Submission to Senate Finance and Public Administration References Committee

Recruitment & Training in the Australian Public Service

Association of Professional Engineers, Scientists and Managers, Australia

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APESMA

Contents

1. INTRODUCTION

1.1   This submission is made on behalf of the Association of Professional Engineers, Scientists & Managers, Australia (APESMA).

1.2   APESMA is Australia's largest multi-disciplinary professional association with a membership of approximately 45,000 including 15,000 university students. Approximately 1,200 of our members are employed in the Australian Public Service (APS) principally as professional engineers.

1.3   APESMA has over 110 full-time staff with offices in each Australian capital city.

1.4   APESMA's mission is to *"support professionals and managers in their careers"*.

1.5   We do this by offering an array of career-related services in continuing professional development, employment assistance and remuneration and employment entitlements. We have been able to successfully harmonise this diversity of approach with our role as an employee association registered under the Federal Workplace Relations Act.

1.6   In the field of continuing professional development, APESMA offers management education programs including a joint MBA (Technology Management) with LaTrobe University, Executive Short Courses, a Certificate/Diploma in Frontline Management and Internet delivered courses through management-education-Online.com. APESMA's MBA Program is the largest in Australia and APESMA is one of Australia's largest providers of management education.

1.7   APESMA's employment arm, ETM Placements Pty Ltd (ETM), provides a national employment service for technology professionals. ETM has a database of over 7,000 professionals seeking permanent and contract employment. It has offices in all Australian capital cities.

1.8   APESMA is a non-profit organisation governed by a National Board
        elected by its membership. APESMA is quality assured under ISO
        9001:2000 and regards quality and information technology as key
        business enablers.

2.   RECRUITMENT

2.1   For the past ten years APESMA has conducted salary surveys of
        engineers employed in Australia (Attachment 1 is the June 2002
        Survey). This survey identifies the percentage of engineers employed
        by the APS. The trend is recorded in Table 1 below:

Table 1: Percentage of employed engineers, employed by the APS	
2002	2.6%
2000	2.9%
1998	3.0%
1996	3.3%
1993	5.4%

2.2   APESMA also conducts an annual survey of Graduate Engineer
        employment (Attachments 2 and 3 are the 2001 & 2002 Surveys
        respectively). The trend in public sector employment for graduate
        engineers appears in Table 2 below:

Table 2: Percentage of graduates by year employed by the public sector	
2002	22.0%
2000	20.0%
1997	20.0%
1995	27.7%

2.3   These findings are consistent with advice provided by ETM that career
        opportunities for engineers in the public sector have declined because
        of outsourcing, privatisation and downsizing. Traditionally the APS has
        acted as a nursery for the development and training of professionals a
        proportion of whom inevitably find their way to employment in the
        private sector. Our observation is that this is no longer evident to the
        same extent leading to skill shortages in some private sector
        engineering disciplines.

2.4   Although ETM estimates that many public sector organisations have increased graduate recruitment over the last two years, principally because of their aging workforce, the 2002 APESMA Graduate Survey (Attachment 3) confirms a fall in overall graduate engineering employment in engineering positions from 62.7% in 2001 to 58.3% in 2002 (Graph 1.1 in Attachment 3).

2.5   Our perception is that even if APS departments and agencies wanted to recruit engineers in numbers they would now have difficulty doing so for principally three reasons:

(i)   An inability to compete, in specialised disciplines, because they cannot offer the same salaries available in the private sector. For example graduate entry salaries in Defence commence at $32,000 p.a. (rounded) and progress to $36,000 p.a. (rounded). This compares with a median commencing salary for all full-time graduates of $38,000 p.a. (Attachment 1: Table 8.1).

(ii)   The APS has evolved from being a *"public service"* that could be thought of in corporate terms as the one employer with career wide opportunities and common employment entitlements to being a group of departments and agencies with separate Certified Agreements each providing their own framework of staff entitlements and pay outcomes. The concept of joining a *"public service"* has vanished.

(iii)   Certainty of employment tenure has disappeared as a result of outsourcing, downsizing and, in some instances, privatisation. The idea of a career for life, often seen as balancing the higher salaries but higher employment risk in private sector employment, has gone.

2.6   Our experience is that salary disparities, the de facto break-up of the *"public service"* and the loss of tenure has meant the APS is no longer as attractive an employment option as it was say 12 years ago.

2.7   APESMA has recently completed its first Career Map for engineers in the Roads Industry. A Career Map is a tool used by employees to plot various career options available to them from graduate to senior levels. In undertaking this project extensive discussions were held with federal, state and local road organisations both public and private. There were a number of issues relevant to the Committee's current Inquiry that were raised during these discussions.

> in the public sector particularly career paths had changed and had become more complex because of role specialisation and the tendency to change roles more frequently;

> outsourcing had meant that key experience was no longer available in some public sector organisations e.g. road construction, maintenance, design;

> post graduate education rather than experience had become an increasingly important method of acquiring knowledge and yet little relevant information on courses was available for employees from employers;

> organisations found it difficult to provide information on career paths and opportunities because they were unsure themselves of what was available and what graduates would have to do to achieve their goals;

> the value attached by candidates particularly young people to mentoring/coaching.

2.8   APESMA is in a unique position to assist the APS with graduate technical recruitment. It has over 15,000 graduating technical students nationally with whom it is regularly communicating, often with a career focus. It communicates in print, via emails and in meetings. It is a very credible source of information to these prospective employees.

3. TRAINING & DEVELOPMENT

3.1   APESMA is an advocate of continuing professional development in improving enterprise performance and productivity, Australia's international competitiveness and in opening up wider career opportunities for members. As noted earlier in this submission APESMA has itself gone beyond merely articulating an in principle position on this issue by developing and offering Post-Graduate Education Programs for technology professionals.

3.2   Our view is that professionals should not be considered fully educated and trained at graduation. Continuing professional development is necessary to meet constantly changing demands in such matters as better business competitiveness and profitability, technological change, entrepreneurship and leadership. Our belief is that continuing professional development, comprising both post-graduate education and enterprise training, should become the norm following completion of the initial professional formation stage on entering the workforce.

3.3   Each professionals' specific needs will differ and will need to be determined in the light of the role undertaken either as a specialist in their chosen discipline or as a manager. In respect of the latter our experience has been that under-graduate courses do not in general provide adequate training in the skills required for management level positions. Yet more than 70% of professionals could expect to move into managerial positions during their careers. Experiential learning after graduation is often too slow and too uncertain a process to provide access to management skills. Formal education and training or

a combination of in-house and industry-wide short courses or training modules are essential.

3.4   Many of the professional and learned societies impose requirements for continuing professional development. In addition the attainment of higher level membership grades within these organisations requires evidence of continuing professional development as well as professional achievement. A number of APS departments and agencies, for example Defence, link jobs to possession of membership of the appropriate professional or learned society. Frequently this will appear in position advertisements and position descriptions. In some instances departments and agencies will also stipulate that their professionals be registered to practise where this requirement exists. Registration invariably requires a commitment to continuing professional development. Finally for many professionals there is an ethical obligation to maintain competence.

3.5   In comparing employee participation in training the public sector ranks favourably alongside the private sector in the Australian context. Tables 1 and 2 below show percentage changes in industry training expenditure and employee training participation rates.

Table 3: Industry changes in structured training expenditure, 1993 to 1996	
Percentage change in training expenditure per employee	
Industry	**% Change**
Mining	+30.5
Manufacturing	- 5.5.
Electricity, Gas, Water	+25.6
Construction	-25.5
Wholesale	-15.5
Retail	+18.7
Accommodation, Cafes & Restaurants	-14.6
Transport & Storage	+13.1
Communication services	-29.6
Finance & Insurance	+13.0
Property & Business services	-15.2
Government administration	+11.2
Education	+23.1
Health & Community services	-13.6
Cultural & Recreational services	-17.6
Personal & other services	+ 1.3
All Industries	- 3.0

[Source: Table 6: Enhancing Employers' Contribution s To Skill Formation and Use – A Discussion Paper for the Dusseldorp Skills Forum]

Table 4: Employee reported participation in training by various characteristics, Australia, 1989, 1993 & 1997			
Group of Wage & Salary Earners	**1989 %**	**1993 %**	**1997 %**
Sector			
Public	83.7	89.9	89.8
Private	77.2	84.4	77.3
Occupation			
High skilled	88.3	94.2	92.3
Low skilled	70.3	77.7	69.2
Level of Educational Attainmnt			
Degree or higher	93.9	96.2	95.1
No post-school qualification	75.0	79.2	74.0

[Source: Table 7: Enhancing Employers' Contribution s To Skill Formation and Use – A Discussion Paper for the Dusseldorp Skills Forum]

3.6   However there are two points we make about the figures in these
Tables from the perspective of the public sector's contribution to future
national productivity. Firstly, further productivity improvements will
require a greater investment in employee skill development. Secondly,
the country will need to make better use of workforce skills once
developed.

3.7   Table 3 below shows that labour productivity, in particular public

      sector labour productivity, has made a significant contribution to

      national productivity over the 30 years to 1998/99. But much of this

      improvement has come from greater intensification of workplace effort

      on the part of employees not from higher levels of skill acquisition

      [*See: Enhancing Employers' Contributions to Skill Formation and Use –*

      A Discussion Paper for the Dusseldorp Skills Forum by Dr Richard Hall,

      Dr John Buchanan & Gillian Considine, ACIRRT, University of Sydney,

      June 2002].

Table 5: Average Productivity Growth, Australia, 1968/69 – 1998/99					
	Labour	Capital	Multi-factor	Private Sector GDP per hour worked	Public Sector GDP per hour worked
1968-69 – 1978-79	2.9	-0.9	1.5	1.9	3.5
1978-79 – 1988-89	1.4	-1.5	0.3	0.9	4.2
1988-89 – 1998-99	2.5	-0.9	1.1	1.8	9.7

[Source: Table 1: Enhancing Employers' Contribution s To Skill Formation and Use – A Discussion Paper for the Dusseldorp Skills Forum]

3.8   The ACIRRT Discussion Paper (p36) also makes the point though that

      simply increasing the amount of training will not necessarily ensure

      the new skills are deployed in jobs where they will be used to best

      advantage. The Paper notes (p16) that there is a concerning and

      increasing prevalence of underemployment in skill usage.

3.9   Career resilience is a critical issue for professionals and is very much

      linked to the issue of lifelong learning and on-going professional

      development. The Karpin Committee [Industry Taskforce on

      Leadership and Management Skills] which was commissioned by the

      Federal Government and reported to it in April 1995, noted that the

responsibility for professional development was increasingly being recognised as a shared responsibility for both the employer and the employee. This represented a shift from a situation in the past, where the expectation was that the employer would provide the professional development, to a situation today where the employee acknowledges that they also have a responsibility for their professional development. This shared responsibility is often reflected in the employer reimbursing on successful completion of further study and the employee undertaking such study to a significant extent in their own time. Similarly the employer's focus is on providing professional development which is aligned to their business imperatives, whereas the employee's focus is on achieving a recognised qualification which will be transportable and provide some career resilience.

3.10   Over that past 15 years, there has been a significant increase in the participation of Engineers and Technology professionals in Management Education. APESMA's Reports on the Engineer Labour Market, indicate that the proportion of Engineers undertaking postgraduate studies in Business/Management has increased from less than 4% to approximately 14%. APESMA's own MBA[Technology Management] program has accounted for over half of this increase in the participation rate. This increase has been due to a number of factors including the recognition among these professionals of the need to supplement their technical qualification with a business qualification to enable them to compete more effectively for more senior positions; a recognition of the need for career resilience; and the availability of Distance Education programs which are more compatible with their work and family situations than the more traditional on campus MBA programs. APESMA's encouragement of

members to equip themselves with a broader range of skills has also been a major factor in the increased uptake.

3.11 As issue which has emerged with the focus on Business/Management Skills is the need to also encourage professionals to maintain and update technical skills. While Australian Engineers and Scientists are considered to possess world class undergraduate degrees, the opportunities for professionals in the workforce to upgrade these technical skills are limited unless they are able to attend a part-time on-campus program. Even then, such programs are scarce and while, say, Sydney University might offer a particular course it is unlikely that many, if any, other universities would offer the same or similar course. Thus access is a major obstacle to participation in postgraduate programs in these technical areas. Their delivery by distance education would be a way of addressing this, however the universities have so far not embraced this delivery mode for such programs to any significant extent. APESMA will however deliver a Master of Technology[Project Management] by Distance Education in 2003.

3.12 A key element in encouraging a commitment from employees to undertake professional development, which is also aligned to the needs of the enterprise, is to provide scope for the education and training provided by the enterprise to be credited towards a formal qualification. This should be a factor which is taken into account by the employer. As an example of this, CSIRO staff who complete the CSIRO internal Research Leadership programs can obtain credit towards the APESMA MBA for having completed those programs. This provides a "win-win' for the employer and the employee, with the employer having staff undertake enterprise specific training and the employee

gaining credit towards a recognised qualification. Such arrangements are widespread in the vocational education and training system within the context of competency assessment, but have yet to be accorded the same focus for the Higher Education qualifications.

We propose the Committee recommend adoption of an APS-wide policy committing Government Departments and Agencies to fostering professional development and training opportunities for employees.

We propose the Committee recommend adoption of the following minimum requirements for professional development and training:

(i)   **That the professional development and training needs together with the work experience and career development needs of each employee be discussed and agreed in consultation with them on an annual basis.**

(ii)   **That each employee be entitled to leave on full pay of at least 10 days per year to attend formal or on the job professional training and development programs that meet their individual training and development needs.**

(iii)   **That Government Departments and Agencies be required to make available a minimum of 2% annually of the base salary of each employee (exclusive of wage costs) towards fees incurred in undertaking training and development programs.**

(iv)   **That Government Departments and Agencies introduce a program of employee development involving workplace rotation in both the public and private sectors. [Note: Private sector placements will need to take account of conflict of interest issues].**

(v)   **That APS Department and Agencies consider structuring training and development programs so as to maximise the opportunity for participants to gain credit for formal qualifications for successfully undertaking such programs.**

        [Note: These measures would be just as applicable in the private sector].

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4. IMPACT OF DE-ENGINEERING

4.1 De-Engineering, the practice of filling positions traditionally occupied by professional engineers with employees without engineering qualifications, emerged as a public sector policy throughout the 1980s. It coincided with the downsizing of many engineering-based public authorities and the shift of professional engineers into the private sector. The impact of these policies has been profound firstly in the balance of professional engineering employment shifting from the public sector to the private sector and secondly in the erosion of the professional skill base within public service departments and agencies. The answer to the latter problem has been to outsource functions previously performed in-house. But this has the potential to pose difficulties where there is insufficient expertise remaining for the adequate design and management of outsourcing contracts.

4.2 APESMA's view is that the Federal Government as an informed buyer needs to retain a core of professional expertise and skill sufficient to ensure delivery of its programs and services to the community without risk to public health and safety, quality, financial accountability and exposure to litigation over contract performance or negligence issues. APESMA is conscious of the vulnerability of its members in circumstances such as these and has published an instructional booklet on professional liability. Our Advice Online service to members also has a section devoted to professional liability. In addition we are currently producing a paper for members on provision of professional advice.

4.3 The reduced focus on internal Engineering and Technical skills within the APS, has resulted in a significant shift in the perception of the APS as an "employer of choice" for such professionals. In the past, the APS was recognised as a model for other employers of these professionals, through its commitment to the development of their skills, challenge of the work and the supportive professional environment. In recent decades much of this has disappeared. The APS is no longer seen as offering the supportive professional environment, much of the challenging engineering work has been outsourced and many of those engineers who are employed in the APS and the GBE's feel that there is little commitment or scope for the development of their skills. This situation, in part, results from lack of recruitment of Graduate Engineers in recent years and the age gap that has developed. The Association's records indicate that over 40% of engineers in the APS are over the age of 50. Recent recruitment of graduates has however resulted in a significant age divide and because of work pressures, the more experienced engineers don't have the time to mentor and assist in the development of the younger engineers. This mentoring role is a critical ingredient in the professional development of young engineers and if it is not available, their skills and contributions are not able to achieve their full potential. APESMA believes that urgent action is required to more effectively develop the younger Engineers in the APS so that they will be able to take the place of the more experienced Engineers, most of whom will retire in the next 5-10 years. As well as the other initiatives in this submission, APESMA believes that one of the more effective development processes for young professionals is that of mentoring. If there are not sufficient internal resources available for such activity, APESMA believes that the departments and

agencies should be directed to engage external assistance. A very good example of this being put into practice is at VicRoads which employs in excess of 400 engineers, including over 100 recent graduates. They have found that they do not have the internal resources to provide the mentoring activity, so they have engaged external assistance including a former senior engineer to provide the mentoring service for the young engineers.

We propose the Committee recommend that APS departments and agencies should immediately review their level of in-house professional capability in consultation with relevant associations and employees with the objective of Government being able to meet its responsibility to act as an informed buyer and fulfill its risk management obligations.

We propose that APS Departments and Agencies review their capacity to provide effective mentoring programs for the recent graduates they employ and consider the introduction of more formal arrangements for the delivery of mentoring programs to these employees including the possible use of external resources for such programs.

For further comment, please contact:
Mr Bruce Nadenbousch
Director Industrial Relations
APESMA, GPO Box 1272L, Melbourne Vic. 3001
Telephone: [(03) 9695 8800, Fax:(03) 9696 9321]
Email: bnadenbousch@apesma.asn.au