The Senate

Standing Committee on Education, Employment and Workplace Relations

Questions on Notice

Topic: $6 billion cost to the economy

Proof Hansard Page/s: 66 (7 May 2012)

CHAIR: Can I draw your attention to the figure that has been given to us a couple of times by Engineers Australia, I think, and others, to the effect that they believe there is a cost to the economy of about $6 billion a year in projects that are either late in coming to their commencement or in fact do not get up at all, are incomplete or require rework afterwards. Which of the agencies in front of us would have some responsibility in reviewing that data, examining it and presenting it to government?

Mr Jaggers: I presume that that is a global economy-wide figure. Obviously our department is focused on the investments that we are making in road, rail and port infrastructure. We could certainly take that on notice and have a look at how that figure was generated and what its voracity is like and come back to you, Senator. We are happy to come back to you.

CHAIR: I would appreciate that. Also, I suppose it is difficult for you to give us an opinion on notice as to the degree of accuracy or otherwise of that. If the figure is real it is pretty sobering.

Answer: We have not been able to verify the veracity of the claimed $6 billion a year loss. It appears to relate to the total loss due to contractual disputes across the economy and may be not directly attributable solely to errors made by poorly qualified engineering professionals (or the absence of engineering professionals). Further, only a small proportion of that figure would relate to transport infrastructure projects.

We note that Consult Australia quoted $7 billion as an estimate of the cost of construction disputes in their submission. The $7 billion quote comes from a 2009 publication prepared by the Cooperative Research Centre (CRC) for Construction Innovation *Guide to Leading Practice for Dispute Avoidance and Resolution:*

> *When the direct cost of resolving disputes is added to the avoidable costs, the total waste exceeds $7 billion per year, given construction industry turnover of $120 billion in 2008-09. This turnover figure includes the value of engineering projects, nonresidential building and apartment building projects, but excludes the value of residential cottage building.*

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Questions on Notice

Topic: How are engineers employed?

Proof Hansard Page/s: 67 (7 May 2012)

Senator McKENZIE: As an employer of choice—and we have been hearing a lot about public employment of engineers—in all your consultation around this area how do you employ engineers—what traineeship programs or cadetships are there? How do you employ engineers? Do you have traineeship programs or cadetships? Do we walk the walk is my question around publicly employing engineers and young graduates?

Mr Luckhurst: Across the whole of the industry department I would not be able to give you a figure on how many engineers might be employed. We cover the skills area and so I guess the background is a general policy administrative focus rather than having a requirement for special skills around engineering. We can provide an answer across the whole of the department but certainly we would have to take that on notice. Generally, as a public service agency, our expertise is around policy development and those sorts of things. I am happy to take that on notice.

Mr Shreeve: We are very spoiled—there are only 32 of us at the moment.

Senator McKENZIE: Yes. My question was to infrastructure because we have been hearing about having that technical capacity in local government or with whoever is making decisions around contracts.

Mr Jaggers: I guess the working engineers on projects are employed by the jurisdictions or local governments, not within the department itself. Our investment program is obviously a funding jurisdictions that will be employing specialists to deliver the projects.

Senator McKENZIE: Who makes the decision on the tenders?

Mr Jaggers: State and territory governments make those decisions. We do have a role in vehicle safety standards and in that part of the department, which is not my area of responsibility, we employ a number of specialist engineers. We can provide some details of that on notice.

Answer: The Department conducts one bulk entry level program per year to recruit Australian university students who are graduating from a 3 or more year degree program. One of the disciplines that the Department recruits for, among others, is engineers - including Civil and Mechanical Engineers. This is clearly communicated in advertising material, which is placed on the Department's internet site, Facebook page and Blog, as well as face to face discussions at University Careers Fairs. In 2011, when recruiting for the 2012 Graduate Program, 16 candidates with engineering qualifications were taken to assessment centres, 3 engineers were made offers of employment to the 2012 Graduate Program with 2 accepting. The Department is currently assessing 23 candidates with engineering qualifications for the 2013 Graduate Program.

The Department has employed a number of engineers in different roles utilising civil engineering, mechanical engineering, and aeronautical engineering amongst other capabilities. For example, in the Vehicle Safety Standards Branch (VSSB) about 50 per cent of staff have either an engineering or mechanical trade qualification. Once employed by the Department they are expected to develop

the broad range of public service skills to complement their engineering capabilities. In recent years an engineering intern from the Australian National University has been placed in the VSSB to obtain exposure to public service career opportunities. Specialist mechanical engineering skills are used in a range of responsibilities for vehicle safety, including research into, and development of, vehicle standards, assessment of vehicle approval applications, and auditing of motor vehicle manufacturers.