



**Submission of the Australian Manufacturing Workers' Union to the
Senate's Foreign Affairs, Defence and Trade References Committee Inquiry
on the Capability of Defence's Physical, Science and Engineering (PSE)
Workforce**

October 2015

Summary

The PSE Workforce comprises teams of technicians, tradespeople and professionals working in engineering and science.

The Department of Defence (Defence or the Department) spends tens of billions of dollars each year on acquiring and sustaining materiel. It spends more on research and development and in maintaining and operating various facilities.

The PSE workforce plays an integral role in ensuring the public receives value for the money spent on materiel; it conducts the R and D; and it maintains and operates facilities.

Reports of recent years have identified stresses on the PSE workforce. They have pointed to an ageing of that workforce and an absence of succession planning. Ernst and Young, for example, have written of the “risk [posed] to Defence capabilities”.

There is a need for government to rethink its priorities. There is little point in saving pennies on the PSE workforce and, as a consequence, losing pounds elsewhere - and this is without mentioning the risks posed by being less than capable.

Introduction

1. The Australian Manufacturing Workers' Union (AMWU) is a registered trade union. It is a national organisation of approximately 85,000 members. It represents a wide range of manual and non-manual workers within Australian manufacturing, engineering and science, from production and trades employees and their supervisors to planners, designers and technical employees
2. The AMWU has civilian members within the Department of Defence, including each of the Armed Services and the Capability Acquisition and Sustainment Group (formerly the Defence Materiel Organisation), Defence Science and Technology Group and the Australian Geospatial – Intelligence Organisation. It also has members within various prime

contractors to Defence , including BAE Systems, Thales, Transfield Services, ASC and Raytheon, and within related sub-contracting firms.

The Department of Defence's Civilian Workforce and Its Functions in Engineering and Science

3. The Department of Defence's civilian workforce - also known as the Australian Public Service (APS) workforce - and its work are addressed within the Defence Classification Manual (DCM):¹

http://www.defence.gov.au/dpe/pac/aps/workstandards_home.htm

The manual includes at its Part 2 Defence-specific work level standards and at its Part 3 job examples illustrative of the appropriate use of those standards.

4. The DCM describes two principal employment streams, being the:
 - human science and administration (HSA) stream; and
 - physical science and engineering (PSE) stream.²

(Note: There is a retained science and technology stream,³ but for convenience this will be treated within this submission as analogous to the PSE stream, at least in terms of its fields of endeavour.)

5. The work of jobs in the PSE stream includes, amongst others, trade work, information technology work, work in a physical science or engineering and management work associated with any of these.⁴
6. The DCM describes "physical science or engineering" as including "Air Traffic Control, Avionics, Bio/chemistry, Dental assistance/therapy, Engineering, Fuel Science, Geoscience, Graphic Design, Land Surveying, Logistics, Marine Surveying, Materials Science, Metallurgy, Meteorology, Metrology, Naval Architecture, Oceanography, Petroleum Technology, Pharmacy, Physics, Surveying and Textile Technology."⁵

¹ The DCM is given force through Section B1 of the still extant Defence Enterprise Collective Agreement 2012-2014 (the DECA). This may be found at:

<https://www.fwc.gov.au/documents/documents/agreements/fwa/AE893129.pdf>

² DCM, 10.

³ Ibid, 155.

⁴ Ibid, 26.

⁵ Ibid, 28.

7. Work in a physical science or engineering is principally performed by professional and/or technical employees and, to a lesser extent these days, trade employees. In this regard, the DCM prescribes that:

Technical work is performed within jobs that require an understanding of science, engineering, mathematics or design principles, and significant practical skills ... Such work is often performed in support of professionals.⁶

8. Employees in the PSE stream may perform as practitioners, managers, innovators or leaders of innovation.⁷
9. Examples of the type of work performed at different classification levels in both the HSA and PSE streams are given in job examples (each of two pages in length) at Part 3 of the DCM. They progress from the least to the most demanding, in terms of work value and classification. The first example for the PSE stream commences at page 70.
10. In November 2012, the international consultancy firm Deloitte submitted a report to the Department on the APS engineering and technical job family, part of the PSE stream.⁸ It wrote:

Ensuring Defence has appropriate APS engineering and technical skills is of critical importance for a number of reasons; most importantly because the APS engineering and technical workforce is central to the management of the integrity, worthiness and safety of capability over its lifetime. The workforce plays a critical role in delivering required capability through providing advice, assurance and risk management. The workforce also plays an essential role in ensuring that industry continues to deliver Defence capability through cost-effective and productive partnerships between industry, the Australian Defence Force (ADF) and APS.⁹

⁶ Ibid, 28.

⁷ Ibid, 30-1.

⁸ The report may be found at:

http://www.defence.gov.au/dpe/pac/aps/TRFW_homepage.htm

⁹ Ibid, 4.

11. In March 2015, the AMWU published its own booklet on the PSE workforce.¹⁰ That section of the booklet headed “Key Messages” contained the following passages, amongst others, which echoed those of Deloitte:

- People of the Defence Physical Sciences and Engineering workforce make decisions that are critical to readiness of military equipment in service; from the provision of Statements Of Work, Functional Performance Specifications and Quality Acceptance Criteria, to writing safety procedures and conducting physical tests on equipment, weapons and ammunition, all of which contribute to ensuring the purchase of the right equipment for Australia.
- The people of the Defence Physical Sciences and Engineering workforce are responsible for ensuring that locally manufactured equipment is built to the right standards through observation, measurement, assessment, testing and witnessing of the design, build, installation and commissioning phases of Defence projects. They are also responsible for delivering these services to the Army, Navy, and Air Force for the sustainment of ships, aircraft, systems and equipment once the materiel enters service.¹¹

12. Deloitte’s reference to “the management of the integrity, worthiness and safety of capability over its lifetime” is a matter of significance, given that:

- the annual total expense on acquisition and sustainment of such capability between the years 2014-15 and 2018-19 inclusive is estimated to be between a low of \$11.6 billion and a high of \$16.4 billion;¹² and
- the approved expenditure for a single acquisition project can be up to \$15.2 billion in total and up to \$890 million in a single year, with the total approved expenditure for the top 30 acquisition projects being nearly \$57 billion.¹³

13. By comparison, the cost of the PSE workforce is modest. To the best of the AMWU’s knowledge, figures are not routinely published on the size of the PSE workforce relative to the Department’s total workforce. The union’s back-of-the-envelope estimate is that the proportion is about 15% to 20%. This would imply that its annual cost was in the order of

¹⁰ The booklet may be found in the first attachment. It should be noted that the booklet was published prior to the release of the outcomes of the First Principles Review (below n 19).

¹¹ Ibid, 4.

¹² Defence Portfolio Budget Statements 2015-16, 150, Table 83.

¹³ Ibid, 158, Table 87.

\$330 to \$440 million in 2014-15, equivalent to 2.85% to 3.80% of the acquisition and sustainment budget - and 1.12% to 1.50% of the Department's total budget – for that year.¹⁴

¹⁴ Based on figures cited in paragraph 12 above and as provided at p.57 of the report of the First Principles Review (below n 19), all other things being equal.

Independent Observations on the PSE Workforce

14. In the executive summary to the report cited in paragraph 10 above, Deloitte wrote:

The APS engineering and technical job family is currently under stress due to a range of changing industry and workforce dynamics, as well as factors that are impacting the effectiveness of the workforce... As such, the workforce's ability to provide timely and meaningful support into the future to meet emerging capability requirements is at risk...

The breadth of skills and total capacity of the APS engineering and technical workforce is declining. The opportunity for individuals to work across multiple elements of the engineering value chain to develop new and critical skills and experience has also eroded...

Research conducted as part of this review suggests that the workforce that is in place today will continue to evolve and, if not managed, will result in a loss of critical skills, knowledge and experience. The research also confirmed that the job family is facing key demographic challenges ...¹⁵

15. The key findings of the report included the following three:

- A key risk is the loss of Defence knowledge and experience within an ageing workforce (average age of 48)...
- Of the 54 workforce elements assessed within this review, 48 were considered 'high risk'. A range of factors are impacting workforce effectiveness, including the lack of integrated workforce planning to define future requirements and the low impact of existing career management and knowledge transfer approaches;
- Smart customer models are not well defined ... Discussions in senior leader interviews, employee interviews and focus groups frequently identified increased contracting out of engineering and technical work as a key reason for the loss of skills within the APS engineering and technical job family workforce.¹⁶

¹⁵ Above n 8, 4.

¹⁶ Ibid, 5. See also figures D8, D3 and D21 at pages 167, 164 and 174 respectively.

16. In June 2014, another international consultancy firm – Ernst and Young – submitted an audit report to the then Defence Materiel Organisation (DMO). One of the audit objectives had been to “evaluate the effectiveness and methods of the development and use of engineers and technical staff in relation to attraction, recruitment and retention.”¹⁷

17. In a section headed “Conclusion”, Ernst and Young wrote:

The state of the DMO Engineering and Technical workforce is a risk to Defence capability. DMO has limited visibility of their workforce skills. DMO has no targeted strategies for attraction and retention of the right skills and resources required for future capability. DMO has no ability to model engineering and technical workforce requirements for the future.¹⁸

(This passage was cited in the report of the First Principles Review.¹⁹)

18. Ernst and Young’s findings included the following:

The DMO as an enterprise does not have visibility of the skills gaps in their engineering and technical positions. Underqualified personnel occupying technical positions may pose a risk to Defence capability...

There is no evidence of succession planning for APS or Military engineers within DMO. There is no planned career progression and thus no structured plan for development and promotion within the agency...

There is no evidence of robust workforce planning that will support the DMO skills or resourcing requirements in the future...

DMO does not have a recruitment strategy to target their future skills or demographic gaps. There is currently an 18% vacancy rate within the Engineer and Technical Job Family of DMO. This gap, combined with the current and (short to medium term) future recruitment

¹⁷ Ernst and Young, Internal Audit of Professionalisation of Engineers (2013/14 No. 6) Final Report, Defence Materiel Organisation, Canberra, 23 June 2014, 3.

¹⁸ Ibid, 5.

¹⁹ First Principles Review: Creating One Defence, available at: <http://www.defence.gov.au/publications/reviews/firstprinciples/Docs/FirstPrinciplesReviewB.pdf>, 56.

restrictions of DMO, will place further strain on critical positions and may pose a risk to Defence operations...

There is no evidence that Defence, DMO and Defence industry work collectively to build workforce capability. However, there is a strong reliance on lateral recruitment across each of the sectors...

The average age of a DMO Engineering and Technical employee is 52 years old. This age profile creates a risk for DMO as individuals may have more options for outside employment or retirement if they become discontented with the work environment. The hiring constraints have resulted in no new lateral hires and, no new experienced staff. As positions are not backfilled due to the hiring constraints, this has resulted in additional workload on the existing workforce. As such, there is a risk that, in the next 3-5 years, if the ageing workforce becomes ill due to work overload or starts to take up other options such as retirement or other employment, there will be a shortage of knowledgeable and experienced engineers and technicians rising through the ranks.²⁰

19. The report of the First Principles Review carried the following passages:

Defence does not have a strategic workforce plan for its enabling workforce. Without it, Defence struggles to identify skills gaps across the agency and place the right people with the right skills in the right roles at the right time to deliver Defence's mission...

Defence has made slow progress since its first attempt in 2010 to outline overall workforce challenges and opportunities ... on the whole, efforts have been piecemeal, inconsistent and focused on the number of budgeted staff and roles, rather than the skills required today and in the future. The fact that Defence does not systematically collect, store and update comprehensive information on the skills of its enabling workforce is a major failing.

As a consequence, Defence lacks the necessary skills to achieve its mission in some areas. Defence leadership has recognised this issue and in November 2014, conducted its first assessment of public service workforce skills gaps. This highlighted critical shortages in job families such as engineering and technical and project management.²¹

²⁰ Above n 17, 4-5. See the sub-section headed "The Recruitment 'Chill'", commencing on page 18 below for an explanation of the "recruitment restrictions" and "hiring constraints" referred to in these passages.

²¹ Above n 19, 56.

How has this Happened?

20. The Department of Defence is one of few APS agencies with a significant engineering and scientific content. Such content is often state of the art, given the sophistication required to maintain a military advantage over potential rivals.
21. If it is accepted that its PSE workforce has fallen into a state of disrepair (or worse), the question to be asked is why, given the significance of the work performed and the value – to the multiple billions of dollars annually – of the materiel and projects concerned.
22. There would probably be as many different answers given as people or organisations asked. The AMWU's view, based in equal measures on direct experience and an analysis of various reports, is that it is a result of two trends acting in combination.
23. The first of these trends has been that towards “small government”, which commenced in the late 1980s. It has seen many functions which were previously performed by the Department of Defence (or closely related agencies, such as the former Office of Defence Production) privatised or out-sourced, with a heavy reduction in the size of the PSE workforce.
24. “Small government” has often been accompanied by a preoccupation with the size of the federal budget and a focus on deficit reduction or surplus generation. Where this has been the case, the balance between quantitative and qualitative decisions has swung in favour of the former. Hence, the observations:
- by Deloitte that “[t]he current and previous years’ budget constraints have . . . slowed Defence’s ability to react . . .”;²²
 - by Ernst and Young that “[w]orkforce planning activities within the DMO are . . . focused on budget rather than the future state of the DMO Workforce”;²³ and
 - in the report of the First Principles Review, as cited in paragraph 19 above, that the focus has been “on the number of budgeted staff and roles, rather than the skills required”.

²² Above n 8, 4.

²³ Above n 17, 4.

25. With the reduction in the workforce, there has been a reduction in training effort. Perhaps the intention was to out-source it too – but there must be doubts that the previous levels of training have been replicated by private industry, bearing in mind that some work formerly performed in-house by Defence has been won through competitive tender, with the bidders seeking to minimise costs. The net effect is what Ernst and Young was likely to be referring to in the penultimate of the passages cited in paragraph 18 above. (In that passage, “lateral recruitment” appears to be a euphemism for the poaching of skilled personnel trained at the expense of other employers.)
26. The second of the trends has been that towards the centralisation of Australian Public Service workplace relations policy since the mid-2000s. One example has been the imposition of relatively strict Service-wide bargaining frameworks, themselves a manifestation of the trend addressed in paragraph 24. Another has been the mandating of Service-wide work level standards. It is unsurprising that such policies would be focused on the vast bulk of the APS workforce, this falling within the equivalent of Defence’s HSA employment stream. Put another way, the greatest attention has been given to the “typical public servant”, when members of the PSE workforce could be regarded as atypical.
27. Those responsible within Defence for giving expression to the policies developed consistent with the trends identified in paragraphs 23 to 26 inclusive are professional administrators, accountants and human resource/workplace relations personnel. Very few of them are drawn from the PSE employment stream or appear to have any empathy for it.
28. The section above headed “Independent Observations on the PSE Workforce” cited three reports which identified significant problems confronting that workforce. The first of these reports was published nearly three years ago. Yet no remedial action of substance has been taken. In the best traditions of “Yes Minister”, processes have been established – without any discernible change having resulted to date.

29. The AMWU would argue strongly that the trends identified have developed without a regular appraisal being made of the significance of Defence's PSE workforce and the role to be played by it. The dominant assumption seems to be that because private industry has performed a number of former PSE functions well,²⁴ it can perform them all well. The following questions seem to be rarely, if ever, posed:

- Are there some PSE functions that private industry can't or shouldn't perform?
- As between Defence and private industry, which sector would provide best value for money (as opposed to least cost) in performing particular functions?
- What interactions occur between the PSE and private industry workforces that ensure the system works in the public interest?
- What would happen if a PSE workforce of viable size and composition was not available for these interactions to occur?

The AMWU would argue, for example, that private industry should not be allowed to specify without oversight the design or specification of materiel that it will provide. Nor should a manufacturer have the final say on the quality of what it has delivered.

30. The results have been inevitable. As identified in the preceding section, they are an absence of succession planning, an ageing of the PSE workforce and an emerging risk to capability.

31. Some examples of the disconnect between needs and continuing practice will be presented in the next section.

Some Manifestations

Skills in Short Supply

32. The DECA addresses skills which are in short supply and/or high market demand in two sets of provisions.

²⁴ One example might be Thales' production of protected mobility vehicles, including the Bushmaster, in what was once a government-owned ordnance factory.

33. The first is headed "Support for Occupational Disciplines Critical to Defence Capability". It reads in part as follows:

B3.6 A group of jobs within an occupational discipline may be of significance to Defence capability and may require additional support to attract or retain a sufficient number of employees to facilitate the achievement of Defence's capability requirements. The requirement for support will change through time, as the numbers of appropriately qualified personnel increase, or Defence's capability requirements mature or change.

B3.7 Strategies identified in Part E are to be harnessed to increase the number of employees available within Defence who have the appropriate skills and knowledge.

B3.8 In the meantime, the Secretary may prescribe a premium, in addition to the rate of salary otherwise payable under this Agreement, to some or all of the jobs within an occupational discipline of significance. The premium would usually be prescribed for up to two years.

34. The Part E referred to in DECA's paragraph B3.7 is headed "Training, Education and Career Development". The principle at its beginning reads:

Defence's objective is to ensure that employees have the skills and knowledge to perform in their jobs, as well as opportunities to extend and further develop their careers, by providing skill-related career paths supported by a well-defined and resourced skilling strategy.

35. Part E's paragraph E2.1 reads in part:

Over the next 10 years, a large proportion of the APS workforce will be eligible to retire. This forecast turnover means that Defence must increase its efforts particularly to develop and manage the careers of its employees in critical technical capabilities.

The DECA began operating on 19th April, 2012 such that more than one third of the 10 years mentioned in this paragraph have now passed.

36. A small number of payments have been made under the equivalent of the provision cited in paragraph 33. One was in the Torpedo Maintenance Facility at HMAS Stirling in WA, which at the time was having trouble retaining weapons maintenance employees in competition with the very high wages on offer during the height of the resources boom. A 20% premium was approved for 48 mechanical and electronics tradespeople and technicians and was to be paid for two years. It commenced with effect from mid-October, 2007. To the best of the AMWU's understanding, no complementary training regime was put in place.

37. The second set of provisions referred to in paragraph 32 in to be found in Section G5 of DECA - Building Defence Capability Payments. This section is directed to "a particular individual employee [who] is critical to Defence capability and could not be attracted or retained without enhanced benefits of employment".²⁵ Such enhanced benefits may include high salary,²⁶ amongst other things.

38. Section G5 also contains the following provision:

G5.6 The Secretary may determine additional benefits for an employee to encourage them to not separate from their employment on or nearing their minimum retiring age. Such benefits are to be determined ... for a specified period. This provision is only available to employees who have knowledge, skills and experience that Defence considers essential to retain, and which are to be transferred to other employees during the specified period.

39. Payments under Section G5 were approved as recently as mid-2015 for Communications Technicians/Maintenance Managers at HMAS Albatross in NSW. The application for approval of these payments contained the following passages:

The HMAS Albatross airfield is an operational airfield that supports both operational and training activities. The maintenance of the Nowra communications and radio equipment is critical to ensuring the airfield is operational and ensuring the safety of people and capabilities. Failure to maintain a system can result in the airfield being unsafe and the (sic) closed. Closure of the airfield will result in a direct impact to ADF capability.

²⁵ Above n 1, 74, paragraph G5.2.

²⁶ Ibid, 74, sub-paragraph G5.3(a).

Each APS5 Maintenance Manager is accountable for maintaining a suite of technical systems, recognising maintenance requirements and exercising judgement to determine the priority of the maintenance required and whether it can be corrected within their area of expertise or escalated. These decisions are made in accordance with the relevant operating procedures and manuals.

The current reduced staffing levels has impacted on the currency of the maintenance activities and has required prioritisation of the scheduled and unscheduled maintenance activities. The expertise that each of the APS5 Maintenance Managers possesses is system specific and there is little capacity within their high workload to develop expertise for systems outside their remit of responsibility. The requirement to cross train the technicians across the systems is critical for succession planning and ensuring that the airfield remains functional for Defence capability.

It is vital for Defence to retain the skills of the maintenance managers as their duties are critical to Defence capability. Defence's ability to hire and train suitable candidates for these roles is difficult and protracted.

Currently two of the six maintenance manager positions are filled with experienced employees. This function is presently supported by augmented ADF members contributing to carrying the work load. This arrangement was introduced following a WHS stop work notice in 2014 that closed the HMAS Albatross Air Traffic Control services. The stop work notice cited the safety concerns due to the unfilled positions and workload of the remaining employees.

While the airbase is able to continue to operate, scheduled maintenance has had to be delayed due to the workforce availability and could result in system faults or the airfield being closed. Should this occur, there could be increased risk to safety and resources and a direct impact to Defence capability.

The current augmented workforce, while delivering capability to the Nowra airfields, is at the expense of other Defence airfields that are required to operate with a reduced workforce. This arrangement has also resulted in additional financial costs and has impacted on the Airforce members that have been required to travel to Nowra to perform the duties.

40. Succession planning, skills development and/or the transfer of knowledge are features of the provisions referred to in paragraphs 32, 34 and 35 above.

41. In negotiations to replace the DECA, the Department has pressed to have:

- the provisions cited in paragraph 33 above moved to Part G and combined with the current Section G5;
- the new section retitled as “Individual Flexibility Arrangements”; and
- its text replaced with provisions which closely resemble template provisions from the Fair Work Act

It has also pressed to have Part E reduced from its current 37 paragraphs to six, with much of the previous subject-matter to be transferred to policy.

42. Defence’s position is consistent with the current APS-wide bargaining framework, which requires agreements to be:

- streamlined; and
- include an individual flexibility term.

Review of the Technical Regulatory Workforce

43. Paragraph B4.5 and B4.6 of DECA, read in conjunction with the agreement’s Annex I, commissioned a review of certain employees within the PSE employment stream.

44. Annex I is headed “Technical Regulatory Frameworks Workforce Review”. It contains a section headed “Scope of the Review”, which carries the following passage:

The purpose of the review is to consider any strategic solutions required to address challenges in attracting, developing and retaining engineering expertise.²⁷

45. That section also specifies that a Joint Working Group was to consider and provide recommendations on, amongst other things:

- The effectiveness of any succession planning in place in assigning the role [of exercising technical authorities] to qualified APS employees;
- The training and professional development available to APS employees who undertake this role, or may undertake the role;
- ...

²⁷ Ibid, 124.

- Any strategic solutions to the challenge of attracting engineering skills.²⁸

46. The review gave rise to the report of Deloitte, as addressed in paragraph 10 above.

47. The AMWU and Professionals Australia were active participants in the review. When it came time to negotiate for a replacement of the DECA, they jointly served a set of claims on Defence. One section of their letter was headed "Claims Particular to Physical Science and Engineering (PSE) Employees", the first claim of which read:

Replace Annex I of the current DECA with content that moves from commissioning a review to remediating the problems identified by the review.

48. Defence's response has been that Annex I should be deleted (without replacement) and any necessary actions be taken by the job family sponsor, with the unions having input through the National Workplace Relations Committee (NWRC).²⁹ The job family sponsor at the time was the Defence Materiel Organisation, which has since been abolished.

Non-graduates in Training Classifications

49. Paragraph B4.3 of DECA reads:

B4.3 Defence will maintain an average of 200 full-time employees, or their equivalent, within training classifications per annum over the term of this Agreement. Defence will aim to increase its number of employees as trainees (not including the Graduate APS classification) to one per cent of its APS workforce. Over the life of this Agreement, Defence will establish a Joint Working Group to examine ways to achieve this aim. The Joint Working Group will, amongst other things, consider how the increased number of non-graduate trainees might be best managed and distributed between the two employment streams identified in Part 1 of the Defence Classification Manual and between occupational categories.

B.4.4 The NWRC will be provided with reports on developments related to workforce planning and the occupancy of training classifications, including statistical reports.

²⁸ Ibid, 125.

²⁹ Ibid, 7, Paragraph A4.10.

50. The Joint Working Group (JWG) was subsequently combined with that with responsibilities in relation to the DCM. It met for the first time in this form in late November 2013, more than 19 months after the DECA had commenced operation and 12 months after publication of the Deloitte report. It has met twice in session and once in a relatively brief telephone conference. It is scheduled to meet again in session on 19th October, 2015.
51. A document presented to the first meeting of the JWG advised that, in September 2013, there were 35 trainees (excluding graduates) within the Department. Of these, 11 were Trainees APS (Administrative) (Indigenous), five were Cadets APS (Indigenous), 12 were Cadets APS in ICT and seven were Trainees APS (Technical). The same document projected that there would be an additional 62 such positions in 2014, of which nine would be for technical trainees.

The DCM

52. As mentioned in paragraph 26 above, APS-wide work level standards have been mandated.³⁰ The date of effect was 1st December, 2014.
53. In anticipation of this, Defence had originally sought to delete from the proposed new DECA any reference to the DCM and its work level standards, notwithstanding that the DCM addresses the PSE employment stream in far greater detail than do the APS-wide standards and that the DCM is specifically tailored to Defence's workforce.
54. Defence's current position is unknown, as DECA negotiations (at least as between the Department and its unions) collapsed on 19th March, 2015 and are yet to resume.

Identification of Vocational Qualifications

55. Paragraph 19 above quotes the report of the First principles Review as identifying as a "major failing" the fact that Defence does "not systematically collect, store and update

³⁰ Australian Public Service Commission Circular 2014/4.

comprehensive information on the skills of its enabling workforce". This is particularly relevant for employees within the PSE stream who are qualified by other than a degree.

56. The AMWU sent the letter at the second attachment to the Chair of the NWRC in July 2012. That letter made points related to those made by the First Principles Review Team.

57. The AMWU received two preliminary responses to its letter, the second of which was dated 20th November, 2012 and read in part:

... if a proposal for a systems change, to include an eighth heading in PSS to capture vocational education qualifications separately to proficiencies is agreed, it would come at a significant cost, ie in the order of approx. \$100,000 to \$200,000. The moratorium on PMKeyS changes will now not be lifted in 2013 and all future changes are to be incorporated in the Joint Project (JP) 2080 Ph2B.1...

JP2080 Phase 2B.1 will bring together all activities required to stabilise current Defence HR management and payroll systems and drive deep HR reform within Defence. The project will allow major reforms in key business support areas, including payroll and personnel administration, career management, education and training ... workforce planning and enterprise reporting, and several other HR business functions...

Defence Learning Branch are anticipating that the headings will be changed to reflect the changing business needs and would look at reflecting the terms more akin to the AQF standards. However, this will not be available in the new systems until 2016.

58. There were subsequent exchanges between the AMWU and Department, in an attempt to find a "work-around", but those came to nothing of substance.

59. The AMWU was provided with an update by email of 1st August, 2014 in the following terms:

..."Proficiencies", including statements of attainment, will be replaced by "Competencies" and "Vocational Qualifications" and this will be listed on the same page.

The changes are planned for implementation as part of the Release 1b for Defence One, which at this point in time is scheduled to be released November 2016.

60. The AMWU was advised at the NWRC meeting held on 14th August, 2015 that implementation of the proposed change has now slipped to mid-2018, notwithstanding the commentary in the report of the First Principles Review.

The Recruitment "Chill"

61. The Commonwealth Government imposed interim APS recruitment arrangements effective from 31st October, 2013. This was characterised by Defence as a recruitment "chill".

62. Defence issued a fact sheet at the time which carried the following passages:

... effective from 31 October 2013 ... APS employment opportunities cannot be advertised in the *Public Service Gazette* unless approved by the APS Commissioner... advertising of vacancies is to be restricted to APS applicants in the first instance, and the use of non-ongoing employment is to significantly reduce. Entry-level programs, such as graduate programs, are to have a nominal APS-wide cap applied.

Why are these arrangements necessary?

The Government has advised its intention to reduce the APS workforce by 12,000 through natural attrition over the next two years. To achieve this, the APS needs to assign its current workforce to tasks that are essential to be done. This means more emphasis on filling vacant roles with change affected (special considerations) employees in the first instance. It also means minimising, for a period of time, the number of new people who join the APS...

Recruitment outside Defence

Where it can be shown that there is no excess, change affected, medical redeployee or any other employee in the APS able to perform the vacant role, and an expression of interest has been conducted to ensure no suitable employee is available within Defence, approval from the APS Commissioner is needed before the vacancy can be advertised in the Public Service Gazette. The opportunity will initially be open to ongoing APS employees only, and separate approval is needed to advertise the vacancy as open to all eligible members of the community. Detailed reasons are required to explain who no change affected employees were suitable and confirmation that an expression of interest found no suitable Defence employees.

63. These limitations were in place until 1st July, 2015. They may have been defensible where there were large concentrations of common positions and/or large pools of employees with complementary competencies, but they were too blunt for situations in which there were a small number of positions nationally which demanded particular combinations of training and experience (such as those necessary to maintain navigational aids on a Defence airfield). They so complicated the engagement of employees to PSE vacancies that some which might be considered significant or even critical were left unfilled for lengthy periods.

Summary

64. The manifestations addressed in this section are indicative of one or more of the following:

- a lack of urgency in confronting the stresses developing on the PSE workforce;
- the assignment of higher priority to deficit reduction and/or centralised workplace relations policy than to the maintenance of Defence capability;
- the subordination of the PSE workforce, with its particular skills, to a much more heavily populated workforce of “typical public servants” with quite a different set of skills.

Smart Buying?

65. As to the future, the report of the First Principles Review contained the following passages:

The capability development life cycle... is critical in enabling Defence to perform its primary role of defending Australia and contributing to the protection of its national interests. Defence must efficiently and effectively procure capability and provide robust and timely advice to Government through an end-to-end capability development process...

Defence needs a smart buying function which operates within the larger government system and global supply chains.³¹

³¹ Above n 19, 32.

66. Citing the United States Accountability Office, a “smart buyer” was defined as one

who retains an in-house staff who understands the organization’s mission, its requirements, and its customer needs, and who can translate those needs and requirements into corporate direction. A smart buyer also retains the requisite capabilities of technical knowledge to lead and conduct teaming activities, accurately define the technical services needed, recognize value during the acquisition of such technical services, and evaluate the quality of services ultimately provided. As long as the owner retains the in-house capabilities to operate as a smart buyer of facilities, there does not appear to be any greater risk from contracting out a broad range of design review-related functions, so long as such functions are widely available from a competitive commercial marketplace. If the owner does not have the capacity to operate as a smart buyer, the owner risks project schedule and cost overruns and facilities that do not meet performance objectives.³²

67. The report of the First Principles Review advocated as one required change “moving to a leaner ‘smart buyer’ model that better leverages industry, is more commercially orientated and delivers value for money”.³³

68. Roughly two and a half years before the report of the First Principles Review, Deloitte had written of a similar concept – that of the “smart customer”. It wrote:

Being a smart customer dictates having the resources and technical insight and expertise to be able to make information decisions across the capability lifecycle. Specifically, being a smart customer demands the ability to competently analyse and interpret specifications and assess products and services for their quality and the extent to which they provide value and meet regulatory and physical requirements.

In many respects, adopting a smart customer mindset requires Defence to redefine and clarify the role of industry stakeholders including the military, APS, suppliers, contractors and other industry bodies.³⁴

³² Ibid, 33.

³³ Ibid, 33.

³⁴ Above n 8, 59, paragraphs 6.144 and 6.145.

69. In their different ways, the First Principles Review Team and Deloitte were wrestling with a number of the questions posed in paragraph 29 above. Their commentaries imply, at a minimum, a continuing role for the PSE Workforce.

70. The Australian National Audit Office (ANAO) has provided one example of the “dim-witted buyer”, which might presage Defence’s future in the absence of remedial action.

71. In its audit report on Land 121 Phase 3B, the ANAO wrote:

Defence’s initial tender process to acquire a replacement medium and heavy vehicle fleet was flawed, resulting in a failed tender and a second approach to market, which contributed to long delays in the acquisition of a modern medium and heavy vehicle capability for the ADF. Defence conducted a more effective tender resubmission process from 2008, but the process was protracted and Defence did not enter into contracts to supply the replacement fleet until July 2013. The aborted initial tender process and the time taken to finalise the tender resubmission process have delayed the scheduled achievements of Final Operational Capability by seven years to 2023. In the intervening period, Defence will continue to reply on an aged fleet of medium and heavy vehicles that is increasingly costly to operate, maintain and repair.

Defence originally considered that the medium and heavy vehicle acquisition was a relatively low risk military off-the-shelf procurement. The difficulties subsequently experienced by Defence in acquiring a new medium and heavy vehicle fleet can mostly be attributed to shortcomings in its initial tender process between 2005 and 2007. **Defence did not conduct any preliminary test and evaluation of vehicles before recommending a single supplier** to the then Government. In selecting a preferred supplier, Defence also did not have sufficient regard to all relevant costs and benefits identified in its tender evaluation process, so as to adhere to the Government’s core principle of value for money.³⁵ (Bolding added).

72. Under Land 121 Phase 3B, 2536 medium and heavy trucks and 1582 trailers are to be acquired at a cost of \$3.4billion.³⁶

³⁵ ANAO Report No. 52 2014-15, Australian Defence Force’s Medium and Heavy Vehicle Fleet Replacement (Land 121 Phase 3B) [8-9].

³⁶ *Ibid*, [7].

What Would a Viable PSE Workforce Look Like?

73. Some pursuits are learnt more through experience than academic instruction. The AMWU would suggest that politics is one of them. Its experience in both the private and public sector is that scheduling/production planning, quality assurance and trouble-shooting (within the engineering or scientific sense) are another three. These three are classic technical functions.

74. The passage cited in paragraph 7 above advises that those performing technical work require significant practical skills and often work in support of professionals.

75. This is consistent with the origins of the technical workforce as set out in the section of the DCM headed "PSE Antecedents", in part as follows:

As work moves from trade through technical to the professional, the significance of:

- the manual content of the work decreases; and
- the conceptual content increases.

The relationship of these different bodies of work was addressed in the following terms by the (then) Public Service Board, upon the introduction of revised Technical Officer structures from 1968 to 1970:

The Technical and Drafting Grades were established in 1956... [as part of] a new approach to professional and technical work designed to ensure that professional staff generally are engaged in duties which require professional qualifications and that greater use is made of the capacity of non-professional staff for technical duties which are within their competencies.

...it is becoming increasingly necessary to ensure that support be provided by people training to a fairly high level of technical knowledge and understanding, substantially above skilled trades, to whom professionals can devolve and transfer functions as they assume more of an 'accepted-practice' character. Unless a competent work force is available for this purpose it is inevitable that professionals will be engaged on functions which do not require the use of their professional qualifications. This situation can, and does arise, and is a matter for serious concern.

In addition to the well-established sub-professional role of providing direct support to professionals, there is an every-increasing volume of technical work, which in the past was frequently regarded as professional work, but which, in the framework of current standards of professionals training, should now be identified with the sub-professional level. This, the sub-professional can perform in his[sic] own right, and is an important component of his [sic] work.³⁷

76. The specified qualification requirements of technical and professional employees are adjacent to each other. The former require “a level of skill commensurate with an AQF Diploma or Advanced Diploma” and the latter “that achieved from the completion of a degree or diploma from an Australian tertiary institution”.³⁸ Put another way, under the Australian Qualifications Framework (AQF) technical employees are at Levels 5 & 6 and professionals at a minimum Level 7.

77. Having regard to paragraphs 75 and 76 above, it is unsurprising that the DCM carries the following two passages:

Qualifications are relevant at the time a job is to be filled. The successful applicant is to be selected strictly according to merit, with qualifications only one of the factors to be considered. The Public Service Act 1999 identifies work-related qualities as including:

- skills and abilities
- qualifications, training and competencies
- standard of work performance; and
- demonstrated potential for further development,

among others.

Selection criteria for the job are not to be framed in such a way as to exclude applications from competent employees. For most jobs, such employees may be drawn from a range of educational backgrounds. However some jobs will require employees with specific qualifications, in instances where those qualifications are essential for the performance of the duties in question.³⁹

³⁷ Above n 2, 126.

³⁸ Ibid, 28.

³⁹ Ibid, 14.

It will be common for employees covered by different work level standards to be represented at the same levels within each of the new streams. For example, at level 5, employees formerly classified as Professional Officers may ... work alongside others formerly classified as ... Technical Officers. By extension, when a job becomes vacant, employees from a variety of former classification streams may compete for it...⁴⁰

78. Pages 83, 89 and 95 of the DCM illustrate the intended application of these passages. They provide examples of jobs available to employees of different vocational backgrounds, viz:

- in the first case, either technical or advanced engineering trade; and
- in the second two, either technical or professional.

79. Skills Australia published a report in June 2012 which was titled “Building Australia’s Defence Supply Capabilities”.⁴¹ Whilst it addressed the Defence sector broadly, not just the Department of Defence, the following of its observations are pertinent, given that the sector competes within itself for the same skills:

...there are overlaps between work undertaken by technicians, and work undertaken by professional engineers, and the two groups commonly “compete” to perform the same work.. This overlap in skills can be used by Defence organisations to improve the utilisation of skills and boost productivity.⁴²

Our discussions with industry and other stakeholders identified the important contribution that technicians make to the Australian Defence industry. Although not large in employment terms within the Australian and New Zealand Classification of Occupations (ANZSCO) categories, the importance of their relationship with the trades and professions, particularly within the engineering occupations, should not be under-estimated. Greater use of teams of technicians and production employees as appropriate to perform more of the work undertaken by engineers could help to reduce demand for engineering skills and lead to better use of skills within the workplace.⁴³

⁴⁰ Ibid, 12.

⁴¹ The report may be found at:

https://docs.education.gov.au/system/files/doc/other/buildingaustraliasdefencesupplycapabilities_260912-2012.pdf

⁴² Ibid, 12-13.

⁴³ Ibid, 5.

Organisations competing for Defence procurement contracts require a balance of professional, trade, technical and managerial skills, and an ongoing commitment to skills development and upskilling to ensure the currency of these skills.⁴⁴

80. It is the AMWU's view that in redeveloping and maintaining a viable PSE workforce, the lessons of the past (as set out in those passages of the DCM cited in this section) should be heeded. Such a workforce would, subject to the demands of the particular work concerned, comprise teams of employees, blending different educational backgrounds and experience. In the words of Skills Australia, there would be "a balance" of different skills. A premium would be put on collaboration.

A Third Trend

81. The section above headed "How has this Happened?" nominated two trends impacting upon the PSE grades. A third should be added.

82. This is the trend away from vocational education and training (in favour of greater emphasis on higher education). Manufacturing Skills Australia is the Industry Skills Council responsible for, amongst others, engineering and aerospace. In its 2015 environmental scan⁴⁵ it addressed the third trend, identifying:

- "the extensive and continual nature of change and in particular, changes to funding being implemented under VET reforms";⁴⁶
- resultant market confusion and loss of enterprise engagement; and
- a reduction in manufacturing course enrolments.⁴⁷

83. It is the AMWU's observation that Defence has, intentionally or otherwise, since (no later than) the early 2000s placed far greater emphasis on higher education relative to vocational education and training. It has done so under the rubric of "professionalisation".⁴⁸

⁴⁴ Ibid, 5 and 14. (Also cited by Deloitte, above n 8,4.)

⁴⁵ The scan may be found at:

<http://www.mskills.com.au/DownloadManager/downloads/MSA%20EScan%202015.pdf>

⁴⁶ Ibid, 24.

⁴⁷ Ibid, 25.

\\Home1\SEN00023\INQUIRIES_CURRENT\6_Defence's PSE workforce\Submissions\As received\DOD submission 051015 .doc

84. Indications of this trend were given above in paragraphs 51 and 55 to 60 inclusive.

85. The third trend is indicative of a failure to appreciate the contribution to be made by technical and trade employees in remediating the problems identified by Deloitte and Ernst and Young. It is reflective of an inadequate understanding of the PSE grades and the prescriptions of the DCM, this absence of understanding itself being one manifestation of the second trend.

86. The three trends compound in their effects on the PSE workforce.

Hope and Despair

87. Deloitte reported in 2012 as follows:

7.1 Employee engagement is a key foundation of a high performing organisation and workforce retention. Engaged employees are those who are highly committed to the organisation and its goals and intend to stay, who are proud to work for the organisation and speak highly of it, and who strive to do their best work and are more likely to apply discretionary effort to achieve outcomes.

7.2 This review has identified that commitment to the success of Defence and their work unit by engineering and technical job family employees is high, however individual engagement (as indicated by commitment to stay at Defence) is low.⁴⁹

88. In fact, the engagement levels were put at 10% for males and 7% for females.⁵⁰

89. These findings are consistent with the feedback the AMWU receives from its members in Defence. They are hardly surprising, given the content of the earlier sections of this submission.

What is Needed

⁴⁸ There is a section dedicated to the application of this term within the DECA – see above n 1, 42, Section E6.

⁴⁹ Above n 8, 73.

⁵⁰ Ibid, 74.

90. The AMWU's booklet at the first attachment contains recommendations.⁵¹ What follows is an abridged and amended version.
91. Certain Defence functions should be kept in-house, because to do otherwise would compromise transparency and accountability. Others should be retained because they underpin public safety or because their retention within the public sector provides value for money.
92. Those functions which are to be performed by the ADF, the civilian arm of the Department of Defence and private contractors should be clearly delineated, with e.g. the specification of the Commonwealth's requirements and the assurance of the quality of delivered materiel and services remaining as public functions.
93. Once the functions to be performed by the civilian arm of the Department of Defence have been identified, a PSE workforce of sufficient numbers and with the appropriate balance of competencies should be maintained. If for no other reason, the monetary value of Defence materiel demands it.
94. The role of the PSE workforce, and the skills, knowledge and experience which it brings to its role, should be understood and respected by those responsible for Defence policy and its implementation.
95. The availability of these skills, knowledge and experience needs to be preserved into the future. This requires a clearly defined career path supported by structured training for existing employees and a regular intake of entry-level employees, such as apprentices, technical trainees and professional cadets, who can be mentored by those who have long been in the system and may be approaching retirement.
96. Workforce planning and occupational training should not be allowed to atrophy, such that progressively greater reliance must be placed on the poaching of trained employees from other employers – or from overseas – and/or the further outsourcing of work to the private sector.
97. Each member of the PSE workforce should be employed to the level of their competence, so that their training and experience is not wasted and they do not become disaffected through under-employment.
98. Consideration might also be given to the application of APS-wide workplace relations policy to the PSE workforce, given the deleterious effects it is having on that workforce and the potential consequences in terms of both capability and cost.

⁵¹ See its pages 28 to 30 inclusive.

Echoes

99. The AMWU's recommendations are supported by Deloitte's 2012 report. That report included a chapter headed "Why 'Built from Within'?", in which the consultant wrote:

4.1 Many of the challenges identified in this review can be overcome by creating a workforce strategy and plan that focuses on attracting the necessary skills and building relevant experience...

4.2 *'Built from within'* is an important concept because it is not possible that all required engineering and technical skills can be sourced entirely from industry, nor is it cost effective. This is true because of the overall engineering shortages and also because of the essential role of the APS engineering and technical job family in the capability lifecycle. The APS engineering and technical workforce is central to the management of the integrity, worthiness and safety of capability over its lifetime. It plays a critical role in delivering required capability through providing advice, assurance and risk management. This workforce also plays an essential role in ensuring that industry continues to deliver Defence requirements through cost-effective and productive partnerships between industry, the ADF and APS.

4.3 The need to attract engineering and technical skills will continue to exist, but relevant knowledge and experience needs to be understood and proactively 'built' and owned by Defence.⁵²

100. The problems have been identified by a number of sources, the consequences of failure are great and suggested solutions have been available for three years. It is beyond time to act.⁵³

⁵² Above n 8, 26.

⁵³ The AMWU has expressed a number of criticisms in this submission. To be clear, it is critical of those responsible for what it believes are failed policies, not of those who are told to implement those policies. The latter are merely doing their jobs as directed, whether or not they support the policies concerned. Nor is use of the phrase "typical public servants" intended to be pejorative – the AMWU respects the contribution made by public sector workers, regardless of their occupations.

