Manager - Level III \$63,125	Clinic Nurse Consultant Grade 3, 2 <sup>nd</sup> Year \$65,692  Nurse Manager Grade 4, 1 <sup>st</sup> Year \$68,082	Base Salary: \$98,300 as at 1 <sup>st</sup> July 2002 to which the salary of office and allowances are added to. *	
State Members of Parliament Federal Determination 2002/16				Base Salary: \$98,300 as at 1 <sup>st</sup> July 2002 to which the salary of office and allowances are added to. *	
Federal Members of Parliament				Base Salary: \$98,800 to which the salary of office and allowances are added to.	

## Benchmarking

Benchmarking has been described by Camp (1989) as a systematic and continuous process that continuously measures and compares an organisation against leaders anywhere in the world, to gain information which will help the organisation take action to improve its performance. During the 1990s benchmarking came to be seen as basically involving five steps:

1. identification of the object of study and comparison;
2. the collection and analysis of the comparative data;
3. selection and identification of superior performance in benchmarking partners;
4. use of this comparative data to set performance goals for process and method improvement; and
5. implementation of new management plans and the monitoring of results.

Further applications of benchmarking methodologies had also identified different types of benchmarking based around the object of comparison. Benchmarking practices became generically classified according to the nature of the object of study of the benchmarking and the sorts of comparisons made. Process benchmarking came to describe benchmarking that compared operations or work practices for certain types of business processes or other workplace structures that involved a series of operations. Product benchmarking described benchmarking which compared products or services, the outputs of particular processes operating in the business, and strategic benchmarking became used in describing comparisons of organisational structures or management practices or business strategies.

Competitive benchmarking came to describe those comparisons with direct competitors, both in business or in other organisations. Competitive benchmarking involved comparisons of the outputs of businesses, either services or products. Another term applied to this process is reverse engineering, where a competitor's products are broken down, inspected and explored, and then compared to the products and services provided by the businesses undertaking the benchmarking. Functional benchmarking came to describe benchmarking with best practice. Functional benchmarking involves the identification of best practice and the measurement of gaps between best practices and current practices. Application of benchmarking in workplace and industrial relations is relatively rare. However, comparative benchmarking among organizations is popular because

*the key to improvement lies in understanding how critical functions are best performed rather than simply measuring outcomes.*

Kelly, 2001, p.2

The Department of Education, Training and Youth Affairs funded a benchmarking exercise for Australian universities and has published *Benchmarking: A Manual for Australian Universities* by McKinnon, Walker and Davis (2000). This project developed 67 benchmarks that are currently being trialled. The 67 benchmarks include four specifically dealing with staffing issues. These issues include:

- strategic human resource planning;
- management of workforce;
- workforce diversity; and
- career development.

Although these benchmarks are intended to identify best practice staffing processes for application across the sector, they have neglected salary considerations and many of the issues that are vital in EBA

negotiations. However, the career development and strategic human resource planning benchmarks are crucial constructs in considering salary relativity issues.

In the development of the benchmarks, salary scales were seen as a constant, common across the sector, and providing a measure that could be used to compare the ability of universities to attract and retain appropriate staff. This conceptualisation of salary scales ignores the current practices identified in Chapter 5.

The project did showcase benchmarking methodologies in developing meaningful comparisons for universities. *“Complex institutions, to keep relevant, must respond successfully to the massive changes now challenging. Benchmarking thus needs not only to identify successes to date but also vital signs of adaptation to the future.”*

McKinnon et al, 2000

Benchmarking involves the following steps:

1. development of a rationale for each individual benchmark;
2. explication and conceptualization of the bench-mark;
3. identification of appropriate performance measures;
4. measurement and analysis of the measure; and
5. comparison of measures to indicate results.

Two kinds of benchmark may be readily distinguished: criterion reference where the attributes of good practice in a functional area are measured and compared; and quantitative benchmarks, where normative and competitive levels of achievement are measured using comparisons to averages. These distinguish where practice is quantifiably different in some way.

Often quantitative differences will signal good practice, sometimes poor practice.

According to McKinnon

*... the development of benchmarks involves making judgements about what matters and how it is to be measured. The rationale for each benchmark and the objectivity required of ratings should, however, have face validity.*

McKinnon et al, 2002, p. 8

## **Benchmarking salary relativities**

To overcome the problems identified and discussed previously in developing comparative private professional and academic salary data, the project team developed a benchmark approach to attempt to compare salary relativities. This benchmarking research project involved the following steps and processes:

1. choice of job families;
2. selection of academic salary scales;
3. benchmarking of private sector positions within academic salary scales;
4. comparison of job descriptions of private sector positions with academic positions at the same salary level; and
5. replication of this analysis in the US and Canada.

These steps and processes are described below.

### ***Choice of job families***

For this benchmarking project, the team commissioned a leading international firm, Mercer Human Resource Consulting to undertake a remuneration bench-marking study of private sector positions, job descriptions and salaries in four job families in Australia, the USA and Canada. Mercer Human Resource Consulting maintains a worldwide and extensive database of over 300,000 public and private sector positions and salary scales and job descriptions.

Job families are a classification of private sector occupational groups that reflect common training and expertise. Human resource firms typically develop job families as a way of classifying skills and experiences across a range of occupations. The project team required Mercer to collect data on four job families:

- information technology;
- finance and administration;
- engineering/science; and
- human resources.

The job families were selected in accordance with the project brief to compare salaries between universities and a range of professional occupations and to compare within those job families where salary pressure is clearly evident.

For example the science and engineering job families that Mercer collected data on reflected several private sector occupations covered by the ABS employment classification data.

Crucial to the benchmarking approach adopted in this project was the development of descriptions of the benchmark positions covered in the study. These are presented in the associated documents entitled 'Position Descriptions'. Definitions of the terms used in this research are provided in the separate benchmarking documents submitted with the report.

### ***Choice of academic salary scales for comparison***

The selection of the salary scales for the benchmarking process was based on analysis of 2002 EBA negotiated salary scales. Academic salary scales from the third round of EBA agreements for the 12 universities involved in the structured interviews were procured and analysed.

One of the participating universities without an EBA was not included in the analysis. Since the introduction of enterprise bargaining in 1993, salary and employment condition negotiations have produced small but significant salary scale dispersions across the sector. Despite the intention of the NTEU to restrict salary dispersion and significant salary scale differences, "individual enterprise is responsive to local conditions" and different agreements and outcomes have arisen in the sector.

The project team chose the median salary scale from the 11 analysed, and used this five step salary scale as the comparator for the analysis of the private sector job positions undertaken in the Mercer analysis. The salary scale was rounded down.

For these scales Mercer identified positions within their general market database that command salaries within those following five academic salary scales. Table 6.2 indicates the academic salary scales:

- Associate Lecturer (\$37,000 - \$51,000);
- Lecturer (\$37,000 - \$64,000);

- Senior Lecturer (\$65,000 - \$76,000) ;
- Reader / Associate Professor (\$79,000 - \$88,000); and
- Professor (\$101,000 - \$102,000).

Since some private sector salaries are in excess of the five level academic salary scales, the project also identified private sector positions in Australia falling within a salary range of A\$100,000 to A\$250,000. (see Table 6.2)

### **Identification of private sector salaries and positions within the academic salary scales**

For the salary scales indicated Mercer identified a range of corresponding private sector positions with fixed salaries within these specific scales from the four job families. For this analysis the construct of a fixed salary was used. A fixed salary is described as the total of the following items:

- base salary;
- vehicle/entertainment allowances;
- parking;
- annual leave loading;
- private travel;
- superannuation (salary sacrifice);
- award allowances;
- other cash payments (other costs);
- company cars;
- superannuation (company contribution including the SGC);
- loans;
- fringe benefits and non fringe benefits; and
- fringe benefits tax.

The fixed salary analysis was developed as an attempt to equate private and university salaries. This fixed salary does not include significant components of private sector remuneration such as performance pay, profit sharing and bonuses. However, it does include the range of items indicated in the list. University salary data reported does not include superannuation, a considerable benefit in university remuneration.

In the US and Canadian analysis, fixed salary was too difficult to develop. As a result base salary was used. Base salary is defined as annual salary excluding any other additional payments. It is sometimes simply referred to as salary.

The salary data is expressed as an inter quartile range for the salary selected. The inter quartile range is described in the following way:

**Lower quartile:** The lower quartile is the mid-point of the lower half of the sample. That is, the lower quartile is the score below which 25 per cent of the cases fall and above which 75 per cent fall.

**Median:** The median is the mid-point of a range of figures. It is calculated by sorting all the values into ascending order then locating the value above which 50 per cent of the scores fall and below which 50 per cent of the scores fall.

**Upper quartile:** The upper quartile is the mid-point of the upper half of the sample. The upper quartile is the score below which 75 per cent of cases fall and above which 25 per cent fall.

The Tables 6.2, 6.3, 6.4 and 6.5 for the four job families show the results of this benchmarking analysis. The academic salary scales and positions are shown on the left and the associated private sector positions and salary ranges are shown on the right.

**Table 6.2 Benchmarking private sector positions within academic salary scales**

## Information Technology Positions data - Australia

Academic salary scale (A\$)	IT positions (Fixed salary A\$: Q1, median, Q3)	
<b>100,000 – 250,000</b>	<ul style="list-style-type: none"> <li>Principal MIS Executive (162117, 194355, 227405)</li> </ul>	
<b>101,000 / 102,000</b>	<ul style="list-style-type: none"> <li>Communications Specialist/Consultant (61979, 81720, 106889)</li> <li>Manager, Information Systems (98364, 121894, 145133)</li> <li>Systems Manager (87496, 102041, 116194)</li> </ul>	<ul style="list-style-type: none"> <li>Project Manager (90477, 104313, 121113)</li> <li>Computer Operations Manager (88020, 100866, 125759)</li> </ul>
<b>79,000 – 88,000</b>	<ul style="list-style-type: none"> <li>Communications Specialist/Consultant (61979, 81720, 106889)</li> <li>Senior Software Analyst (61479, 76628, 101021)</li> <li>Database Programmer (65553, 73105, 83835)</li> <li>Helpdesk Manager (55668, 66384, 82,000)</li> <li>Senior Systems Analyst (75733, 86048, 95111)</li> </ul>	<ul style="list-style-type: none"> <li>Senior Analyst Programmer (78143, 87294, 94654)</li> <li>Experienced Analyst Programmer (67123, 76689, 88839)</li> <li>Senior Programmer (52486, 78249, 93921)</li> <li>Database Administrator (67165, 80500, 90399)</li> </ul>
<b>65,000 – 76,000</b>	<ul style="list-style-type: none"> <li>LAN Administrator (56860, 65340, 75600)</li> <li>Senior Software Analyst (61479, 76628, 101021)</li> <li>Information Technology Training Manager (58240, 63768, 77180)</li> <li>Database Programmer (65553, 73105, 83835)</li> <li>Helpdesk Manager (55668, 66384, 82,000)</li> <li>Systems Analyst (65961, 74649, 78824)</li> </ul>	<ul style="list-style-type: none"> <li>Experienced Analyst Programmer (67123, 76689, 88839)</li> <li>Analyst Programmer (59616, 68951, 80052)</li> <li>Senior Programmer (52486, 78249, 93921)</li> <li>Computer Operations Supervisor (53697, 62787, 70863)</li> <li>Database Administrator (67165, 80500, 90399)</li> <li>Business Analyst (61802, 71722, 78292)</li> </ul>
<b>53,000 – 64,000</b>	<ul style="list-style-type: none"> <li>LAN Administrator (56860, 65340, 75600)</li> <li>Information Technology Training Manager (58240, 63768, 77180)</li> <li>Helpdesk Manager (55668, 66384, 82,000)</li> <li>PC Support Specialist (54673, 57000, 64937)</li> <li>Analyst Programmer (59616, 68951, 80052)</li> </ul>	<ul style="list-style-type: none"> <li>Programmer (44494, 52234, 61184)</li> <li>Computer Operations Supervisor (53697, 62787, 70863)</li> <li>Senior Computer Operator (49930, 55300, 64624)</li> <li>Business Analyst (61802, 71722, 78292)</li> <li>User Doc Specialist/Technical Writer (45925, 57633, 65340)</li> </ul>
<b>37,000 – 51,000</b>	<ul style="list-style-type: none"> <li>Helpdesk Officer (39480, 43727, 47760)</li> <li>Programmer (44494, 52234, 61184)</li> <li>Trainee Programmer (37033, 38657, 49645)</li> <li>Senior Computer Operator (49930, 55300, 64624)</li> </ul>	<ul style="list-style-type: none"> <li>Computer Operator (40383, 47172, 54518)</li> <li>Data Control Supervisor (42307, 49500, 53937)</li> <li>User Doc Specialist/Technical Writer (45925, 57633, 65340)</li> </ul>

**Table 6.3 Benchmarking private sector positions within academic salary scales**

## Finance and Administration Positions data - Australia

Academic salary scale (A\$)	Finance and Administration positions (Fixed salary A\$: Q1, median, Q3)	
100,000 – 250,000	<ul style="list-style-type: none"> <li>• Principal Legal Executive (171621, 210201, 268697)</li> <li>• Principal Finance Executive (181349, 217117, 268566)</li> <li>• Principal Administration Executive (146779, 169731, 208529)</li> <li>• Principal Planning Executive (148501, 177072, 210062)</li> <li>• Principal Internal Auditor (119322, 144511, 160885)</li> </ul>	<ul style="list-style-type: none"> <li>• Corporate Treasurer (126875, 146726, 213040)</li> <li>• Financial Controller (120008, 135589, 155968)</li> <li>• Division Finance Manager (111927, 121565, 138025)</li> <li>• Taxation Manager (111228, 139320, 180305)</li> </ul>
101,000 / 102,000	<ul style="list-style-type: none"> <li>• Legal Officer (75449, 99628, 119288)</li> <li>• Corporate Planner/Analyst (90776, 107979, 118409)</li> <li>• PR/Corporate Affairs Manager (93960, 122448, 143847)</li> <li>• Corporate Superannuation Manager (92748, 111075, 126964)</li> <li>• Corporate Services/Facilities Manager (84273, 100000, 114969)</li> <li>• Risk Manager (100765, 118712, 134990)</li> </ul>	<ul style="list-style-type: none"> <li>• Chief Accountant (93784, 111683, 134917)</li> <li>• Factory/Plant Accountant (78911, 104279, 119272)</li> <li>• Senior Management Accountant (84220, 101745, 122073)</li> <li>• Senior Taxation Accountant (80473, 103800, 122864)</li> <li>• Finance &amp; Administration Manager (89646, 96273, 123834)</li> </ul>
79,000 – 88,000	<ul style="list-style-type: none"> <li>• Legal Officer (75449, 99628, 119288)</li> <li>• Internal Auditor (61268, 72838, 86888)</li> <li>• Publications Editor (66014, 71728, 82515)</li> <li>• Corporate Services/Facilities Manager (84273, 100000, 114969)</li> <li>• Division/State/Branch Accountant (68600, 86830, 99551)</li> <li>• Factory/Plant Accountant (78911, 104279, 119272)</li> <li>• Internal Auditor (61268, 72838, 86888)</li> <li>• Secretary to Chief Executive (53378, 60937, 70047)</li> <li>• Publications Editor (66014, 71728, 82515)</li> <li>• Division/State/Branch Accountant (68600, 86830, 99551)</li> <li>• Senior Cost Accountant (75165, 80137, 93435)</li> <li>• Management Accountant (68286, 77542, 92000)</li> </ul>	<ul style="list-style-type: none"> <li>• Senior Cost Accountant (75165, 80137, 93435)</li> <li>• Senior Management Accountant (84220, 101745, 122073)</li> <li>• Management Accountant (68286, 77542, 92000)</li> <li>• Senior Financial Accountant (69000, 85033, 96309)</li> <li>• Senior Taxation Accountant (80473, 103800, 122864)</li> <li>• Taxation Accountant (62368, 69678, 82700)</li> <li>• Senior Financial Accountant (69000, 85033, 96309)</li> <li>• Financial Accountant (54920, 66500, 77942)</li> <li>• Taxation Accountant (62368, 69,678, 82700)</li> <li>• Credit Manager (61875, 75462, 91494)</li> <li>• Administration Manager (49259, 61920, 79678)</li> </ul>
65,000 – 76,000	<ul style="list-style-type: none"> <li>• Internal Auditor (61268, 72838, 86888)</li> <li>• PA to Senior Executive (47323, 51174, 56453)</li> <li>• Secretary to Chief Executive (53378, 60937, 70047)</li> <li>• Librarian (45597, 57000, 64507)</li> <li>• Cost Accountant (57610, 61153, 64197)</li> </ul>	<ul style="list-style-type: none"> <li>• Financial Accountant (54920, 66500, 77942)</li> <li>• Taxation Accountant (62368, 69678, 82700)</li> <li>• Credit Manager (61875, 75462, 91494)</li> <li>• Office Manager/Supervisor (43680, 50842, 63768)</li> <li>• Administration Manager (49259, 61920, 79678)</li> </ul>

<b>37,000 – 51,000</b>	<ul style="list-style-type: none"> <li>• PA to Senior Executive (47323, 51174, 56453)</li> <li>• Librarian (45597, 57000, 64507)</li> <li>• Graduate Accountant (41166, 45925, 48600)</li> <li>• Credit Officer (38576, 38830, 44832)</li> <li>• Senior Accounts Clerk (41927, 46998, 54846)</li> <li>• Office Manager/Supervisor (43680, 50842, 63768)</li> </ul>	<ul style="list-style-type: none"> <li>• Clerical Section Supervisor (42106, 49117, 54279)</li> <li>• Administration Manager (49259, 61920, 79678)</li> <li>• Accounts Clerk (36289, 40669, 44338)</li> <li>• General Secretary (40164, 44505, 48326)</li> <li>• Word Processing Supervisor (36796, 46688, 49331)</li> <li>• Desktop Publisher (38271, 43850, 49165)</li> </ul>
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**Table 6.4 Benchmarking private sector positions within academic salary scales**

Engineering and Scientific Positions data - Australia

Academic salary scale (A\$)	Engineering and Scientific positions (Fixed salary A\$: Q1, median, Q3)	
<b>100,000 – 250,000</b>	<ul style="list-style-type: none"> <li>• Principal R &amp; D Executive (157239, 177052, 230092)</li> <li>• Principal Engineering Executive (140676, 171108, 215239)</li> </ul>	<ul style="list-style-type: none"> <li>• Chief Engineer (104714, 119133, 133268)</li> <li>• Chief Chemist (108717, 121108, 137356)</li> </ul>
<b>101,000 / 102,000</b>	<ul style="list-style-type: none"> <li>• Experienced Project Engineer (79980, 91805, 104930)</li> <li>• Experienced Plant Engineer (75679, 88607, 111400)</li> <li>• Experienced Industrial Engineer (73236, 84457, 105985)</li> <li>• Experienced Maintenance Engineer (76258, 104820, 110297)</li> <li>• Experienced Development Engineer (73236, 77188, 102080)</li> </ul>	<ul style="list-style-type: none"> <li>• Senior Project Manager - Development (77631, 93971, 123958)</li> <li>• National Service Manager (86082, 103791, 112358)</li> <li>• Quality Assurance Manager (75271, 94848, 111888)</li> <li>• Laboratory Manager (74347, 96675, 108480)</li> </ul>
<b>79,000 – 88,000</b>	<ul style="list-style-type: none"> <li>• Experienced Project Engineer (79980, 91805, 104930)</li> <li>• Experienced Design Engineer (69142, 82027, 101000)</li> <li>• Experienced Plant Engineer (75679, 88607, 111400)</li> <li>• Plant Engineer (54037, 63360, 95450)</li> <li>• Experienced Industrial Engineer (73236, 84457, 105985)</li> <li>• Experienced Maintenance Engineer (76258, 104820, 110297)</li> <li>• Experienced Development Engineer (73236, 77188, 102080)</li> <li>• Senior Project Manager - Development (77631, 93971, 123958)</li> </ul>	<ul style="list-style-type: none"> <li>• Chief Drafter (68046, 78022, 100803)</li> <li>• Senior Technical Officer (63217, 74910, 94475)</li> <li>• National Service Manager (86082, 103791, 112358)</li> <li>• State/Branch Service Manager (76680, 86400, 99591)</li> <li>• Quality Assurance Manager (75271, 94848, 111888)</li> <li>• Scientific Officer Level 3 (61560, 76535, 82480)</li> <li>• Laboratory Manager (74347, 96675, 108480)</li> </ul>
<b>65,000 – 76,000</b>	<ul style="list-style-type: none"> <li>• Project Engineer (58300, 68289, 78636)</li> <li>• Experienced Design Engineer (69142, 82027, 101000)</li> <li>• Design Engineer (53091, 58520, 66960)</li> <li>• Plant Engineer (54037, 63360, 95450)</li> <li>• Experienced Industrial Engineer (73236, 84457, 105985)</li> <li>• Maintenance Engineer (62651, 68082, 70819)</li> </ul>	<ul style="list-style-type: none"> <li>• Senior Design Drafter (53570, 62874, 69850)</li> <li>• Senior Technical Officer (63217, 74910, 94475)</li> <li>• Field Service Representative (52367, 58721, 72837)</li> <li>• Senior Chemist (63997, 69136, 76921)</li> <li>• Experienced Chemist (58762, 67935, 73235)</li> <li>• Scientific Officer Level 3 (61560, 76535, 82480)</li> </ul>

	<ul style="list-style-type: none"> <li>Experienced Development Engineer (73236, 77188, 102080)</li> <li>Research &amp; Dev. Engineer (58373, 64322, 68688)</li> </ul>	<ul style="list-style-type: none"> <li>Environmental Scientist (57224, 59394, 68194)</li> </ul>
<b>53,000 – 64,000</b>	<ul style="list-style-type: none"> <li>Project Engineer (58300, 68289, 78636)</li> <li>Design Engineer (53091, 58520, 66960)</li> <li>Plant Engineer (54037, 63360, 95450)</li> <li>Industrial Engineer (56310, 61743, 65970)</li> <li>Maintenance Engineer (62651, 68082, 70819)</li> <li>Research &amp; Dev. Engineer (58373, 64322, 68688)</li> <li>Senior Design Drafter (53570, 62874, 69850)</li> </ul>	<ul style="list-style-type: none"> <li>Design Drafter (40712, 49483, 66351)</li> <li>Field Service Representative (52367, 58721, 72837)</li> <li>Service Technician (41170, 48600, 58270)</li> <li>Experienced Chemist (58762, 67935, 73235)</li> <li>Chemist (46331, 53670, 55681)</li> <li>Scientific Officer Level 3 (61560, 76535, 82480)</li> <li>Environmental Scientist (57224, 59394, 68194)</li> </ul>
<b>37,000 – 51,000</b>	<ul style="list-style-type: none"> <li>New Graduate Engineer (42175, 46037, 49001)</li> <li>Design Drafter (40712, 49483, 66351)</li> <li>Detail Drafter (42818, 44165, 50475)</li> <li>Technical Officer (47001, 50249, 51222)</li> </ul>	<ul style="list-style-type: none"> <li>Service Technician (41170, 48600, 58270)</li> <li>Chemist (46331, 53670, 55681)</li> <li>Scientific Officer Level 1 (38733, 44063, 51520)</li> <li>Laboratory Technician (42315, 45082, 51345)</li> </ul>

**Table 6.5 Benchmarking private sector positions within academic salary scales**

Human Resources Positions data - Australia

Academic salary scale (A\$)	Human Resources positions	
	(Fixed salary A\$: Q1, median, Q3)	
<b>100,000 – 250,000</b>	<ul style="list-style-type: none"> <li>Principal Human Resources Executive (156808, 182301, 220908)</li> </ul>	<ul style="list-style-type: none"> <li>Industrial Relations Manager (107109, 120189, 138486)</li> </ul>
<b>101,000 / 102,000</b>	<ul style="list-style-type: none"> <li>Human Resources Manager (86209, 106342, 124769)</li> <li>Compensation &amp; Benefits Manager (87800, 105221, 138041)</li> <li>Division Human Resources Manager (91613, 102790, 123900)</li> </ul>	<ul style="list-style-type: none"> <li>Training Manager (76895, 91356, 110922)</li> <li>Plant Personnel Manager (73550, 94742, 110517)</li> <li>Organisation Development Manager (81879, 94889, 124802)</li> </ul>
<b>79,000 – 88,000</b>	<ul style="list-style-type: none"> <li>Human Resources Manager (86209, 106342, 124769)</li> <li>Compensation &amp; Benefits Manager (87800, 105221, 138041)</li> <li>Training Manager (76895, 91356, 110922)</li> </ul>	<ul style="list-style-type: none"> <li>Plant Personnel Manager (73550, 94742, 110517)</li> <li>Organisation Development Manager (81879, 94889, 124802)</li> </ul>
<b>65,000 – 76,000</b>	<ul style="list-style-type: none"> <li>Plant Personnel Manager (73550, 94742, 110517)</li> <li>Industrial Relations Specialist (65431, 71239, 72640)</li> </ul>	<ul style="list-style-type: none"> <li>OHS Specialist (51001, 56207, 67658)</li> <li>Payroll (HRIS) Manager (56375, 64,298, 75600)</li> </ul>
<b>53,000 – 64,000</b>	<ul style="list-style-type: none"> <li>Training Specialist (50482, 56452, 63589)</li> <li>HR Generalist (49042, 54958, 63925)</li> <li>OHS Specialist (51001, 56207, 67658)</li> </ul>	<ul style="list-style-type: none"> <li>Industrial Nurse (49206, 58442, 61380)</li> <li>Payroll (HRIS) Manager (56375, 64,298, 75600)</li> <li>Senior Payroll Officer (45976, 51769, 57686)</li> </ul>
<b>37,000 – 51,000</b>	<ul style="list-style-type: none"> <li>HR Generalist (49042, 54958, 63925)</li> <li>Payroll Officer (41016, 45845, 52114)</li> </ul>	<ul style="list-style-type: none"> <li>Industrial Nurse (49206, 58442, 61380)</li> <li>Senior Payroll Officer (45976, 51769, 57686)</li> </ul>

## Comparison of private sector and academic positions

### *Information Technology Positions*

Of the professions selected by the project team for comparison with academic positions the information technology job family is the most comparable.

In many instances universities are competing directly with the private sector and salaries were a reflection of shortages of skilled labour in both the private and public sectors at this time.

Over the period June to December 2002, it was not unusual for Australian universities to offer recruits in IT salary loadings or appointment at a higher salary level.

The information technology sector in universities values and maintains close ties with industry. In the job advertisements analysed twelve Australian universities included industry experience or strong links with industry in their advertised selection criteria when recruiting information technology academics.

One university had advertised for a lecturer in information technology. While it sought applicants with a doctoral degree, it also encouraged applications from candidates with significant business or professional experience who did not have a relevant doctoral degree.

### Associate Lecturer (\$37,000-\$51,000)

At this salary level, IT positions in the private sector identified by MERCER typically require a level of experience ranging from one to six years and formal qualifications ranging from nil to Higher School Certificate (Year 12) to a degree or diploma.

The private sector position matching indicators for positions with a median salary clearly within the academic salary range \$37,000- \$51,000 are:

- Helpdesk Officer - sound knowledge of software and hardware products and PC Desktop/LAN operations;
- Trainee Programmer - less than one year's experience, with a three or four year degree or diploma;
- Computer Operator - level of experience varies from one to four years, with Higher School Certificate and possibly some form of further education in information technology;
- Data Control Supervisor - four to six years as a data preparation operator with some prior supervisory experience.

An example of a private sector position description within this salary range is Trainee Programmer – who is paid in the salary range \$37,033, \$38,657, \$49,645.

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### **Trainee Programmer**

Position reports to:

Programmer or Senior Programmer.

Primary objective:

Assist, under close supervision, with the writing, testing and maintenance of computer programs and develop an understanding and knowledge of company policy in relation to programming.

Specific accountabilities:

- Code simple sub routines and modules which have been designed by an experienced programmer;
- Become familiar with program specifications;
- Develop knowledge of company policy in relation to programming;
- Perform other programming duties as directed.

Matching indicators:

Incumbent would have less than one year's experience, with a three to four year degree or diploma.

What this benchmarking analysis demonstrates is how private sector salaries have influenced the academic labour market.

The traditional source of associate lecturers has been postgraduate students undertaking research and research training. Because of the poor relative salaries at associate lecturer level compared to the private sector, potential research and post graduate students have been attracted to the private sector by the higher salaries on offer for positions requiring less training, skills and qualifications.

As well, there are features of the information technology industry which also impact on the range of motivation in choosing employment be it in the private sector or in universities. IT professionals are highly mobile and demonstrate enthusiasm for change. They regularly move for employment opportunities and career progression, enhancement and job security.

The situation in the IT labour market reported here is also evident in analyses of the US, Canadian, European and UK IT labour markets.

At the salary level of lecturer to senior lecturer (\$53,000-\$76,000) IT positions in the private sector typically require more than four years experience in the industry.

The validation study undertaken to support this analysis revealed that because of salary relativities no associate lecturers were being employed in IT at the university concerned. For appointment at the bottom of the lecturer scale significant loadings had to be paid to attract staff.

The private sector position matching indicators for positions with a median salary clearly within the academic salary range \$53,000-\$76,000 are:

#### Lecturer (\$53,000-\$64,000)

- PC Support Specialist - substantial experience working with PCs and/or tertiary qualifications in a related discipline;
- Programmer - one to three years programming experience, with a three or four year degree or diploma;
- Computer Operations Supervisor - some form of further education in data processing plus more than four years operating experience using similar computers and systems;
- Senior Computer Operator - higher School Certificate, possibly further education in data processing, and at least four years operating experience with computers and systems;
- User Documentation Specialist/Technical Writer - experience in writing/documentation or similar function, preferably with experience in an information technology environment.

### Senior Lecturer (\$65,000-\$76,000)

- Information Technology Training Manager - extensive experience developing and delivering training, as well as experience managing an IT unit or similar training function;
- LAN Administrator - experience in administering local area networks as well as a sound knowledge of personal computers/ workstations or similar information technology function;
- Database Programmer - experience in database programming function or similar information technology user services function;
- Helpdesk Manager - three to five years experience in a help desk environment or similar IT services function;
- Systems Analyst - four to five years experience in software development and programming;
- Analyst Programmer - tertiary qualifications and more than three years experience as an applications programmer;
- Business Analyst - knowledge of the development, implementation and support of business systems and a capacity to work with a range of personnel;
- Experience Analyst Programmer - tertiary qualifications and three to five years experience.

An example of a private sector position description within this salary range is Information Technology Training Manager who is paid in the salary range \$58,240, \$63,768, \$77,180 between lecturer and senior lecturer.

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### **Information Technology Training Manager**

Position reports to:

User Services/Support Manager

Primary objective:

Plan, implement and manage training strategies to assist staff in developing skills to be productive in their use of information technology.

Specific accountabilities:

- Conduct and interpret training needs analyses to determine the information technology skills pool of an organisation;
- Develop training plans and programs consistent with business objectives and user needs;
- Actively seek new training business opportunities;
- Manage the development of training resources that could be used to implement a training program;
- Manage training facilities to ensure they meet workplace standards for both hardware and software;

- Monitor the quality of training delivery and provide appropriate feedback to members of the training team on their performance;
- Investigate and implement training programs that can gain accreditation from relevant bodies;
- Compare and evaluate a range of in-house and external training options;
- Develop training evaluation tools and monitor the data they capture to report on the effectiveness of training programs;
- Maintain currency with developments in the IT industry, as well as with other training practitioners, to ensure training delivery is of the highest quality;
- Build a team of well trained, competent IT trainers who are technically competent and have highly developed skills and knowledge in training methodology;
- Liaise with other IT managers to determine strategic IT directions and respond with appropriate training strategies;
- Build relationships with management and staff to promote the work of the training team and ensure the team's roles and responsibilities are understood.

Matching indicators:

Extensive experience developing and delivering training, as well as experience managing an IT training unit or similar training function.

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This benchmarking analysis shows that there is a degree of convergence between the job descriptions of private and university sector positions. Private sector employment places a significant premium on current industry experience and on the job problem solving. However, typically the work of lecturer/senior lecturer incorporates the skills, experiences and capacities of both these positions.

Private sector positions with research responsibility include Systems Analyst (salary range \$65,961, \$74,649, \$78,824) and Senior Programmer (salary range \$52,486, \$78,249, \$93,399).

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### **Systems Analyst**

Position reports to:

Project Leader or Systems Manager

Primary objective:

Analyse and guide functions, operations, procedures and physical systems. Investigate technical problems to establish, develop and design procedures for computerised data processing systems.

Specific accountabilities:

- Analyse and develop software requirements;
- Establish system specifications appropriate to the problem/s by consulting with management, administration and technical staff;
- Define and write program specifications;

- Estimate costs of systems and prepare cost-benefit analyses, definitions and schedules for management approval;
- Prepare flow charts, mathematical and other models of problems, and produce formalised solutions;
- Write programming specifications and prepare technical reports on the operation of systems;
- Test programs to eliminate errors to ensure that programs meet user requirements;
- Coordinate the preparation of software manuals and operation guides specifying methods of operation and maintenance of systems;
- In a small data centre environment, may be required to assist in the programming and installation of the approved systems;
- At a more experienced level, may develop and conduct training courses on programming or systems analysis/design and direct project staff engaged on systems analysis;
- At a more experienced level, may investigate system changes likely to occur during the life of company systems and draft guidelines outlining anticipate requirements.

Matching indicators:

Typically, incumbents would have four to five years experience in software development and programming.

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#### Associate Professor (\$79,000-\$88,000)

At this salary level IT positions in the private sector identified by Mercer typically require tertiary qualifications and five to ten years experience.

The private sector position matching indicators for positions with a median salary clearly within the academic salary range \$79,000-\$88,000 are:

- Communications Specialist/Consultant - three to four year degree or diploma and five to seven years experience in a communications/networking environment;
- Senior Software Analyst - tertiary qualifications and at least 10 to 15 years programming and analysis experience;
- Senior Systems Analyst - tertiary qualifications and five to ten years experience in software development and programming with four or more years in systems analysis;
- Experienced Analyst Programmer - tertiary qualifications and three to five years experience;
- Senior Programmer - tertiary qualifications and up to five years programming experience, with exposure to a variety of programming projects;
- Database Administrator - some form of tertiary education and significant experience in either systems, programming or operations.

Private sector positions with research responsibility include Senior Analyst Programmer salary - level (\$78,143, \$87,294, \$94,654).

### **Senior Analyst Programmer**

Position reports to:

Senior Systems Analyst, Project Leader or Systems Manager

Primary objective:

Undertake systems design from systems specifications and provide support in a project team to the development and improvement of existing software systems.

Specific accountabilities:

- Undertake systems design and code from specifications;
- Conduct comprehensive tests and prepare documentation for programming;
- Participate in the installation of minor system modifications and undertake system generation and initial integration using a preconfigured system as a base;
- Perform preliminary dumps analysis and software problem solving;
- Provide support to development, maintenance and operations project teams;
- Design and maintain housekeeping procedures and operational standards as directed;
- Undertake development of utility programs or defined components of software systems.

Matching indicators:

Typically, incumbents would have a tertiary qualification and more than five years programming experience.

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### **Professor (\$101,000-\$102,000)**

At this salary level IT positions in the private sector identified by Mercer typically require tertiary qualifications and significant industry and resource management experience.

The private sector positions matching indicators for positions with a median salary clearly within the academic salary range \$101,000-\$102,000 are:

- Systems Manager - tertiary qualifications and at least five to ten years MIS experience;
- Computer Operations Manager - extensive experience in computer operations management, or similar information technology function, as well as knowledge of, and experience in managing resources.

An example of a private sector position description within this salary range is Systems Manager who is paid in the salary ranges \$87,496, \$102,041, \$116,194.

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### **Systems Manager**

Position reports to:

Principal MIS Executive or DP Manager

Primary objective:

Control and coordinate the development and implementation of data processing procedures and the provision of advice to user departments to optimise the use of the company's computer systems.

Specific accountabilities:

- Direct the overall maintenance and development of systems which are appropriate to the organisation's needs;
- Direct overall systems analysis and design for specific applications and recommend priorities accordingly. Ensure that applications developed for different segments of the organisation are compatible;
- Act as systems adviser to user departments and liaise with senior management on systems issues as appropriate;
- Assist in the development of organisation methods to ensure work flow to and from the data processing system takes place in a timely and efficient manner;
- Assist in the selection, installation and use of computing equipment and software. May liaise with software houses, consultants, etc on behalf of the department;
- Coordinate maintenance work and quality control;
- Examine methods of storing data, such as magnetic tape, microfilm and emerging technologies. Recommend new or alternative techniques and supervise their introduction;
- Supervise systems analysts and programmers in terms of day-to-day administration and allocate staff to meet agreed project targets;
- Assist in the preparation of computer budget proposals and estimate project workloads;
- Arrange for the training and development of staff engaged in systems analysis and lead discussions with members participating in systems definition and design strategy.

Matching indicators:

Tertiary qualifications and at least five to ten years MIS experience.

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### Professor (\$100,000-\$250,000)

At this level tertiary qualifications are often required as well as extensive management experience.

The private sector position matching indicators for positions with a median salary clearly within the academic salary range \$101,000-\$250,000 are:

- Manager, Information Systems - three to five year degree or diploma and at least ten years MIS experience;
- Project Manager - tertiary qualifications and at least ten years experience as a computing professional;
- Principal MIS Executive - 3 to 5 year degree or diploma and over 15 years experience in an information systems environment, with at least 30 staff and an installation cost greater than \$900,000.

An example of a private sector position description within this salary range is Manager, Information Systems who is paid in the salary range \$98,364, \$121,894, \$145,133. A professor would be expected to carry out all these duties as well as actively research and publish.

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### **Manager, Information Systems**

Position reports to:

Principal MIS or Finance and Administration Executive or Chief Executive

Primary objective:

Plan and direct the information processing activities of the organisation and coordinate the effective design, implementation and operation of IS systems and applications.

Specific accountabilities:

- plan, develop and direct the introduction and operation of IT systems and their development, maintenance and operating priorities;
- plan and coordinate all investigations, feasibility studies and surveys of proposed and existing IS and machine applications for agreement with senior management;
- guide the selection, installation and use of computing equipment and software;
- maintain an up-to-date knowledge of new equipment, systems and programming techniques appropriate to the organisation;
- participate in the familiarisation of key management with data processing techniques;
- control and recommend operations and development budgets;
- control the security of information systems;
- direct maintenance work and quality control to ensure the efficient and timely operation of the IT function;
- monitor the IT operations and develop improvements;
- control the selection, development and training of IT professionals and other staff and monitor their performance;
- may provide help desk services;
- control the allocation of staffing within IT locations.

Matching indicators:

Typically, incumbents have a level of skill commensurate with a three to five year degree or diploma and at least 10 years MIS experience.

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### **Engineering and Scientific Positions**

A number of the universities interviewed commented that engineering faculties are having difficulty in recruiting and retaining academic staff at some levels. This is particularly true at associate lecturer level. As a result universities are concerned that they are recruiting staff from a diminishing pool of suitable people.

#### Associate Lecturer (\$37,000-\$51,000)

At this level engineering positions in the private sector identified by Mercer typically require a level of experience ranging from nil to five years. Only one position required a university degree.

The private sector position matching indicators for positions with a median salary clearly within the academic salary range \$37,000-\$51,000 are:

- New Graduate Engineer - four year degree;
- Detail Drafter - completed an apprenticeship and two years experience;
- Technical Officer - post school qualifications and five years experience;
- Service Technician - electronics Certificate

An example of a private sector position description within this salary range is New Graduate Engineer-who is paid in the salary range \$42,175, \$46,037, \$49,001.

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#### **New Graduate Engineer**

Position reports to:

Experienced Engineer, Engineering Project Leader or Plant Supervisor

Primary objective:

Participate in engineering assignments under close supervision. Assignments may involve research, product development, laboratory testing, design, installation, commissioning of equipment, maintenance or construction.

Specific accountabilities:

- Use established procedures, gather and correlate basic data and perform detailed or routine engineering duties and relatively simple tests;
- Work on the less complicated aspects of the design of specific parts or assemblies and the simpler phases of minor projects, where seasoned professional evaluation and ingenuity are not normally required;
- Relieve supervising engineer of minor details;
- Assign work to technicians and check results, but not on a continuing supervisory basis;
- Act as trouble shooter in a plant to ensure scheduled production is met;
- Measure plant costs, efficiencies, yields and quality of product as directed;

- Work with maintenance engineers, shift supervisor and maintenance foreman to improve maintenance procedures and plant equipment;
- Assist in planning and implementing safety, loss control and environmental programs.

Matching indicators:

Four year degree in engineering, may have up to four years experience since graduation. Equates to Grade 1 Professional Engineer, a qualified engineer who is a graduate (Group A) under Metal Industry Award. Equivalent to APESMA Level 1.

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In the private sector the entry position is new graduate engineer. Here the salary level is equivalent to that of associate lecturer. The responsibilities are narrower than the equivalent academic position and the level of accountability is much lower.

#### Lecturer to Senior Lecturer (\$53,000- \$76,000)

At this salary level Engineering positions in the private sector typically require three to ten years experience and a four year degree.

The private sector position matching indicators for positions with a median salary clearly within the academic salary range \$53,000- \$76,000 are:

- Design Engineer - tertiary qualifications and more than five years experience, receives regular but not detailed supervision;
- Plant Engineer - four year degree and at least eight to ten years experience;
- Industrial Engineer - four year degree and five to ten years experience;
- Project Engineer - tertiary qualifications and at least three years experience;
- Maintenance Engineer - four year degree and at least five years experience;
- Research & Development Engineer - four year degree and ten years experience.

At this salary level the equivalent position in the private sector is Design Engineer with a fixed salary range of \$53,091, \$58,520, \$66,960 (Q1, median, Q3). Again this position has significantly less responsibility and accountability than the equivalent academic position.

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#### **Design Engineer**

Position reports to:

Senior Engineer or Project Engineer

Primary objective:

Conduct engineering design assignments within clearly defined parameters and standards under general direction.

Specific accountabilities:

- Prepare plans, layouts and designs with supporting calculations for specifications. Supply drafting and estimating staff with information to assist in the production of detailed drawings, the development of tools, quantities, materials lists and cost estimates as required;
- Check plans, designs, materials purchased and equipment for conformity with specifications;
- Assist in the preparation of technical detail for sales inquiries, quotations, contract documentation, technical literature or in the analysis of failures following customer complaints;
- Liaise with research and development engineers regarding development work or construction and production engineers regarding manufacture of designed products or planned structures;
- Liaise with suppliers, clients, consultants or commissioning engineers concerning the design, installation, construction and commissioning of assigned work;
- Participate in the planning of projects as required.

Matching indicators:

Tertiary qualifications and more than five years experience. Incumbents receive regular but not detailed supervision.

Position is one level above that of a graduate engineer entering the profession. Equivalent to APESMA Level 2.

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Research and Development Engineers in the private sector are paid in the salary range \$58,373, \$64,322, \$68,688 (Q1, median, Q3).

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### **Research and Development Engineer**

Position reports to:

Experienced Engineer or Project Engineer

Primary objective:

Carry out engineering assignments within clearly defined parameters and standards under general direction, which may involve research, product development, laboratory testing, design, installation, commissioning of equipment, maintenance or construction.

Specific accountabilities:

- Participate in the planning of research projects and assist in the solution of research problems by modifying and adapting established procedures;
- Devise research methods and set up laboratory test equipment, rigs, models, prototype designs and instrumentation;
- Conduct investigations and tests as required. Calculate and analyse test results and prepare detailed reports with recommendations and conclusions;
- Conduct feasibility studies and develop theoretical models within which assignments are conducted and prototype designs are tested. Provide supporting calculations and specifications necessary for the development of pilot plants and the assembly of prototype designs;

- Prepare detailed evaluation reports, cost estimates and recommendations on the specification and design of new or improved products, components, plant, equipment, systems or apparatus as required.

Matching indicators:

Four year degree and minimum 10 years experience. Equivalent APESMA Level 2.

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What this comparison shows is that at the equivalent salary in a university a research engineer at lecturer or senior lecturer salary level will also teach, supervise a number of postgraduate students and regularly publish.

#### Associate Professor (\$79,000-\$88,000)

At this salary level engineering positions in the private sector identified by Mercer typically require a four year degree and more than ten years relevant experience.

The private sector position matching indicators for positions with a median salary clearly within the academic salary range \$79,000-\$88,000 are:

- Experienced Design Engineer - Tertiary qualifications and more than ten years' experience;
- Experienced Industrial Engineer - Four year degree plus a minimum ten years' relevant experience.

At the salary level of associate professor, an experienced design engineer in the private sector works in accordance with set objectives and is allowed considerable professional autonomy. Project direction is often decided in regular conferences with a Senior Engineer, as well they may supervise young graduate engineers, technicians and technical specialists.

#### Professor (\$101,000-\$102,000)

At this salary level Engineering positions in the private sector identified by Mercer typically require tertiary qualifications and specialised experience.

The private sector matching indicators for positions with a median salary clearly within the academic salary range \$101,000- \$102,000 are:

- Experienced Project Engineer - tertiary qualifications and at least five years project engineering experience;
- Experienced Plant Engineer - significant experience in complex engineering assignments;
- Senior Project Manager (Development) - four year degree and minimum ten years experience in construction project management.

At the salary level of professor (\$101,000-\$102,000) engineering positions in the private sector identified by Mercer typically require significant professional engineering experience.

The private sector matching indicators for positions with a median salary clearly within the academic salary range \$100,000-\$250,000 are:

- Principal Engineering Executive - ten to fifteen years' engineering experience, with an engineering division of at least 12 professional staff;
- Chief Engineer - four year degree with a minimum ten years engineering experience.

The position of Principal Engineering Executive attracts a salary in the private sector in the range \$140,676, 171,108, \$215,239 (Q1, median, Q3).

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### **Principal Engineering Executive**

Position reports to:

Chief Executive

Primary objective:

Plan, direct and control the engineering activities of the organisation to ensure operations achieve quality and production objectives.

Specific accountabilities:

- Direct and control the engineering and technical operations of the organisation in consultation with other managers and professionals to ensure that standards of quality, cost, safety and performance are observed and that time schedules are met;
- Plan engineering methods, policies and procedures;
- Liaise with senior manufacturing and research executives in the design and implementation of operating standards to achieve production plans and business objectives;
- Define and review plant maintenance policy to optimise efficiency and quality;
- Liaise with quality control staff to set quality standards for the efficient functioning of plant and equipment;
- Coordinate the activities of the engineering function and encourage the exchange of information, ideas and techniques in the various engineering fields;
- Direct the regular review of plant and equipment to ensure it meets production and quality requirements and report on other options available to achieve objectives;
- Participate in research and development projects as required;
- Direct the conduct of major building extensions or additions, including liaising with architects, engineers, councils and statutory authorities to achieve plans within budgets and time frames;
- Assist other executives in controlling costs and quality of production processes, warehousing and distribution of finished products and raw materials;
- Prepare and maintain budgets and schedules on projects within the engineering division;
- Coordinate the activities of engineering staff and control staff selection and training;
- Ensure activities related to the function comply with relevant Acts, legal demands and ethical standards.

Matching indicators:

Typically, incumbents would have 10 to 15 years' engineering experience, with an engineering division of at least 12 professional staff.

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The position of Chief Engineer in the private sector attracts a salary of \$104,714, \$119,133, \$133,268 (Q1, median, Q3).

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### **Chief Engineer**

Position reports to:

Principal Engineering, Manufacturing Executive or Plant Manager

Primary objective:

Direct and coordinate the efficient operation of the engineering plant and functions in accordance with production schedules and company policy.

Specific accountabilities:

- Direct the work of professional engineers in accordance with quality standards, policy and priorities and within budgeted costs;
- Exercise indirect supervision over foremen with respect to production volume and cost and quality of production in meeting production schedules and delivery dates;
- Provide leadership and guidance to engineering staff to maintain quality, efficiency and productivity of the production operation;
- Participate in determining operating plans, budgets and capital additions for the production operation to ensure maintenance and engineering quality controls are achieved;
- Ensure all engineering staff comply with policies, safety standards and good housekeeping practices;
- Participate with the Plant Manager in the forecast and establishment of workforce requirements, work schedules, equipment layout, production methods and material handling procedures;
- Ensure all areas of the plant operate efficiently and that maintenance schedules are followed;
- Prepare regular reports as required;
- Maintain records of all production maintenance activities and costs for review with the Plant Manager;
- Establish controls for the achievement of production efficiency, optimising yield and product quality;
- Participate in projects associated with site expansion, plant extension, increased or altered storage and warehousing facilities, under the direction of the Plant Manager;
- Participate in meetings relating to planning, production, quality, safety and other operational matters as determined by the Plant Manager and set up work control systems to ensure that standards are met;
- Direct and develop subordinate staff and refer all employee relations matters needing attention to the Plant Manager for review;
- May oversee spot quality control checks to ensure in-process operations accord with established standards;
- Ensure activities comply with relevant Acts, legal demands and ethical standards.

Matching indicators:

Typically, incumbents would have a four year degree with a minimum 10 years engineering experience.

Clearly in the engineering profession, salary pressure is the greatest at the top and bottom of the academic scale. Private sector positions equivalent to associate lecturer level require significantly less professional expertise and qualifications. At the top of the salary scale it is not unusual for an engineer in the private sector to be paid well in excess of professorial level.

At the lecturer/senior lecturer level comparisons are not as clear as a number of jobs in the private sector in this mid-salary range will have the same position description. Here the salary range depends upon the size of the organisation and resources. For example in the private sector an experienced industrial engineer is paid in the salary range \$73,236, \$84,457, \$105,985 (Q1, median, Q3). So far the discussion has focussed on the science and engineering job.

### ***Finance and Administration Positions***

An analysis of the benchmarked positions in Finance and Administration shown in Table 6.3 reveals that:

- There are nine private sector positions clearly attracting salaries in the private sector greater than a professorial salary. Each of these positions has significant management responsibilities;
- There are 11 private sector positions attracting salaries in the private sector similar to that of a professorial salary. However, a number of those positions also appear at a lower salary because private sector salaries are often determined by the size and complexity of the organisation;
- There are 11 private sector positions attracting salaries in the private sector similar to that of lecturers and senior lecturers. For these private sector positions identified in this academic scale the salary range extends across the senior lecturer and lecturer academic scales;
- There are 12 private sector positions attracting salaries in the private sector similar to that of associate lecturers. A number of these positions require limited professional qualifications in finance and business.

A similar analysis has been conducted for Finance and Administration and the Human Resource job family. The patterns identified in the analysis correlates highly with those in IT, Engineering and Science.

### **Validating Job Positions and Data Analysis**

The validation process was undertaken at one of the universities involved in the response study. It involved the following steps:

1. the Mercer academic and private salary data from the employment families were circulated and explained to the deans of the relevant faculties;
2. job descriptions from the positions included in the salary scale data were separated from the salary scales and circulated to the deans; and
3. two members of the team interviewed each dean.

The idea of the validation process was to discuss the data and confirm or disprove conclusions drawn from them in the analysis of each of the disciplines framework represented by the job family.

### **Validation 1 Information Technology**

The Mercer benchmarking data and the conclusions drawn from it were discussed with past and present deans of an information technology faculty to validate the job descriptions and outline responses to the benchmarking data contained in the Mercer research. The interview took approximately one hour, notes were taken by the two project participants and compared post-interview.

#### Job Descriptions

The private sector information technology position descriptions were compared to university academic roles by the deans. A number of positions of similar role and employment were identified. For example, the private sector job description, information training manager, was seen as having some comparability with that of senior lecturer in IT. However, in addition to the roles identified in the private sector training manager description, senior lecturers also undertook research and would be more likely to be responsible for delivering the disciplinary content than the private sector role description.

A conclusion may be drawn that senior lecturers are required to have significantly greater breadth of skills and knowledge than that required in the private sector in this comparable position yet they earn less. On the other hand, a private sector employee in this position would most probably have more responsibility for the selection, training and management of staff in the training division of the company.

In the IT sector generally many of the position descriptions are not directly comparable, due to the special nature of currency of knowledge as a factor in the demand for labour; for example, in comparing positions such as system analysts, up to date industry knowledge is a necessary requirement. Furthermore this knowledge is highly specialized and could be too narrow for an academic appointment. Thus there is a less direct equivalence of position because of the role of sub-sets of disciplinary knowledge. However, academic roles often have such knowledge as the basis of employment, as well as research and publication.

#### IT employment and the IT academic labour market

The deans made a number of points reflecting the Mercer research, about the academic labour market and the IT industry.

To retain and attract staff, loadings have been provided at all levels of employment ranging between five and 40 per cent. These loadings have been funded from the earnings of the faculty from its private sources of income. This method is adopted to deal with declining academic salary relativities.

The most critical point for employment lies at the bottom end of the salary scale – at the level of associate lecturer and lower lecturer scales. Comments by deans confirm the Mercer research, which shows why at the lower levels and salaries, academic salary relativities have declined to such an extent that salary must be supplemented to attract any staff at this level. Even with loadings it is proving difficult to attract and retain the best quality postgraduate students, as they leave for higher salaries and better job prospects in the private sector.

Surprisingly, at the other end of the salary scale, it is easier to attract and retain staff because the university is not competing as directly with the private sector. In the view of the deans, the university staff at these higher levels are not as attractive to the private sector because they lack current industry experience and their higher qualifications do not offset their often narrower range of knowledge and management skills.

The policy of the university that employed the deans is not to offer academic positions to any applicants without formal post graduate qualifications. In their view this narrows the potential range of applicants and in particular was going to make the issue of attracting young postgraduates even more critical. They were concerned that the faculty was losing the capacity to reproduce itself, as its best graduates were increasingly being attracted to the private sector at far higher salary levels than that available in the university sector.

Overall, IT academic employment and salary pressures are counter cyclical to the state of the IT industry in the private sector. At the moment, salary and employment pressures in universities have eased due to the current downturn in the private sector. They can be expected to return to past pressure levels as the industry recovers.

### **Validation 2 Science**

The Mercer benchmarking data was discussed with a dean of science to validate the job descriptions and outline responses to the benchmarking salary data contained in the Mercer research. The interview took approximately one hour and notes were taken by the two project participants and compared post-interview.

Initially, the science position descriptions in the private sector were compared with university academic roles by the dean. It was suggested that there was a close correlation between the private sector positions (reflected by their job descriptions) and the tasks and roles undertaken by university science and engineering academics.

In both cases, the majority of positions required employees to apply scientific knowledge and skills. For example the position of chief chemist in the private sector would require similar background (research degree in science) and involve similar scientific knowledge skills comparable to professors and associate professors in academic positions. As a result there was significant science labour mobility between the private sector and academic sector – and in some sense there was a scientific labour market that included academic and private sector supply and demand.

Where differences in the private sector and academic job descriptions were identified they reflected the role of management responsibility (where private sector employment descriptions incorporate greater management and breadth of management roles) and research (where academics had requirements to research and publish). New roles in the management and commercialisation of research are now required in some senior academic positions.

Given that job descriptions are similar in both academic and private scientific employment, academic salaries are uncompetitive at all levels, with the most severe repercussions and consequences at the level of associate lecturer. Associate lecturer salary scales are so uncompetitive that academic employees would earn less than their graduates.

Since the science faculty is unable to earn external income in the way that information technology are able to, there is no salary supplementation to increase associate lecturers' salaries to compete with private sector salaries.

This has a number of consequences: advertisements for associate lecturer positions attract few if any applicants; in the past when associate lecturer positions were filled (associate lecturers must have earned a PhD) they were promoted to lecturer and above within two years; the faculty has the majority of its staff at senior lecturer or above level, causing severe budgetary and staffing flexibility problems for the faculty.

An even more serious implication is that the best and brightest honours students and postgraduate research students do not enter academia as associate lecturers – they enter the private sector as employees and within two or three years command salaries sometimes at the associate professor or professor level.

At the higher levels of academic positions, the low salary levels are influencing recruitment at the professorial level. Professorial employment advertisements no longer attract significant highly skilled international applicants.

The Dean, in reflecting on three recent appointments at this level, revealed that no candidates were attracted from the USA or Canada. Two professorial positions were offered to highly qualified UK candidates but after inspecting facilities and reviewing remuneration and living costs both applicants refused appointment on the grounds of low salary. As a result, two other candidates were appointed, one local and one from overseas who took the other position citing lifestyle reasons for taking the position. He also enjoyed salary supplementation through existing commercial arrangements which he was allowed to maintain.

### ***Validation 3 Engineering***

The engineering positions described by Mercer were examined for their relationship to the corresponding academic salary levels and duties. While there were parallels between the various levels, it was pointed out that there were barriers to movements between academia and the private sector.

A key difference between academic and private sector employment is the now almost universal requirement in academia for staff to have a PhD and depending on the level of the position, significant research experience. Consequently, though the faculty continues to have strong links with industry, it is now not as easy as it once was for staff to move from a full-time position in industry into the faculty.

To balance this is the interest among employed graduates in seeking to complete a professional doctorate, which they see not as a stepping-stone to academic employment but as a help in gaining promotion within the private sector. This explains the popularity of the management stream within the doctorate.

Despite the differences in the actual work being carried out in the two sectors because of the strong presence of consultants in industry, it is possible for some academic staff to take on very substantial consulting roles, that if they were members of outside consulting firms would lead to their earning \$300,000 plus.

There are senior members of the faculty who have made deliberate choices to stay with their academic positions, though these are poorly paid by comparison with what they are capable of earning in industry, because they find the academic life more attractive and some of the benefits quite competitive with the private sector. To a significant extent they are able to supplement their university salaries through part-time consulting and thus reduce the salary disadvantage of an academic position.

It would be incorrect to say that all members of the academic staff would find ready employment in industry and if they did that they would earn more than they do at present. Nor could it be said that people in high paid positions in the private sector would be able to move into academe at that level. They are two different, but on occasion overlapping worlds.

The faculty recently advertised positions at the professorial level. There were no serious candidates from outside the country. Applications were received from academics across the country, including Sydney. The cost of living in Sydney, however, was not a sufficient issue to discourage applications from elsewhere in the country.

It was of interest that engineering, which had seemed to be on a downward spiral in student interest, was now picking up more applicants. This increase in interest reflects the growth of job opportunities in engineering and probably reflects some loss of attraction to IT positions.

### **Validation 4 Finance and Business**

The finance and administration positions described by Mercer were examined for their relationship to the corresponding academic salaries and duties. While there are parallels between the positions, the university had experienced mixed success when employing academic staff from the private sector. This is particularly true where the person did not have a PhD or a research background.

*After a period of time their industry experiences become less relevant and their war stories are no longer current. Without a research background they are unable to successfully make the transition long term.*

The strongest competition for academic staff in finance and business faculties comes from other universities rather than the private sector. It is not uncommon for universities in Sydney and Melbourne to recruit their academic staff from other universities within the same city. As a result it has been necessary to provide attraction loadings at all levels of employment. The university offers in addition a performance based salary supplementation scheme of up to 40 per cent of current salary. These salary loadings and supplementations are funded from faculty earnings.

At the bottom end of the academic salary scale, particularly in the accounting school, the university is unable to recruit staff at the associate lecturer level. Most positions are offered at a minimum Level B. Despite this many postgraduate students still leave for the higher salaries and better job prospects in the private sector.

The Faculty is concerned about the issue of attracting young postgraduates and is exploring ways of increasing the diminishing pool of honours students. From this they would hope to generate their next generation of academic staff and at the same time address the issue of their ageing workforce.

At the other end of the salary scale, the university is not competing directly with the private sector. Their concern, particularly in the Finance and Economics School, is poaching by other universities. Offers include higher salaries, lower teaching loads as well as research status and staff.

Overall, finance and business faculties are experiencing significant salary pressure. To an extent they are able to address this by offering salary supplementation from faculty earnings. At the moment universities are relying on casual staff to meet staffing pressures including the 40 per cent increase in applications for full fee paying courses.

### **International Benchmarking**

Having identified the benchmark roles in Australia, the project team then determined for the USA and Canada the salary bands to which these benchmark roles aligned. The results are reported in US and Canadian dollars respectively, so that the results are not skewed or misinterpreted by wrongly applying currency exchange rates. The comparisons in the US and Canada were made against base salary, defined as annual salary excluding any other additional payments. Sometimes it is simply referred to as 'salary'.

The project team aligned the Canadian and US private sector positions to the relevant US or Canadian academic salary range in the four professional job families identified: information technology, engineering and science, finance and administration and human resources, Table 6.6. The project team did not collect private sector salary data for salaries above US\$100,000 and Cdn\$100,000

Canadian academic salary figures are based on the University of Calgary maximum salaries as at June 30, 2002.

Academic Rank	Salary \$Cdn
Professor	125,000
Associate Professor	83,000

Assistant Professor	73,000
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Lecturer	53,714
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United States salary figures are based on average academic salaries for all doctoral institutions 2001-2002.

Academic Rank	Salary \$US
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Professor	94,788
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Associate Professor	64,953
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Assistant Professor	55,404
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Lecturer	44,025
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Instructor	37,959
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The tables clearly show that recruiting staff from Canada and the United States to Australia in both the public and private sector is difficult if the only incentive is salary. Given the current exchange rate, Australian universities are not in a strong position.

In the information technology profession, entry-level salaries are similarly aligned to the entry level academic salaries in all three countries. Three private sector jobs commonly occur across the lowest academic salary scale in Australia, Canada and the United States. They are helpdesk officer, computer operator and data control supervisor.

In the finance and administration profession entry-level salaries for graduate accountants align with the entry level academic salaries in all three countries. Differences become more apparent at the mid to higher levels of academic salaries. Private sector salaries for senior private sector positions tend to be at a higher level on the academic salary scale in both Canada and the United States than in Australia.

In the engineering and science professions, entry-level salaries for graduates entering the private sector in Australia are relatively lower than in the United States and Canada. Typically a graduate engineer is paid at the lowest academic salary scale in Australia while in the US and Canada graduates with one to three years experience are paid in a higher equivalent academic salary band.

In the human resources profession the patterns of private sector jobs across the academic salary bands in each country show a number of consistent patterns including similarities in traditional occupations such as an industrial nurse.

## Conclusions

The benchmarking approach taken in this chapter represents a novel approach to analysing academic and private sector salary relativities, going beyond the narrow fixed position comparators. A benchmarking of academic salaries across the entire range of private sector salaries and positions with four job families that compare with university academic employment reveals significant data.

This research confirms the patterns and trends identified in the interviews with university management: namely, that academic salaries are in general uncompetitive at the lowest and highest levels with private sector salaries, leading to significant changes in the operation of the academic labour market.

Furthermore, to fully understand the academic labour market operating within the major disciplines a validation study sought to analyse the downstream variables by using the Mercer data and analysis the results through discussion with the five faculties.

The validation reveals the complexity of the disciplinary academic labour markets. University salary relativities have caused changes in the way the disciplinary markets operate because asymmetry has freed the employers to develop a sophisticated range of human resource practices and remuneration systems. These flexible arrangements exist outside the EBAs.

There has been no validation conducted with the private sector on the responsibilities and skills of academic and private sector. Such a validation would be a useful next stage.

**Table 6.6 Salary relationships between General Market Positions and Academic Positions in Aust., US and Canada**

Country	Academic salary \$K	Market range\$ K	GENERAL MARKET			
			IT	Finance and Administration	Engineering and Scientific	Human Resources
Australia	A\$37-51	A\$37-51	Fixed salary A\$ (Q1, median, Q3) Helpdesk Officer (39480, 43727, 47760)  Programmer (44494, 52234, 61184) Trainee Programmer (37033, 38657, 49645) Senior Computer Operator (49930, 55300, 64624) Computer Operator (40383, 47172, 54518)  Data Control Supervisor (42307, 49500, 53937)  User Doc Specialist/Technical Writer (45925, 57633, 65340)	Fixed salary A\$ (Q1, median, Q3) PA to Senior Executive (47323, 51174, 56453)  Librarian (45597, 57000, 64507) Graduate Accountant (41166, 45925, 48600) Credit Officer (38576, 38830, 44832) Senior Accounts Clerk (41927, 46998, 54846)  Office Manager/Supervisor (43680, 50842, 63768) Clerical Section Supervisor (42106, 49117, 54279) Administration Manager (49259, 61920, 79678) Accounts Clerk (36289, 40669, 44338) General Secretary (40164, 44505, 48326) Word Processing Supervisor (36796, 46688, 49331) Desktop Publisher (38271, 43850, 49165)	Fixed salary A\$ (Q1, median, Q3) New Graduate Engineer (42175, 46037, 49001) Design Drafter (40712, 49483, 66351) Detail Drafter (42818, 44165, 50475) Technical Officer (47001, 50249, 51222) Service Technician (41170, 48600, 58270) Chemist (46331, 53670, 55681)  Scientific Officer Level 1 (38733, 44063, 51520) Laboratory Technician (42315, 45082, 51345)	Fixed salary A\$ (Q1, median, Q3) HR Generalist (49042, 54958, 63925)  Payroll Officer (41016, 45845, 52114) Industrial Nurse (49206, 58442, 61380) Senior Payroll Officer (45976, 51769, 57686)
US	US\$38	US\$25-45	Base salary US\$ (Q1, median, Q3) PC Systems Specialist (41300, 46900, 53900)  Business System Analyst- Intermediate (40900, 46700, 53900) Applications Systems Analyst/Programmer (41200, 45400, 50000) Technical Writer, Associate (37500, 43600, 50000)  Applications Programmer- Associate (35300, 41000, 45500) Help Desk Support Specialist- Intermediate (35400, 40000, 46000) Data Control Supervisor (36300, 39400, 44800)  Senior Computer Operator (33300, 37200, 42000)	Base salary US\$ (Q1, median, Q3) Secretary to CEO (44300, 52000, 61300)  Tax Accountant- Intermediate (43300, 48100, 54900) Financial Analyst- Intermediate (42500, 48000, 55000) Budget Analyst- Intermediate (42000, 47500, 54200) Auditor- Intermediate (41000, 46800, 53000)  Editor (37800, 44700, 52200)  Cost Accountant- Intermediate (39900, 43400, 49900) Librarian (35800, 43000, 52000)	Base salary US\$ (Q1, median, Q3) Industrial Eng- Assoc (42000, 47200, 52100) Drafter- Senior (38100, 43900, 50000)  Drafter- Intermediate (33300, 38400, 46000) Lab Tech (Eng/Tech) (28100, 33300, 42200) Drafter- Associate (28800, 32100, 35600)	Base salary US\$ (Q1, median, Q3) H R Generalist- Intermediate (43500, 49800, 57200) Industrial Nurse (38100, 47700, 50500)  Facility HR Administrator (39900, 45200, 49300) Trainer (34600, 43300, 54300)  Payroll Clerk-Senior (29000, 33000, 37800)  Payroll Clerk- Associate (29000, 33000, 37800)

Country	Academic salary \$K	Market range\$ K	IT	GENERAL MARKET	Engineering and Scientific	Human Resources
				Finance and Administration		
			Computer Operator- Intermediate (28000,31600,36000)	Accountant- Intermediate (38000, 42000, 46700) Office Services Manager (36300, 42000, 49200) Credit Analyst- Intermediate (35300, 41500, 49400) Executive Secretary (35700, 40900, 46900) Accountant- Associate (32600, 35900, 40000) Word Processing Supervisor (33100, 36400, 44600) Desktop Publisher- Inter (30600, 36000, 43700) Accounting Clerk- Senior (27500, 30800, 34700) Secretary- Intermediate (25300, 29100, 33100) Accounting Clerk- Intermediate (24700, 27900, 31200)		
Canada	Cdn\$53	Cdn\$ 45-60	LAN Administrator (46800, 56700, 63900)  Client/Server Database Analyst/Programmer - Intermediate (57500, 63600, 68900) Business Consultant - Junior (47800, 54800, 60200)  Software Developer - Intermediate (53000, 58000, 64800) I.T. Training Specialist - Senior (52600, 59800, 65300) Database Analyst - Intermediate (53700, 60700, 65800) Systems Programmer Analyst - Intermediate (50000, 55000, 60000) Help Desk Support Specialist - Senior (44300, 49400, 55200) Computer Operator Senior/Team Leader (45000, 49300, 53700) Business Systems Analyst - Intermediate (47900, 53200, 60000)	Senior Accountant (57700, 63000, 70600)  Internal Auditor (52300, 58300, 65900) Accounts Payable/Receivable Supervisor (44300, 48300, 56700) Cost Accountant (42600, 50000, 59900) Paralegal (45000, 47800, 62000) Public Relations Coordinator (56900, 61100, 65600) Office Services Manager (53600, 61200, 69100) Internal Communications Officer (51500, 55000, 56500) Librarian (48000, 54800, 58100) Accountant (41500, 48000, 56300)	Environmental Specialist (55300, 63000, 71700)  Professional Engineer - Junior (49400, 54000, 59000) Quality Control Analyst (39000, 48000, 56000) Research Scientist - Junior (32500, 34200, 48900)	Industrial Nurse (51200, 57500, 62400)  Trainer (47000, 55000, 64500)  Human Resource Generalist (49500, 58200, 65000) Compensation Analyst (48000, 53900, 62100) HRIS Analyst (44900, 51100, 59000) Payroll Supervisor (46800, 53000, 58800)  Recruiter (43600, 49300, 56300)  Benefits Administrator (40000, 45000, 51500)

Country	Academic salary \$K	Market range\$ K	IT	GENERAL MARKET		
				Finance and Administration	Engineering and Scientific	Human Resources
			Business Systems Analyst - Junior (38900, 43800, 48700) Data Control Clerk (40000, 48900, 52500) Systems Programmer Analyst - Junior (40000, 44100, 48400) Database Analyst - Junior (42000, 46900, 51800) Client/Server Database Administrator (44200, 46300, 53400) I.T. Training Specialist (42800, 48000, 52600) Software Developer - Junior (47500, 50500, 58000) Documentation Specialist (48100, 50700, 57800)	Accounts Payable/Receivable Supervisor (44300, 48300, 56700)		
Australia	A\$53-64	A\$53-64	Fixed salary A\$ (Q1, median, Q3) LAN Administrator (56860, 65340, 75600)  Information Technology Training Manager (58240, 63768, 77180) Helpdesk Manager (55668, 66384, 82,000)  PC Support Specialist (54673, 57000, 64937)  Analyst Programmer (59616, 68951, 80052)  Programmer (44494, 52234, 61184)  Computer Operations Supervisor (53697, 62787, 70863) Senior Computer Operator (49930, 55300, 64624) Business Analyst (61802, 71722, 78292)  User Doc Specialist/Technical Writer (45925, 57633, 65340)	Fixed salary A\$ (Q1, median, Q3) Internal Auditor (61268, 72838, 86888)  PA to Senior Executive (47323, 51174, 56453)  Secretary to Chief Executive (53378, 60937, 70047) Librarian (45597, 57000, 64507)  Cost Accountant (57610, 61153, 64197)  Financial Accountant (54920, 66500, 77942)  Taxation Accountant (62368, 69,678, 82700)  Credit Manager (61875, 75462, 91494) Office Manager/Supervisor (43680, 50842, 63768) Administration Manager (49259, 61920, 79678)	Fixed salary A\$ (Q1, median, Q3) Project Engineer (58300, 68289, 78636)  Design Engineer (53091, 58520, 66960)  Plant Engineer (54037, 63360, 95450)  Industrial Engineer (56310, 61743, 65970) Maintenance Engineer (62651, 68082, 70819) Research and Development Engineer (58373, 64322, 68688) Senior Design Drafter (53570, 62874, 69850) Design Drafter (40712, 49483, 66351) Field Service Representative (52367, 58721, 72837) Service Technician (41170, 48600, 58270) Experienced Chemist (58762, 67935, 73235) Chemist (46331, 53670, 55681) Scientific Officer Level 3 (61560, 76535, 82480) Environmental Scientist (57224, 59394, 68194)	Fixed salary A\$ (Q1, median, Q3) Training Specialist (50482, 56452, 63589)  HR Generalist (49042, 54958, 63925)  OHS Specialist (51001, 56207, 67658)  Industrial Nurse (49206, 58442, 61380) Payroll (HRIS) Manager (56375, 64,298, 75600) Senior Payroll Officer (45976, 51769, 57686)
US	US\$44.25	US\$45-60	Base salary US\$ (Q1, median, Q3) Help Desk Manager (58000, 69100, 80000)	Base salary US\$ (Q1, median, Q3) Credit and/or Collections Manager (58100, 69400, 78300)	Base salary US\$ (Q1, median, Q3) Electrical Engineer- Intermediate (60300, 59400, 66000)	Base salary US\$ (Q1, median, Q3) Payroll Manager (55700, 66100, 78000)

Country	Academic salary \$K	Market range\$ K	GENERAL MARKET			
			IT	Finance and Administration	Engineering and Scientific	Human Resources
			Applications Programmer- Senior (56600, 64600, 72200) Applications Systems Analyst/Programmer- Intermediate (50600, 57400, 66000) Systems Administrator- Intermediate (49500, 56000, 63000) Technical Writer- Senior (46700, 55300, 62500)  Applications Systems Analyst- Intermediate (48900, 55200, 62000) Computer Operations Supervisor (45000, 52500, 59900) Applications Programmer- Intermediate (45200, 51000, 58100) LAN Administrator- Intermediate (44400, 49400, 55500) PC Systems Specialist (41300, 46900, 53900)  Business System Analyst- Intermediate (40900, 46700, 53900) Applications Systems Analyst/Programmer- Associate (41200, 45400, 50000) Technical Writer, Associate (37500, 43600, 50000)	Maintenance Manager (54300, 63600, 73200)  Tax Accountant- Senior (54100, 62000, 69500) Financial Analyst- Senior (54000, 61100, 69100) Contract Administrator (48500, 56900, 64700)  Budget Analyst- Senior (50100, 55600, 63500)  Cost Accountant- Senior (48000, 53000, 59600) Accountant- Senior (46600, 52000, 58500)  Secretary to CEO (44300, 52000, 61300)  Tax Accountant- Intermediate (43300, 48100, 54900) Financial Analyst- Intermediate (42500, 48000, 55000) Budget Analyst- Intermediate (42000, 47500, 54200) Auditor- Intermediate (41000, 46800, 53000) Editor (37800, 44700, 52200) Cost Accountant- Intermediate (39900, 43400, 49900) Librarian (35800, 43000, 52000) Accountant- Intermediate (38000, 42000, 46700) Office Services Manager (36300, 42000, 49200) Credit Analyst- Intermediate (35300, 41500, 49400) Executive Secretary (35700, 40900, 46900)	Mechanical Engineer- Intermediate (53000, 58100, 65900) Industrial Engineer- Intermediate (44000, 52300, 62400) Mechanical Engineer- Associate (48000, 50800, 57000) Electrical Engineer- Associate (48000, 50500, 54000) Industrial Engineer- Associate (42000, 47200, 52100) Drafter- Senior (38100, 43900, 50000)  Industrial Engineer- Senior (58800, 66000, 76200)	Labour Relations Representative (58000, 65800, 78100) Safety Specialist (49000, 58700, 66000)  Human Resources Generalist- Intermediate (43500, 49800, 57200) Industrial Nurse (38100, 47700, 50500)  Facility Human Resource Administrator (39900, 45200, 49300) Trainer (34600, 43300, 54300)
Canada	Cdn\$73	Cdn\$ 60-70	Client/Server Dbase Analyst/Prog - Snr (65500, 75000, 81300)  Business Consultant - Intermediate (62700, 69000, 75000) Software Developer - Senior (64500, 71900, 80200)  Helpdesk Manager (60300, 66200, 76900)  Systems Programmer Analyst - Senior (61000, 66000, 73200)	Public Relations Manager (66700, 75900, 88900)  Accts Payable/Receivable Mgr (61300, 67500, 73100) Senior Accountant (57700, 63000, 70600)  Tax Accountant (59600, 66300, 71800)  Credit and/or Collections Mgr (65500, 70600, 78200)	Quality Control Manager (62600, 72100, 81000)  Research Scientist - Senior (66900, 73600, 83800) Professional Engineer - Inter (64400, 70600, 78000) Environmental Specialist (55300, 63000, 71700)	Health & Safety Manager (66900, 75000, 85200)  Payroll Manager (61000, 69000, 76000) Labour Relations Spec (59000, 63900, 64300) Industrial Nurse (51200, 57500, 62400)  Trainer (47000, 55000, 64500)

Country	Academic salary \$K	Market range\$ K	GENERAL MARKET			
			IT	Finance and Administration	Engineering and Scientific	Human Resources
			Business Systems Specialist (68100, 83200, 96300) Business Systems Analyst - Senior (62300, 67900, 74000) Computer Operations Manager (64800, 75000, 82300) LAN Administrator (46800, 56700, 63900) Client/Server Dbase Analyst/Prog - Inter (57500, 63600, 68900) Software Developer - Intermediate (53000, 58000, 64800) I.T. Training Specialist - Senior (52600, 59800, 65300) Database Analyst - Intermediate (53700, 60700, 65800)	Accounting Manager (67500, 76500, 84800) Cost Accounting Manager (66000, 76100, 86200) Internal Auditor (52300, 58300, 65900) Paralegal (45000, 47800, 62000) Public Relations Coordinator (56900, 61100, 65600) Office Services Manager (53600, 61200, 69100)		HR Generalist (49500, 58200, 65000) Compensation Analyst (48000, 53900, 62100)
Australia	A\$65 - 76	A\$65-76	Fixed salary A\$ (Q1, median, Q3) LAN Administrator (56860, 65340, 75600) Senior Software Analyst (61479, 76628, 101021) Information Technology Training Manager (58240, 63768, 77180) Database Programmer (65553, 73105, 83835) Helpdesk Manager (55668, 66384, 82,000) Systems Analyst (65961, 74649, 78824) Experienced Analyst Programmer (67123, 76689, 88839) Analyst Programmer (59616, 68951, 80052) Senior Programmer (52486, 78249, 93921) Computer Operations Supervisor (53697, 62787, 70863) Database Administrator (67165, 80500, 90399) Business Analyst (61802, 71722, 78292)	Fixed salary A\$ (Q1, median, Q3) Internal Auditor (61268, 72838, 86888) Secretary to Chief Executive (53378, 60937, 70047) Publications Editor (66014, 71728, 82515) Div/State/Branch Accountant (68600, 86830, 99551) Senior Cost Accountant (75165, 80137, 93435) Management Accountant (68286, 77542, 92000) Senior Financial Accountant (69000, 85033, 96309) Financial Accountant (54920, 66500, 77942) Taxation Accountant (62368, 69,678, 82700) Credit Manager (61875, 75462, 91494) Administration Manager (49259, 61920, 79678)	Fixed salary A\$ (Q1, median, Q3) Project Engineer (58300, 68289, 78636) Experienced Design Engineer (69142, 82027, 101000) Design Engineer (53091, 58520, 66960) Plant Engineer (54037, 63360, 95450) Experienced Industrial Engineer (73236, 84457, 105985) Maintenance Engineer (62651, 68082, 70819) Experienced Development Eng (73236, 77188, 102080) Research and Development Eng (58373, 64322, 68688) Chief Drafter (68046, 78022, 100803) Senior Design Drafter (53570, 62874, 69850) Senior Technical Officer (63217, 74910, 94475) Field Service Representative (52367, 58721, 72837) Senior Chemist (63997, 69136, 76921) Experienced Chemist (58762, 67935, 73235) Scientific Officer Level 3 (61560, 76535, 82480) Environmental Scientist (57224, 59394, 68194)	Fixed salary A\$ (Q1, median, Q3) Plant Personnel Mgr (73550, 94742, 110517) Industrial Rel Spec (65431, 71239, 72640) OHS Specialist (51001, 56207, 67658) Payroll (HRIS) Mgr (56375, 64,298, 75600)
US			Base salary US\$ (Q1, median, Q3)	Base salary US\$ (Q1, median, Q3)	Base salary US\$ (Q1, median, Q3)	Base salary US\$ (Q1, median, Q3)

Country	Academic salary \$K	Market range \$K	GENERAL MARKET			
			IT	Finance and Administration	Engineering and Scientific	Human Resources
	US\$56	US\$60 - 70	Database Administrator (64200, 75000, 85000) Computer Operations Manager (63300, 73700, 84700) Information Systems Training Manager (62100, 72000, 86700) Systems Administrator- Senior (63000, 71300, 80000) Help Desk Manager (58000, 69100, 80000) Applic Systems Analyst/Prog- Snr (60000, 66400, 73000) Applications Systems Analyst- Senior (59500, 65800, 72400) Applications Programmer- Senior (56600, 64600, 72200) Applications Sys Analyst/Prog- Inter (50600, 57400, 66000) Systems Administrator- Intermediate (49500, 56000, 63000) Technical Writer- Senior (46700, 55300, 62500) Applications Syst Analyst- Inter (48900, 55200, 62000)	General Accounting Manager (68100, 77900, 87600) Risk Mgmt & Loss Prevent Mgr (68200, 77600, 91500) Plant Acctng Mgr/Controller (64100, 74200, 86300) Credit and/or Collections Mgr (58100, 69400, 78300) Public Relations Manager (60000, 68800, 77300) Maintenance Manager (54300, 63600, 73200) Tax Accountant- Senior (54100, 62000, 69500) Financial Analyst- Senior (54000, 61100, 69100) Contract Administrator (48500, 56900, 64700) Budget Analyst- Senior (50100, 55600, 63500)	Mechanical Engineer- Senior (66200, 75600, 82000) Quality Control Manager (59500, 72100, 86600) Industrial Engineer- Senior (58800, 66000, 76200) Electrical Engineer- Intermediate (60300, 59400, 66000) Mechanical Engineer- Intermediate (53000, 58100, 65900) Industrial Engineer- Intermediate (44000, 52300, 62400)	Compen & Benefits Mgr (66100, 80000, 94000) Training Manager (60000, 69700, 80600) Payroll Manager (55700, 66100, 78000) Labour Relations Rep (58000, 65800, 78100) Safety Specialist (49000, 58700, 66000)
Canada	Cdn\$83	Cdn\$70 - 80	Database Manager/Administrator (72600, 83100, 92500) Business Systems Specialist (68100, 83200, 96300) Business Consultant - Intermediate (62700, 69000, 75000) Software Developer - Senior (64500, 71900, 80200) Database Analyst - Senior (73900, 80100, 86100) Helpdesk Manager (60300, 66200, 76900) Systems Programmer Analyst - Senior (61000, 66000, 73200) Business Systems Analyst - Senior (62300, 67900, 74000) Client/Server Database Analyst/Programmer - Senior (65500, 75000, 81300) Computer Operations Manager (64800, 75000, 82300) I.T. Training Manager (69200, 75000, 84400)	Public Relations Manager (66700, 75900, 88900) Risk Manager (71100, 81600, 93500) Financial Analysis Manager (76500, 80600, 87500) Accounts Payable/Receivable Manager (61300, 67500, 73100) Credit and/or Collections Manager (65500, 70600, 78200) Audit Manager (72000, 79000, 86500) Accounting Manager (67500, 76500, 84800) Cost Accounting Manager (66000, 76100, 86200)	Plant Engineering/Maintenance Manager (70000, 77100, 89100) Quality Control Manager (62600, 72100, 81000) Research Scientist - Senior (66900, 73600, 83800) Professional Engineer - Intermediate (64400, 70600, 78000)	Human Resources Manager (72600, 82500, 96200) Compensation and Benefits Manager (75100, 84000, 92500) Employment & Recruitment Manager (69300, 80000, 91100) Training Manager (69100, 75700, 85600) Health & Safety Manager (66900, 75000, 85200) Payroll Manager (61000, 69000, 76000)
Australia			Fixed salary A\$ (Q1, median, Q3)	Fixed salary A\$ (Q1, median, Q3)	Fixed salary A\$ (Q1, median, Q3)	Fixed salary A\$ (Q1, median, Q3)

Country	Academic salary \$K	Market range \$K	GENERAL MARKET			
			IT	Finance and Administration	Engineering and Scientific	Human Resources
	A\$79 - 88	A\$79-88	<p>Communications Specialist/Consultant (61979,81720,106889)</p> <p>Senior Software Analyst (61479, 76628, 101021)</p> <p>Database Programmer (65553, 73105, 83835)</p> <p>Helpdesk Manager (55668, 66384, 82,000)</p> <p>Senior Systems Analyst (75733, 86048, 95111)</p> <p>Senior Analyst Programmer (78143, 87294, 94654)</p> <p>Experienced Analyst Programmer (67123, 76689, 88839)</p> <p>Senior Programmer (52486, 78249, 93921)</p> <p>Database Administrator (67165, 80500, 90399)</p>	<p>Legal Officer (75449, 99628, 119288)</p> <p>Internal Auditor (61268, 72838, 86888)</p> <p>Publications Editor (66014, 71728, 82515)</p> <p>Corporate Services/Facilities Manager (84273, 100000, 114969)</p> <p>Division/State/Branch Accountant (68600, 86830, 99551)</p> <p>Factory/Plant Accountant (78911, 104279, 119272)</p> <p>Senior Cost Accountant (75165, 80137, 93435)</p> <p>Senior Management Accountant (84220, 101745, 122073)</p> <p>Management Accountant (68286, 77542, 92000)</p> <p>Senior Financial Accountant (69000, 85033, 96309)</p> <p>Senior Taxation Accountant (80473, 103800, 122864)</p> <p>Taxation Accountant (62368, 69,678, 82700)</p>	<p>Experienced Project Engineer (79980, 91805, 104930)</p> <p>Experienced Design Engineer (69142, 82027, 101000)</p> <p>Experienced Plant Engineer (75679, 88607, 111400)</p> <p>Plant Engineer (54037, 63360, 95450)</p> <p>Experienced Industrial Engineer (73236, 84457, 105985)</p> <p>Experienced Maintenance Engineer (76258, 104820, 110297)</p> <p>Experienced Development Engineer (73236, 77188, 102080)</p> <p>Senior Project Manager - Development (77631, 93971, 123958)</p> <p>Chief Drafter (68046, 78022, 100803)</p> <p>Senior Technical Officer (63217, 74910, 94475)</p> <p>National Service Manager (86082, 103791, 112358)</p> <p>State/Branch Service Manager (76680, 86400, 99591)</p> <p>Quality Assurance Manager (75271, 94848, 111888)</p> <p>Scientific Officer Level 3 (61560, 76535, 82480)</p> <p>Laboratory Manager (74347, 96675, 108480)</p>	<p>Human Resources Manager (86209, 106342, 124769)</p> <p>Compensation and Benefits Manager (87800, 105221, 138041)</p> <p>Training Manager (76895, 91356, 110922)</p> <p>Plant Personnel Manager (73550, 94742, 110517)</p> <p>Organisation Development Manager (81879, 94889, 124802)</p>
US	US\$65	US\$70 - 80	<p>Base salary US\$ (Q1, median, Q3)</p> <p>Information Systems Operations Manager (75900, 85800, 97700)</p> <p>Information Services Consultant (72900, 85700, 93800)</p> <p>Project Manager- Intermediate (70000, 79500, 88800)</p> <p>Database Administrator (64200, 75000, 85000)</p> <p>Computer Operations Manager (63300, 73700, 84700)</p> <p>Information Systems Training Manager (62100, 72000, 86700)</p> <p>Systems Administrator- Senior (63000, 71300, 80000)</p> <p>Help Desk Manager (58000, 69100, 80000)</p>	<p>Base salary US\$ (Q1, median, Q3)</p> <p>General Accounting Manager (68100, 77900, 87600)</p> <p>Risk Management and Loss Prevention Manager (68200, 77600, 91500)</p> <p>Plant Accounting Manager/Controller (64100, 74200, 86300)</p> <p>Credit and/or Collections Manager (58100, 69400, 78300)</p> <p>Public Relations Manager (60000, 68800, 77300)</p> <p>Maintenance Manager (54300, 63600, 73200)</p>	<p>Base salary US\$ (Q1, median, Q3)</p> <p>Electrical Engineer- Senior (70000, 77000, 82300)</p> <p>Mechanical Engineer- Senior (66200, 75600, 82000)</p> <p>Quality Control Manager (59500, 72100, 86600)</p> <p>Industrial Engineer- Senior (58800, 66000, 76200)</p>	<p>Base salary US\$ (Q1, median, Q3)</p> <p>Organisation Development/Training Manager (76500, 85000, 95200)</p> <p>Human Resource Manager (70700, 82000, 93600)</p> <p>Compensation and Benefits Manager (66100, 80000, 94000)</p> <p>Training Manager (60000, 69700, 80600)</p> <p>Payroll Manager (55700, 66100, 78000)</p> <p>Labour Relations Representative (58000, 65800, 78100)</p>

Country	Academic salary \$K	Market range\$ K	IT	GENERAL MARKET		
				Finance and Administration	Engineering and Scientific	Human Resources
			Applications Systems Analyst/Programmer- Senior (60000, 6640, 73000) Applications Systems Analyst- Senior (59500, 65800, 72400) Applications Programmer- Senior (56600, 64600, 72200)			
Canada	Cdn\$83	Cdn\$ 70 - 80	Database Manager/Administrator (72600, 83100, 92500)  Business Systems Specialist (68100, 83200, 96300)  Business Consultant - Intermediate (62700, 69000, 75000) Software Developer - Senior (64500, 71900, 80200)  Database Analyst - Senior (73900, 80100, 86100)  Helpdesk Manager (60300, 66200, 76900) Systems Programmer Analyst - Senior (61000, 66000, 73200) Business Systems Analyst - Senior (62300, 67900, 74000) Client/Server Database Analyst/Programmer - Senior (65500, 75000, 81300) Computer Operations Manager (64800, 75000, 82300) I.T. Training Manager (69200, 75000, 84400)	Public Relations Manager (66700, 75900, 88900)  Risk Manager (71100, 81600, 93500)  Financial Analysis Manager (76500, 80600, 87500) Accounts Payable/Receivable Manager (61300, 67500, 73100) Credit and/or Collections Manager (65500, 70600, 78200) Audit Manager (72000, 79000, 86500) Accounting Manager (67500, 76500, 84800)  Cost Accounting Manager (66000, 76100, 86200)	Plant Engineering/Maintenance Manager (70000, 77100, 89100)  Quality Control Manager (62600, 72100, 81000) Research Scientist - Senior (66900, 73600, 83800) Professional Engineer - Intermediate (64400, 70600, 78000)	Human Resources Manager (72600, 82500, 96200)  Compensation and Benefits Manager (75100, 84000, 92500) Employment & Recruitment Manager (69300, 80000, 91100) Training Manager (69100, 75700, 85600)  Health & Safety Manager (66900, 75000, 85200) Payroll Manager (61000, 69000, 76000)
Australia	A\$101-102	A\$10 1-102	Fixed salary A\$ (Q1, median, Q3) Comms Specialist/Consultant (61979,81720,106889)  Manager, Information Systems (98364,121894,145133) Systems Manager (87496,102041,116194)  Project Manager (90477, 104313, 121113)  Computer Operations Manager (88020, 100866, 125759)	Fixed salary A\$ (Q1, median, Q3) Legal Officer (75449, 99628, 119288)  Corporate Planner/Analyst (90776, 107979, 118409) PR/Corporate Affairs Manager (93960, 122448, 143847) Corporate Superannuation Manager (92748, 111075, 126964) Corp Services/Facilities Mgr (84273, 100000, 114969) Risk Manager (100765, 118712, 134990)  Chief Accountant (93784, 111683, 134917)  Factory/Plant Accountant (78911, 104279, 119272)	Fixed salary A\$ (Q1, median, Q3) Experienced Project Engineer (79980, 91805, 104930) Experienced Plant Engineer (75679, 88607, 111400) Experienced Industrial Engineer (73236, 84457, 105985) Experienced Maintenance Eng (76258, 104820, 110297) Experienced Development Eng (73236, 77188, 102080) Snr Project Mgr - Dev (77631, 93971, 123958) National Service Manager (86082, 103791, 112358) Quality Assurance Manager (75271, 94848, 111888)	Fixed salary A\$ (Q1, median, Q3) HR Manager (86209, 106342, 124769)  Comp & Benefits Mgr (87800, 105221, 138041) Division HR Mgr (91613, 102790, 123900)  Training Manager (76895, 91356, 110922)  Plant Personnel Manager (73550, 94742, 110517) Org Development Mgr (81879, 94889, 124802)

Country	Academic salary \$K	Market range\$ K	IT	GENERAL MARKET		
				Finance and Administration	Engineering and Scientific	Human Resources
				Senior Management Accountant (84220, 101745, 122073) Senior Taxation Accountant (80473, 103800, 122864) Finance and Administration Manager (89646, 96273, 123834)	Laboratory Manager (74347, 96675, 108480)	
US	US\$95	US\$80 - 100	Base salary US\$ (Q1, median, Q3) Info Systems Ops Manager (75900, 85800, 97700)  Information Services Consultant (72900, 85700, 93800) Project Manager- Intermediate (70000, 79500, 88800)  Database Administrator (64200, 75000, 85000)  Computer Operations Manager (63300, 73700, 84700) Info Systems Training Manager (62100, 72000, 86700)	Base salary US\$ (Q1, median, Q3) Attorney- Senior (98000, 118700, 135900)  General Accounting Manager (68100, 77900, 87600) Risk Mgmt & Loss Prevention Mgr (68200, 77600, 91500) Plant Accounting Manager/Controller (64100, 74200, 86300)	Base salary US\$ (Q1, median, Q3) Electrical Engineer- Senior (70000, 77000, 82300)  Mechanical Engineer- Senior (66.2, 75.6, 82.0) Quality Control Manager (59.5, 72.1, 86.6)	Base salary US\$ (Q1, median, Q3) Org Development/Trng Mgr (76.5, 85.0, 95.2)  Human Resource Manager (70700, 82000, 93600) Comp & Benefits Mgr (66100, 80000, 94000)
Canada	Cdn\$98	Cdn\$80 - \$100	Business Consultant - Senior (83200, 94000, 109000)  M.I.S Manager (80000, 88000, 98100)  Systems Expert (80800, 85000, 91000)  Project Manager (79800, 85000, 93900)  Database Manager/Administrator (72600, 83100, 92500) Client/Server Database Manager (86000, 90000, 93000) Business Systems Specialist (68100, 83200, 96300) Database Analyst - Senior (73900, 80100, 86100)  Computer Operations Manager (64800, 75000, 82300) I.T. Training Manager (69200, 75000, 84400)	Lawyer Intermediate (94200, 102900, 117600)  Public Relations Manager (66700, 75900, 88900) Risk Manager (71100, 81600, 93500)  Financial Analysis Manager (76500, 80600, 87500) Tax Manager (81100, 90600, 100000)  Audit Manager (72000, 79000, 86500)  Accounting Manager (67500, 76500, 84800) Cost Accounting Manager (66000, 76100, 86200)	Research Manager M815 (85700, 99000, 106000)  Environmental Manager M835 (82300, 93800, 110300) Professional Eng - Snr P826 (84300, 101300, 116000) Plant Eng/Maintenance Mgr M555 (70000, 77100, 89100) Research Scientist - Senior P816 (66900, 73600, 83800)	Human Resources Manager (72600, 82500, 96200)  Compensation & Benefits Mgr (75100, 84000, 92500) Labour Relations Manager (80400, 87800, 100300) Empl & Recruit Mgr (69300, 80000, 91100)  Training Manager (69100, 75700, 85600)  Health & Safety Manager (66900, 75000, 85200)

## CHAPTER 7

# ANALYSIS OF AUSTRALIAN UNIVERSITY EMPLOYMENT ADVERTISEMENTS

During the interviews and the initial literature search, the project team developed a number of hypotheses about academic salary differentials. To test these over two hundred academic positions, advertised between July and December 2002, were analysed.

### **Research versus teaching**

Teaching, the major source of funds for most faculties, plays a lesser role in academic employment and recruitment than research. Analysis of the advertised positions supports this view with the exception of information technology and some business disciplines where allowances were made in selection criteria for both research and teaching positions.

### **Low attraction of Associate Lecturer Level (Level A) positions**

At interview many universities commented that they are now advertising their lowest level position at level B or at a minimum as Level A/B. Analysis of the relevant advertisements supported this view with few positions being advertised at Level A. Most of these Level A positions were in humanities and social science.

### **Discipline loadings**

Analysis of the advertisements supported the view that universities offer loadings for some disciplines in high demand in the general labour market, particularly information technology, business and finance. Ninety per cent of the positions advertised in information technology and business offered a loading or allowance.

### **Attracting senior staff (Levels D and E)**

At the most senior levels (Levels D and E) universities are increasingly offering total remuneration packages. All of the positions advertised at level E were advertised in this way. As well, universities are increasingly offering more flexible salary packaging at these levels.

### **Recruitment methods**

Universities are more commonly using specialist search companies to recruit their most senior academic staff. This is particularly the case where, to attract the right person, lengthy and protracted salary negotiation may be required or where the search process may yield a better field of candidates than advertisements alone. Search allows interest to be initiated in an individual who may not, until approached, be seeking a change in employment.

## Location allowances

Universities are able to offer salary supplementation in a number of ways, across the university and within faculties. Analysis of advertisements indicated that universities offer market loadings where significant industry experience is required. They will offer experience loadings where a particular research profile is sought. As well, they may advertise the benefits of their location.

## Analysis of advertisements

The project team examined all academic positions published in The Australian newspaper and on university websites between July and December 2002 to identify those positions offered salary variations. The advertisements covered fourteen universities and all Australian states.

For the most part, these advertisements indicate that advertised salary supplementation tends to occur in information technology, finance and business.

Of the twelve positions advertised at Level A, three offered loadings to Level B and one offered appointment at Level A or B depending on qualifications and experience. The positions offering loadings were in chemistry, computer studies, business and sociology.

Twenty positions are listed at Level B. Four offered an additional market loading. One offered salary supplementation and four offered a loading to Level C. The positions offering a loading or salary supplementation were in engineering, information technology, economics and business.

Of the ten positions at Level C, two offered market loadings for academic positions in the faculties of information technology and finance. One offered a loading to Level D in media and communications.

Six positions are listed at Level D. Two offered salary supplementation and one offered a loading to Level E. The three positions offering negotiable salaries were in finance and business.

Of the seven positions listed at Level E, one position as head of computer science was advertised with a market loading. One position as head of accounting and finance was advertised with an “appropriate allowance” and one position as dean of information technology was advertised offering “an attractive remuneration package”.

All of the positions listed at Level E plus advertised that ‘an attractive remuneration package will be offered’.

## Level A

### *Research positions*

The salaries offered for research positions are advertised in a variety of ways. In some instances positions are advertised as academic Level A/B. The salary level at appointment to be decided based on qualifications and experience.

The University of Tasmania advertised for associate lecturer/ lecturer in sociology (academic Level A/B). The university wished to appoint a person capable of developing a research profile as well as contributing to the teaching of first year students.

The Australian National University advertised for a research fellow in engineering at academic level A/B.

Other positions, particularly in computer science, are advertised at higher levels.

The Australian National University advertised for a research fellow in information sciences - automated reasoning. Not only was the position advertised at Level C or B but also an additional market-related loading in appropriate circumstances was offered.

### ***Teaching positions***

The salaries for teaching only positions, both fixed term and continuing appointments, particularly in education and humanities tended not to include any allowances.

The Australian Catholic University advertised a number of associate lecturer positions in education at Level A. The positions were teaching in the teacher education courses offered by the education faculty.

The Australian National University advertised six associate lecturer positions at Level A in arts (in sociology, history, classics, French and socio-cultural anthropology). The faculty was seeking to increase undergraduate enrolments and was seeking applicants with experience in flexible delivery. Whilst some opportunities for research were offered the positions were principally teaching roles.

In other cases allowances were offered to Level B.

The Queensland University of Technology advertised for an associate lecturer/lecturer in chemistry. The successful candidate was required to teach and contribute to course development. In addition there was an opportunity to contribute to research in chemistry or the scholarship of teaching. The appointment was ongoing at Level A. For an appropriately qualified applicant, a concurrent Level B appointment was offered on a three year contract to replace a staff member on secondment.

In some salary sensitive schools, such as business and IT, positions were advertised as academic Level A/B. The salary level on appointment to depend on qualifications and experience.

Queensland University of Technology advertised for associate lecturer/ lecturer in business education. The successful candidate was required to teach and research. Appointment was at Level A or Level B depending on qualifications and experience.

### **Levels B and C**

Variations to salaries advertised at Levels B and C were generally in three categories: market loadings, location loadings and experience loadings.

#### ***Market loadings***

Where the university is seeking to attract an academic with significant industry experience, market loadings are offered.

The Australian National University advertised for lecturer/senior lecturer in computer software engineering to contribute to teaching and research. The university particularly sought industrial software engineering experience as well as academic or professional expertise. A research degree (or substantial progress towards such a degree) was required as well as professional software industry experience. Appointment was in the salary range Level B/C plus a market loading, depending on the fields of interest and industry experience.

The University of Technology Sydney advertised for a senior lecturer in business. The successful candidate was required to lecture in one or more subjects in the undergraduate and/or postgraduate program as well as contribute to the work of the School. Appointment was in the salary range Level C plus a negotiated salary loading.

The Queensland University of Technology advertised for a lecturer/senior lecturer in human resource management. The successful candidate was required to teach and research in the School's undergraduate and postgraduate programs. Appointment was in the salary range Level B to C depending on qualifications and experience. In the case of an exceptional candidate the university offered a market loading.

In other cases, such as graduate schools of management, universities may offer loadings to attract people with relevant background and experience.

Macquarie University advertised for lecturer/senior lecturer to fill two positions at the Macquarie Graduate School of Management (MGSM) in management accounting and finance or financial

accounting. The university sought relevant academic qualifications as well as teaching at postgraduate level and relevant industry experience. The level of appointment depended on qualifications and experience. In addition the University offered salary supplementation to suitable candidates.

MGSMS also advertised for lecturer/senior lecturer/associate professor to fill two positions in management of information technology offering salary supplementation to suitable candidates.

The University of NSW advertised for lecturer/ senior lecturer in statistics at the Australian Graduate School of Management (AGSM). The university offered a market loading to be negotiated with suitably qualified applicants appointed at either level.

The University of Sydney advertised for a senior lecturer in information technologies. The University offered a market loading to the base salary subject to the skills and experience of the successful applicant. In addition, all academic staff of this school receive a research allowance.

### ***Experience loadings***

The Australian National University advertised for lecturer/senior lecturer (academic Level B/C). The University was looking for an outstanding scholar to develop its research in international, comparative and development politics and administration. As well as carrying out research, the successful candidate was required to contribute to teaching and supervision of postgraduate programs and professional short courses. Appointment was in the salary range Level B to Level C, depending on qualifications and experience.

The University of Melbourne advertised for a senior lecturer/associate professor (academic Level C/D) in media and communications programs. Appointment was in the salary range Level C/D depending on qualifications and experience.

The University of Sydney advertised for a lecturer/ senior lecturer in chemical engineering. Appointment was in the salary range Level B/C depending on qualifications and experience.

Some universities advertise specific criteria for appointment to particular levels. This is particularly true for positions with both research and teaching responsibilities.

The University of New England advertised for a lecturer, senior lecturer/associate professor in gifted and talented education. The successful candidate was required to teach, supervise higher degrees and contribute to research.

For appointment at Level D, the appointee was required to have a doctorate and an established research profile with a record of success in attracting competitive research grants. Experience in teaching in schools was also required.

For appointment at Level C, the appointee was required to have a doctorate and a record of research activity. Experience in teaching in schools was also required.

For appointment at Level B the appointee was required to have, or have made substantial progress towards, a research higher degree and a record of research activity. Experience in teaching in schools was also required.

### ***Location loadings***

Some universities see their location and associated costs of living as a salary component.

The University of South Australia advertised for a senior lecturer in social work. The advertisement included a statement that the successful candidate will enjoy the lifestyle and cost benefits of living in Adelaide.

All Central Queensland University advertisements are headlined "A Quality Lifestyle" and include a statement that they offer a quality lifestyle through flexible learning and a participative workplace environment supportive of the personal and professional needs of staff.

## Levels D and E

A significant number of positions at Levels D and E are advertised as total remuneration packages. This is particularly common in engineering, information technology and business.

James Cook University advertised for an executive dean of engineering. An attractive remuneration package was offered.

Where a position is advertised as Level D/E, some universities clearly set out the level of qualifications and experience required to attain each salary level.

The University of South Australia advertised for a director MBA programs at Level D or E. In the advertisement they advised that the level of appointment would depend on the skills and experience of the successful candidate. Each applicant was required to address all criteria for consideration of both classification levels. The listed criteria were lengthy and detailed and emphasised academic research.

The Australian National University advertised for an Indigenous chair at Level D/E. The successful candidate was required to have an outstanding research and/or teaching record and demonstrated ability to provide academic leadership. While the position was offered at Level E, applicants were accepted from outstanding candidates with highly regarded leadership potential, but whose stage of development means that a Level D appointment would be more appropriate.

In faculties where there can be significant salary sensitivity and the need to attract the best candidates to senior positions, universities may use search consultants.

The University of Technology Sydney advertised for dean of information technology. The university sought suitable candidates from the university sector and from commercial systems or software development units with a PhD and a record of academic research and/or a significant contribution to systems thinking. An attractive remuneration package was offered and a search consultant was engaged to assist the university in the search.

**Table 7.1 Analysis of Australian Academic Job Advertisements, July - December 2002**

University/Faculty	Level A	Level B	Level C	Level D	Level E	Level E +
JCU Music			\$63,890-\$73,488	\$76,687-\$84,363		
JCU Exec Dean Eng						Attractive remuneration package will be offered
JCU Biomedical Sciences			\$63,890-\$73,488			
JCU Professor of Management					\$98,440	
JCU Postdoctoral Research Fellow (Eng)		\$52,374-\$61,972				
ANU Indigenous Chair					negotiable	
ANU Head Computer Science Dept					\$99,949 plus a market loading	
ANU Lecturer Economics and Management		\$53,640-\$63,287 + loading to level C				
ANU Postdoctoral Fellow Timor research (fixed term)	\$47,721-\$51,066					
ANU Postdoctoral Fellow Philosophy (fixed term)	\$47,721-\$51,066					
ANU Research Economics		\$53,640-\$63,287 + loading to level C				
ANU Research Fellow Information Sciences and Engineering (fixed term)		\$53,640- \$63,287 + market loading				
ANU Postdoctoral Fellow Computer Science	\$42,317-\$51,066 +loading to B					
ANU Lecturer Graduate School of Management		\$53,640-\$63,287 + loading to level C				
ANU Professor of Korean Studies					\$99,949 plus opportunities for external earnings	
ANU Postdoctoral Fellow Biological Sciences (fixed term)	\$42,317-\$51,066					
ANU Postdoctoral Fellow Eng (fixed term)	\$42,317-\$51,066					
ANU Lecturer Computer Science		\$53,640-\$63,287 + market loading				
ANU Senior Lecturer Thai			\$65,215-\$74,865			
ANU Lecturer Vietnamese		\$53,640-\$63,287				
UMelb Lecturer Nursing		\$54,900-\$65,193				
UMelb Lecturer TESOL		\$54,246-\$64,420				

University/Faculty	Level A	Level B	Level C	Level D	Level E	Level E +
UMelb Senior Lecturer Media & Communications			\$66,455-\$76,627+ loading to level D			
UMelb Chair Civil Engineering						Attractive remuneration package will be negotiated
Macq G S M Assoc Professor Finance				\$78,203-\$86,154 +salary supplementation		
Macq G S M Lecturer Accounting and Finance		\$53,019-\$62,960 +salary supplementation				
Macq GSM Senior Lecturer,IT Management			\$64,948 - \$74,890			
UNSW Senior Lecturer Accounting			\$65,216- \$75,169			
UNSW Lecturer Accounting		\$53,216- 63,296				
UNSW AGSM Lecturer Statistics		\$53,216-\$63,296 +market loading				
UNSW Assoc Prof Finance				\$78,495-\$86,745 + salary supplement		
USyd Lecturer Science		\$55,578-\$65,999				
USyd Lecturer Media & Communications		\$55,578-\$65,999				
USyd Senior Lecturer Government			\$68,083-\$78,504			
USyd Lecturer Chemical Engineering		\$55,578- \$65,999 + loading to level C				
USyd Senior Lecturer Information Technologies			\$68,083-\$78,504 +market loading			
USyd Professor or Assoc Pro Bioinformatics				\$81,977-\$90,312		
UTS Dean IT Faculty					An attractive remuneration package	
UTS Lecturer Design Architecture & Building		\$54,946-\$65,234 (to mid level only)				
UTS Senior Lecturer Financial Accounting			\$67,266-\$77,433 + market loading			
UniSA Professor of Social Work					\$99,058 +lower cost lifestyle	

University/Faculty	Level A	Level B	Level C	Level D	Level E	Level E +
UniSA Director MBA Programs				\$76,901 to \$84,718 + loading to Level E		
UWA Assoc Professor Water Research				\$79,242-\$87,300		
UWA Senior Lecturer Environmental Mechanics			\$65,810-\$75,885			
UWA Lecturer Anthropology		\$53,722-\$63,797				
USQ Lecturer Administrative Management		\$50,912-\$60,176				
ANU Assoc Lecturers Arts (6 positions)	\$38,204-\$51,066					
ACU Assoc Lecturer Language and Literacy	\$36,678-\$49,776					
ACU Assoc Lecturer Mathematics	\$36,678-\$49,776					
Monash Research Fellow Mechanical Engineering		\$52,881-\$62,797				
QUT Associate Lecturer Chemistry	\$37,313- \$50,631+ loading to Level B					
UTas Associate Lecturer Sociology	\$\$38,175- \$\$51,000+loading to Level B					
Monash Head of Department, Accounting and Finance					\$100,474 + appropriate allowance	
Deakin Assoc Lecturer Journalism	\$36,845-\$50,000					
Deakin Professor and Head of School, Law						Attractive remuneration package
QUT Assoc Lecturer, Business Education	Level A or B depending on quals and experience					
QUT Lecturer/ Senior Lecturer HRM		\$51,999-\$73,454 + market loading				

## CHAPTER 8

# ACADEMIC SALARY RELATIVITIES: SOME POLICY CONSIDERATIONS

### Introduction

In seeking to establish the competitiveness of Australian academic salaries, the benchmarking has shown that some academic positions and levels are uncompetitive in the private sector labour market; furthermore, some positions are uncompetitive with relevant overseas academic salaries.

The extent to which this uncompetitiveness creates a recruitment or retention problem varies from university to university and from faculty to faculty. Those universities that find they need to compete in those job markets in which current university salaries are uncompetitive have overcome the problem, at least in part, by offering a wide range of incentives, the most common of which is additional salary.

We have been able to establish that the proportion of academic staff in Australian universities who are paid salary loadings varies from almost zero to over twenty per cent. We have not been able to estimate the additional cost to universities of these payments; neither have we been able to establish the cost of other additional incentives, some of which are substantial, being paid directly to staff or being provided by way of special support services.

While the offering of incentives is usual for any employer operating in a market where there are shortages of labour, universities in Australia have particular difficulties, as they are limited in their ability to adjust their incomes to allow for the increased costs that flow from such payments. Those universities with fewer resources and/or a lower capacity for increasing their incomes are less able to compete in the academic labour market for the best quality academics.

From one point of view, this variation in the competitiveness of universities simply reflects the reality of a typical market place in which all buyers are not equal, just as all sellers are not equal. The problem for Australian universities is that the current levels of academic salaries in some fields and levels have become out of line with the realities of the external labour markets.

There are some recruitment problem areas, however, that appear system wide, most noticeably in Level E positions (professor) and Level A positions (associate lecturer); the first, because quality international staff find Australian salaries uncompetitive; the second, because high quality young graduates see academic careers as unattractive compared to those in the private or even public sectors.

A number of respondents in our interviews have expressed the opinion that the Australian academic labour force was in danger of losing the capacity to reproduce itself because of its inability to attract high quality young staff.

Of all the issues we have identified, the problem of attracting new recruits into the system is the one that in our opinion stands out as being in most need of urgent attention.

The potential impact of this problem has been expressed strongly by Professor Roderick Floud, the Vice Chancellor of London Metropolitan University. In an address to the vice chancellors of Universities UK on 17 September 2002, he pointed out that there was little likelihood of universities being able to train enough scholars to replace retirements and cope with the planned expansion of student numbers.

He predicted a severe shortage of academic staff in the English-speaking world by 2010, with up to 230,000 new academics being needed. He suggested that the shortage of research trained academics would be such that universities would have to rely more on ancillary staff.

It appears that the combination of the coming very substantial numbers of retirements among academics in the English-speaking world, the continuing growth in student numbers in universities and the uncompetitiveness of Australian academic salaries may lead to shortages of academic staff in Australia.

The most pressing academic staffing problem facing Australian universities as a whole therefore is how to attract sufficient high quality young entrants to the academic profession.

## **Making academic careers more attractive**

As part of their recent study of the perceptions of and attitudes to changes in academic life of Australian academics, Anderson, Johnson and Saha gathered responses from academics on the current attractiveness of an academic career.

The results reveal that among Australian academics there is substantial agreement that the attractiveness of academic careers has declined.

*As we might expect, an overwhelming percentage of our respondents, 83 per cent, said that attractiveness (of an academic career) was important. Only 2 per cent said this was not at all important. More importantly, 79 per cent of our respondents said that the attractiveness of an academic career had decreased; only 9 per cent thought it had increased. Furthermore, 81 per cent thought the change was for the worse.*

Anderson et al, 2002, p.83

The reasons for these negative perceptions were a combination of a decline in working conditions and salaries. Salaries were however a key element.

*Most academics, however, were concerned about salary. The sentiment in the following volunteered statements suggests that being an academic in a university is seen as just another job.*

*The rates of pay do not recompense for the number of hours spent. Research must be done in one's own time, that is, weekends and nights.*

*Previously, (ten years ago) this was built into the working week. Salaries have not kept up with work increases. (Lecturer, Social and Behavioural Sciences)*

*Salary relativities have collapsed to the point where I would be irresponsible to recommend an academic career to my children, able though they are. (Senior Lecturer, Humanities)*

*In the wider community academics are valued, however, the financial reward doesn't compensate the years of training. In the past some may have compromised financial reward for lifestyle, but that has changed. The lifestyle is less attractive. (Lecturer, Maths/IT)*

*The job sucks! Pathetic pay and decreasing job satisfaction. Flexible hours and independence in choosing research area are the remaining pluses. (A/P Reader, Science)*

*Some of our respondents indicated that they would not recommend an academic career to others, or that they themselves were going to leave the profession. And as one of our respondents below indicates, even for those who still want to pursue an academic career, the prospects are increasingly limited.*

Anderson et al, 2002, p.85

### **The casualisation of academic staffing**

It would seem unremarkable that the starting point for making academic careers more attractive is that there should be clearly identified 'careers' on offer. Most new academic staff are not offered a career when they commence work at a university: what they are offered are either part-time positions or positions with fixed terms with generally no guarantees in either case of another offer at the end of the current session or contract period.

An exacerbating element in the problem of recruiting for associate lecturer positions is that the casualisation of both teaching and research positions in Australian universities is leading to a lower percentage of academic places being available for full-time appointments, thus reducing even further the attractions or possibility of an academic career.

Like all major educational institutions, universities have to use some teaching staff who are not full-time. Many such staff bring substantial educational benefits to an institution through the special contribution they can make because of their current knowledge gained from their other employment. In addition, they provide flexibility in staff programming as they can substitute for other staff when required, fill gaps in staff profiles and deliver one-off programs.

A key issue in the use of part-time staff, however, is what proportion should they make up of the academic labour force before their presence leads to unintended consequences?

The impact of casualisation of academic staff on Australian universities has been described recently.

*Casuals are not a homogeneous group. Some are graduate students wanting experience in teaching and some extra income. Others are graduates hoping to get a foothold on an academic career. Others again are academics who have opted out of stressful full-time appointments for the simpler role of teaching so many hours and no taking home work, no administration, and no hassling for resources. An important subset of casuals is professional experts and clinicians hired to teach their specialty. Many of our respondents testified to the enrichment they bring to the course.*

*We estimate that casuals now carry out about one quarter of teaching and assessment. Apart from those casuals hired for their expertise the remainder are employed because they help ease the burden on overworked academics or because, as more than one manager told us, they are cheaper. In the view of the majority of our respondents, casualisation of university teaching is having an adverse effect on quality and academic standards. The practice is also diminishing the strength and continuity of some disciplines and departments because retiring staff are not being replaced. And, in the view of some, training and supervision of casuals results in a net addition to their work.*

Anderson et al, 2002, p.35

In Australia there is a clear tension between the extent to which universities are prepared to offer full-time positions and the aspirations of those seeking secure careers as academics. This tension is highlighted in the submission of the universities' industrial body, the Australian Higher Education Industrial Association, to the Crossroads Review, where the Association responded to the following issues raised in the Overview Paper, under the heading of workforce/staffing flexibility.

*139 Inflexible operating arrangements fail to meet the changing needs and circumstances of students and impede the efficient use of campus facilities.*

*140 Workplace flexibility is increasingly necessary to enable universities to compete in the education marketplace. For universities to be innovative, responsive, and able to differentiate their services they have to be able to make timely decisions, deploy their resources as required to meet the circumstances and, where necessary, forge alliances with others to fill capability gaps.*

These statements reflect the position that a key ingredient in the successful operations of universities lies in competent human resource management, including the flexible use of their academic staff.

The precise extent to which the practice of employing smaller proportions of tenured academics in Australian universities is a reflection of financial pressures is difficult to say. On the surface, it appears, however, that the universities do not have any serious disagreement with the government on this issue, at least according to the response of their industrial association to the Crossroads comments.

*Universities need to be able to respond quickly to changing student demand and to opportunities for entry into new areas of teaching or research as they arise. This will often involve the need to quickly engage and sometimes disengage staff as skill requirements change. Necessarily, the high degree of specialization of academic staff often militates against their simply being redeployed as might be able to be the case with other types of staff.*

*Ongoing or tenured employment, while it may have other benefits for universities, does not deliver this flexibility.*

AHEIA, 2002, p.9

It is true of course that at the heart of this issue, from the point of view of an employer, lies a harsh budgetary imperative: in order to be able to manage financially, universities have to gain the maximum output from each academic salary dollar. One important implication of this is that universities need to avoid long-term commitments to academic staff, so that when staffing needs change, new staff may replace old, without the institution facing major redundancy payouts.

Not only does the need for flexibility push the universities towards employing as many academics as possible under short-term arrangement, part-time and fixed tenure employees are also cheaper.

*There are also cost implications associated with the mix of different modes of employment. One of the NTEU's stated aims is to remove any cost benefit incentive to the use of casual employment by universities. For universities aiming to "increase their output and to reduce the costs of their inputs while maintaining quality" (para 122) the utilization of the most cost effective employment forms will continue to be an important consideration, along with that of quality.*

AHEIA, 2002, p.11

In reflecting on these issues, the AHEIA raised the following questions for the Review.

*What is the proper purpose and value of ongoing or tenured staff and where should such decisions be made?*

*What are other appropriate employment modes, including other existing modes, in universities?*

*What is the appropriate mix at each institution of such modes given the need for workplace flexibility and the need for efficient use of human resources?*

AHEIA, 2002, p.11

Of equal importance are the questions:

*What impact will the employment of large numbers of part-time academic staff have on the quality of teaching, research, students and management?*

*What impact will the employment of large numbers of part-time academic staff have on us attracting high quality young academic staff?*

The decision of a university to maintain its proportion of full-time staff has become more difficult because of the more rapid changes in staffing needs and the increasing pressure on available funds. Each university therefore has to prepare for the future and live with the constraints of the present.

Universities must be concerned about the long-term appeal of fields that have been in high demand and the prospect of the demands in new fields.

- with the boom in tourism finished and the consequent oversupply of travel and tourism staff in the private sector, it is likely there will be a drop in student demand in these fields.
- what will be the effects on universities of the decline in demand in information technology?
- what are the likely effects on overseas student numbers in Australian universities of the expansion of universities in South-East Asia?

Sir Gareth Roberts' review in the UK made the following recommendations in response to the problem of the lack of careers for young researchers in universities:

- *the development of a range of career trajectories and clear career structures for those employed as CRS (contract research staff), including greater use of permanent contracts for researcher;s*
- *the inclusion of earmarked funding for training and professional development in all grants or contracts that provide employment of CRS;*
- *enhanced salaries for CRS funded by Research Councils, particularly in disciplines where there are shortages due to high market demand, and greater possibilities for salary progression within contract research;*
- *more market-related salaries for key academic staff, which should benefit scientists and engineers, particularly those engaged in research of international quality.*

Roberts, 2002, p.143

The notion of a career now has a quaint tinge to it, as it seems to reflect a world of work that has passed almost into oblivion: lifetime employment with a single employer, working at the one location and mutual employer and employee loyalty all seem to have passed. Why should academic careers be different?

In an environment where universities are being driven by governments to demonstrate good management, it would appear futile to expect them to embrace staffing policies that expose them to greater costs. However, unless there is a change so that universities can be more competitive in the international academic labour market and better career opportunities are made available to attract the best young minds, Australian universities will not be able to deliver what the country needs.

What appears essential is a new approach to recruiting young staff, one that presents a package that offers clearer career paths, opportunities for rewarding work and sufficient financial returns to enable them to establish themselves as independent earners.

Why hide the fact that universities are paying salaries above the award rates to some staff? Why make the career less attractive than it is?

## Attracting and retaining high quality staff

The continuation of a high quality university system in Australia depends significantly on the employment of high quality academic staff at all steps in the academic ladder as well as at the entry point to the system. From the evidence we have gathered, it is clear that in order for Australian universities to attract high quality academic staff from overseas or from the private sector, in a significant number of cases they have to make salary offers well in excess of current agreed salary rates and/or provide other incentives in cash or services.

While the payment of loadings and other incentives is an appropriate adjustment to the demands of the market place, the capacity of the universities to do this depends on the resources of the individual university. If there are significant disparities in university resources, the ability to respond to market pressures will be biased to the resource rich institutions, thus leaving the others struggling to compete for quality staff in fields where there is significant competition.

The playing field is not level in other ways apart from resources. Some universities have an additional problem competing simply because of their location: universities in Sydney have a problem in attracting outsiders because of the high cost of living in Sydney.

There is at the moment no formal arrangement in university salary agreements comparable to the “London Loading”, though the decision of the University of New South Wales to add \$3,000 to the base pay of its academic staff, as part of a new salary agreement seems to indicate that a “Sydney loading” is not far away for all Sydney universities.

The problem with such an incentive is that it will further tax the resources of the less well endowed universities in that region. If one university grants such a loading the others will be forced to follow otherwise they will be even less competitive in their local market.

While Australian universities have had the attraction, at least up until the present, of offering a desirable and safe working location as some compensation for less than competitive salaries, many potential overseas applicants still find the gaps in salary and employment conditions too great for them to apply for vacant positions. This is particularly true for academics from the USA and Canada.

It is not enough therefore to argue that academics are so driven by their interest in their work and the opportunity to work in a particular intellectual environment that they are prepared to ignore the financial returns of a position. That is not the way the general labour market works, nor is it the way the academic labour market works.

It is clear the only way that Australian universities can compete currently for some positions in the global academic labour market or the private sector labour market is for them to be able to offer significant loadings to their salaries or enhanced other benefits.

Australia will not increase its competitiveness, however, only by making its staffing arrangements more flexible. That Australian academic staffing arrangements and rewards are already flexible is one of the most important facts revealed in this project. This flexibility is not confined to salary, it covers private practice, support staff, research funds, housing arrangements, providing or finding employment for partners, help with housing and schooling and salary packaging.

Some of the examples encountered would be hard to match for flexibility in the private sector. There may be some areas such as superannuation where there could be more flexibility, but flexibility ends when there are no more funds that realistically could be devoted to attracting a candidate.

In order for Australia to meet the challenge of finding sufficient high quality academic staff over the next decade, apart from undertaking a major campaign to recruit young staff, there will have to be some recognition that some universities are going to have to find additional funds to be able to compete with the private sector and the overseas academic market for quality academic staff.

In his work, *The Unchained University*, Andrew Norton argues that extra funds from top up fees could be used to improve student to staff ratios as well as attracting better staff. He makes an interesting point on the influence of academic salaries on staff quality.

*It is surely not completely a coincidence that it is the areas of study with high-paying professions recruiting from the same talent pool that are rated worst for teaching by their students.*

Norton, 2002, p.42

## **The need for more data gathering**

In working on this project, one of the problems identified was the absence of relevant data of the kind that is more readily available on other higher education systems:

- benchmarking data from the US association of professors;
- comparative discipline benchmarking data from professional bodies and organisations with strong links to universities;
- provision of specialised data on international academic labour mobility by bureaux of statistics;
- regular salary comparisons between state and private universities in US and Canada;
- databases on current actual remuneration and other benefits.

In the absence of comparable data in Australia, understanding what is actually happening in academic staffing matters inside universities will require continuing one-off research projects, which while useful, will always be after the event and be limited because of funding and access issues.

### ***Academic incomes***

In attempting to estimate the impact of uncompetitive academic salaries on staff recruitment, it needs to be emphasised that for many academics, their base university salaries are not the sole incomes earned from their academic skills and their university status. Many earn additional funds from their universities and/or from the exploitation of their right of private practice.

We were not able to quantify these earnings, though we were given examples of some individuals who earned very substantial amounts above their university base salaries.

The impact of extra earnings on academic willingness to accept a lower university salary than might be expected needs to be tested. This could provide a partial explanation as to why some academics accept salaries below what they might earn in the private sector.

The first task is to extract from the total earnings of academics the amounts being paid additional to the base salary. The second is to attempt to establish the extent of income earned from private practice. The third is to establish what impact these extra earnings have on the job satisfaction of academics. The fourth is to establish what impact these efforts are having on core academic responsibilities.

### ***Brain drain***

While recent research has filled out our knowledge of the impact of the brain drain on the Australian work force, there is a need for more information on the movements of academic staff in and out of Australia.

*The most detailed information on academic brain drain has been collected on academic mathematicians.*

*The updated data on the movement of mathematical scientists shows some disturbing trends:*

- *The brain drain of experienced researchers continues.*
- *The trickle of experienced researchers coming into Australia continues. However, it now becomes apparent that those who do come show a tendency not to stay.*
- *The unfavourable imbalance between researchers going overseas and those coming back continues.*
- *New researchers coming from overseas are also showing a tendency not to stay.*

Thomas, 2002, p.1

Thomas goes on not only to quantify the extent of these movements but also identifies the qualitative losses.

Major sources of existing data should be the exit interviews of those academic staff who have taken up overseas positions and the records of negotiations with overseas applicants. These should be more highly formalised than they are now, so that accurate information, as opposed to speculation, may be obtained.

### ***Recruitment practices and strategies***

There is a dearth of recent research on academic recruitment practices in Australian universities as the academic workplace becomes more flexible and a range of private sector human resource practices become more widely utilised. It is important to investigate the impact of these practices and benchmark the models of best practice.

There have been studies elsewhere that provide important indicators as to what we might expect in the Australian environment, though the differences here still appear significant enough to demand local studies.

### ***Growth of non-academic positions***

Some universities reported the growth of tensions around the increase in non-academic positions in university faculties. As the work of a faculty becomes more business oriented and its operations come more closely to resemble other corporate entities, the employment of specialists in management, cost accounting, marketing and business development increases.

### ***Sharing information across the university system***

A positive feature of the responses to the interviews was the degree to which human resource management specialists shared information about human resources practices and salaries and associated issues across the university sector. The quantity and quality of such information sharing was high, even in sensitive and delicate senior appointments.

### ***Young academics and the future***

Serious concern was expressed by all institutions about the situation confronting young academics. Apart from the structural problems evident in the young academic labour market, concern was expressed about

the patterns in younger academic employment. Increasingly it was observed that younger academics did not view academic life as attractive, nor as valued by the community. As generation Xers younger people are likely to change employment more often and be unable to sustain the long term commitments that have been institutionalised in the structure and promotion systems of Australian universities up to this point.

### ***Low staff turnover***

All universities reported low staff turnover (academic staff turnover was often less than 5 per cent – whereas general staff turnover averaged 18 per cent) – and that staffing was extremely stable. This stasis may be subject to alternative explanations; as a reflection of immobility of academic labour, or its inability to compete in the private sector, or its advanced high age structure. Irrespective of its causes such low staff turnover presents a problem for the Australian academic labour market.

### ***The ways in which excellent teaching is rewarded***

In any measure of the glamour of academic activity, research wins the academy award. Clinical academic work such as supervising field placements of neophytes in professional faculties is the least glamorous academic activity, closely followed by teaching. Teaching, the major source of funds for most faculties, plays only a small role in academic employment, recruitment, promotion or in the operations of the academic labour market.

### ***Changing roles of academic managers***

A number of interview responders commented that the role of senior academics has become more complex. Their roles are now predominantly managerial and their performance is judged against income targets, marketing responsibilities and performance targets.

## CHAPTER 9

### BIBLIOGRAPHY

- ACS Comprehensive Salary and Employment Status Survey (2002)  
<http://www.jobspectrum.org/dcspubs/FAQsalary.pdf>
- Advanced Manufacturing* (2002) Vol. 2, No. 6, November.
- Aitkin, Don (2002) One great University for Australia?, *Higher Education Review: Submission 216*.
- Alexander, King F. (2000) The Changing Face of Accountability: Monitoring and Assessing Institutional Performance in Higher Education, *The Journal of Higher Education*, Vol. 71, No. 4, Jul/Aug, Ohio State University.
- Altbach, Philip (ed) (200) *The Changing Academic Workplace: Comparative Perspectives*, Centre for International Higher Education, September.
- Anderson, D., Johnson, R. & Saha, L. (2002) *Implications for Universities of the Changing Age Distribution and Work Roles of Academic Staff*, AGPS, DEST.
- Association of University Teachers (2002) Pay claim 2001-02: 'Now is the time to spend on people', [http://212.19.67.91/campaigns/pay/payclaimpre92\\_01-02.html](http://212.19.67.91/campaigns/pay/payclaimpre92_01-02.html)
- Australian Bulletin of Labour* (1970–2003)
- Australian Bureau of Statistics (1999) *Education and Training in Australia*.
- Australian Bureau of Statistics (2002) *Average Weekly Earnings*.
- Australian Bureau of Statistics (2002) *Education and Training in Australia*.
- Australian Higher Education Industrial Association (2002) *Submission by the Australian Higher Education Industrial Association in response to the Overview Paper*.
- Bagilhole, Barbara (2000) Too Little Too Late? An Assessment of National Initiatives for Women Academics in the British University System, *Higher Education in Europe*, Vol. XXV, No. 2.
- Barbezat, Debra & Donihue, M.R. (1998) Do faculty Salaries rise with Job Seniority? *Economics Letters* 58, pp. 239-244.
- Barbezat, Debra & Hughes, James (2001) The effect of job mobility on academic salaries, *Contemporary Economic Policy*, Huntington Beach, Vol. 19, 4 (Oct), pp. 409-423.
- Bartelse, Jeroen, de Weert, Egbert & Huismen, Jeroen (2002) Academic Careers from a European Perspective: The Declining Desirability of the Faculty Position, *The Journal of Higher Education*, Vol. 73, No. 1 (Jan/Feb 2002), Ohio State University.
- BBC Online Network (1999) *Education Academics deserve pay rise says report*, Thursday, June 24, 1999  
<http://news.bbc.co.uk/1/hi/education/387289.stm>
- BBC Online Network (1999) *Education University staff push for more public money*, Tuesday, July 6, 1999  
<http://news.bbc.co.uk/1/hi/education/387289.stm>
- Becker, Jerry (2001) Australia: Higher education brings bigger salaries, *The Age*, December 12.
- Becker, Jerry (2001) Brain drain in reverse?, *BBC News*, December 6.

- Bett, M. (1999) *Summary of Recommendations from the Independent Review of Higher Education and Pay Conditions*, <http://www.archive.official-documents.co.uk/document/irhec.htm>
- Blitz, R.C. & Tang, A.M. (1981) Merit Raises and Academic Tenure under Inflation, *Economics of Education Review*, Vol. 1, No. 2 (Spring) pp. 151-167.
- Boekholt, Patries, Arnold, Erik, Kuusisto, Jari, Lankhuizen, Maureen, McKibbin, Shoni & Rammer, Alexandra (2001) *Benchmarking Mechanisms and Strategies to attract Researchers to Ireland, A study for the Expert Group on Future Skills, Needs and Forfas*, Technopolis-Group, Final Report, February.
- Brookman, Jennie (2001) Resolute minister eyes performance, *The Times Higher Education Supplement*, Issue 1507, October 5.
- Burton, Clare (1997) Gender Equity in Australian University Staffing, *Evaluations and Investigations Program Monograph 97/18*, Higher Education Division, Department of Employment, Education, Training and Youth Affairs, Australian Government Publishing Service, Canberra.
- Bushnell, P. & Choy, Wai Kin (2001) Go West, Young Man, Go West!, *People and Place*, Vol. 9, No. 3.
- Caldwell, Brian & Roskam, John (2002) *Australia's Education Choices: A Report to the Menzies Research Centre*, The Menzies Research Centre Ltd.
- Camp, R.C. (1989) *Benchmarking: the search for industry best practices that lead to superior performance*, Quality Press, NY.
- Catley, Bob, (2001) The New Zealand 'Brain Drain', *People and Place*, Vol. 9, No. 3.
- Chapman, Bruce (2002) *A Submission on Financing Issues to the Department of Education, Science and Training Inquiry into Higher Education Reform*, Australian National University
- CHEMS (2000) *CHEMS Survey: Academic Staff Salaries and Benefits in Seven Commonwealth Countries, 1998-99*, Commonwealth of Australia.
- Chevallier, Thierry (2000) The changing conditions of higher education teaching personnel, *Sectoral Activities Programme: Working Paper*, International Labour Office, Geneva.
- College and University Professional Association for Human Resources (2002) *2001-02 Administrative Compensation Survey*, College and University Professional Association for Human Resources, Washington DC.
- Commonwealth Department of Education Science and Training (2002) *Meeting the Challenges: the Governance and Management of Universities*, Commonwealth of Australia.
- Connell, R.W. & Wood, J. (2002) Globalization and scientific labour: patterns in a life-history study of intellectual workers in the periphery, *Journal of Sociology*, Vol. 38 (2).
- Cooper, S., Hinkson, J. & Sharp, G. eds (2002) *Scholars and Entrepreneurs, The University Crisis*, Melbourne, Arena Publications, pp. 109-36.
- Costing and Pricing of External Research* (2001) University of Northumbria, <http://online.unn.ac.uk>
- Cradden, Connor (1998) 'Old' University Academic Staff Salary Movement since 1949, European University Institute, *Higher Education Quarterly*, 0951-5224, Volume 52, No.4 (Oct), pp. 394-412, Blackwell Publishers Ltd.
- Creehan, Sean (2001) Brain Strain: India's IT Crisis, *Harvard International Review*, Summer, Vol. 23, No. 2.
- Cunningham, Stuart (2000) Debriefing the "Policy Moment", *Cultural Studies Association of Australia News*, 2, <http://www.staff.vu.edu.au/CSAA/newsletter00-2.html>

- Davis, Wayne A. (1999) *Long Range Planning for Main Campus Faculty Salaries*, Georgetown University, <http://www.georgetown.edu/executivefaculty/FacultySalaries.html>
- Deakin University, *Enterprise Bargaining Agreement (1997-1999)* [www.deakin.edu.au/hrs/benefits/related\\_files/EBA1997-1999.pdf](http://www.deakin.edu.au/hrs/benefits/related_files/EBA1997-1999.pdf)
- Department for Education and Skills (DfES) (2003) *The Future of Higher Education*.
- Ehrenberg, Ronald (2002) *Studying Ourselves: The Academic Labor Market*, NBER Working Paper No.w8965, <http://ideas.uqam.ca/ideas/data/Papers/nbrnberwo8965.html>
- Ehrenburg, Ronald G., Pieper, Paul J. & Willis, Rachel A. (2000) *Would Reducing Tenure Probabilities Increase Faculty Salaries?* NBER Working Paper No.w5150.
- Ellis, David (1999) Reversing the 'brain drain', *Adelaidean*, October 18, p. 5.
- Employment in Higher Education* (2000) <http://www.hm-treasury.gov.uk/mediastore/otherfiles/ACF616.pdf>, Treasury: United Kingdom.
- Ferber, Marianne, (1974) Professors, Performance, and Rewards, *Industrial Relations*, Vol.13, No. 1, pp. 67-77.
- Formby, John P. & Hoover, Gary A. (2000) Salary Determinants of Entry Level Academic Economists and the Characteristics of Those Hired on the Tenure Track, Working Paper No. 00-03-03, *Economics, Finance and Legal Studies: Working Paper Series*, University of Alabama.
- Full-time Faculty and Civil Service Salaries at Illinois Colleges and Universities* (1998) State of Illinois, Board of Higher Education.
- Grant, Hugh (1998) Academic Contests? Merit Pay in Canadian Universities, *Relat.ind*, Vol.53, No 4.
- Hallock, Kevin F. (1995) Seniority and Monopsony in the Academic Labor Market: Comment, *The American Economic Review*, Vol. 85, Issue 3, Jun, Nashville.
- Hansen, R. L. (1988) 'Merit Pay in Higher Education', in Heneman, D. W. (ed), *Academic Labor Markets and Careers*, New York: The Falmer Press.
- Hartley, John (2001) *Losing our Minds, or our Heads?* Cultural Studies as National Treasure, CSAA Annual Conference.
- HEFCE (Higher Education Funding Council for England) (2002) *Rewarding and developing staff in higher education: Good practice in setting HR strategies*, March Report.
- HEFCE, SCOP, UCEA & UUK (2001) Recruitment and retention of staff in UK higher education, Higher Education for England: United Kingdom.
- Heneman, R. L. (1992) *Merit Pay: Linking Pay Increases to Performance Ratings*, Reading, Mass: Addison Wesley.
- Hilton, K. (1988) Real Salaries in Australia and Britain: the case of academic staff 1976-1988, *Australian Universities Review*, No 2.
- Huisman, J., de Wurt, E., Barta (2002) *Independent Review of Higher Education pay and conditions*. [Wysiwyg://117</http://www.eis.org.uk/evidence.htm>](http://www.eis.org.uk/evidence.htm)
- Iredale, Robyne & Guo, Fei *The Transforming Role of Skilled and Business returnees: Taiwan, China and Bangladesh*, Centre for Asia Pacific Social Transformation Studies (CAPSTRANS), University of Wollongong, NSW, Australia.
- Johnsrud, Linda K., Rosser, Vicki J. (2002) Faculty members' morale and their intention to leave: A Multilevel Explanation, *The Journal of Higher Education*, Vol. 73, No. 4, Jul/Aug, pp.518-542, Ohio State University.

- Kerr, C. (1963) *The Use of the University*, Harvard University Press.
- Key Statistics on Higher Education* (2001) Australian Vice Chancellor's Committee, 2001.
- Laming, Madeleine (2001) To our Knowledge, *Eureka Street Online*.
- Learning for Life: Review of higher education financing and policy* (1997) A Policy Discussion Paper, Commonwealth of Australia.
- Lewis, L.S. (1996) *Marginal worth: teaching and the academic labor market*, Transaction Publishers, Brunswick, N.J.
- Magner, Denise K. (1999) Study Adjusts Salary Data on Professors to Reflect Cost of Living in Different Areas, *Chronicle of Higher Education*, Vol. 45, Issue 49.
- Major, Lee Elliot, (2002) A new bridge to cross, *The Guardian*, Tuesday, February 19.
- Management profs receive market supplements*, <http://www.ucalgary.ca>
- Marginson, Simon (1991) Academic salaries: Will Award Restructuring Make a Difference?, *Journal of Tertiary Education Administration*, Vol. 13, No. 1, May.
- Marginson, Simon (1991) Australian Academic Salaries – Trends and Relativities, *Australian Bulletin of Labour*, Vol. 17 (1).
- Martin-Rovet, Dominique, Terouanne, Damien, Thibaud, Jean-Baptiste & Neher, Elizabeth (1998) *Higher Education in France and the International Migration of Scientists*.
- Maxwell, J. (2002) *Academic Staff Salaries and Benefits in seven Commonwealth Countries 2001-2002*, Association of Commonwealth Universities, Feb.
- McGill Media Releases (2001) *McGill University committed to correcting gender differential in academic salaries*, May 30.
- McInnis, Craig (1999) *The Work Roles of Academics in Australian Universities*, Department of Education, Training and Youth Affairs, Commonwealth of Australia.
- McKinnon, K R., Walker, S H. & Davis, D. (2000) *Benchmarking: A Manual for Australian Universities*, Department of Education, Training and Youth Affairs, Commonwealth of Australia.
- Microsoft Lures Academic Researchers (1999) *The Washington Post*, April 5.
- Monchard, Serge & Anguelov, Simeon (2001) Balanced Exchanges or Brain Drain?, *Euroscience News*, April.
- Monks, James & Robinson, Michael (2001) 'The Returns to Seniority in Academic Labor Markets', *Journal of Labor Research Series*, Spring, Vol. XXII, No. 2.
- Moore, William, Newman, Robert & Turnbull, Geoffrey (1998) Do Academic Salaries Decline with Seniority?, *Journal of Labour Economics*, Vol. 16, No. 2.
- NATFHE (2002) *Comprehensive Spending Review 2003/4-2005/6: The Price of Equality*, NATFHE – The University and College Lecturers' Union.
- NATFHE (2002) <http://natfhe.org.uk/abou/aboudoor.html>
- NATFHE (2002) Pay Claim. The University and College Lecturers' Union.
- New Zealand Talent Initiative: Strategies for Building a Talented Nation* (2001) L.E.K. Consulting, November.
- Northern Territory University (2001) *Principles and Procedures for Outside Work and the External Funding of Academic Activities*, NTU: Darwin.

- Norton, A. (2002) *The Unchained University*, Centre for Independent Studies, St Leonards.
- NTEU (2002) *Supplementary Submission to Crossroad Inquiry*, NTEU, South Melbourne.
- Ong, L.L. (1998) Big Macs and Wages to Go, Please: Comparing the Purchasing Power of Earnings around the World, *Australian Journal of Labour Economics*, Vol. 2, No 1, March.
- Ong, Li Lian & Mitchell, Jason D., (2000) Professors and hamburgers: an international comparison of real academic salaries, *Applied Economics*, Vol. 32, Issue 7, p869.
- Penn State University (2002) *Comparison of Average Faculty Salaries*, <http://www.budget.psu.edu/POB0701/TabD.asp>
- Pickersgill, R., Van Barneveld, K. & Bearfield, S. (1998) *General and Academic Work: Are they Different?* DETYA, Canberra.
- Pockley, Peter (2001) Brain Drain to Biosphere, *Australasian Science*, Vol. 22, No. 1, Jan/Feb.
- Princeton University in Brief* (2002) <http://www.princeton.edu/pr/admissions/u/brief/>, last accessed Sept 20.
- Probert, Belinda, Ewer, Peter & Whitling, Kim (1998) *Gender Pay Equity in Australian Higher Education*, The National Tertiary Education Union, South Melbourne.
- Productivity Commission (2002) *University Resourcing: Australia in an International Context*, Commonwealth of Australia.
- Quite Good News, For Now, The Annual Report on the Economic Status of the Profession, 2001-2002, (2002) *Academe Online*, March-April, Vol. 88, No. 2.
- Ragan, James F., Warren, John T. & Bratsberg, Bernt (1999) How similar are pay structures in 'similar' departments of economics?, *Economics of Education Review*, 18, pp.347-360.
- Ransom, M.R. (1993) Seniority and Monopsony in the Academic Labor Market, *American Economic Review*, 00028282, Mar, Vol.83, Issue 1.
- Rao, Badrinath (2001) *Economic Migrants in a Global Labour Market: A report on the recruitment and retention of Asian computer professionals by Canadian high tech firms*, CPRN Discussion Paper No. W/13, Canadian Policy Research Networks.
- Rees, Stuart & Rodley, Gordon (eds) (1995) *The Human Costs of Managerialism: Advocating the Recovery of Humanity*, Pluto Press Australia Limited, NSW.
- Robert, G. (2001) *Review of the Supply of Scientists and Engineers*, HM Treasury, London.
- Roberts, Tim S. (2002) Academics in Academia: the Forgotten Resource in the Rush to New Technologies, *Educational Technology and Society*, 5 (2).
- Salt, John (1997) International Movements of the Highly Skilled, Directorate for Education, Employment, Labour and Social Affairs – International Migration Unit – Occasional Papers No. 3, Organisation for Economic Cooperation and Development, OECD/GD(97)169.
- Shattock, Michael (2001) University of London, Institute of Education, The Machinery For Determining Academic Pay: Illusion and reality in a 'Nationalised Industry', *Higher Education Quarterly*, 0951-5224, Vol. 55, No. 1, Jan, pp 62-77.
- Simpson, Jeffrey (2002) *There's at least one Chretien legacy: universities*, <http://archives.theglobeandmail.com/Commentary/20021109/COSIMP9.html>, Globe Interactive.
- Siow, A. (1995) *The Organisation of the Market for Professors*, Dept. of Economics and Institute for Policy A, University of Toronto

- Stager, David (2001) *The Labour Market for IT Workers: A Review of Recent Literature*, Sectoral and Occupational Studies Division, Human Resources Investment Branch, Human Resources Development Canada.
- Strategic Issues and Initiatives* (2001) May 24, University of Alberta.
- Strathman, James G. (2000) Consistent Estimation of Faculty Rank Effects in Academic Salary Models, *Research in Higher Education*, Vol. 41, No. 2, 2000.
- Sutton, Terry P. & Bergerson, Peter J. (2001) Faculty Compensation Systems: Impact on the Quality of Higher Education, *ERIC – HE Digest EDO-HE-2001-06* The George Washington University.  
<[www.eric.org](http://www.eric.org)>
- Taylor, Jeanette (2001) The Impact of Performance Indicators on the work of University Academics: Evidence from Australian Universities, *Higher Education Quarterly*, 0951-5224, Vol. 55, No. 1, Jan, pp 42-61.
- The Chronicle of Higher Education (2001) Facts & Figures: Pay and Benefits, Year 1999-2000, at *The Chronicle of Higher Education*, <http://chronicle.com/stats/990/2001/results.php3>, last accessed 20/9/2002.
- The Teachers*, <http://www.sasked.gov.sk.ca>
- The University of Queensland (2002) *Academic Staff Salary Schedule*, <http://www.admin.uq.edu.au>
- The University of Sydney Personnel Services (2002) *Industrial Relations*, [http://www.usyd.edu.au/su/personnel/ir/awards/acad\\_staff/section3.htm](http://www.usyd.edu.au/su/personnel/ir/awards/acad_staff/section3.htm)
- Thomas, J. (2002) *Mathematical Science in Australia: Still Looking for a Future*, FASTS, Occasional Paper 3.
- Torbat, Akbar E. (2002) The Brain Drain from Iran to the United States, *Middle East Journal*, Vol. 56, No. 2, Spring.
- University education – The gap Widens, (2000) *The Economist* (US), April 22, v355 i8167, p24.
- University of Alberta (2000) *2001/2002 Budget Planning Document*, The Office of Resource Planning, November 3.
- University of Calgary (2000) *Finance and Services*, <http://www.ucalgary.ca/hr/academic/salaries.html>
- University of California (2001) *Academic Salary Scales*, October 1, <http://www.ucop.edu>
- University of Wollongong (2002) *Salaries for Full-Time and Fractional Academic Staff*, [http://www.uow.edu.au/admin/personnel/salary/ac\\_levels.html](http://www.uow.edu.au/admin/personnel/salary/ac_levels.html)
- Ushkalov, I.G. & Malakha, I.A. (2001) The “Brain Drain” as a Global Phenomenon and its Characteristics in Russia, *Russian Social Science Review*, Vol. 42, No. 5, September-October, pp. 79-95.
- Utilization and Goal Setting Analysis* (1999) <http://www.psu.edu/dept/aaoffice/plan99-00/analysis.htm>
- Ward, Melanie & Euwals, Rob (2000) *The Remuneration of British Academics*, Institute for the Study of Labour: Bonn.
- Ward, Melanie & Sloane, Peter (2000) Job Satisfaction within the Scottish Academic Profession, *Scottish Journal of Political Economy* 47,(3), 273-303.
- Ward, Melanie (1999a) *Your Everyday, Average Academic*, Discussion Paper 63, Institute for the Studies of Labour: Bonn.
- Welch, Anthony R. (2001) *Globalization, Structural Adjustment and Contemporary Educational Reforms in Australia: The Politics of Reform, or the Reform of Politics?*, World Congress of Comparative Education, Chung Buk, Korea.

- Williams, Sadie (2000) *Management and Leadership Teaching: present trends and future demand*, Lancaster University Management School, <http://www.managementandleadershipcouncil.org/downloads/r25.pdf>
- Wilson, Robin (2002) Faculty Salaries Rise, for Now, *The Chronicle of Higher Education*, Vol. 48, Issue 32.
- Winefield, A.H., Gillespie, N., Stough, C., Dua, J. & Hapuararchchi, J. (2002) *Occupational Stress in Australian Universities: A National Survey*, NTEU, South Melbourne.
- WITSA Inventory on IT Skills and Workforce Initiatives, (2001) *Interim Compilation*, April 3, World Information and Technology Services: London.
- Woodward, Will (2002) Pay differential hits universities, *The Guardian*, May 10.
- Zappala, J. & Lombard, M. (1991) The Decline of Australian Educational Salaries, *Australian Bulletin of Labour*, 17(1), pp. 76-95.
- Zezeza, Paul Tiyambe (1998) *African Labor and Intellectual Migrations to the North: Building New Transatlantic Bridges*, University of Illinois, <http://www.afrst.uiuc.edu/SEMINAR/AfricanLabor.pdf>
- Zhao, John, Drew, Doug & Murray, Scott (2000) Brain Drain and Brain Gain: The Migration of Knowledge Workers from and to Canada, *Education Quarterly Review*, Vol. 6, No. 3.
- Zhao, John, Drew, Doug & Murray, Scott (2000) Knowledge workers on the move, *Perspectives*, Summer.
- Zucker, Lynne G., Darby, Michael R. & Maximo Torero (2002) *Labor Mobility from Academe to Commerce*, NBER Working Papers 6050, National Bureau of Economic Research, Inc, <http://netec.wustl.edu/WoPEc/data/Papers/nbrnberwo6050.html>

## APPENDIX

### CASE STUDIES

#### Case Study 1 A Science Lecturer in a Regional University

P entered the university sector in 1985 and exited in 1995. P completed a science honours degree from a Go8 university in the mid-70s and then commenced a science teaching career. P's honours research was in a foundational area of science and the findings of his honours degree established P as a significant research talent. While teaching high school science P conducted some original research and published articles in Australian journals.

After eight years of high school teaching P enrolled in a Master Honours degree in a regional university. After completing this degree P enrolled in a PhD. P's masters research produced new findings in his area – and led to publications by P and his research supervisors. During his full-time doctoral studies P commenced a range of part-time work in the foundational science faculty at the University. He was offered and accepted positions as a demonstrator, research assistant, lecturer and laboratory technician – all on a fixed term contract basis.

After completing his doctoral study P continued employment in this series of short term fixed contract positions. He filled a lectureship at level A for a colleague on long service leave, and sometimes undertook casual teaching in the schools in the regional centre. P continued to publish articles in refereed journals – developing an original theory presented at national and international conferences. During his employment at the university P suffered severe salary loss in university employment compared to high school teaching salaries. He was offered positions (at Lecturer B) in other Australian universities but was committed to living in the regional centre due to family considerations.

From the university's point of view, P was a perfect reserve pool of labour – able to lecture in many courses due to his training and expertise, being able to supervise research students and also publishing to contribute to the faculty's research output.

#### Case Study 2 A New Associate Lecturer

E completed an arts degree at a Go8 university in 1996. E was an outstanding student and completed a first class degree in a foundational arts discipline. E was invited to undertake postgraduate studies but after four years of study sought employment and worked full-time during 1997.

In 1998 E applied to enter a PhD program and was awarded an Australian Postgraduate Scholarship (APRA) to undertake full-time study. During E's candidature, part-time employment was also sought within the arts department and she completed many short term casual jobs: research assistant, secretarial work, data entry, transcription of research data, administrative assistant.

E completed a PhD in the minimum time in early 2002 and commenced looking for an academic position. There were few entry level positions available in this discipline. For most of the year, E completed her PhD, and undertook short term work for her department, temping, administrative assistant, casual teaching.

Towards the end of the year, E was employed preparing ARC grant applications for the department and also conducting research as an associate for a large funded research project. At the completion of the research project E's casual work was terminated and she became unemployed. Although most university

departments in E's discipline have been downsizing and shedding staff for many years, a large number of retirements at a regional university created a position at Level A. E applied and secured the position at a salary scale at the end of Level A. E is now 30. Her starting salary is comparable to that of her full-time employment in 1997.

### **Case Study 3 From research to teaching**

T entered the university sector at the faculty of education at a Go8 institution in 1998. Prior to his appointment, T had been a teacher in a leading private school. T applied for a fixed contract position advertised at Level A/B by the university. This fixed position was advertised for a three year period with the option for a two year extension (3 + 2). T applied for the position at Level B and made it clear at interview that he would not accept a Level A appointment. The University made T an offer of the position at the bottom of the Level B salary scale and in the subsequent negotiations T achieved an initial appointment at the Step 2 in the Level B scale. At this point in the Level B scale T accepted the university position at a salary \$5 000 lower than the salary T had been earning at the school. In addition, T also lost a range of extra payments options at the school, where he earned an extra \$1 800 from student supervision outside school hours. In total T commenced employment at the university at a \$7 000 salary loss.

In terms of working conditions T sacrificed school holidays (12 weeks annual leave) leave. Although long service leave and other conditions were similar in both positions they were not transportable. In university employment T also became eligible for Study Leave, though this was not available until three years continuous service had been reached. The salary and conditions advantage T gained in employment at the university was in superannuation. In previous employment superannuation was accrued at the rate of 3 + 12 (3 per cent personal and 12 per cent school contribution) but the university entitlement was 3 + 14, leading to a significant superannuation advantage. A major working condition change was the lack of job security as T was employed on a fixed termed contract. T was informed during appointment and probation that research would be the main determinant in gaining future employment if positions arose in the area.

T changed employment as a result of a reordering of career goals and aspirations. T had completed an honours degree in undergraduate studies in a foundational arts subject, and during his teaching career had also completed a Master Honours degree in this subject area. T had also commenced a PhD during his teaching career and was close to finishing this degree when he was appointed to the university. T predominantly used his school holiday leave to complete the necessary travel, research and writing over the six years it took to complete his PhD. T had become less interested in school teaching and more interested in intellectual personal development and making a contribution to ideas and research at the university level. (I get a great deal of satisfaction out of writing.) T's position was based on providing teacher education in his subject area. Immediately T experienced difficulty in meeting the conflicting demands of teaching and research. As a junior staff member, T laboured under a very heavy teaching load, and did not have the school holiday time to conduct research similar to that he completed in his PhD. As result T's research output fell. T claimed that "we are training professionals but no account is taken of this in our employment. Research is the only practical factor in promotion, yet many of us teach very long hours". Research output is the key to promotion but is extremely difficult to achieve in teaching based positions "my supervisors are encouraging but have no influence on the external situation, they are supportive but powerless. To achieve permanency or promotion I must work two full-time working loads (for teaching and promotion) – I have applied for a postdoctoral fellowship to do some research". Despite the fact that T has professional teaching qualifications, a long and successful teaching history and research qualifications and published research his future is unclear.

### **Case Study 4 From Australia to the USA**

After 11 years as a professor of humanities at an Australian university, a highly regarded academic left Australia for a position in an American university. As well as the attraction of a significantly higher salary

in the United States, he commented that he believed that intellectual life overseas is better than in Australia.

Amongst his concerns about Australian universities are claims that cutbacks and restructuring have lowered standards, particularly PhDs. He believes that the need for income generation has devalued the humanities and in many cases, has resulted in amalgamations of unrelated departments.

He no longer enjoys academic life in Australia.

### **Case Study 5 Maintaining Salary Relativity**

A is a senior lecturer in a commerce and economics faculty. After completing his degree in the mid 1970s A worked professionally for three years in his discipline area. A joined his professional association and gained professional registration and accreditation, which he has maintained. He completed a Masters Degree, and successfully sought employment in the University.

A enrolled in a PhD program, and completed his PhD in the mid 80s. A was promoted to senior lecturer. As a result of A's excellent reputation in teaching A was appointed to manage large programs and courses, chaired many faculty committees and played a senior management role in his Faculty. As a result of A's strong industry partnership contacts and professional reputation, A also undertook private consultancies, maintained his professional qualifications and earned significant private income. A also conducted research and contributed to faculty research projects and funded projects, although A's research productivity has not been significant enough (at this stage) to gain promotion to Associate Professor.

As a measure of the decline in salary relativities, since the early 1990s new graduates in A's discipline area may earn more than lecturers in their training program. A, like many similar university staff in this discipline, increasingly undertook consultancies and earned private consulting income, in part to maintain salary relativity, and to maintain professional currency.

In the late 90s A began to work with other university staff in a private consultancy that generated significant private income for them all – managed by a retired faculty member. A has become increasingly disillusioned by developments in his faculty, especially the decline in management responsibilities that once were the purview of staff. Professional managers undertake many of the tasks that senior lecturers such as A previously performed. A and other staff have been under pressure to increase research productivity and apply for and win grants and funded projects. A is more committed to teaching and consultancies, and development in the profession.

In the late 90s A's faculty developed a private consulting and research firm to generate private income by undertaking commercial activity, consulting and research for industry. A contributes to this new commercial arm, but the new venture is in some ways in competition with A's private consultancy.

### **Case Study 6 Industry - University Partnership**

An eminent Australian research scientist undertook research work in Australia before taking up a postdoctoral fellowship in the United States. When he concluded this postdoctoral fellowship he moved to a private research company in the United States as a senior researcher. Subsequently, while still in the USA he returned to the university sector from the private sector while retaining close links with industry. His ongoing academic research continued to be significantly funded from the private sector.

When approached to apply for a position at a university in Australia he was earning almost twice the salary on offer. His decision to apply was based on family reasons combined with the opportunity to work at one of the elite research organisations in Australia.

In assessing his suitability for the position the university was initially uncomfortable with his apparent movement in and out of private and university research while he was in the USA. These industry-

university research partnerships are more common in the United States than has traditionally been the situation in Australia.

## Case Study 7 Networking and Career Development

Allan, a biologist, did his first degree in a practical area of applied science in an Australian university and became a lecturer in that field. He developed an interest in research and did a PhD in an Australian university. This work had international impact and he soon became director of an industry-funded research programme in an Australian university. He then moved into a senior position in research administration, also in Australia. Retiring from that, he decided to return to personal research and retrained, going to the UK to learn new skills.

*I've had three sabbatical times overseas. In each case I arranged to go and work in an eminent person's headquarters. One time in Germany, one time in Oxford, two times in London. These were people who were publishing in my field and who recognised my name when I was a world figure. When I approached them I said 'You will perhaps be aware that I have done this work and I would like to come if I may and see what's in your lab. I'm self-supporting'. In every case they said 'yes' and I had a very interesting time. In each case, published as co (author) along with them, a man or a woman I went to work with. I did the work for the project, wrote it up, the person I worked with had their name on the paper, 'thank you for having me' type of thing. So that was networking. When I needed referees for promotion to Associate Professor I was able to use a couple of people.*

*There is no formal structure, but quite a close-knit association between, particular (departments) in the UK and United States and Canada and New Zealand for that matter, with Australia. Also to a lesser extent, but still quite useful, there are links with quite a few of the European countries like France and Germany in particular, and Holland. There's a network and exchange of information about all aspects of (field) education. And of course a lot of these people link to each other at international conferences, which is clearly an important part of it.*