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Proof Committee Hansard

SENATE

SELECT COMMITTEE ON THE FUTURE OF WORK AND WORKERS

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SENATE

SELECT COMMITTEE ON THE FUTURE OF WORK AND WORKERS

Tuesday, 13 March 2018

Members in attendance: Senators Chisholm, Ian Macdonald, Patrick, Siewert, Steele-John, Watt.

Terms of Reference for the Inquiry:

To inquire into and report on:

a. the future earnings, job security, employment status and working patterns of Australians;

b. the different impact of that change on Australians, particularly on regional Australians, depending on their demographic and geographic characteristics;

c. the wider effects of that change on inequality, the economy, government and society;

d. the adequacy of Australia's laws, including industrial relations laws and regulations, policies and institutions to prepare Australians for that change;

e. international efforts to address that change; and

f. any related matters.

WITNESSES

DAWSON, Ms Emma, Executive Director, Per Capita Australia

LYONS, Mr Tim, Research Fellow, Per Capita Australia

Committee met at 08:34

CHAIR (Senator Watt): I declare open this hearing of the Senate Select Committee on the Future of Work and Workers. Before the committee starts taking evidence, I remind all witnesses that in giving evidence to the committee they are protected by parliamentary privilege. It is unlawful for anyone to threaten or disadvantage a witness on account of evidence given to a committee and such action may be treated by the Senate as a contempt. It is also a contempt to give false or misleading evidence to a committee.

The committee generally prefers evidence to be given in public but, under the Senate's resolutions, witnesses have the right to request to be heard in private session. If a witness objects to answering a question, the witness should state the grounds upon which the objection is taken, and the committee will determine whether it will insist on an answer having regard to the grounds on which it is claimed. If the committee determines to insist on an answer, a witness may request that the answer be given in camera. Such a request may of course also be made at any other time.

I gather that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you?

Mr Lyons: Yes.

CHAIR: I now invite you to make a short opening statement and then we will open it up for questions.

Ms Dawson: Australia's egalitarian society is predicated on the concept of a fair day's pay for a fair day's work. Since the landmark Harvester judgement in 1907, established for the first time in the world the right to a living wage, strong workplace rights have underpinned our understanding of the fair go much more so than the welfare state or tax-and-transfer system. The average working person in Australia could expect to own a house, enjoy eight hours rest and eight hours play, and benefit from good standards of health care and education. These have long been the bedrock upon which a society once known as a working man's paradise was developed.

Today we believe this long cherished view of our nation is under threat. There are many reasons for this as outlined in our submission. But too often we are told that the disruption of digital technologies and automation of the workforce are an unprecedented threat to the future of work and workers, that the coming of the robots will throw millions of people out of work, that the progress of technological disruption is unlike anything we've ever seen and that the loss of secure reliable work, particularly for so-called unskilled workers, is inevitable. This is frankly nonsense. Industrial disruption is not new. The first industrial revolution changed forever the way that humans lived and worked, and many of our current labour laws resulted from hard-fought battles at that time to protect citizens from the potentially devastating exploitation that was threatened by the new captains of industry. If there was one message I hope this committee will take from this inquiry, it is that government must not be shy of intervening to regulate new and emerging industries to ensure that workers continue to receive a living wage and are protected from exploitation. Ensuring such protection of citizens is the fundamental role of government.

During the first industrial revolution, workers were required to work 12 to 14 hours a day. In the cotton spinning mills in northern England, where my own and ancestors worked, mill owners were patenting machines that could be operated by small children as young as five, and conditions were hazardous. It was through the efforts of labour reformists who fought on the floor of parliament to instigate laws to protect workers that those conditions were overturned and the beginning of labour regulation was put in place. So there is nothing new under the sun, and the answer to the challenges presented by the future of work lie the past.

We must not shirk our responsibility to meet today's industrial transformation with an equal commitment to protecting workers and their right to a living wage in secure, safe employment. This means extending our workplace laws to cover contracts and those employed in the gig economy; it means restoring the right of workers to withhold their labour in pursuit of better working conditions; it means restoring the integrity of the bargaining system; setting an ambitious unemployment target of at least four per cent or less, and requiring the RBA to consider that in their approach to monetary policy as well as government and acting policies to achieve it; it means investing in skills, training and lifelong learning to enable people to adapt to changing workplaces and industrial disruption; it means closing the gender pay gap, particularly for women who rely on the minimum wage; and it means replacing the disastrous Work for the Dole CDP scheme in remote Indigenous communities with real jobs that provide training, security and a living wage. None of this is beyond our ability. It takes commitment and it takes a choice to put the wellbeing of people before profit. Too many Australians today

believe they're working for the economy rather than that the economy is working for them. It's time they got their fair share of prosperity in one of the wealthiest nations on earth. Thank you.

CHAIR: Thanks very much, Ms Dawson. Mr Lyons, do you want to add to that at all?

Mr Lyons: No.

CHAIR: Thanks very much for your detailed submission. Some of the points that you've made in your submission reinforce evidence we've received from others in the inquiry, so I'll probably stick to the parts that we haven't heard as much about. You've cited quite a number of reports, including from the OECD, which have some pretty grave statistics in them about the high levels of underemployment, insecure work and a range of other measures in Australia compared to what we see in other developed countries. Could you just quickly take us through what those reports indicate. I'm interested to know whether anyone has done any projections on things like underemployment and insecure work into the future in the absence of policy change.

Ms Dawson: That's quite true. The unemployment rate in Australia is hovering around 5.5 per cent, which historically is not bad by Australian standards, but, compared with other OECD nations at the moment, it's quite high. Germany is sitting around 3.8 per cent. The UK and the US are around 4.3 per cent. None of those countries have seen an inflation breakout as a result of those lower unemployment rates. Underemployment in Australia is the third highest in the OECD after Italy and Spain. It's around nine per cent. That's over 1.1 million people who are involuntarily underemployed—that is, they would like to work more hours. They could be working as little as one hour per week. Australia also has a very high job turnover rate. Forty per cent of Australian workers have been with their current employer for less than three years, and only 25 per cent have been with the same employer for 10 years or more. Again, that's very high by comparable standards.

In terms of projections into the future, there's no evidence to show that that underemployment rate is going to come down anytime soon. There remains slackness in the labour market. This is contributing to weak wage growth, of course. We do believe that, without a reframing of the NAIRU, the target unemployment rate, the consideration of the Reserve Bank in setting monetary policy and efforts by government through fiscal policy to stimulate higher rates of employment and more permanent full-time or permanent part-time roles, there's no evidence to see that underemployment rate coming down anytime soon.

Mr Lyons: To add to that, there are a couple of really important points that I think suggest that our level of underemployment and the level of precarious work in our economy—defined as being not just casualised work but insecurity around hours and incomes—is a function of our regulatory settings. If you look at economies of comparable composition—that is, they have similar industries—we've got a much higher rate of that underemployment and precarity. There's nothing structural about the nature of our industries—that is, if you look at other nations with a heavily service-dominated economy, which is our position in terms of both GDP and employment, you don't see the levels of precarious work that we have. I think that makes a very strong case that the precariousness in which too many Australians find themselves is a function of the regulatory frameworks. In fact, in OECD terms, to find an economy which has a higher rate of that precarious work you need to look at an economy like Spain, with a very high agricultural workforce in things like olives and fruit and other things where there's a tradition of short-term and precarious work. The proportion of our workforce engaged in agriculture is extremely low, as the committee is aware, so in a service economy there's no in-principle reason that there shouldn't be fewer of these precarious jobs. It's clearly a function of the fact that the labour market deregulation that's occurred has really overshot the mark, and workers are bearing all the costs of that flexibility.

CHAIR: Thanks for that. One of the other points you've made is what you refer to as the 'primacy of shareholder value theory', in which short-term profits and ever-increasing returns to shareholders are prioritised over service to customers, growing wages and investment in workers and the social and environmental impact of business activities. I think this is largely to blame for particularly the very stagnant wages growth that we've been seeing in Australia in recent years. I think it was in the Sydney hearing that we had some people talk about the need to revisit aspects of Australian Corporations Law such as directors' duties and all of the regulatory measures which direct company attention to maximisation of shareholder returns, and that we should broaden out directors' duties and some of those other regulatory measures to take into account treatment of the workforce, wages and environmental impacts. Have you done any thinking about what that might look like?

Mr Lyons: I think it’s a terrific area for the committee to have a measure of focus on. I know, as a company director myself, that the continuing professional education that you get from law firms et cetera tends to direct you towards a very narrow conception of fiduciary duty as being a responsibility to shareholders or fund members, and, really, in one sense, pushes you away from having a broader perspective on what the impact of the operations of a business might be—in a way that I think is deleterious to the reputation of business in the end.

I think a good approach would be for us to restore for business what I think you could describe as a social licence to operate, and to define what a social licence to operate looks like in terms of the effect the business has on its broader community. That's its obligation to the environment—both the environment generally, but also the built environment in which the company operates, to its workforce and to its customers. So it is a broader conception of what the responsibility is of us allowing a corporation to operate in our country—what its obligations to us as a country are, and not just a narrow financial conception of that in terms of the payment of tax, as important as that is, but a concept of a social licence to operate. An amendment to the Corporations Law that would actually require directors to specifically consider how a company would fulfil its social licence to operate would be of great assistance to corporations to be able to focus on their effects on the community. And, frankly, for those directors, and there are a lot of them, who do have a clear view about the responsibility of their corporations—and you've seen a growth in the ESG movement, which has been driven in many cases by executives and directors—a provision in the Corporations Law would allow those managements to, if you like, push back gently against some of the more rapacious institutional investors that might be invested in their stock.

Senator PATRICK: In your submission you talk about underemployment. The Treasury provided some answers to Senator Xenophon, who asked some questions about this in May, and said that for underemployment one hour is the trigger, which seems somewhat short in terms of generating income. They've said that that is, effectively, an international standard, that it's been reported since about 1960 and that's simply the norm in the international monitoring of underemployment. I presume, therefore, that others are collecting these statistics. How does Australia perform in respect of underemployment versus other OECD countries?

Ms Dawson: In terms of underemployment, we do have the third highest rate of underemployment in the OECD. That's third to only Italy and Spain, and, as Tim outlined, that's due to different structures of their industry, so there's absolutely no structural reason for us to have such a high level of underemployment. Around 8.5 to nine per cent of people would like to work more hours than they're currently able to secure, and that's around 1.1 million people of a working age who do not feel they're working enough hours to provide them with a decent income or the income that they need. It's quite high by OECD standards.

Senator PATRICK: You say we should be focusing on that number rather than the unemployment number.

Ms Dawson: Both. The unemployment rate is too high as well.

Mr Lyons: If I could pick up on one element of that. There's a body called the International Conference of Labour Statisticians that's convened by the ILO, which attempts to make sure that countries collect data that is comparable. So we do need to keep using the one-hour measure. But in terms of using it as a guide to policymaking, I think you made the observation that one hour is not much market income. It's not a very good guide to policymaking, in terms of us understanding what the real nature of precarity is. I think that while, yes, we need that measure, consideration of adopting a more robust measure that measures the extent to which people have any meaningful market income would be a useful additional measure to be collected by the ABS.

Senator PATRICK: The method you proposed is Nairu? Is that at an accepted method, or is that—

Mr Lyons: That's the non-accelerating inflation rate of unemployment. That is the level at which unemployment can exist in the economy without causing inflationary pressures via wages. What the Reserve Bank has said over a long period—Governor Stevens and others—is that what we tend to do, in his words, is 'chase the Nairu down'. People used to think it was at a much higher level than it actually is. That is, we are capable of having unemployment at a much lower rate without having the sorts of wage inflationary pressures that we might have seen in our economy in the seventies.

Senator PATRICK: Moving to the growth side of the equation, there have been some suggestions that we should target growth rather than inflation in terms of our fiscal policy. Do you have a view on that?

Mr Lyons: They're both important. It's a matter of the emphasis that's placed on these things. In our submission we say that in balancing the twin requirements in its current act in respect of monetary policy, which is control of inflation and promotion of employment, the bank has overshot the mark and had too much focus on inflation in lieu of a focus on unemployment. On the fiscal side, we do have the view that there does need to be greater public investment to promote growth and more preparedness to raise the tax revenue that's necessary for that. That will give the economy a focus on what we prefer to see: inclusive growth rather than growth full stop for its own purpose. If that growth isn't shared between the capital share and the labour share, then, in effect, the dividends of growth are not shared by the Australian community generally, and a fair bit of the capital share of growth ends up being exported, due to foreign investment in Australia.

Senator PATRICK: In relation to that, you mentioned in your submission the change to the tax laws—the $50 million revenue threshold—and indicated that there has not been any response to that in terms of trickle through. Can you expand on that a little bit more.

Ms Dawson: You're talking about the push now for the lower company tax rate to apply to businesses with a revenue greater than $50 million.

Senator PATRICK: Yes—on the basis of what you've seen, as a result of the change to 50 million.

Ms Dawson: A lot of the evidence, both here and internationally, is that those tax cuts won't just trickle down of their own accord. There is no intention evidenced by businesses to pass on those savings that they're making to the workers in increased wage growth. In fact, the Australian Industry Group's *Business prospects report* in January stated quite clearly that employers see continuation of what they call 'moderate wage growth' as essential to business prospects over the coming couple of years. Also, if you look at what's recently happened in the US, which is often cited as evidence for why we should cut taxes for large corporations, the benefits of the tax cuts there have largely gone to share buybacks rather than into wage growth for workers. This strengthens a business's bottom line, but, essentially, the share is going to capital rather than labour.

Senator PATRICK: Is there any empirical data in Australia yet on the tax-cut changes?

Ms Dawson: There is not yet. The tax-cut changes that went through for smaller businesses are yet to percolate through the community, but I think it's fair to say that even when that tax cut was announced we were told this will give smaller businesses some confidence to pass on some of that benefit to wage growth, and we haven't seen that happen.

Mr Lyons: I think there is evidence in the data already, and that is that we've still seen record-low wage growth, and we're still seeing that in small businesses as much as we are seeing it in big businesses. Corporate tax cuts are a bit of a magic pudding, if you believe the business community—they will lead to more investment, more jobs and higher wages; whereas the reality is that all of the empirical evidence in previous rounds of tax cuts is that you have a great deal of difficulty seeing any evidence in the wage data, and if you do see any evidence in the wage data you only tend to see it in the very long run, over a period of more than a decade—so it's not going to help us currently—and even then there is only a small pass-through amount. It doesn't happen automatically. Businesses don't pay it if they don't have to. If our labour market institutions like collective bargaining and the Fair Work Commission remain as weak as they are, we are not going to see that pass through.

I will make two other quick points on that. Australia has a very high level of corporate concentration. If you look at the international indexes of corporate concentration, we're right up there. There's a thing called the monopsony effect of employers, which is their ability to hold down wages because there are more sellers than buyers, in effect. That market concentration, particularly in big corporates in Australia, increases the power of our big corporations to not have to pass on wage increases, and it's not just for people who directly work for them. Some of these corporations indirectly control the wages of many hundreds of thousands of other Australians. Think, for example, that Woolworths and Coles indirectly control the wages of everyone that works in the dairy industry in Australia. They indirectly control the wages of everyone that works in the horticulture industry, and most of the people that work in logistics chains. The twin factors of our weak labour market institutions, the monopsony power of big employers and the evidence of previous tax cuts—the idea that all or even most of it is going to flow through to labour is just a fantasy. And, of course, our corporate tax is mainly paid by very large corporations and functions as a de facto rent tax, including on the mining industry, and it's partly for that reason that we very strongly oppose any reductions in that tax.

Senator STEELE-JOHN: I just wanted to pick up something that I think was the main thrust of your opening statement, which is basically that industrial disruption is nothing new, only for the fact that many of the phenomena we are seeing, particularly around the gig economy, are kind of 19th-century millworker tactics with an app—

Mr Lyons: Pretty much.

Senator STEELE-JOHN: That was basically the thrust of your submission and it's what we've heard before as well. I think you made an interesting contribution that, seemingly, reactive government regulation of that disruption is a phenomenon that comes along with that disruption. So, in a sense, if we failed to regulate in relation to these forms of disruption, we would be the exception, not the norm, in terms of how government responds to these issues. Would that be a fair observation to make?

Mr Lyons: Yes, I think that's exactly right. That's the historical pattern—that governments have stepped in to react to the emergence of different forms of work and patterns of work, and large parts of the OEC, whether at a federal or state or sometimes even local level, are looking to regulate to avoid the pernicious effects both on

existing businesses and the labour market of various forms of the gig economy. So you've seen, including in the US in particular, some very localised experimentation with regulation. Their constitutional system being different, city councils, for example, can declare things like localised minimum wages or localised minimum engagement rates, which have provided microlevel experiments. We've obviously got a very centralised system. But I think there's no question that there's a role for both the federal parliament and also the states in stepping in to make sure that the exploitative side to the gig economy doesn't explode any more than it already has.

Senator STEELE-JOHN: We've seen the UK just go, 'No, you're no Uber—you're an employer; you have the same obligations as everybody else.'

Mr Lyons: Indeed.

Ms Dawson: Yes, and a similar case was brought here on the back of that UK decision of a former Uber driver that tried basically to get the same finding and was denied under current Australian law. So absolutely we are—

Mr Lyons: He tried at unfair dismissal.

Senator STEELE-JOHN: Yes, through the commission.

Ms Dawson: I think the point is that there's a laissez-faire school of thought that says, 'Technology: we've never seen anything like this. It's just going to roll over us and it's inevitable and people will be thrown out of work,' and that's nonsense. History shows—

Senator STEELE-JOHN: We are going to hear from the IPA later. There's no need now—you've just made their submission for them!

Ms Dawson: That's right! History shows that it takes active intervention on the part of governments on behalf of the people to stop that happening.

Senator STEELE-JOHN: Could I take you to something which I think is a really interesting suggestion within this report. We have heard again and again, from our very first hearing to now, that one of the main challenges is the training of the workforce and a real retreat of the employer from the role of training the worker—so that you have people leaving an industry after 30 years without knowing how to write a resume and without any transferable skills. You suggest an economic security account process here. I've read the section, but would you just be able to summarise your proposal for the system and how it would function?

Ms Dawson: Absolutely. Interestingly, France has just announced a review of its own system of, essentially, a lifelong learning account. You're absolutely right that businesses' failure to invest in training is just another example of their unwillingness to take some of the share of their profits and invest it in their workforce. That's an ongoing trend that we've seen for some years. At the same time we've seen, I would say, the destruction of a lot of our vocational training, through the TAFE system being privatised.

So our suggestion is the economic security account. It's something that exists in other parts of the world, such as Singapore—and, as I said, France has just made a commitment of 500 euros per year contributed by the employer into an account that is portable with the worker, whether they move jobs or not, and can be used solely for vocational training. We propose a similar measure here in Australia. In the absence of the increase in the superannuation contribution rate, we would suggest that that 2.5 per cent employer contribution be put into an account for use by workers for their own training and skills education across the course of their life, and that it be portable and that it be universal so that there is no risk of what's called a free-rider provision, where an employer invests in a worker, and then that worker takes those skills to another organisation. Also, there would be a range of government top-up measures to ensure that it didn't disadvantage people on low incomes or who were out of the workforce for periods of time. We believe this would be a method by which the government could actively support the training and skills education of the workforce so that workers were able to adapt more readily to technological change and to industrial disruption.

Senator STEELE-JOHN: Would you see that this kind of policy would sit alongside mechanisms which would incentivise, or penalise the absence of, active employer training of certain workforces? I'm thinking, for instance, about the financial services sector of the economy, where there seems to be a real absence of transferable employer training. Would this sit alongside mechanisms that would incentivise the employer to return to the practice of training their workforce? In the absence of that, you'd still have the emphasis on the worker initiating and, in some way, paying for that training, rather than on the employer. Would you have those two things sitting side by side, or just the account on its own?

Ms Dawson: I think it's entirely possible to have them sitting side by side. There's nothing about one that's exclusive. But the purpose of this policy proposal is to ensure that that provision is made for all workers, regardless of where they work, and that it's universal, across all employers.

Yes, while that would be owned by the worker, we would see that it would be necessary for there to be a robust vocational training system in place for them to be able to implement—

Senator STEELE-JOHN: An affordable one.

Ms Dawson: Yes, an affordable one. If you look at the French model, that's 500 euros per year. It's about $750 to $800, I think, on the current exchange rate, up to a cap of $5,000 over 10 years. That would enable a similar level here, although we're talking about a slightly higher rate of investment. We think that would enable workers to get the skills training they need. There would, of course, need to be similar provisions to allow workers to take time to engage in training, and those requirements would need to be placed on employers as well.

Mr Lyons: I think incentives make sense, Senator. They do need to be carefully designed if they're to be incentives for tax concessions or something of that nature, because there was some evidence that, with some of those sorts of programs that were part of the Working Nation package in the early part of the 1990s, all that happened was that the good employers that were providing training suddenly got a tax concession for what they were already doing, and it didn't change the behaviour necessarily of the people that, as you say, weren't making that investment in their human capital. So I think it's worthy of consideration to sit alongside these accounts, but the design of those needs to be carefully calibrated is all I'd say.

Senator STEELE-JOHN: Interesting, thanks.

CHAIR: Can I just ask one follow-up question on this, because I did think this was an interesting proposal worth thinking about. I'm not saying this is a voucher model, but there's always that tension between big unwieldy systems that are unresponsive to consumer demand versus complete individual choice for services, and we've seen that sometimes lead to problems as well. How do you think you could model it in a way that didn't see a repeat of some of the free-for-all we've seen in other individualised markets, whether it be for training, health care or any other market?

Mr Lyons: I think that the key to it really is to have a proper publicly controlled TAFE system, frankly. That's got to be the anchor. I'm not saying that would be the only way—or the only provider—but if you have the government acting as an anchor provider then the market operates around an ethical, quality provider, and you avoid some of the kind of free-for-all circumstances. If you just had people put this money into a barely supervised market of vocational education providers, I think you'd see the potential for some bad outcomes. But I think this is an opportunity to revisit the failed policy of the marketisation of the TAFE sector in all states and part of a way of being able to provide a funding base for that, and also to have a slightly broader conception of what technical and further education looks like—not just the traditional trades, I suppose.

Ms Dawson: Our recommendation for economic security accounts sits alongside the recommendation to reverse the privatisation of TAFE. The two are very much intertwined.

Senator IAN MACDONALD: Thanks very much for your submission. I was not aware of Per Capita until now. I've looked you up on Google. How are you funded?

Ms Dawson: We're funded through a mix of philanthropic donations and some institutional support. We get some support from some of the unions. We get some support from individuals—donations from individuals—and we get quite a lot of philanthropic support from the grants sector.

Senator IAN MACDONALD: It is a very detailed submission, and we don't have time to go through a lot of it, but a couple of things did interest me. You talk about people unemployed and underemployed. I come from North Queensland, where we have an enormous problem in getting people to fill the jobs that are available. We end up, in the end, employing backpackers—foreign workers. My office is based in Townsville. We have big unemployment there, and yet there are jobs going that Australians just won't do. Is there a solution to that?

Mr Lyons: Pay a market clearing rate of pay.

Senator IAN MACDONALD: Sorry?

Mr Lyons: A market clearing rate of pay. I think some of the jobs that can't be filled are not filled because of the low wages that are on offer. I think that is particularly true of the horticulture sector.

Senator IAN MACDONALD: That's not right.

Mr Lyons: I'm not sure what sectors you're specifically referring to. In industries where employers tend to complain that nobody will do the job the circumstances tend to be generally poor quality jobs which are poorly

paid. That's what the evidence actually shows. There aren't a lot of high paying gigs in North Queensland going that employers can't fill any more than there are in the Latrobe Valley.

Senator IAN MACDONALD: A few that I can think of are in the meatworks, in the tourism industry and in horticulture. The foreigners who take the jobs make a lot of money out of them because they are quite well paying.

Mr Lyons: I've had a fair bit to do with the horticulture industry in the recent period, and I've yet to meet a worker who's said they made a lot of money out of working in horticulture.

Senator IAN MACDONALD: We must move in different circles.

Mr Lyons: Well, this was true. I've spent a couple of days recently in the Lockyer Valley and there are a lot of people who do that work—foreign and Australian-born, Australian citizens or permanent residents or students—and they all said to me they were struggling to make a living on the wages that were on offer.

Senator IAN MACDONALD: The other thing that interested me in your submission was about Indigenous unemployment. You quote Warwick Smith's work concerning a high rate of Indigenous unemployment. That which you're quoting talks about multiple historical and temporary factors including geographical remoteness, poor education opportunities, language barriers, racism and a history of deliberate exclusion. Some of those I wouldn't agree with, but how do you address the geographical remoteness? In terms of poor educational opportunities, the opportunities are there; there are poor educational outcomes. Language barriers, of course, I think, relates to education, so that the young people can actually speak workplace English, which, regrettably, a lot of them don't. There's a lot of concentration on traditional languages which, of course, aren't at all useful in the workplace situation. Do you have any silver bullet solution for Indigenous unemployment?

Ms Dawson: The recommendation we make in the report is that the current CDEP program, which is demonstrably failing remote Indigenous communities in Australia should be replaced with a trial rollout of a job guarantee, which is a concept whereby actual real jobs are provided at minimum wage—

Senator IAN MACDONALD: But they're not real jobs if they're made-up jobs by a government to give welfare in a different way.

Ms Dawson: We would suggest that, by working with local communities, including local governments who are almost always the best placed to identify the needs of their local area particularly in remote areas, work can be identified that is much more meaningful than the current Work for the Dole CDEP program. If those jobs were developed in partnership with local communities, with local government representation to identify the task that needed to be done and were provided at a living wage with in-built training and skills training provided as well which would be an investment part of the program, that would be likely to have a better outcome than the current program. It certainly couldn't have a worse outcome, and we think it is definitely worth trialling.

Mr Lyons: Senator, I would challenge you on your comment that that's not a real job. It's a real job if it provides a benefit to the community in which the job exists, but it does something that's socially useful and it provides a market income to a member of that community. That is a real job. It's as real as your job and my job.

Senator STEELE-JOHN: Our jobs are created by the government more than anybody else.

Senator IAN MACDONALD: Are you finished?

Senator STEELE-JOHN: Yes.

Senator IAN MACDONALD: Thanks. I know those communities. I speak to the mayors very regularly. There's only so much you can do in those communities. Do you think that really what's needed is some serious economic activity, like some sort of agriculture or some sort of mining that many of the communities particularly up in Cape York want to do but they're prevented from doing? Do you think that what's needed is a real economy, real economic activity, that Indigenous people, the same as everyone else, can participate in? They do in Weipa, for example, in the big mine there. A lot of Indigenous people are employed very well, very happily, very productively and profitably.

Mr Lyons: Without getting into the land use questions necessarily about both conservation values and traditional ownership, of course, the development of a market-based economy in remote Australia would be a terrific idea. But the one thing I would point out, which is effectively referred to in our submission, there is a long history in Australia, where that development does occur in or near remote communities, of the Indigenous inhabitants not benefiting economically from that. They tend to be historically excluded from the employment opportunities associated with that. So, yes, that would be great, but we would need to have a very deliberate set of policy settings to ensure that we didn't have, for example, a mine staffed by FIFO workers coming in from

Brisbane or Perth, and no share of that employment going to the local Indigenous communities and, for that matter, communities on the coast of north Queensland.

Senator IAN MACDONALD: So you approve the current government's insistence on a certain percentage of government work as Indigenous employees? I might say that sometimes that's caused problems because it's difficult sometimes to find them. You think that's a good policy?

Mr Lyons: That's a modest start, but it's important that particularly developments which are occurring in or near traditional lands bring an employment benefit to Aboriginal people.

CHAIR: We will have to move on, because I know Senator Siewert has a couple of questions as well. Over to you, Senator Siewert.

Senator SIEWERT: I first want to go to the issue you raised under 'Changing industry composition' in part 3 of your submission where you talk about the national wage and the lower incomes for the health and social care sector. The health and social care sector is a sector where we're going to see significant growth—a doubling or tripling, in fact, of the workforce. I know we've got limited time. Can you very quickly take us through how we should be dealing with that, because it is an area that will see a growth in employment?

Ms Dawson: Recognising that health and social care is a growing area of the economy but tends to be traditionally very low paid, as are a lot of industries that are dominated by a female workforce, one of the recommendations we make in our submission is that the parliament should review, through the existing structures, the setting of the minimum wage rates, particularly for female-dominated industries. There was some research that came out of the Melbourne Institute late last year that found that the gender pay gap for women who rely on the minimum wage is around 10 per cent, and that's because there are different minimum wages in different awards, and awards in the care sector and the social care sector and the health sector that are dominated by a female workforce tend to be set at a lower minimum rate of pay than are male-dominated industries. If we're going to talk about the gender pay gap, I think that conversation is often dominated by issues of women at the board level and the executive level, but there exists a very real problem at the minimum wage level for women in those industries, and that's something that I would say the government should look at actively.

Senator SIEWERT: Thank you.

Mr Lyons: Just one very quick thing to add to that, I think there's a role for the Commonwealth there not just as a regulator of work but as the dominant funder of the three key pieces of the care sector, being early childhood education and care, aged care and the NDIS. The Commonwealth can't, frankly, absolve itself of the responsibility that its own funding obligations have in terms of the flow-on effect that comes out the other end of essentially a very large number of low-paid women.

Senator SIEWERT: That's a good point. We've seen some work done there with the community wages—the extra funding the government provided a number of years ago. From what I can tell, that hasn't adequately addressed that problem, so we need to be looking at that again basically.

Ms Dawson: Yes.

Mr Lyons: Yes.

Senator SIEWERT: I know we're going to run out of time. I've got one question relating to the evidence you just gave around a fund for training individuals. Have you looked at the employment funds that jobactive providers already have to help people who are unemployed who are looking for work through jobactive? Have you looked at the functionality of that at all?

Ms Dawson: We are currently actually engaged in another piece of research looking at the jobactive network and particularly focused on that provision. That research is underway at the moment, but our early findings are that that is not achieving what you would call optimal results. The structure of the contracts between government and the jobactive network providers are such that they are not focused adequately on the long-term training and long-term placement of people into secure roles but are rather too focused on short-term placements that lead to high job turnover. There could be some structural changes made to those contracts that we believe would greatly strengthen the ability of those service providers to both put people into more secure long-term employment and strengthen their ability to take advantage of some of those training modules that are built in with the funding that's built in for training. But that's ongoing research at the moment.

Mr Lyons: I think there's some pretty strong evidence that the structure of the incentives the providers have leads them to focus on flipping people into short-term roles, rather than having an emphasis on finding a long-term stable and secure place in the labour market, and also—and possibly even worse—to, essentially, wanting to focus on the people who are relatively easy to place in a job, rather than the people who we probably would really

want to have the investment in, which are the people who perhaps are harder to find a stable and secure place for in the labour market because of a skills deficit or a longer period of unemployment. That really does need some fairly close examination.

Senator SIEWERT: Okay. Because it seems to me that—governments put some money aside for that—if we used it properly, it could start to do what you are talking about in terms of this longer-term training and training for life.

Ms Dawson: Yes, I think that's right. That's certainly the focus of the project that we've got underway at the moment.

CHAIR: Thanks for coming in. There's lots in your submission, which we'll take another look at as well.

CANNON-BROOKES, Mr Michael Alexander, Co-CEO and Co-Founder, Atlassian Pty Ltd

[09:21]

CHAIR: I now welcome Mr Michael Cannon-Brookes, representing Atlassian. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you.

Mr Cannon-Brookes: Yes.

CHAIR: Would you like to make a short opening statement, and then we can ask you some questions.

Mr Cannon-Brookes: Thank you for having me. As I mentioned, I'm the co-founder and co-CEO of Atlassian. We're a technology company that manufactures software to help teams collaborate and communicate better in their workplaces. We currently have 110,000 enterprise customers in over 160 different countries. We employ 2½ thousand staff in 10 different offices, more than a thousand of which are in our Sydney headquarters, and have won 'Best place to work in Australia' two years running—I believe the first company to ever achieve that. I'm also a patriotic Australian, entrepreneur, heavy technology investor and a dad, and I want to see our country continue to grow and prosper so my kids can stay in Australia, hopefully relatively close by, and enjoy the high standards of living that our country has become accustomed to.

It's the first time I've done anything like this, so I thank you for the opportunity. I think it's really important that my generation is a part of the conversations that help shape our country's future. I would encourage you to think of Atlassian and companies like us in the technology industry as a case study of the future in the here and now. Many of the people who've submitted to you, worthy as they are, are from representative bodies and the research community, and they're dealing with the workplace, as I would see it, at arms-length and in theory. For us, it is our business. We not only have a workplace but build tools for workplaces all over the world.

I would like to start off by addressing two areas. First, I would like to share some thoughts on technology as an industry. Technology is already the biggest industry in the world. It's now well past the finance industry, and it is pulling away. We have a pretty big decision to make as a country: do we want a seat on that rocket ship or not? Do we want to be a primary manufacturer of technology or just a consumer of it? In relative terms, as I'm sure you're aware, Australia generates about one per cent of the world's GDP. To continue our wealth and prosperity we need to be primary producers of approximately one per cent of the world's technology. We're not even close to that today.

You should think about digital technology businesses such as ours as modern-day factories. We're manufacturers of software, of technology products. By the way, about 95 per cent of our product is exported. All technology products are fundamentally made by people who create new things for the world and for Australia. That innovation creates nearly all jobs growth. Entrepreneurs create nearly all jobs growth in Australia today, yet our technology businesses are in a pretty big global war for talent and we're fundamentally losing that battle. Technology creation is borderless and jobs can be anywhere. As an example, for every new project at Atlassian—say, it is 10 new jobs for 10 people—we currently have a choice of where to hire and start those jobs: in Austin, San Francisco, New York, Kiev, Dansk or Sydney. To explain it systemically, I think that choice is based on quality, availability and experience of talent. Quality is all about knowledge, availability is all about quantity and experience is all about history.

Let me look at those individually for a second. In terms of quality, Australia does really well in the technology industry. Our tech graduates are extremely highly desired around the world. However, the lack of a local tech industry of scale is really challenging because our best ship off overseas. As a country, I think we want to be a net exporter of products, not a net exporter of technology people. In terms of availability, we've heard a lot of times here that we need more graduates with tech skills for almost every discipline from computer science to medicine to law to teaching. They're all being impacted by technology. It's a pretty long-term change, and it obviously takes an investment in education at all levels—a higher investment than we currently have. It requires changing the gender mix in STEM subjects, promoting career paths and opportunities of tech for the next generation. These changes are happening slowly, but they're very long-term changes. They'll take a long time to pay back. And in terms of experience, this is the hardest one for us in the industry. As an example of a single critically important role, there aren't nearly enough large-scale engineering managers in Australia. We're talking someone who has 10 years experience and has managed a team of over 100 people in engineering technology. We can either wait a decade and learn by making our own mistakes as our own graduates grow or we can import that experience today and learn from someone else's mistakes.

So let's talk about skilled immigration. The lack of access to experienced global talent is the single biggest factor constraining the growth of the tech industry in Australia. From my view, we think about skilled immigration completely backwards. We focus on overseas workers taking jobs from Australians, and, in high

export industries like mine, it's just not the case. Highly skilled experienced migrants are job multipliers at Atlassian. For every one senior person we import, we can hire many, many more around them. Their experience spreads to tens of other employees close to them in the organisation. It is absolutely invaluable to me.

The previous changes to the living away from home allowance and then more recently the 457 visa changes have damaged Australia's reputation in the largest industry in the world. We said to the global tech industry, 'We're fundamentally closed for business.' The government's policy changes to 457 visa and the uncertainty that came around that announcement hurt us directly as a company. The restrictions are suffocating our ability to become a leading innovation nation and fundamentally threatening Atlassian's ability to remain headquartered here, as much as the founders would love that to be the case. Our success depends on our ability to attract the world's best tech talent. We need to change the way we think about skilled migration, and the government should be helping local companies attract world-class employees, not closing the door in their faces

I want to pivot from the challenges of the technology industry directly to the challenges of every industry in Australia. Something everyone needs to know, and I cannot possibly overstate this, is that every company is becoming or already is a software company. That means that more and more of these jobs are becoming technology jobs, which means the problems I have are going to be every industry's problems in the future. It is probably a moot point to say that software powers our phones, our computers and our televisions, but it also powers the way that we bank, the way that we buy things, the way we move around the world, the way we meet new friends and partners and implement laws, and it already affects human beings in the thing we call a hospital. We see that technology is the single greatest competitive advantage in business today. It's eating every industry in the world, and tech disruption is a very real thing. It's happening all around us and it's happening faster than you think and that's really hard for governments, I acknowledge.

Unlike existing industries, though, the future does not have a lobbyist. Let me give you a few examples. If you look at the mining industry and the energy industry, in the US, more people are employed in solar last year in 2017 than in generating electricity through coal, gas and oil energy combined. What about retail? This year Amazon is set to overtake Macy's as the largest seller of clothing in the United States. It's also, in fact, more valuable than all bricks-and-mortar retailers in the US combined, and they are not slowing down. Amazon is now in our own backyard and the head-in-the-sand attitude of Australian businesses scares me a lot. If I could be honest, I think Amazon is going to tear apart Australian retail, as they did in the US, and they're doing it with technology. That's not an uncertain future; that is an already written past. I'm just chronologically challenged. Don't get me wrong. It's going to be great for consumers—fast, cheap goods, home-delivered. One day, it's going to be amazing, but it's not so great if you're a retail worker. And there are so many areas ahead of us that technology and automation will disrupt.

If there's one example to me that best highlights the benefits and the challenge of this future, let's look at an area I'm intimately familiar with, I'm a large investor in and a passionate advocate for—autonomous mobility, also known as self-driving cars. As a statistic, more than 650,000 Americans have died on US roads since 2000. That is more American lives lost in the last 15 years or so on the roads than in all the world wars of the 20th century. When we remove human driver error, which accounts for more than 90 per cent of accidents, the amount of lives we save will be massive, not to mention the cost savings to individuals of not having to own a car, productive time you get back in traffic et cetera. It's going to be great. However, there is no doubt that this technology, like others, is going to disrupt the economy and that many, many, many people will lose their jobs. Almost 30 per cent of Australian jobs involve driving. By 2030, it's estimated that 800 million jobs could be lost worldwide to automation generally, and one study in 2015 put it at 40 per cent of all Australian jobs by 2025—faster than in any previous decade.

Technology is not purely a destructive force. Many, many new jobs will be created, many existing roles will be redefined and workers will have an opportunity to switch careers. Technology change has been a constant throughout the history of industrial civilisation. Hindsight is a beautiful thing; I implore you to use it in our favour. This time we know what's coming. We can ignore it, we can fight it, we can try to slow it down or we can stand by and hope it all goes well. Instead, I think we must act and act soon. This future is here. Waymo or Google is live for general availability on Phoenix streets with their self-driving car this year. They're in early access today. This is not science fiction. And we must approach this disruptive future with empathy and with planning, not with denial and hope. I'm quite famous at work for saying, 'Hope is not a tactic.'

In my opinion, that leaves us with three major challenges for the economy. Obviously, the first is upskilling and retraining. We have to shift our views on education as something that we do when we're young to something we do throughout our entire lives. How do we enable lifelong learning, so that people continually learn new skills and embrace these new opportunities? Second, we're going to have to provide income support and other forms of

transition assistance to help displaced workers, and finding alternative employment will be essential. How do we help people transition out of redundant jobs into high-value work opportunities? Can we help them? Third, we have to ensure that enough post-disruption job creation happens locally. I come back to my original point. The technology disrupting these jobs can be created anywhere in the world. If we're not creating some of that technology here, those created jobs will not be in Australia. Fortunately, Australia in the 21st century should have the tools and experience to make this period of disruption less painful than the ones prior. We have bipartisan support for a social safety net that other countries do not enjoy. We have democratic forums, such as this committee, where we can discuss policies and hopefully start plans to overcome the negative impacts of technology disruption and capture as much of the upsides as we can.

In closing, change is hard, it's messy and it's scary. We have to learn from the past, focus on the upsides of value creation and improve standards of living instead of perpetuating fear rhetoric around robots taking our jobs. But we do have a choice. We can either ignore this change that is happening and watch it erode our global competitiveness or embrace it and try to lead the world. I believe we can build a world-class technology industry in Australia and the technology skills needed for every industry and manage these upcoming disruptions, but we can't just watch it.

CHAIR: Thanks very much for that, and that presentation is exactly why we were keen to get you along here. We are very keen to hear from companies involved in the high-tech sector as well as, as you say, peak bodies, They've still got an important thing to say, but hearing from someone like yourself is really useful. I might just kick it off. I'll probably come back to the issue of skilled overseas workers, but I am particularly interested in your ideas or your thoughts of the capacity of local universities and training organisations to deliver you the skills that you need locally. How would you assess our local education and training providers in generating the skills that companies like yours need? Secondly, if you had to take action to quickly fill the digital skill shortage in Australia, what would you do?

Mr Cannon-Brookes: I think our educational organisations are very good. I should disclose, since it wasn't in the bio up-front, I'm actually Adjunct Professor of Computer Science at the University of New South Wales, so I'm quite involved there with graduates, how the program works and trying to help that and, since that, through the Group of Eight universities and onwards from there. The graduates we produce are amazing. UNSW is the best com sci school in the country. We are actively trying to get computer science into more disciplines. Think about it as accounting. Every doctor, every lawyer, everyone is going to have to understand technology, just like how accounting is taught in 35 different courses. You don't have to become an accountant to study accounting, just like you don't have to you become a lawyer to study law. A lot of the skills are fundamentally important across the education spectrum. We're trying to get there.

The quality of graduates we have today are fantastic. The problem is we lose a lot of them overseas. I don't have exact statistics to hand, but I believe it's somewhere in the order of eight out of 10 of the top UNSW graduates go overseas. They go to Microsoft, Uber, Amazon or Facebook. They get great jobs. They're highly skilled individuals, but we don't have enough industry to keep them locally. The only problem we have as a company—and we've hired now a couple hundred graduates in the last four or five years and we hire a lot every year—is the sheer volume of it. The number of people coming out is just too small. The quality is really good; the quantity is not where it needs to be. That doesn't start in university, unfortunately. That starts in high school. That starts earlier. You have to get people choosing to do that as a degree and being passionate about STEM subjects broadly throughout high school.

CHAIR: Is it simply a matter of offering more university places in these fields or do you think that there's just not enough demand from young Australians coming through school for careers in that sort of—

Mr Cannon-Brookes: It's certainly funding and supporting more places. If you look at UNSW as a single example, I believe the enrolments in computer science are higher now than they were in the dotcom boom. The last six or seven years have been up and up and up. People see the jobs on the other side of it, but it'll take a long time to get significant volume through. Again, I don't have statistics to hand. The number of jobs created in the broader technology industry—if you look at banks, insurance companies or big business that create technology jobs as well—is order of magnitude more than there are graduates every year.

CHAIR: In terms of the loss of graduates overseas, is there anything you think we can be doing to try to retain more people locally or should we even try? Is it actually a good thing long-term for Australia to have people go overseas if they come back or if they continue to maintain a connection?

Mr Cannon-Brookes: It's a great question. In the long-term, is properly good if they boomerang back. A lot of them obviously don't boomerang back. They meet husbands and wives and stay there to grow families over there. That's part of the challenge. Getting them back is really hard. We put in an insane amount of effort to get

back anyone with any connection to Australia in the US. We will try to find them and seduce them back here. It's fundamentally very hard to get them to come back. Losing them up-front is a problem. Why do we lose them? We just don't have good enough job prospects, high enough wages in the industry, enough broadscale to keep them here or exciting enough careers. Try telling a 21-year-old kid that's going to work for Microsoft, Amazon or Facebook that we have lots of opportunity for them in Sydney or Melbourne. It's hard.

Senator IAN MACDONALD: Thanks very much for your evidence. It's very refreshing to hear what you say and, clearly, you know what you're talking about. I only have one question. I want to follow up on when you mentioned the 457 visas. The recent changes to that had a substantial impact on your business and other businesses like yours. Could you explain that a little bit further?

Mr Cannon-Brookes: Sure. It had a series of different impacts, I suppose. Obviously, the costs went up. It's really expensive for us to hire people on 457s. Part of the rhetoric being levelled against us is we're trying to save money to do this. We're trying to import cheap later. It's ridiculous, if you ask me. It takes way longer to hire someone from the US and get them here. It is months and months and months, sometimes a year, to fill a job versus two or three months for someone locally. It's far more expensive to bring them in. You have to pay them a lot of hazard pay. It's an expensive standard of living. It's added, extra cost on top of what was already quite expensive.

Senator IAN MACDONALD: So the recent changes added to the cost of employing 457s.

Mr Cannon-Brookes: Yes, they did.

Senator IAN MACDONALD: I don't think they're call 457s anymore. It's something else.

Mr Cannon-Brookes: Sorry, yes.

Senator IAN MACDONALD: They are the replacement 457s.

Mr Cannon-Brookes: The replacement 457s! They also changed the skilled occupation list. We could get people to come here with some potential future of getting PR or citizenship. That was taken away from a lot of people. That's three, four or five years down the track. We bring a lot of people in. They stay two years, love it and then go home—that happens—but taking that away did certainly hurt. The skilled occupation list just doesn't make a lot of sense. My biggest example on the long-term occupation list—four years—is horse trainer. ICT manager is not on the long-term list. It's on the short-term list; it gets a two-year visa. Do we really need more horse trainers?

Senator IAN MACDONALD: Just as an aside, have you made your views known to the immigration minister or anyone else?

Mr Cannon-Brookes: Yes, I have.

Senator IAN MACDONALD: Okay, I might follow up with you on that later.

Mr Cannon-Brookes: Sure. The last one I might add—one that is important for us—is that people over 45 are excluded. If you think of what we're trying to bring in, it's people in the prime of their career with a lot of experience to help all of our local graduates. At 45, 50 or 55 was a great period for us to bring in people who had a 20-year career in technology. If you've worked for Google or Microsoft and all these places, you're exactly the type of person I want to sit next to a whole bunch of young Australians to extract all of the history. And we struggle to bring them in now; over 45s are a lot harder.

Senator IAN MACDONALD: I can relate to that. Finally, why are these people trained and skilled, but we're not in Australia? Why are there so many apparently available to import but we don't seem to have the ability to create them ourselves?

Mr Cannon-Brookes: We just don't have a large-scale industry history.

Senator IAN MACDONALD: In technology.

Mr Cannon-Brookes: In technology broadly; even in big business and big business's investment in technology generally, we don't have a large history to pull from.

Senator IAN MACDONALD: So government has to try to encourage STEM learning in schools, and, hopefully, that will follow through to the universities. Is that the solution?

Mr Cannon-Brookes: Yes, that's the long-term plan. It's not a very good short-term plan, obviously.

Senator IAN MACDONALD: Thanks Mr Cannon-Brookes. Well done. Good on you.

Senator PATRICK: On the topic of computer science, you said you were an adjunct professor at New South Wales uni. Programming's gone from assembly language, BASIC, C and C++ to much more abstracted levels of

software development. Assembly programmers were very nerdy. I presume that it's getting a lot easier to code nowadays; the tools are much better?

Mr Cannon-Brookes: I don't know that it's getting easier. A lot of those things are still very important. Assembly and C and low-level languages are still very important for certain things. There are certainly a lot more higher-level languages and constructs available. I'm trying to think of a good analogy. You don't necessarily need to do all the first-principles heavy lifting for every application you're building.

Senator PATRICK: In some sense, that's where I'm going. You can do a computer science degree over four years. Is it possible now to do something at a TAFE level that allows you to code without necessarily going into that low-level coding discipline?

Mr Cannon-Brookes: Possibly. It's certainly helpful. It absolutely doesn't hurt. We need all manner of skill depth, if you want to think about that in terms of programming for software development. I think it's equally important, though, to remember how many of these skills are relevant to other professions. Don't forget that medicine, law and teaching are all becoming highly digitised, and having no technological skills makes it very difficult.

Senator PATRICK: Yes. So the fundamental question I'm getting to is: do you need to do a four-year degree to be in a position to work in those other industries?

Mr Cannon-Brookes: I don't know that you need to. It's likely to be very helpful.

Senator PATRICK: A couple of years ago the Prime Minister announced an innovation strategy, which I presume was designed to create the industry that you in fact say needs to be there to support these graduates in seeking local jobs. Has that been helpful for your company in any way, shape or form?

Mr Cannon-Brookes: It was certainly very helpful when announced, in terms of popular opinion about what we stood for and what we were trying to aim for both inside and outside the country. It was like, 'Oh, people have realised that this change is happening—that technology is upon us—and we want to be a part of the game,' and that really helped from the point of view of changing the imagery of how people perceived us. I think recent changes have stepped that backwards. So are we net positive or net negative? I'm not sure. I don't know if any of those concrete effects have really flowed down into systemic changes, other than the industry continuing to power along by itself.

Senator PATRICK: Yesterday we took evidence from a number of different players and we explored the idea that here in Australia there isn't really a body that looks to the future—something like the Economic Development Board in Singapore. Do you have a particular view?

Are we missing something here in Australia that would enable us to set a direction and keep going down that particular pathway, perhaps staffed by entrepreneurs such as yourself?

Mr Cannon-Brookes: I don't pretend to know what institutions we would need to solve that problem. We are certainly very heavily weighted to the past. If you look at energy, if you look at mining, if you look at agriculture, we have some really great industries of the past of Australia, which will continue to be great industries in the future but they will employ fewer and fewer and fewer people. They are incentivised not to want to move forward, so that hurts us quite a lot in any of those sectors. The services sector is doing a really good job but doesn't seem to be able to get a message across around where we need to be in the future. I don't know what's required to understand that message. It's like we can see some of these things coming; we just don't seem to be able to plan for them early enough in advance.

Senator PATRICK: So you'd agree there's a lack of an entity that could plan and shape the way we look ahead in much the same way as that innovation strategy attempted to do something, having some sort of body that did that?

Mr Cannon-Brookes: I think that could be useful. Obviously it would depend on what the body did and things like that.

Senator PATRICK: Of course—the constitution of the body.

Mr Cannon-Brookes: But, yes, it could be helpful.

Senator SIEWERT: I am really interested in all that you have just outlined. You talk about the loss of jobs as a result of driverless cars et cetera. I understand the growth area of job creation in the software industry and the need to get top-quality graduates et cetera. One of the issues that we need to struggle with, though, is: those who are displaced don't necessarily then go into the software or the tech economy. Have you seen how we can address that particular issue? We are creating jobs in one sector but they are not necessarily replacing the jobs from another.

Mr Cannon-Brookes: Absolutely. I think the drivers of today will be the blacksmiths of the 21st century. We don't have a lot of demand for blacksmiths anymore, and it's really hard to retrain them. I guess what I'm trying to say is: we need to think and plan ahead of this. There will be massive job disruption. I hate being Chicken Little and trying to scare people, but it seems to be the only way to get action. There will be massive job disruption. Look at any big technological change we've been through. The invention of the steam engine was a good one in England. It came with massive job loss and massive job gain. The jobs gained were not filled by the people who lost the jobs. It's a very hard part of how technology works. Someone who'd been in a mine in England for 30 years didn't come out and become a bookkeeper. It was a really hard transition to make, and that led to lots of social unrest and lots of problems in society that stemmed from that. We can see that coming. We just have to start planning for it. I'm not the expert on how that should be planned for, but I can tell you that it's going to come and it's going to be very painful if we do not plan for it. It is going to be very, very hard. But driving is just one of many examples where I think automation will take hold a little bit, and then it will happen very, very fast. I have four kids. I don't believe currently that any of them will ever learn to drive a car. My eldest kid has just turned seven.

Senator SIEWERT: You made a comment about the social safety net. I presume that means you see a role for a strong social safety net so that we do have protections in place as people transition into other jobs and into the new economy.

Mr Cannon-Brookes: I think we have to think very carefully about probably a basket of different things—obviously retraining, social safety nets. There are a whole lot of things. We've just got to think through and plan for them. If we are going to lose 40 per cent of the jobs in the economy in the next 10 years, are we ready for that, with all the different measures that we have? Are they well enough funded? Do we understand how they are going to be approached? Have we communicated this to the population at large? Do they understand it? Are you trying to say, as a parliament: 'We're ahead of this; we understand this is going to be really painful; we are empathetic about the pain that's going to be caused, but it's going to be really good as well, and here are a series of measures we doing to work through that'? It's going to be a very, very fast transition once it starts happening. That's what I worry about.

Senator STEELE-JOHN: I'm wondering whether you can give us a bit more insight into this STEAM versus STEM debate. We've heard a lot about both as a committee and I'm just wondering where you sit on that question.

Mr Cannon-Brookes: You mean STEAM as in STEM plus arts rather than the steam engine?

Senator STEELE-JOHN: Yes.

Mr Cannon-Brookes: I think it's a really interesting question and it's a really interesting debate. STEM, alone, is not enough. When I say software is all created by people, I mean it doesn't require just engineers; it requires artists. Great software is made where you take science and art and you put them together, so you need the creativity in the skill base. Australia is excellent at creativity. We are really, really good innovators in creating and coming up with stuff, and we have a great broad, liberal arts-based education that stimulates our creativity. It cannot be just all maths and science. At the same time, I think we do need more maths and science than we generally have in the mix because that's where people tend to go, 'Oh, too much maths and science, I'm not going to do that.' If you look at the future economy, creativity will be one of the major things. It's hard to teach computers to be creative. It's getting easier and easier to teach them to do repetitive tasks, like automation tasks—and that will move up the stack. So, yes, the 'A' part of STEAM is important, for sure.

Senator STEELE-JOHN: I agree, and that seems to be what we're hearing. Somebody made the observation the other day that we might end up with a generation of students who know the price or measurement of everything but the human value of nothing. I think that that is a good point in that space.

You were talking about the way in which we suffer a brain drain to international companies like Facebook and those kinds of shiny things overseas that draw our graduates away. We're currently having a conversation about something which is tangentially connected to the tech sector through reform to the copyright laws in Australia around safe harbours and the way that the current arrangement—the limitation of that mechanism—is disincentivising companies that are platforms like that from setting up in Australia. Do you have a view on the way that regulatory frameworks, generally, can incentivise the growth of the industry here?

Mr Cannon-Brookes: There are a lot of views there. First, I'm not sure we should call Facebook a shiny object. If you're not aware, the five largest companies on the planet are all technology companies now, and they are going to continue to get bigger and bigger and bigger. I think Amazon is trying to hire 100,000 people this year. It's mind-blowing how large—and continuing to get larger—these companies are. The point I was making about people leaving for Facebook is nothing to do with Facebook. Facebook is a fantastic service. It has some

challenges but, as a service, the utility that it's given to people is amazing. But, the technology is created in a central place. If I could pick on Uber—they've been bashed quite a lot here. I'm not a fan of their service generally, but their 5,000 engineers—I don't know how many they have—in California are going to generate all of the profit and IP that would currently be generated by a taxi driver here or someone else. And once there are no drivers at all, the next hundred people they hire will be in California. It won't be like the old world of tech transition where we create another industry alongside in Australia—it will all be there.

The safe harbour copyright protections are a lot more complicated than I probably have time for. I do think we need to be somewhat globally competitive in that to help various Australian companies that are quite good in being marketplaces. That comes with a lot of very difficult issues about what's allowable and unallowable content.

Senator STEELE-JOHN: You mentioned the way in which Amazon has transformed the retail space in the US. One of the things that concerns me around that issue is that retail jobs are quite often the entry jobs for young people into the employment market and the primary source of income for people at the lower end of the socio-economic scale. Could you just give us an idea—because we're just about to, basically, be hit by this here—of the scale of the transition in that sector in the US and the way in which it's changed?

Mr Cannon-Brookes: It's been huge. You only need to look at the list of retailers that have gone out of business over the last 10 years and a lot of them, probably, get put in an Amazon store. Fundamentally, if you are trying to sell a differentiable good, people would prefer to get it delivered to their door. Why would I go to a store to buy a TV that I can get from 20 different stores? It used to be because a store was close by. As soon as that's not the case and it's cheap enough, I won't bother. There will always be a world for differentiated retailers—branded products and that sort of thing—but, generally, it's a better consumer experience.

The problem is, there, part of the low cost of delivering it to you is about automation. If you look at what Amazon's looking to automate, its fulfilment centres are heavily automated. They're looking to automate delivery with self-driving vehicles through to drones to whatever. The price comes down by cutting, fundamentally, jobs out of the equation, which is a great consumer experience and it's going to create all sorts of higher level creative jobs, in the long term., but, I agree with you, for retail workers it hasn't been a great space to be in, for a long time.

Senator CHISHOLM: Just on the 457 issue, when the changes were made, from memory, in the media you were quite critical, at the time, and that's been on the public record.

Mr Cannon-Brookes: Yes.

Senator CHISHOLM: How many employees did you say you have, at the moment?

Mr Cannon-Brookes: We've got about 2½ thousand worldwide and about a thousand in Australia.

Senator CHISHOLM: How has that scaled up over the last few years?

Mr Cannon-Brookes: We started with two 15 years ago, so it's come up from—that's the end point. It's growing 30 per cent a year, pretty much, every year. We have a limitation on growth some years of 40 or 50 per cent and some years in the 20s but, generally, we've averaged 30 per cent a year for a decade now.

Senator CHISHOLM: As someone who employs people in different countries, could you give us an insight into the changing employee-employer relationship and how you handle that within your company?

Mr Cannon-Brookes: I'm not sure I'm great at commenting on that. We certainly see a lot. Again, we've got to call it around a thousand employees in the US, across four different sites now, so we have quite a lot of experience with US employee law, California and everything else. I would say, our employees are not—a lot of the discussion I listened to, yesterday and the day before. They are independently mobile. When there's a war for talent, we are trying to fight that war with the best workplace we can give them and the best creative fulfilling work we can give them, paying them as much as we can, to try to keep them in our stable, to keep them generating valuable work for us versus some other technology company. The balance is—these are highly transferable skills, both internationally and to other companies, so it's a very different equation.

Senator CHISHOLM: Do you have different arrangements for your employees in Australia compared to America?

Mr Cannon-Brookes: What do you mean by arrangements?

Senator CHISHOLM: Around conditions: the way they're paid; the way they're employed.

Mr Cannon-Brookes: Yes. We, obviously, follow the local laws wherever we employ people. If it's in Amsterdam it's very different to California and it's very different to Sydney.

Senator CHISHOLM: Is that restrictive on you as the employers or is it not a big deal, in terms of having to deal with those different arrangements?

Mr Cannon-Brookes: We, obviously, can't change any of those arrangements if they're legislation in a different country. We take that. What we can change is where we put employees. For every project, as I said, we have choices on where to put them and, fundamentally, that rolls up to some measure of cost, at some level. You take the quality of talent and the availability. Can we go hire 10 more people? Will we get 10 great people? What sorts of skills will they have? Skills aren't universal. There are different areas with pockets of skill. And then, 'Can we get the quantity of experience that we need?' We look at all those factors—on, literally, a monthly basis when we're starting new projects all over the world—and where to put them.

CHAIR: You mentioned Uber's coming in for a bit of criticism. I, personally, thought we went pretty easy on them when we had them in! As someone who's involved in the tech sector but isn't so caught up in some of the criticisms of the gig economy and some of the employment practices that you're seeing there, have you got a view on whether we need to strengthen our regulation of working arrangements in that sector? And it's not just Uber; there's a whole range of companies.

Mr Cannon-Brookes: I think it's an interesting one. I listened to some commentary yesterday, where you were all talking about whether or not it was a problem that they were making money or not and, hence, should we change their labour practices. I think they're all fundamentally trying to remove labour from the equation as fast as they can, so I personally would be less worried about regulating the gig economy in the next 10 years, because it will probably take a fair few years to roll through, than about if there will be anyone working there in 10 years time. The gig economy is a very broad term, so I think we need to look at it. The delivery of food and Uber type services will be all automated away over time. It won't matter how much people get paid and whether it is migrant labour or local Australian jobs; they will not be around in 20 years time.

Other parts of the gig economy will certainly be. Someone who goes to IKEA will get someone to build their IKEA furniture. It's pretty hard to build a robot to do that, and it will be fairly uneconomical for probably a fair while. Creative things, like 99designs, is a much more interesting space because the creativity of what someone is doing is important, not just the cost of how you get from A to B. I encourage you to think about the different sectors. Certainly the employment practices there should be fair to the worker and to all concerned. Where there isn't going to be workers is more my concern. You need to look at the 10- and 20-year picture rather than just in two years time.

Senator STEELE-JOHN: I want to ask a direct follow-up question to that. A question floating around in my head relates to the worker versus non-worker equation in parts of the economy that might be automated due to driverless cars. I imagine a lot of that is based on the economic equation of how much you have to pay your workforce versus how much you save through just having it automated by a driverless system. That is very heavily influenced by how much you are mandated to pay them by the employment system that sits around that, which is kind of being transcended by the gig economy. Do you foresee an eventuality where we as legislators have failed to act and haven't done anything to touch the independent contractor status—therefore they don't have to pay anybody the regular rates and they are allowed to continue to up their share of each ride—and, therefore, it's just economically more convenient for them to keep the human, because they only have to pay them $10 an hour, than to invest to automate that service?

Mr Cannon-Brookes: I think it's really complicated because in some ways all of the agreements that your side makes I agree with and all the agreements their side makes I agree with. It's not a simple equation. I think that's why we're having this discussion. I love riding in uberXs and talking to the drivers. I find them fascinating people with often fascinating life stories. Most of them generally love driving because it has enabled them to get work from 5 am to 8 am when they couldn't get paid for anything beforehand and stuff like that. But there is a downside and an upside to the whole thing. I don't think how much you choose to change the labour practices will affect them. They struggle to get drivers on the roads, and drivers are 70 per cent or 80 per cent of their cost. If you can get an uberX ride from $12 to $4 by getting rid of the guy behind the wheel, they will do that. That's what their business is designed to do and the consumers will love it because they will pay $4. There will be an explosion in transportation. It will be a great consumer outcome, but it will be a bad outcome for the 30 per cent of Australians who have driving as a major part of their job.

We shouldn't just worry about Uber. Truck-driving companies are going to do all the same things. I think I read somewhere that truck driving is one of the deadliest professions in Australia. I don't know if that was hyperbole, but it is a dangerous job. If you are hauling stuff from here to Sydney and back again and you can do it by the cap ex of more robots then you're going to do that. It's going to be great. You're going to get cheaper goods and

they're going to be delivered faster. There are going to be a lot of positive outcomes for that, but it's not going to be good for the truck-driving groups.

There are going to be all sorts of logistics. Driving is so fundamental to our economy. That whole thing is going to have a massive amount of changes, but fundamentally automation of jobs is going to happen. We need to plan for that, think about that and spend research dollars on what that is going to mean for city design, infrastructure and so many other things.

CHAIR: And that is exactly why we're having this inquiry.

Mr Cannon-Brookes: That's why I'm happy that you're having it.

CHAIR: We'll have to wrap it up now. We very much appreciate your time. If there is anything else that you think of that you want to add, feel free to put something more into the secretariat.

Mr Cannon-Brookes: Sure.

CHAIR: Thanks.

Senator STEELE-JOHN: Did you read your entire opening statement? Was that all written down?

Mr Cannon-Brookes: Yes.

Senator STEELE-JOHN: Will you be able to provide that to us?

Mr Cannon-Brookes: Yes. I only wrote it yesterday.

Senator STEELE-JOHN: That would be great.

Mr Cannon-Brookes: Will do.

EBSWORTH, Ms Imogen, Director of Policy and Research, Anglicare Australia

[10:04]

Evidence taken via teleconference—

CHAIR: I now welcome a representative from Anglicare Australia. There was some suggestion we might have people from the Brotherhood of St Lawrence as well. I'm looking around the room, but it doesn't look like anyone is leaping up. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you.

Ms Ebsworth: Yes, it has.

CHAIR: I now invite you to make a short opening statement and at the conclusion of your remarks I will invite members of the committee to ask questions.

Ms Ebsworth: Thank you. I just want to make a very brief statement and say thank you to the committee for the opportunity. It's really welcome to see this inquiry on such an important topic. The gist of what we had to say was in our submission, so I don't want to bore you all by reiterating it. What I did want to say is that it's very understandable and welcome that there's a focus on the risks and disruption from technology and automation to the future of work in Australia, but, if we're to consider that, we would really like to urge the committee to take the opportunity to focus holistically and, in thinking about the future of work, look at the settings that we have today, who we're already failing and see that we need to change our approach. That was the purpose of sending you our jobs availability snapshot. We wanted to demonstrate to you that our analysis, which uses the government's own statistics that are collected every year and every month, shows that there is a significant cohort of people who are already being left behind in the economy, and it's not because they're not looking for work; it's because the kind of work that they need to get back into the workforce simply isn't available. We think they make a really good test case for thinking about all the issues that you are considering as a committee in terms of how to configure the future of work in Australia. They show us that we need a holistic response that puts people first, where you sit down with people and listen to their aspirations and their barriers and design a pathway for them into work. It shows that we need to move away from an approach where we consider compliance and enforcement as the biggest ways and incentives to get people back into work, because it's simply not working at all. It also shows us that we have a disconnect in that we have areas of the economy that we know are going to grow, specifically in human services. We have forecasts that the NDIS alone will produce 20 per cent of new jobs in Australia over the next few years, and yet that concern in both government and the market about how to provide that workforce is entirely disconnected from the fact that we've got several hundred thousand people looking for work. There are no structured pathways to join those two things up at the moment. The Job Network, which you would think would be the locus for doing that joining, is not performing that function. In fact, in the experience of our agency, it's often a barrier because the restrictions it places on people and how they're allowed to interact to find work are so onerous. It's easier for our agencies, when they're trying to do inconclusive work employment programs, to go around the Job Network to just get referrals and not try to access the funding that's available, and so forth. We wanted to put these things in front of you.

I want to point out once again that, if you're considering the future of work, one thing we must consider is the current predicament of people who are long-term unemployed or unemployed for any significant amount of time. Across the entire economy, whether it's the business sector or the not-for-profit sector, anyone who cares about social justice knows that Newstart is far too low and it is actually a major impediment to people getting back into work. Again, we're asking you to look at the current settings and learn from what is not working and what does work and actually factor those in when thinking about the future of work, otherwise our concern is that we'll see a great deal of really meritorious effort put into thinking about future areas of our economy that might be disrupted by automation and will lead to unemployment, but we have an entire cohort of people for whom we could be working out how to do this better right now, we have areas of the economy that are growing and there's real concern that we won't meet demand. There are even suggestions of importing the labour. We've got nothing against migrants at all, but it does really beg the question about why we would need to import labour and train it when we have a significant pool of people who would like that opportunity.

Finally, I want to point out that we need to get the settings right for human directed services. At the moment there's an enormous focus on ensuring that people with a disability or people in aged care get proper, flexible and high-quality care. That's a wonderful thing and we fully support it, but if we don't get the settings right what it could mean is increased casualisation and downward pressure on wages and conditions for the workers who provide that service. That is a net loss to the community as opposed to the net gain that human services are meant to be. They're the key points I wanted to make. I'd encourage this committee to take the opportunity to think

holistically and to remember that we have a significant cohort of people who already need assistance to get back into the workforce. We would contend that the current policy settings are failing them.

Senator PATRICK: You say there is a disconnect between those currently unemployed and the jobs that need to be filled, and that the current system is not working. What is the solution to that?

Ms Ebsworth: It's a shame that the Brotherhood of St Lawrence aren't here because I would defer to their experience on the ground in dealing with this. What they can certainly show you and walk the committee through is an approach that puts people at the centre of that. I guess it's about moving away from an enforcement and compliance approach and a focus on, for example, a mandatory number of hours in looking for jobs. Instead it is sitting down with someone and asking: 'Okay, what are your skills? What are your barriers? What are your aspirations? What local work is available in the area that appeals to you and that we can connect you to?'

At the moment there is a really laudable focus on training. We have seen the current government put significantly more money on the table for training and we really welcome that, but it's not looking at—as we know from previous experience—the fact that, when people have significant barriers to work, they can take up existing job opportunities if they are helped, but it needs to be more than just training. There needs to be ongoing mentoring and troubleshooting often for a year or two afterwards. That investment pays off, because they stay in employment—they get a far better outcome, the business gets a great outcome and society gets much better outcome.

The disconnect seems to me to be that we are hoping the market will solve this problem—if we just train people and hurl them out there, then jobs will appear. But it's not quite that simple; we need to go back to a people-centred approach.

Senator PATRICK: Assuming that approach was adopted where you coach and mentor and direct people to the relevant training, do you think that would lead to a successful employment outcome? Do you think the training organisations are responding to the needs that are there?

Ms Ebsworth: In all honesty, I think it varies. That would be my simple answer. If the committee wanted to take a dive into an organisation that does that, then I would recommend EPIC Assist, which is an Anglicare member. They specialise in training and supporting people with a disability into work. Thirty per cent of their workforce are people with a disability, and so they walk their talk. They have extensive experience through both the disability employment services and now the NDIS to make those things happen and to bridge those gaps that you're talking about. They could give you some really good insight into where the current programs really support them to do their work well and where they don't. They would be pretty honest about the challenges involved.

Senator IAN MACDONALD: You seem to think the government is doing something wrong with the training providers. There seems to be a lot of money spent on it and there seems to be lots of programs, different groups, proposals and approaches. Do you have a suggestion about how the general training in all fields could be improved?

Ms Ebsworth: That's a big question, Senator, and I'll do my best. I would say, first and foremost, we need to ensure that they are all properly registered training organisations. There have been some instances where regulation has failed. I know there is significant concern about the state of TAFE across the country. We used to have a vocational education training system that was the envy of the world, and TAFE is now in a bit of disarray. Going back to first principles would be very helpful: to look at what state functions are offered for vocational training and then making sure that private training is of a similar standard and dovetails with the TAFE system.

I think the other thing that could happen—and, I guess, I can only speak to limited experience, in terms of the jobs network—is the amount of money that is available per person who is unemployed, for example, for their training, and how that can be structured is really opaque. It's not easy to understand. There seems to be a great deal of discretion, on behalf of the training provider and the jobs network provider, in terms of what they have to disclose. That makes it really difficult for an employer who's genuinely interested in providing inclusive employment to understand what they can access, how it can be configured.

If they've designed, for example, a program that they find really works, to take on people with particular barriers to work, it can be completely impossible to get what's available, in terms of training and resources in the jobs network, to actually configure to that. In other words, there's a lot of rigidity and a lack of transparency around what's available to support people and to work through the jobs network, including training. That means that when an employer says, 'Okay, we've worked out what works for us, in terms of, say, employing people with significant intellectual disability; this is what we need to do,' when they go and talk to the jobs network that doesn't seem to be, necessarily, possible to support it, because of a lack of transparency and flexibility.

Senator IAN MACDONALD: That's very helpful. I appreciate that.

Ms Ebsworth: You're welcome.

Senator SIEWERT: I want to go back to the issue of where there is going to be significant growth in employment, as you articulate in your submission, around the care sector. You talk about wages and conditions as an essential issue. What else, do you see, needs to be done to ensure that we have the workforce—this is happening now as well as into the future—there and able to take up those jobs?

Ms Ebsworth: Sure. Again, I'll do my best. It's a pretty big complex question and—

Senator SIEWERT: Yes, sorry!

Ms Ebsworth: the government's got good inquiries into it. First and foremost, I think it's probably worth relaying that Anglicare providers, a significant number of whom provide disability services, for example, have already engaged significantly with the Productivity Commission's inquiry into the NDIS and cost. One of the central points we were making is that the reasonable cost methodology, which sets the wages, fundamentally, through the NDIS, is far too low and it's not realistic and it's not based on any reality of what it takes to employ a person at meaningful wages to deliver the kind of work we need through the NDIS.

We have real concerns about downward pressure on wages and conditions, because of the way the cost methodology is set in the NDIS. I think that's a really important point to make, because we're acting like the NDIS—and, for that matter, aged care—is a free market. And, of course, it's not a free market. Conditions are actually being set by government, in terms of how much money is available and also the structuring of what can be spent on particular items, which fundamentally then flows through to wages and conditions.

I noted, for example, with great concern that the Productivity Commission, in their inquiry into the NDIS and costs, talked about the fact that people are enormously motivated to work in disability care because of altruistic reasons, basically. That's really true. We know from surveying our workforces, including in aged care, that, absolutely, people find the work meaningful and they want to do it because it gives them enormous personal satisfaction to help those in their community. However, if you ask them what their No. 1 concern is, it's wages and conditions. They are fundamentally underpaid for the work they do, because of the settings that we deal with.

They are finding their work increasingly casualised because, as we respond to, for example, somebody—we're all thrilled by the thought of a person with a disability being able to get a shower exactly when they want it and get a car service to go to a community event or to attend appointments exactly when they need it. But that has enormous repercussions for the workforce, in terms of providing that flexibility. And there is a real need, I think, to strategise properly about that. Otherwise, our concern is that we will have a highly casualised workforce with not a lot of job security in human services. The irony of that is that those people will end up with even less money in their retirement, which means they will be able to afford even less in the way of aged care. So we're building a negative downward spiral, if that makes sense.

The reason this is important for workforce demand is that, if you want people to work in these areas, it has got to be not just meaningful work but secure and reasonably paid. Our experience is that at the moment we have not got these settings quite right. Again it's wonderful to recognise that people go to work in care services because they care about their community. It's not fair to take advantage of that and think that we can build a workforce that is highly casualised and underpaid, and that will somehow meet workforce demand.

Senator SIEWERT: Thank you. If it's not reasonably paid and secure, people aren't going to want to go into that.

Ms Ebsworth: No, that is right and it then affects the quality of care, so we get a really nasty interfeeding cycle, if I can put it that way. If we look at why we are struggling to get people in these two sectors at the moment, I would point to two things. One, there's no structured pathway for people who do have barriers to work into this area and who may be suitable and want to work in this area, and in our job availability snapshot we tried to highlight that disconnect. So there are a significant number of people who may wish to work in this area who could be helped into this work. Two, we're not talking about the elephant in the room, which is wages and conditions. If you want to provide flexible consumer directed care, unless we work together really carefully what we're going to end up with is a very casualised workforce that is not at all appealing for people to move into and we won't meet demand. If we just import a cheap workforce, all we're going to do is undercut wages and conditions in the whole sector, and that doesn't benefit anybody, because ultimately then we end up with more working poor.

Senator SIEWERT: You've also touched on the gender pay gap in your submission. That seems to me to be directly related to the fact that there are more women who work in this sector and they're working on low wages.

Ms Ebsworth: I 100 per cent agree. I think we can see an example of the difference. For example, when nursing work started to become far more valued, paid appropriately and got tertiary qualifications, the number of

men in nursing increased significantly. Similarly, we're starting to see that trend in some areas of child care. I think you've exactly put your finger on it. This is highly gendered work. There is definitely a link between it being highly gendered work, becoming increasingly casualised and not being particularly well paid. Now we have a communitywide societal concern about the number of working poor and women actually living in poverty who have a history of working in this sector. Yes, the settings for this sector matter enormously for the future.

Senator SIEWERT: Thank you.

Senator STEELE-JOHN: I didn't quite catch it. You mentioned that there was a service provider in this space that has 30 per cent of people with a disability who also work for them. I didn't catch the name.

Ms Ebsworth: Yes, their name is EPIC Assist. They're a member of the Anglicare network. I'd be most happy to put you in contact with them.

Senator STEELE-JOHN: That would be wonderful. While you were giving your opening statement I was thinking, in regards to training, mentorship and all the ways that those programs could be improved, all of it will struggle eternally unless the government, regardless of the party, adopts a more kind of demand-side approach to job creation. If there are fewer than other jobs then we're kind of at a brick wall, aren't we? Do you agree that there needs to be more of a focus on the government's role in promoting the creation of jobs rather than the kind of constant talk about the activation of the individual?

Ms Ebsworth: Yes. I think that's a really well made point and it is partly why we focused on the fact that there is this known huge demand in aged care and disability. I think you could argue that they are effectively public employment programs because the vast majority of the funding for them is coming through government and is then being distributed through the marketised systems that we've created. But fundamentally it is public money. Therefore, they are an example in our current modern economic setting of public job creation. To my mind there is a great need for government to focus on demand and then link that to their strategic employment priorities. Again that is partly what we're arguing for. We're saying, 'You know where all the people are with significant barriers to work.' At the same time, you've got the National Disability Insurance Agency out there madly mapping the number of jobs that are required and the types of jobs that are required by geolocation across Australia. Wouldn't it be great to link that up to the job providers who are trying to get people in stream C and stream B into work, and then looking at training pathways for them that actually lead to material jobs? Our concern—and I think, Senator, I am understanding you correctly as well—is that there is enormous laudable focus on training but there is no point in training people if there is no job at the end of it, and the stream C jobactive case load really highlights that. If you were to go and talk to people who are in that stream C and have been there for a long time, you would generally find that they have been through a lot of training courses but they are not connected to a job.

Again, I would urge you to talk to the Brotherhood of St Laurence, who are based in Melbourne. It is a real shame they are not here today, because they have many years of experience in designing holistic programs that take on people with barriers to work, understand them well, put them into real training that is then linked directly to an employment position and then support them in that position. It is both as simple and complex as that. In terms of your point about job demand, yes, I think in areas where the government is driving job demand like human services there could be a lot more work done to strategically join that then to employment aspirations.

Senator STEELE-JOHN: More broadly, the really innovative bent of your submission is that we are looking at how we manage the future of work, and there is much we can learn about how we have mismanaged unemployment, particularly long-term unemployment at the moment. We talked a lot about the need for a reformed social services and safety net as key to managing the transition of technological change. Would you agree with the kind of general statement that, at the moment, we expect people to find a pathway out of unemployment from a place of poverty due to the way in which the social safety net requires you to draw down on your personal assets before you can access it and then places you at a Newstart wait, below the poverty line?

Ms Ebsworth: Yes, we would 100 per cent concur. I think it sounds like you are probably familiar with Anglicare Australia's work to know that this is a point we have been making for a long time. We are not alone. We would again support others in our sector who directly work with people in this position. It is no longer a safety net; it is a poverty trap—and emphasis on the word 'trap'. Once you have drawn down all your savings, you have no security cushion whatsoever when you are fighting to have enough money for basic things like transport. You literally can't get yourself to job interviews or into training programs or put yourself in front of employers. We are creating significant mental health issues through that, because it is unsurprising that people who are trapped in that position might find themselves getting depressed, and, once you are depressed, you lose motivation.

Increasingly, too, we want to highlight as well that our agencies that deliver emergency relief are finding themselves more and more helping people who are what we would absolutely call 'the working poor'. So we now have two levels of poverty and disadvantage operating in Australia. We have those who are on government income who are now trapped at such low levels that getting themselves out of that, without significant assistance, is virtually impossible. And we are seeing the working poor as well, because as work is casualised and less secure people are unable to provide enough for themselves that they can, for example, deal with a major bill that comes through, so then they turn to emergency relief and come to ask us for help with electricity bills or for food. Increasingly, we are seeing that from people who are working but who are simply not able to make enough through their work to support themselves sustainably.

So I think our safety net needs a radical overall. It is to the detriment of all of us in the way it works, not just because of how we are treating our fellow people in our community but because we are actually stopping them from helping themselves. Punishing people by keeping them poor and then penalising them when they don't manage to meet the conditions put on them is not assisting them in any way to get out of poverty and find a job.

Senator STEELE-JOHN: It is not at safety net if the net sits below the waterline, is it?

Ms Ebsworth: Yes, pretty much. The people who can tread water for long enough deserve our eminent respect, in my view.

Senator STEELE-JOHN: Can I ask finally whether you have any thoughts uniquely in relation to how the current system is failing young people in terms of unemployment and what aspects of the social safety net would need to change to help young people manage this transition?

Ms Ebsworth: Yes, Senator. Thank you for that question. I think it is well worth highlighting that it is for reasons that I frankly think at this point in time are arbitrary and make no sense. First of all, there is the youth wage, which supposedly helps young people into work, but what we see is that, as soon as young people who are employed under youth wage conditions start to reach the age where they will be paid an adult wage, they lose their job. This is quite typical. So it actually acts as a disincentive to keep them employed in the long term. That needs to be rethought.

That Youth allowance and Austudy are lower rates than Newstart even literally makes no sense. They are adults. They are looking for work or they are trying to maintain themselves in study, which we say we want them to do as a society on the way to getting better employment, yet those rates are significantly lower again than even Newstart, and we all know that Newstart is well below the poverty line. So I think that absolutely needs to be rethought. There is literally no evidence to show that it in any way helps to incentivise young people to magically create a job for themselves. They are in exactly the same position as everybody else. They are looking for work. They need entry level positions and, as we have shown, there are not enough entry level positions. Keeping them on even lower rates is not doing anything to improve their employability.

Senator STEELE-JOHN: Thank you very much for that—wonderful stuff.

Ms Ebsworth: You're welcome.

CHAIR: Ms Ebsworth, the other senators have already asked the questions I was going to ask so there is probably point in me persisting. Does anyone else have anything more? All good. Thank you very much for your time today, and thank you for your submission.

Ms Ebsworth: Thank you very much and best of luck with your work.

CHAIR: Thank you.

Proceedings suspended from 10:32 to 10:46

LANE, Mr Aaron, Legal Fellow, Institute of Public Affairs

ROZNER, Mr Gideon, Research Fellow, Institute of Public Affairs

CHAIR: Welcome. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you.

Mr Lane: Yes.

CHAIR: I now invite you to make a short opening statement and then we will open it up for questions.

Mr Lane: Thank you for giving us this opportunity to present at the public hearing today. We are both researchers in the IPA's Dignity of Work Research project. What do we mean by the dignity of work? There are several dimensions to this. First is that the moral value of work finds its basis in the inherent dignity of the human person. Second is that work is vocational. Work is always something that gives us a sense of purpose. It gives us a sense of pride and esteem. Third is that work is relational. Our work is always a team effort. Even when we work individually, it's always a team effort fulfilling the needs of countless, and often unknown, others. In that process we're able to meet not only our material needs but also the needs of our families. So, ultimately, the reason that we care about work, and the reason that the IPA cares about work, is that we care about human flourishing. That brings us now to the issues that form the basis of this Senate inquiry.

There's no doubt that technological changes present a challenge for the modern workforce as we integrate advances like automation, machine learning and digital work platforms. However, there are substantial opportunities in these changes, because these changes are making it possible for even more Australians to enjoy the dignity of work. But the IPA submits to this committee that, in order for Australia to take full advantage of these opportunities, the challenges of the future of work that these opportunities bring should provide renewed impetus to the government's deregulatory agenda: the mission of cutting red tape that is stifling entrepreneurship and opportunity. Our fear is that unless this is a central part of the policy response to the future of work then an increasing number of Australians will be disadvantaged in a rapidly changing labour market. A key area of focus for the IPA is the way in which regulatory barriers are keeping thousands of Australians out of the labour force, and this has highlighted the need for meaningful structural reform in that regard.

The IPA's research, which we have attached to our written submission, highlights that the Fair Work regime has imposed barriers to employment, along with structural disincentives to hire. One example of that is the tripling of individual disputes that have been brought to the commission since the Fair Work Act's introduction and the time and expense that's involved in defending these claims, making businesses reluctant to hire. Another example is centrally mandated penalty rates. They continue to be a challenge in the future of work because improved technology allows workers to take greater advantage of flexible working arrangements. On the other side, consumers are increasingly demanding a 24-hour service delivery model. Both of these factors paired together mean that there's an increased demand for work outside of the traditional business hours. That's something that doesn't fit well within the current regulatory regime. Technological advancements will continue to be disruptive to traditional industries. A consequence of in-built barriers and disincentives means that we might have longer periods of structural unemployment into the future.

The IPA says that, central to the policy response to the future of work is unleashing entrepreneurship to pave the way for increased prosperity. Entrepreneurs are central to the dynamics of economic development and yet the IPA's research—which we have also attached to our written submission—says that, unfortunately, Australian entrepreneurship is in a state of stagnation. In spite of this, the digital platform economy is showing signs of promise. Younger workers in particular value the flexibility autonomy that the future of work offers. However, there have been calls to increase labour market regulation for these platforms, particularly around delivery or ride-sharing services. This would involve extending the Fair Work regime to work that would otherwise not be classified as employment. This broad-brush legislation would remove the ability to cater for differences between those platforms. There's a strong moral case for maximising the opportunities available for unemployed and for underemployed workers to take full advantage of these platforms. The IPA has consistently advocated for a deregulatory or a permissionless innovation approach to these issues. That is, the IPA believes that a quality regulatory system is one that can deal well with disruptive technologies and disruptive business models and enables innovation by default—that the contrasting view is a permission system where we have red tape and regulation that's applied to stifle the potential of entrepreneurship and, importantly, to bringing benefits to customers.

The IPA is very wary of erecting additional barriers that would prevent the emergence of new business models tomorrow. So we're not just looking at the things that we know face the economy right now; our concern is that, if we put up additional regulatory barriers, it will prevent future business models from emerging in the future. Our

research focus at the IPA on this issue is: how can we get more people to enjoy the dignity of work? That's our focus. This is in our written submission and it's what you'll hear from us today. For the dignity to be properly respected by policymakers, the Institute of Public Affairs submits that the policy settings must be conducive to boosting employment opportunities and removing barriers that get in the way of prosperity. With that opening, I very much look forward to your questions.

CHAIR: Thanks very much.

Senator PATRICK: The committee heard from a number of witnesses that, in the case of ride-sharing and Deliveroo—Uber style businesses—they are exploiting a hole in regulation which ends up with the people who are contracting to these entities earning well below minimum wages and having to remedy things like medical problems or work related compensation problems through the public system because they're not covered by WorkCover. Do you accept, in your call for a reduction in regulation, that there would be some regulation required in relation to the gig economy?

Mr Lane: Thanks for that question. It's an interesting question. We can certainly start pointing to things like that. It's not the first time that I've heard that. I think the starting point needs to be: do we want people taking advantage of these platforms to—if they're unemployed. If they're underemployed is a big area as well. We know that while the unemployment rate has some positive trends, in terms of the global unemployment rate, the underemployment rate, particularly for younger workers, is increasing every year. I think that's a real issue.

It's more a matter of the starting point. Is the starting point that we regulate for future unknown problems or do we allow the system to emerge? I think, with the current working arrangements with Uber and other platforms, as you mentioned, there is an increased onus on individuals that if individuals want to take advantage of these platforms, then, yes, there is an increased individual onus for them to provide for a working environment that is safe, for instance. This is something that they have the best control over. If we think about who is in the best position to manage the risks around their own operating environments, it's not the platform itself it's the individual person.

The platforms have introduced measures that, I think, address some of those concerns. For example, many of the ride-sharing platforms have a minimum standard of vehicle that you're allowed to sign up in order to do work on that platform. Again, that's something that the platforms have dealt with pretty well so far. I think it's something that individuals have the most control over, those environments, rather than the platform itself.

Senator PATRICK: We had a submission from the Edith Cowan University yesterday that profiled who was working in these ride-share environments, and it was clear that often it wasn't Australians. In fact, the majority of people working in those environments were migrants or foreign students and so forth. It was very clear that, for example, they were not covered by things like workers compensation and they were, overall, achieving well below the minimum wage rate. If you accept those two propositions, do they fit within your paradigm of dignity of work?

Mr Lane: In terms of the fundamental question here about the dignity of work, we want all Australians to have the opportunity to work. The great fear in all of this is that once you increase the burden on platforms, particularly on—

Senator PATRICK: I just want to sharpen my question for you.

Mr Lane: Sure.

Senator PATRICK: Do you believe people, in the context of your dignity-of-work paradigm, are entitled to workers compensation, for example? Is that a minimum requirement, in your view, for a worker to have workers compensation?

Mr Lane: Sure. Again, I come back to this point, which is: who is in the best position to look after those particular arrangements? With small businesses, for example, sole proprietors and many people do consulting work and individual work, contract work. That's not an unusual phenomenon in the economy. In fact, there are far more people engaged in small businesses, whether its trade people or professional consultants and many others, those individuals, in Australia right now than there are people who are taking advantage of their services. I think we already have a model in place.

Senator PATRICK: Once again, let's stick with Uber, in this instance, where people are getting a minimum wage. I've run my own business and I understand the costs and needs for things like workers compensation. But when you're earning a wage that is well below minimum and is the result of a power imbalance, arguably—sticking to that particular situation—do you think that's an appropriate mechanism, where we simply end up with a worker who doesn't have workers compensation, or should there be some regulation or requirement that it is covered?

Or, alternatively, if it's not covered by the entity that's contracting, then there has to be a minimum payment in place that allows for coverage of something like workers compensation.

Mr Lane: In our written submission, one of the attachments I have made is a brief article I have written on exactly this issue. In answer to your question, the IPA would support the mechanism that currently exists. The current mechanism is a test to classify people: are they employees or independent contractors? That's a test that's well-established in Australian law. It is capable of being applied to these new technological platforms. I don't think there's any particular problem in applying this test to these platforms. That's our position: this test should be applied and we don't need an additional regulatory regime, because there is a regulatory regime in place.

Senator PATRICK: In actual fact, the Fair Work Commission found in this instance that an Uber driver is not an employee.

Mr Lane: Correct.

Senator PATRICK: In this circumstance, where that person receives a minimum wage well below what are accepted minimums and therefore is not in a position to take out workers compensation, what's the remedy for that?

Senator IAN MACDONALD: In fairness to witnesses, we should indicate that we have heard from Uber, and they gave quite different evidence than what is being put to you. In answering that, you should perhaps be mindful of their evidence, even if you haven't already had a look at it.

Senator PATRICK: I understand he has written a paper on this and he understands the specifics. I am after a specific answer. How should we address a situation like that where there's clearly not workers compensation insurance in place and it's clear that the people involved in providing the service, the Uber driver, does not have the capacity to pay workers compensation? What's the remedy to that?

Mr Lane: The remedy is the remedy that exists now. It's based on the reputation of the providers. I don't think we can underestimate how important brand reputation is in this space. Consumers don't want to sign up to a deal—whether it's a ride sharing service, an air task or something else—which they think is ripping off people.

Senator PATRICK: They actually do.

CHAIR: Plenty of them are.

Senator PATRICK: So that theory doesn't hold.

Mr Lane: Well, I think it does. If you look at the case of Airtasker, for example: they have come to a private agreement about the rates of pay they are setting in particular areas. That wasn't dictated by a government; that wasn't handed down by a piece of regulation. That was worked out by groups of individuals—

CHAIR: And their unions. I'm picking up on the WorkCover issue. With your analysis it really comes down to individual control. Are you effectively saying that the individual Deliveroo driver or whoever on $10-$12 an hour should be paying for the cost of a WorkCover premium? Are they in control?

Mr Lane: I think there are mechanisms. Well, they're in control of their risk; they're in control of the equipment they use; they're in control of the vehicles they're driving or riding—

CHAIR: What do you think their hourly rate would be if they had to pay for their WorkCover premium out of their $10-$12 an hour?

Mr Lane: I couldn't speculate on that. It's not something I've looked at.

CHAIR: It might be worth having a look at, if you're going to be arguing that people should take individual control of their circumstances. The other evidence we heard yesterday was that, in fact, what is happening with these delivery drivers is that because they are not covered by WorkCover—and let's face it it's an inherently dangerous occupation riding around the CBD delivering food—when they suffer an injury or illness they are turning to public hospitals and Medicare to pick up the cost of assisting them. Given the IPA's views on a range of issues, would you support taxpayers picking up the cost of fixing injuries of workers who don't get WorkCover?

Mr Lane: As you've raised, it's a complex issue. What I would say, again, is that I think there's a role for the platforms here themselves and the individuals to make their own arrangements. What we know about the Fair Work Act regime at the moment is that there are thousands out of work. There are added disincentives. Gideon has done, probably, more work on this than I have, but there are additional barriers put in place that act as a disincentive to hire people. The issue here is: do we want a situation where people are out of work and they're out of work because the regulatory barriers are too high and it's too costly? I just don't think that's a situation that we want to be in. It's not to say that there aren't issues here, but it's who should make those decisions. It's not about whether the issue exists or not; it's about who should solve it, and what we're saying is that there's a role here for

the individuals themselves to manage their risk, there's a role for the platforms and there's a role for the customers to play. And regulatory barriers would actually make the matters worse rather than better.

Senator IAN MACDONALD: Not that's it's terribly relevant to the inquiry, but you're making the point that, as with sole traders, tradesmen and small shopkeepers, they provide their own loss of income insurance if they want to do that. Is that the analogy you're drawing?

Mr Lane: Yes, it is.

Senator IAN MACDONALD: It's really a question of individual freedom as against Big Brother and the nanny state looking after all of us from the cradle to the grave.

Mr Rozner: It depends on who is best placed to wear and determine the risk. A Deliveroo driver hurtling around the Melbourne CBD—do they have the agency, the autonomy and the capability to determine risks for themselves and whether a particular form of income earning is worth the risk? Our argument would be that, of course, they do. They're human beings. They're rational people. They're obviously choosing to perform work in the sharing economy, the gig economy, for a rational reason—for an income reason, for a financial reason, for the fulfilment that comes from experiencing the dignity of work. As a matter of philosophy, the state should not second-guess their autonomy and their decision-making capability.

Senator IAN MACDONALD: You're probably familiar with the Uber experience. I must say, I don't think I've ever used them, but the operator in Australia gave very clear and concise evidence in Sydney, which would be worth having a look at. That also brings me to another witness. I'm not sure if you were in the room when Mr Michael Cannon-Brookes gave evidence about the future.

Mr Rozner: No.

Senator IAN MACDONALD: Again, I would suggest that you might want to have a look at his evidence, which was really about where the future of work is going. Without summarising him—I wouldn't even attempt to do that—my take was that there are as many jobs being created in the new economy as there were in the old but the transition will be difficult, as it was from the agricultural economy during the Industrial Revolution in England hundreds of years ago. Have you looked into where the digital economy, the high-tech economy, will take us and what it will do for Australia as an economy?

Mr Lane: The Institute of Public Affairs has written one of the first papers on the sharing economy. We haven't included that in our written submission as there are other papers that were provided there, but I would be very happy to provide that to the committee. That was, I think, released in 2014 and set out some of the opportunities and some of the advantages of this space.

Senator IAN MACDONALD: I take encouragement from Mr Cannon-Brookes that there is a future for us all—

Mr Rozner: Absolutely.

Senator IAN MACDONALD: even though there are robots doing a lot of the work that we now do. I'm wondering when we'll get a robot in parliament. They'd probably be more sensible and mature than us!

Mr Lane: I think the lesson to be learned throughout history is that we've had changes before and we'll have them again. It's a question of do we want to put regulatory barriers in the way that are putting the handbrake on progress that will come to fruition anyway, or do we want to take full advantage of it? It's not to say that there aren't issues in that transition—of course there are. But, again, it's who's best placed to manage those transitions. Government doesn't know what those jobs of the future will look like. It can't; it will never know. If we approach it from that position—who is best placed—this is going to be entrepreneurs finding new combinations of resources and developing new products, new markets and new sources of supply. That's the way we're going to get there: it's going to be those entrepreneurs; it's going to be those individuals who are willing to take a risk; it's going to be those individuals who are willing to sign up to a new platform; it's those customers who are willing to try out that new service. That's where those jobs of the future are going to come from, and the more regulatory reduction—the government has made a good start to that red tape program. That's the path that we need to go on.

Senator IAN MACDONALD: If you mentioned this before, I apologise for being out of the room: does the IPA have a position on the living wage—what's it called?

CHAIR: Universal basic income.

Senator IAN MACDONALD: Universal basic income.

Senator STEELE-JOHN: Valuably supported!

Mr Lane: I understand, Senator Steele-John, you are excited by this—

Senator STEELE-JOHN: I am—and you are too, I would imagine!

Senator IAN MACDONALD: The question was: do you have a position and, if so—and someone up there will pay for it—

Mr Rozner: My personal instinct is that I like it, in theory, for efficiency's sake and for reducing the complexities that arise from our tax and transfer system. However, as a matter of political reality, I think that any universal basic income system we end up with is highly unlikely to be uniform. It will be highly unlikely to not make differentiations, for example, on top-ups for people currently on the disability pension and payments like that. I don't see it as a viable—

Senator IAN MACDONALD: A lot of submitters have raised the issue. It's not confined to people with disability; it's across the board, as I understand it, that this—

Mr Lane: I think that one of the problems in this area, when people talk about universal basic income, is there are thousands of different ways you could implement that idea. To pick up on what my colleague was saying, the political reality is, if you have one rate for everybody, you're invariably going to have people say: 'I've got a special need that means it's more expensive for me to live and I can't work as much as somebody else. Therefore, I need a top-up.' This is going to be the line: why should millionaires and billionaires get the same rate of allowance as a poor person? That will be the claim. I think what you'll get, as a political reality, is it will never be implemented in the way that it's talked about, in terms of one rate for everybody. Flowing from that, I think what we're going to have is an even more expensive welfare state than we have already in Australia.

The other concern, in my view, that does have relevance for this committee is about the dignity of work—do we want to encourage people into working? I absolutely think that we do and that we should, because, as I said, there's value in work. There's moral value, there's a sense of purpose, there's a sense of drive and there's a sense of fulfilling needs—not only your own material needs but, when you work, you fill other's needs. For those reasons, I'd be pretty cautious about endorsing something that took away a big incentive for people to enter the labour market.

Mr Rozner: There's one other point I'd make about the universal basic income. It's not something that I spent a particularly long time examining, but I do understand that one argument that's frequently made for a universal basic income is that it would effectively free people who may be interested in pursuing artistic endeavours, community service or parenting from the drudgery of having to work for an income as a means of living by subsidising people and allowing them to go off and do other things. I don't think that argument holds a lot of water. For example, artistic endeavours and community service and volunteering and parenting have been around for a very long time. The great works of art and literature have not been created as a result of a government pension payment to every single person in the country. A lot of the time the best works of art have been created by people who've been working very hard to subsidise their passion and their art. Charles Bukowski worked in a post office until his 50s before becoming a novelist.

Additionally, we know that rates of community service and parenting time and volunteer work are much, much higher among people who are full-time workers. It's one of those counterintuitive statistical facts. People who are more likely to give back to the community are actually people who are working. As the old adage goes, if you want something done, ask a busy person. So I don't buy this argument of freeing up an opportunity cost to allow people to do something more noble or more important. Work is very important.

CHAIR: I hear what you're saying: what's coming down the track with technology is not necessarily a new thing; we've been through the industrial revolution, which eliminated a lot of jobs and created a lot of jobs. There are obviously issues about transition between jobs, and things like that, but this is not the first time that we've encountered a massive technological disruption to the economy and to work. But one of the other things that happened post industrial revolution is that governments intervened to put in place social protections so that children weren't cleaning chimneys and people weren't working 16-hour days. If you apply the logic of what you've already said, that regulation about reducing people's hours of work and putting in place safe working practices was an impediment to the market and to entrepreneurship, but we've gone on to experience unbelievable wealth as a result. Don't you think that there's a parallel with the technological change that is coming, in that we need also to see strong social protections to ensure that people who don't have a lot of power in a situation don't get exploited?

Mr Rozner: Part of the problem is that we've reached a stage where, far from being social protections, our minimum standards, our industrial relations system and our regulatory regime are actually having the effect of keeping too many people out of work. People, whether they are lacking experience because of being new to the labour force or because of, for example, having had criminal convictions, are unable to offer their services for less

than what the statutory minimum is—currently the second highest in the developed world. Our unemployment is relatively low, although higher than it has been. But there is a large and growing cohort of prime aged, working aged men in particular who have been leaving the workforce in droves for the past few decades. I think there is a serious social justice issue to be discussed here, which is the growing number of people in Australia who are idle; who do not enjoy the mental, and even physical, health benefits that come from making a contribution through having access to the labour market and being able to enjoy, as we like to call it, the dignity of work.

Senator STEELE-JOHN: Sorry; did you just refer to the unemployed as idle?

Mr Rozner: Sorry?

Senator STEELE-JOHN: 'Idle'—was that the word you used?

Mr Rozner: What I meant was people who are not working. There have been studies, and I'm happy to provide those on notice. For example, the Royal Australasian College of Physicians has for years had a consensus statement talking about the benefits of work, not from an economic angle but from a health angle. Yes, there's mental health—high rates of depression and anxiety among people who are long-term unemployed—but there's also physical health. For example, cardiovascular disease and respiratory disease are more prevalent among people who have been unemployed long-term.

Interestingly, I note as well that not one Australian union has signed up to that consensus statement about the importance of work. Several New Zealand unions have, but Australian unions haven't. That perhaps is emblematic of the malaise at the heart of the union movement—it has lost touch with the importance of work as an end, of allowing people to experience good fulfilling work.

Mr Lane: The other point I make is that our underlying submission to the committee in our written submission is that we are very wary of broadbrush legislation that doesn't cater for differences in the individual platforms. I don't think we should treat the platform economy as if it were all the same. I don't think we can, even among a particular service. With ride-sharing services at the moment there is a predominant market player in Uber and overseas others have significant market shares. There are differences between those platforms. There are differences in rates, requirements, how work is allocated and those sorts of things. So even within a particular platform there are differences. Those differences are a good thing in that they allow for competition and they allow for both consumers and workers to seek out the best platform for them. That is in particular what we're wary of—broadbrush legislation that doesn't cater for individual differences between platforms.

I take the hypothetical point that, if there's a specific issue of concern, then you could address that. That is something that you could address, but I would be very wary of adopting a broadbrush approach that creates a new class or category, if you like, of worker that doesn't exist at the moment. We have got a very well-established test. It is a test that has stood the test of time. As you mentioned, Senator Patrick, there was that case in the Fair Work Commission on whether Uber was an employer or not. They adopted that Hollis v Vabu approach quite well. The member in that case had some additional commentary about what that member thought about the current regulatory regime, but the point remains that that test is capable of being approached. There's nothing wrong with the legal test.

Senator STEELE-JOHN: I have read your submission and, Mr Lane—and I apologise if you clarified this at a time when I wasn't in the room—you're generally in support of the kinds of gig economy arrangements and see it as inevitable, if not desirable, that these kinds of structures expand within the workforce. Would that be a fair statement to make?

Mr Lane: What I would say is that it is happening. Is it inevitable that all work happens? I would say that it is happening now. Will we see it as a more popular method? We don't know, and I don't think we can know. There is current research. Airtasker publish some good statistics on their website I think once a year. They survey some of the users on either side. I think there is some good data there. Other platforms haven't been as forthcoming with their usage results and their usage growth. What we are seeing is a huge increase in the economic value of that work that is being added to the economy every year.

So far as that is concerned, I think it's a good thing. I think it's a good thing that people have additional options for work. If people can't find a full-time job, I think it's a great thing that people can find a particular task, a short-term arrangement or a ride-sharing opportunity. The data that does exist shows that people aren't engaging in this work to replace a full-time job. They're doing it for supplementary income, additional to their full-time work or their other part-time employment. They're doing it between jobs. They're doing it because they're currently unemployed and looking for work. So, I think this is a terrific emergence that allows people that additional opportunity between jobs. Going back to the question of whether it is inevitable, I think it will be more popular. But in traditional industries I think there is still going to be a need for employment.

Senator STEELE-JOHN: I have two concerns, and I could be wrong, that I wonder whether the IPA would share. One is that if we see a growth in these kinds of employment structures there will inevitably be an impact on the extent to which a citizen retires with a certain superannuation balance. Through this period when they are participating in these arrangements, they are not paying into that or having their employer's contributions. I mean, the whole point of superannuation is to take the pressure off the public purse in the sense of reducing reliance on the pension system. I imagine that is something you guys would support.

Mr Lane: Again, it's a complicated area. A lot of this we just don't know. For example, it would be good to get some data on what individuals who are using these platforms at the moment are doing. That's simply not something that I've seen any data on yet. What I will say, though, to go back to what I was saying earlier, is that a number of people are not doing this as a full-time job at the moment. They're either supplementing their income, in which case they're employed somewhere else and will be accruing superannuation benefits as a result of that employment, or they're unemployed and doing this between jobs and that sort of thing, in which case they're not receiving any superannuation under the current unemployment benefit, either. So I think one of the approaches we're seeing in the policy space at the moment is to compare work on these platforms with a perfect picture of employment as it currently stands. That's not the comparison, in my view. The comparison is between these platforms and nothing. I think when we're comparing the benefits and protections and those sorts of things, for a lot of people who are currently using the platforms it's not a comparison between this and employment; it's a comparison between this and living on $7 an hour on the unemployment benefit.

Senator STEELE-JOHN: It is hard to ascertain, due to the lack of information, the average hourly rate of employees in these industries, because of the lack of information provided by the platforms. But from the information that has been able to be ascertained, it has been observed as lower than the minimum wage in these areas, and that is forcing people to rely on different aspects of the social safety net that they wouldn't otherwise be, in a traditional employment arrangement. That's been a purposeful feature of the way in which we've constructed employment in Australia. You would know that we have historically looked to work to provide many of the aspects of the social safety net that have been provided directly by government in Europe and elsewhere. You guys are not fans of government subsidy to big business. So, are you concerned about the extent to which an expansion of these kinds of arrangements might lead to further subsidisation by governments to big business?

Mr Rozner: But you have to ask why people are choosing to work in these industries, if the rate of pay is so unsatisfactory, in your view. And as my colleague mentioned, the choice too often is not a choice involving a regular job that's regulated in accordance with the way Australian IR law has evolved over a century or so. The choice is between working in the gig economy and having no job at all, in which case you would revert to that safety net anyway.

Senator SIEWERT: I've got one question, because my other questions have already been pursued. I want to go back to the discussion on universal basic income. I took from the evidence you articulated that you thought that a universal basic income would have the effect of encouraging people not to seek work, when my understanding of reading analysis of the trials that've been carried out to date is that it hasn't had that effect and, in fact, it has encouraged and enabled people to find work. One of the reasons for that, as I understand it, is that it helps address the barriers of poverty to finding work. Have you looked at that work and do you have a comment on that?

Mr Lane: I haven't seen those figures, but my comments were essentially a general proposition. I think it depends on the rate that it cuts in at. At the moment, if you set a universal basic income to the equivalent of, say, $2 an hour, would that act as a disincentive to work? I would probably say no. If you set it at $100 an hour then, yes, it would. That factor does depend on the rate that it's set in at. As a general proposition, the higher the level, the higher the disincentive to work. That's pretty established economic theory, in my view.

Senator SIEWERT: It's not been substantiated, as I understand it, from some of the trials. I would be interested to see at what level you thought that it would have that disincentive effect. For example, Newstart at the moment, as was pointed out by a previous witness, is below the poverty line and, many people argue, that keeps people in poverty, and the literature shows that poverty is a barrier to employment in itself.

Mr Rozner: I sympathise, and nobody is of the view that it's ideal for anybody to subsist on the Newstart allowance. We can argue about the rate, how it's assessed and so on, but fundamentally it is not where we want society to be. I do sympathise and agree that our priority, or something that we should keep front of mind, is the alleviation of poverty, because you're right that too often people who are long-term unemployed do get trapped in a cycle of joblessness. We know that businesses, for example, are much less likely to hire somebody who has been out of the labour force for a year. Once they hit that two-year mark of being outside the labour force it becomes much, much more unlikely for employers to take a chance and take them on. But the instinct and the

ideal should be to encourage people into work, not to come up with additional ways of making up the shortfall, or the lack of jobs, and, as so often is the case, the best form of welfare is a job, is work.

CHAIR: We might need to leave it there. We're a few minutes behind time. Thank you both for coming along today.

Mr Lane: Thank you very much, senators. We appreciate the opportunity.

BYERS, Mr David, Interim Chief Executive, Minerals Council of Australia

LIND, Dr Gavin, Director, Workforce, and Director, Health, Safety, Environment and Communities, Minerals Council of Australia

[11:34]

CHAIR: Welcome. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you?

Mr Byers: Yes.

CHAIR: Do you have any comments to make on the capacity in which you appear?

Dr Lind: I am also the Executive Director of the Minerals Tertiary Education Council.

CHAIR: Would you like to make an opening statement? We will then have some questions.

Mr Byers: I will indeed. Thank you for the opportunity to participate in this inquiry following our earlier submission in January. The area itself is very important to the Minerals Council, highly relevant. The Minerals Council, for those who are not aware, represents Australia's exploration, mining and minerals processing industry. Our industry is a fundamental source of Australia's comparative advantage in the global economy. It is a key employer in regional areas and it is a major contributor to the nation's innovation effort. The resources sector is Australia's largest export earner with exports reaching a record high of $198 billion in 2016-17, bigger than all other exports combined. Australia's mining capital stock, now at $876 billion, is now almost four times what it was at the start of the mining investment boom in the early 2000's.

The Australian minerals workforce directly employs approximately 220,000 individuals. When the mining equipment, technology and services sector is included, the minerals workforce exceeds 1.1 million people and accounts for about 10 per cent of jobs in Australia. Many of these jobs are in regional and remote Australia. The industry is also the largest private employer of Indigenous people of any Australian sector. Average weekly earnings in the minerals industry are $2,600 or about $136,000 per year, the highest of any industry in Australia and 66 per cent higher than the average for other industries.

Notwithstanding these strengths, we do however face as an industry strong competition from new and emerging mining regions in Africa and in South America both in both commodity supply and in competition for funding from global capital markets. Innovation is central to maintaining Australia's advantage in minerals and energy by supporting more competitive, safer and more environmentally sustainable operations. Australia is a world leader in developing and adopting transformative technology that is recognised and exported globally, with 6,539 Australian mining invention patents filed by the sector between 1994 and 2011.

Research and development as well as the adoption of new technologies is vital to achieving future productivity gains. In fact, official data suggests that the mining sector spends nearly $3 billion on research and development annually, or nearly one dollar in every six dollars of all business research development spending in Australia. Technological innovation will continue to shape and change the nature of work and therefore skills requirements in mining.

Various technologies such as cloud software and analytics are changing the future shape of Australia's workforce and are already being used by the industry. More and more, the adoption of automation, sophisticated communications technologies and robotics are features of the industry. In our submission, we have provided examples of how this technological change is actively being implemented across the industry, and the new and emerging opportunities and skills requirements that are shaping the future profile of the minerals workforce.

Mining, as would be evident from my first few paragraphs, requires a highly skilled and adaptable workforce across a diversity of professions including engineers, environmental scientists, geologists, geophysicists, mathematicians and financial officers. The Australian minerals industry spends more on training for employees than most industry sectors at about 5.5 per cent of its payroll. The industry is also a strong user of the vocational education and training system. It is significant contributor to minerals higher education with some $50 million over the past 10 years being spent through the minerals technology education collaboration or MTEC body alone. The purpose of establishing MTEC, which we can talk about further, was to enable a high-quality supply of Australian graduates. Our industry will of course continue to require a broad base of talented professionals as the nature of work changes. This will require the development of foundational knowledge from primary and secondary education through to the capabilities gained through tertiary and higher education. In this regard we have seen a marked decline in participation in science, technology, engineering and mathematics, or STEM subjects, in schools over the past decade. This is broader than our industry, of course. But, as an industry, we do

invest in programs to support the attraction of young learners to STEM, including teacher professional development, outreach initiatives and online resources development.

We are also seeing the re-emergence of underlying structural weaknesses in minerals tertiary education. Analysis of government labour demand data and our own projected enrolments in minerals higher education programs suggest that the decline in labour supply, which is measured by enrolments in mining related tertiary disciplines, will outpace future labour demand in critical technical areas, creating potential skill shortages in the future.

The minerals industry supports sensible higher education reform that combines fee deregulation with strong safeguards to protect the viability of minerals related disciplines. Safeguards should include stronger accountability mechanisms to ensure increased university fee revenue is devoted to teaching and student services. People across all industries will need to be equipped with the right skills for technology adoption, use and diffusion. Central to achieving this is the development of a sector capability framework. In the minerals industry we are developing such a framework identifying priority areas for skilling and upskilling related to technological advances to ready the current and future workforce.

Finally, the ability to modernise workforces and workplaces is vital to the competitiveness of Australia's mining industry, which is increasingly focused on integrating new technology and ideas into its operations. Labour market flexibility is essential to achieving that outcome. Arrangements that limit flexibility in management and work practices hinder productivity growth and employment, as well as the ability to adapt to changing market conditions.

Some existing workplace relations laws lock in poor practices that discourage investment and hinder productivity and innovation. Without reform, productivity and competitiveness will suffer from the retention of outdated practices and declining labour productivity, resulting in lower wages and fewer jobs. Accordingly, the Minerals Council has put forward an agenda for some short-term achievable, but relatively modest, workplace reforms which would change different provisions in the Fair Work Act to support productivity and innovation. The changes we speak of include confining permitted content in enterprise agreements to direct employment matters; reforming greenfields agreements to encourage investment in new projects; rebalancing some of the union right to entry provisions; and, finally, introducing the choice of opting out of enterprise agreements for employees over a specified high income threshold.

In conclusion, the minerals industry is actively considering the future of work and workers and taking action to build the workforce of the future. We believe we are well placed to continue to be at the forefront of Australia's response to that change; it is vital that we do it well. We look forward to responding to any questions or comments that you may have.

CHAIR: Thank you, Mr Byers. There is one thing that I want to pick up on. You made a point in your submission in terms of developing the future minerals workforce. You see as central to that the development of a sector capability framework identifying priority areas for skilling and upskilling related to technological advances. Is that something you think should be left to industry to manage on its own, or do you see a role for government there?

Mr Byers: We are doing it in partnership with government in the work we have done so far. I will allow my colleague Dr Gavin Lind to speak on this further because he is really leading the work in the area. But there is one thing that I might say. We do have, in pursuit of this objective, a summit coming up in May. The purpose of that summit is to get some input from government in terms of capabilities out of the tertiary education sector but also out of the vocational education and training sector—along with people from outside the sector and, of course, people inside the sector—in order to inform the development of the sector capability framework. Perhaps Gavin can speak a little more about that.

Dr Lind: The sector capability framework is a framework in which we identify that forward-looking what the idealised future minerals workforce attributes might be and how we link those to the core capabilities that we currently have in the workforce. Through the traditional stream, it may be a mining engineer, it may be environmental scientist, it may be a diesel operator or diesel mechanic and how do we link their ability to participate in the workforce when you consider what those future minerals workforce attributes might be. In so doing, in answer to your question, it is working with government then to identify which units of competency perhaps need to be developed or which skill sets we might need to repackage or put together so that we can prepare the current and future workforce for those challenges, and being more agile and nimble as things to change.

CHAIR: Your submission and some of the other submissions we've had highlight that high level of automation that is occurring already in the resources industry. The most common example is the remote control trucks that Rio Tinto is using in WA now and probably elsewhere. As you know, there is a lot of anxiety about the displacement of, particularly blue-collar, jobs by that kind of automation. What has been the experience in the industry of whether the people whose jobs are displaced from that automation end up getting new jobs and different jobs in the industry?

Dr Lind: The best example we have of this is we have an advertising campaign at the moment about making the future possible and in there it is about drone technology. In fact, someone who was displaced being a diesel mechanic has now been transitioned into being a drone operator. Those opportunities certainly are available in the reskilling and upskilling but it also depends in large part on the attributes of the person and the agility in what they can bring to the new jobs as such. David mentioned workplace relations and, in part, the ability of someone to take on a new role outside of normal enterprise bargaining agreement is also something that is quite important to that. The opportunities are there. It is not to say there are opportunities for all but certainly it is looking within the workforce first.

CHAIR: Could you take that on notice if there has been any work done by yourselves or by your member companies. I would be interested to know if that is an isolated example or is there a large proportion of the workforce that ends up being re-engaged in the industry elsewhere? You might have seen I and a number of other people have been fairly critical have some of your member companies about the use of casualised labour and labour hire, particularly in Central Queensland. Is there any recognition from your industry about some of the downsides not only to the workforce but to companies in having that level of job insecurity and the lack of morale that that can cause?

Mr Byers: It is fair to say that all of the companies have to strike the right balance of being competitive. I gave some numbers about the degree of training which happens across the industry and much of that it is in training its own particular workforce. But I've been through several realms of change, for example, in the early gas industry. A lot of what happened there was that highly skilled contractors came into the industry. They were able to supply skilled services across many different organisations rather than just one. That becomes a part of the changing nature of the industry. I don't have your number for you but my assessment is because of the nature of this industry being a highly capital-intensive industry, the investment that people make in training and development of their people is very high because the people aspect really does make a difference in being able to apply those technologies and that capital to its highest degree.

The other thing I would point to, one case study, is we should not always think about ourselves as being so far ahead of the rest of the world. I could take the example of the opening of the world's largest iron ore mine in Brazil. I think it is called S11D. Essentially the whole model has been built around a highly automated system so it is an entirely truckless system in that context. They have a system of conveyors which take the mine product from the mine through to the plants for processing and then there is the rail link off to the port for sending that through. That's the kind of thing. It is the largest so therefore it has some of the lowest unit costs and the quality of the iron ore is very high. That's just one case study of what we're actually competing with and why we need to be able to, as a sector, continue to change and continue to put in place technologies. Yes, the work that Rio Tinto does, for example, with its automated trucks is very impressive, but you've always got to be at the cutting edge.

Senator PATRICK: Following on from Senator Watt's questioning: you've talked about a skills shortage. We're dealing with a situation where there's technology causing change for productivity reasons. In your submission you've talked about lags of four years to get graduates, and I'm guessing there are other factors, like downturns and upturns in the industry. Obviously, this sector capability framework is one mechanism for addressing that, but is there a broader industry mechanism for addressing it? That's the first question. Secondly, how does that interact with other industries? I'm sure that some of the people you're training would be useful in other industries and you might get to the end of the training pipe and find they've evaporated into other sectors.

Mr Byers: Both are good questions. In terms of whether there's a broader way of doing this—if we try to split the question up—certainly we have done that in the tertiary education area. We can probably give you a bit more of an explanation as to what the MTEC, or Minerals Tertiary Education Council, collaboration is all about. That was in response to an industry-observed trend we saw several years ago about a shortage of graduates. Rather than relying on others to take action, we had to come in and take some action ourselves, as an industry sector, and develop the MTEC collaboration.

The second thing which is relevant to your question is that we're reasonably confident that in tertiary education you can solve that problem. The one we're more occupied with is in the VET sector because of some of the changes in the VET sector. We've had some of our companies—again, Rio Tinto has been notable among them—

work very closely with some of the Western Australian institutions to redevelop some of the work that is being done through those institutions so it's much more current and much more applicable to what's needed now.

The second question you asked was about other industries. Some of our people do certainly get trained for other sectors, but it works both ways. Through some of the changes in the industry—for example, where we've got more centralised control rooms, some of them in metropolitan areas—we're finding that the background of people who come into the industry is changing quite a bit. We're getting people who've got highly specialised logistics skills, which they might have developed in other sectors, or people who have supply chain specialty skills coming into the mining industry, in a way that we haven't seen before. Certainly, the mining industry does provide people for other industries but it's a bit of a two-way street. Gavin, do you have anything to add?

Dr Lind: The reason the industry put together the MTEC program was that we were going to lose the ability to teach and graduate Australian engineers for the Australian industry, and that was back in the late 1990s. We're faced with a similar problem now where we find enrolments in our traditional disciplines, such as mining engineer, extracted metallurgy and minerals geoscience in particular, are dropping off. They are generally linked to commodity prices and bulk commodity prices. They trend almost exactly; enrolments follow those. But we're seeing a sustained decrease. In part, what we suggest in our submission is that the universities also need to stump up and assist in this, because the university programs are generally high cost but have very low student numbers. Resources need to be dedicated to the actual teaching of those engineers, rather than the cross-subsidisation that happens at the moment.

To answer David's question: we do take from other industries ourselves; we don't just lose employees to other industries. In fact, paramedics are quite sought after in our industry nowadays, particularly as control room operators in the remote operating centres, because of how they're able to dispatch. They are highly sought after skills that our industry now seeks.

Senator PATRICK: Following on from that, and going back to what you said about vocational training, I note that you quote with approval the Productivity Commissioner saying:

The VET system is in a mess, and is struggling to deliver relevant competency-based qualifications sought by industry.

MTEC I understood to be looking at engineering people. What are you doing in the space, what should be happening and what should others be doing in that VET space to deal with that mess that you've quoted?

Mr Byers: It's a great question. I suppose, as the Minerals Council, we're coming a little bit late to the game on that, I have to confess. Some of the major companies have been there since a little bit before us and they're ahead of us in this area, and they are now pushing us to do things on an industry-wide basis to try to lift standards and fill some of the gaps. Maybe Gavin would like to say a little bit more about that. I did mention I don't want to put everything into this summit coming up, but one of the key things coming out of the summit is that we need to get this whole area of VET right.

Dr Lind: The problem we've always had as an industry with the vocational education and training space is the reliance on the publicly funded outcome being a qualification. By and large in the industry, particularly with the transition of work and the changing nature of work, it's more about skill sets and units of competency for us. That's one area we think government can have a look at—rather than just funding full qualifications, also funding skill sets and units of competency. As an industry, where we don't often use the publicly funded space, we will often use the private sector in terms of developing the skills and delivering the skills where they are required. Very often TAFEs aren't in regional and remote Australia, where some of the operations are, so the industry has to rely on its own training.

Senator PATRICK: Do you view it as a problem that TAFE is not in those areas?

Dr Lind: It's not necessarily a problem. The problem becomes that even if it's an enterprise RTO arrangement, you still have to get an assessor, and the assessor often would be TAFE-bound and they might have to travel long distances. That can sometimes be problematic. By and large, it's one area where the industry certainly does do its own training, but it's the assessment part of it that is left a little bit lacking at times.

Mr Byers: The other thing I might say is that what some of the companies are saying to us now is that the problem they're facing is that the changes coming through the industry and the kinds of impacts changes are having on the nature of work mean that the TAFE system hasn't changed that much. The way in which apprentices go through their indentures really hasn't changed that much through the decades, which is why some of them—I hate to keep accusing one company; I'm sure there are others doing it as well. I know there has been a particular push for Rio Tinto in working with the TAFE sector in WA to try to see what can be done to collaborate to reform the way in which some of those students are taught.

Senator PATRICK: Thank you.

Senator IAN MACDONALD: I'm just looking at page 7 of your submission, under the heading, 'Australia's minerals workforce today and tomorrow'. I find it amazing that you've got 13,600 environmental scientists and 10,500 mining engineers. What percentage of the total workforce in the industry is now what you would loosely called unskilled, as opposed to the people you mention there—engineers, geologists, production managers, metallurgists, physicists and environmental scientists?

Mr Byers: I'll ask Gavin.

Dr Lind: Approximately two-thirds of the industry have a certificate III or higher. In true terms, perhaps a third of the working population in the minerals industry might be considered unskilled, semi-skilled or working towards a qualification in some shape or form.

Senator IAN MACDONALD: Loosely speaking, are they the positions that will not be in the industry in 30 years time?

Dr Lind: It could be. It depends on the type of job the unskilled might be doing. There might be chefs, cooks and cleaners in that area, and they will always be required. I think it's a blend of the types of roles that may be subject to technological advance or technological change.

Senator IAN MACDONALD: I'm going to ask you this, but I fear the answer. You talk about the mining industry being 50 per cent of total employment in some regional centres. Do you see that with the greater 'robotisation' of the industry there will be fewer and fewer people in regional mining centres? I'm from North Queensland, so I particularly think about Mount Isa and Weipa and those sorts of areas.

Mr Byers: Not inevitably, but certainly there has been quite some evidence of that happening. The more that you've been able to set up, for example, centralised control rooms in metropolitan areas that can be linked into mine operating sites and do things more effectively that way, then there has certainly been some of that in those operating disciplines within the industry.

The other thing that I think we need to take account of is the fact that what also is happening is that while we might see some things migrate away from particular mine sites, it doesn't necessarily mean that they'll go out of the region. Regions like Mackay, for example, are very much part of the future in terms of supplying the services sector to the industry as well as even supplying people migrating through, so having their residence based in Mackay, but going out, back and forth, to the minefields. A similar thing is happening in Geraldton, in WA, where you have these smaller regional hubs being created to service the regional and mining sectors. It's not inevitable, but it's certainly the case that in some disciplines it's easier to pull on a deeper pool of labour, which you find in the metropolitan areas, but in other areas you'll be adequately catered for within those regional areas.

Senator IAN MACDONALD: I don't want to be quoted in saying this, but I fear that in a decade or so Mount Isa will almost cease to exist. That's not because the mine is running out of copper, but because most of the employees will be able to fly in and out from Brisbane in a couple of hours, and the unskilled—I use that term loosely—workforce that would normally live in Mount Isa, rather than the cost of flying in and out, are going to disappear, and that then has a flow-on effect for small towns. I appreciate it's not the core business of mining companies, to promote regional towns, but I'm just wondering if any thought is given to the way some of these new technologies could perhaps assist in supporting some of these remote mining towns? Of course, throughout our history it was the mines that established much of regional Queensland.

Mr Byers: Certainly it's an issue that is actively debated within the industry, as to what do these trends mean for the future of the regions. There's certainly a very great commitment to keeping—the source of strength for the mining industry has been its connection to regional areas and the people within them. Drawing from those local areas has really been what the mining industry has been built on. I can't give you a specific answer, other than the fact that we're certainly very conscious of the fact that this automation does have the potential to impact on some of those regions, but, at the same time, it's far better—it's hard to comment in general across the companies, because some of them see things quite differently. Some of the companies do see things like that and say, 'Look, we prefer to be very much a part of our local community, and in our context, for our commodity, it works best that way.'

If I could just make one more point, and it's in reference to Senator Watts' question before about the casualisation or the labour hire component of the workforce. Many of the labour hire people within this sector are really quite substantial organisations themselves. I think of people like Downer engineering and Thiess. What is possible, through that sort of development, is to have a career development process in those organisations because they are servicing so many different mining regions. And the business model for some of those companies is to try to retain those people as well as they can, because, like in any workforce, you want to retain your best people and have them develop into the future. So, yes, things change and, yes, all of the jobs that were usually held

deeply within the mining sector, in the operating companies themselves, are changing, but it has meant that there are companies such as Downer, such as Thiess, which are able to provide a much more viable career development opportunity for people because they are providing services across an entire sector.

CHAIR: The problem that keeps being reported to me is the inability to obtain permanent long-term employment in some of these mines because miners are increasingly looking to labour hire and the lower pay and conditions that I am told is more often on offer through labour hire than what is available to a permanent employee. That is the issue that keeps being put to me. I have to be honest, having spent a lot more time in Central Queensland over the last couple of years, I have been pretty staggered by the scale of it compared to how things were a few years ago.

Mr Byers: That is understandable, but I would also say that some of those companies are offering very good term and conditions. Often they are agreed through negotiations with the unions themselves. In fact, that is the way in which all of the companies that I can think of do it, particularly in Central Queensland. Nonetheless, it is a drive to be able to become much more competitive and a way to try to look at how you manage your workforce in the most effective way.

Senator IAN MACDONALD: Australia is blessed with huge reserves of high quality black coal. Is the industry doing top-end technological work on low emission production of coal? What sorts of employees are you using in that area?

Mr Byers: The industry has imposed a levy on itself to fund a collaboration called ACALET. It goes back to the Australian Coal Association, which has now been absorbed within the Minerals Council. It is designed to fund research into low emissions technologies. It spent—I probably should get the exact number for you—in the order of $100 million over the past 10 years on low emissions technologies. Primarily, it is divided into two areas: more efficient combustion of coal; but, by and large, it has been very much dominated by investment in carbon capture and storage. To your question, these are very highly skilled occupations that involve the employment of research scientists. People who have got very strong disciplines in geology and engineering are undertaking this work. Often it is an industry trying to work, again, in tandem with the federal government—for example, through the CO2 CRC—the cooperative research centre. Some of the work from the industry is funding some of the programs that are being done by the cooperative research centre. It is a very significant part of what we are doing, and I think it will be even more significant out into the future. The companies have just recommitted. They are committed now for the next 10 years to continue funding low emissions technologies out of that ACALET collaboration. Again, I think this is very much going to be an important part of what we do out into the future.

Senator IAN MACDONALD: Any new power station using that technology is likely to have far less on-the-ground employees than we have expected in the past. Is that generally speaking correct?

Mr Byers: I couldn't say. We are really not in the power station industry. What we are very much focused on is the supply end and perhaps making a contribution to more advanced combustion techniques. Then, of course, with carbon capture and storage, it is really sequestering the carbon underground. So I couldn't say what the effect is going to be on an operating power station other than the fact—

Senator IAN MACDONALD: What about on an operating coalmine?

Mr Byers: That kind of research, I would think, would have very minimal effect on an operating coalmine, because it is really happening, if you like, at another stage. It is the utilisation of the coal rather than the mining of the coal where that is relevant to.

Senator IAN MACDONALD: That's interesting.

CHAIR: I think that is pretty much it for questions, so thank you very much for your contribution today.

DERRICK, Mr Geoff, National Campaign Coordinator, Australian Council of Trade Unions

DWYER, Mr Gerard Andrew, National Secretary and Treasurer, Shop Distributive and Allied Employees' Association

JONES, Dr Kristy, Senior Economist, Construction, Forestry, Mining and Energy Union

KNIEST, Mr Paul, Policy and Research Coordinator, National Tertiary Education Union

REA, Ms Jeannie, National President, National Tertiary Education Union

ROBERTS, Mr Tom, Director, Industrial and Social Policy, Australian Council of Trade Unions

[12:10]

CHAIR: Welcome. Information on parliamentary privilege and the protection of witnesses and evidence has been provided to you. Do you each wish to make a short opening statement before we ask questions?

Mr Roberts: Thank you to the committee for the opportunity to appear and supplement the points we've made in our written submission. The current policy settings governing the world of work are showing real signs of stress in this country. Despite decades of uninterrupted economic growth, wages growth is at almost unprecedented low levels. For years the free-marketeers have lectured Australian workers about the need to ensure wage rises are linked to productivity improvements, yet year on year now we've seen real wage rises far below levels of growth in labour productivity. According to the Centre for Future Work, less than 50 per cent of our labour force now work in secure full-time jobs that provide conditions of employment, like sick leave and holiday pay, that we used to take for granted. Underemployment—that is, the number of workers who want to work more hours but cannot—is at record levels. According to the OECD 2017 economic outlook, almost nine per cent of employed people in 2015 were working part-time involuntarily—that is, their hours had been reduced or they were unable to find full-time work.

Our workforce has been casualised, labour-hired and contracted-out to within an inch of its life. The gender pay gap persists. Our system of enterprise bargaining has run out of puff. The number of workers in the private sector covered by enterprise agreements and the number of agreements themselves are trending down. Workers have limited bargaining capacity. Our rules on industrial action have reduced workers' rights to an unparalleled level of industrial impotence. It isn't that our economy is stagnant and not generating income and wealth; it is that, no matter how hard we work, bargain or argue in the commission, our wage-fixing mechanisms and industrial framework aren't delivering for Australian workers, all the while basic living costs like housing and electricity continue to outstrip real wage growth, taking a disproportionate chunk out of the income of low-wage earners. Inequality is on the rise in this country.

Something has to give, but Australian employers appear unconcerned. The AIG submission to this committee proposes more changes in the name of flexibility to break down even further the limited worker protections that remain in the system. While the Reserve Bank governor tells us faster wages growth would be good for the economy, and the government assures us wage rises will follow once company taxes are cut, major employers are still out there arguing for a continuation of moderate wage growth—more of the same. Fringe groups like the IPA go even further. They say we shouldn't even bother to focus on public policy aimed at achieving more equal outcomes. You won't be surprised to hear the ACTU disagrees with both of these approaches.

The workforce of 2018 is unrecognisable from the workforce of 10 years ago. Our industrial rules are no longer fit for purpose. They haven't kept pace with our changing workplace. They are unable to deliver for the vast majority of working Australians. In the national interest this must change. Into this familiar mix we add the vicissitudes of technology and its impact on our working lives. Technological change has been a constant in modern Australia's economic development. The policy responses to rapid change will frame the way we deploy technology and the way we share the benefits of technology. Technology is changing the nature of work. How soon, where and to what extent may be debatable, but the real question for this committee is: what should be the policy response?

Our submission argues that there are some clear and disturbing features and emerging trends in the Australian labour market that, unless they are properly addressed, are likely to be made worse by the effects of technology. This includes more insecure work and greater inequality. To deal with the challenges of technology we'll need an educated and multiskilled workforce and adequate retraining and support of workers affected by technological change. We will need the capacity to adapt to and manage new tasks created by technology and automation. Employers are unlikely to invest in the skills and training necessary if their workforce is insecure and disposable. We'll also need an industrial and social infrastructure that can meet the challenges of globalisation and the

centralisation of economic power, one that can accommodate a changing workplace and new business models. We will need a system that gives workers a say—and rewards us fairly for our effort. Thank you.

Dr Jones: Thank you, first of all, for giving us the opportunity to build on our submission. I wanted to focus on the relationship between inequality, work and technological change. A lot of the debate I see around technological change and the impact on workers seems to be focused on whether technology is going to be good for workers or whether technology is going to be bad for workers. I think this is problematic because it misses the inherent point that technology is not necessarily good or bad for workers; it all depends on the social, economic and regulatory environments in which this change takes place.

In the previous session I heard the IPA talking about whether technological change is inevitable. But it's not necessarily whether technological change is inevitable; it's how this is implemented. When you think about the production of goods and services, you have the production function where you have workers and machines, and technology changes that relationship between workers and machines—we may have more workers; we may have less workers and so forth. That seems to be where the debate is focusing all the time: what jobs are going to come, what jobs are going to go and so forth.

What that misses is alongside that is another related thing that's happening. When goods and services are produced there is income that is produced from that production, and that is distributed to capital and machinery and workers. What we're finding is that the labour share is at record lows, and it's decreasing. So when we talk about how technological change changes production, we need to talk about the environments that cause that distribution of wealth. At the moment, labour's bargaining power is being, essentially, decimated, which means more and more is going to capital. When you look at the labour-to-capital share the Australia Institute says, of every new dollar, recently, that is created, only 10c is going to workers while 90c is going to profits.

The second thing I wanted to talk about was the difference between skill biased technological change and capital biased technological change. Historically, when we talk about skill biased technological change we're talking about that change that has primarily had, up to this point—we're talking about the hollowing out of the middle class. You have certain jobs that are being replaced or made obsolete—primarily, repetitive, lower skilled tasks. And higher skilled tasks and higher skilled jobs may be being created. So you have this inequality between skilled and non-skilled workers, which we've seen a lot of.

What economists are now starting to find is that a lot of the technological change of the future may, actually, be capital biased. What this says is that some of the people who are skilled—previously whose jobs had been safe—may find a lot more of their work now being automated as well. Where we could address skills biased technological change with retraining and education, which I think is extremely important, that may not necessarily be enough in the case where there is capital biased technological change. So we need to focus as well, which is important and a thing that seems to be missed, on economic and social systems, the rights of workers to get a fair bargaining share, and the distribution of wealth.

The third thing I wanted to quickly talk about was the impact of technological change on these winner-takes-all large corporations that are, essentially, taking over entire markets because now they have access to markets that they never had before—your Apples and your Amazons and that sort of stuff. This is problematic because it creates more inequality when you have one firm or a small number of firms that, basically, dominate markets and you don't have the same levels of competition and so forth.

What the research is showing is that we are having a movement of labour towards these big employers. It's not necessarily that employers are hiring less labour and replacing it with capital, but these larger companies have inherently a smaller proportion of labour; they are more likely to invest in these new technologies and this new capital and so forth. So we are seeing a movement away from payments to labour also through the movement towards these large firms. Also, these large firms sort of have a dematerialisation of production. They are more focused on financialisation; they are more focused on the use of social capital rather than production itself, which uses inherently less labour. So those are my comments.

CHAIR: Thank you. Mr Dwyer?

Mr Dwyer: Thank you, Chair, and thank you to the committee for receiving our submission and allowing us also to speak today. Obviously we point to the submission that our union filed, but I will give that some additional context and call out some key items. The first is the retail industry and its sheer size, employing around 1.2 million people or close to 10 per cent of the workforce. So if the changing world of work impacts on retail then it will obviously impact on a whole lot of working Australians, and working Australians in an industry where, unfortunately, the non-full-time component of our workforce is much lower than the average across all industries. Forty-nine per cent of the retail workforce is non-full-time compared to 30 per cent across all industries.

The other worrying factor across the board is the contraction of full-time employment. We see you may have good months or bad months, in terms of figures, and they're bouncing up and down, but if you look across the last 10 years we have seen full-time employment drop from 72 per cent of the workforce to now less than 68 per cent. That's an issue that even more heightened in our industry. As to the issue of what is driving the change, particularly in retail: the big factors for us are internationalisation and obviously the digitalisation, which cuts across all sectors. Part of that digitalisation is online retailing.

You'll see from the submission that we do seek to put people first and at the centre of the economy. When you're looking at an economy and asking, 'Is it working?' we say that should be through the prism of, 'Is it working for ordinary working people?' There are five major issues that we touch on in the submission, calling on a change to the industrial relations legal framework. We do submit that those rules aren't delivering, on a whole range of fronts, and we do need, I think, as a community, to address that and change those rules. A couple of the obvious ones, in terms of the growing number of people outside the proper regulation of the industrial framework, are: employees are increasingly a smaller part of the economy, and we really do need to start looking at anyone who works. If you're working, you need to have a system that provides proper protections for you. And that goes to making sure that you've got proper provisions being made for your retirement as well. So there is a superannuation component there. But also portability of entitlements, where people are moving across industries and across sectors, would be another thing that would need to be looked at.

The other thing is collective bargaining, and there's been a lot of commentary recently, in terms of bargaining. We would submit that bargaining needs to be opened up—again, we are trying to capture as many of those people that perform work as possible, be they subcontractors, labour hire—and those people need to be included in the bargaining framework.

There's a lot that we say on vocational education and training. It is critically important that, in this fourth industrial revolution, the thing that's most reflected upon is the speed at which it's occurring. So access to ongoing training and education is critical. That links to the third call-out that we have in terms of making sure that we don't stop with regard to the pursuit of gender equity in the new world of work. We already have challenges and we don't want to see the gaps on those fronts actually increase. I point the committee to a recent report entitled *Women and the future of work*, which was initiated by Sydney university—the Research Excellence Initiative 2020. That was released on 6 March. It surveyed around 2,000 working women aged between 16 and 40. One of the key things is that 40 per cent of working women in that survey indicated that they couldn't access affordable training. So we have a rapidly developing economy and the changing nature of the workforce, and yet they can't access affordable training to keep up with that and try to skill themselves for better jobs so they can be more productive but also provide more fully for themselves as individuals and for their families.

The protection of data is another item that we call out. We make reference to the 'Big 6': Amazon, Google, Apple, Microsoft, IBM and Facebook. Roughly around 90 per cent of the world's data is now controlled by those six entities. That has impact across the community broadly, but in the workspace there's a whole lot of data that people generate when they're at work and there are no protections around that. We as a community haven't considered who owns that. Does it stay with the employer for a certain period and then transfer back to the individual? Should it be with the individual from day 1, upon their leaving the company? A whole lot of work needs to be done on that. The last thing we call out is that we've always been a supporter, as a union, of a proper and strong social security system that also needs to keep pace with the changing world of work.

CHAIR: Thanks, Mr Dwyer. Ms Rea, I'm sorry to do this just before you start. Senator Steele-John has to leave in a couple of minutes, so I'll let him ask a couple of questions and then we'll hear your opening statement.

Ms Rea: Sure.

Senator STEELE-JOHN: Excellent. Thank you so much for that. Dr Jones—and, as an Indiana Jones fan, I'm incredibly jealous of your name—I just want to summarise your statement. We've heard a lot in the argument about whether tech will be good or bad. It's kind of redundant because it depends upon the prism through which you implement and manage it. That would be an accurate summary of the main thrust of your point, wouldn't it?

Dr Jones: Exactly. People will try to have you believe that the fact that technology is going to change means that there is nothing we can do about it. There was a comment—something like: it's going to happen, so we can either accept it or we can accept it later. It's more than that. We're going to have new inventions. I'm not disagreeing with that, but it's not: 'Are we going to have it now or are we going to have it later?' It's: 'Are we going to let it go and do whatever it wants, with no consideration of the impacts on people and the distribution of wealth or are we going to think about how it's implemented in the economic and social systems in which it takes place and say, "If it's in an adequate environment, then we can all benefit from it rather than having more and more go to the wealthy at the expense of the majority"?'

Senator STEELE-JOHN: We've had this conversation many times as well. It seems as though so much of this argument is like the arguments that have been playing out since the 18th or 19th century, just with an app involved in the process now, around the freedom of capital versus the safety and rights of workers. Per Capita put to us the idea of an economic security account as a way of managing the realities. There will be many different employment lifecycles within the overall trajectory going forward and there will be a need for transferable training. Do any of you—possibly the NTEU folks—have a view on the merits of systems like that?

Ms Rea: I'm not sure what's involved in that notion of the economic security account. What are they thinking?

Senator STEELE-JOHN: Basically, the idea as I understand it is that the employer and the employee would make a co-contribution in the same way as superannuation is used, in order for there to be a kind of pool of funding that could follow the employee through their employment life to enable them to train and retrain as is necessary for the multiple careers we expect people to have to undertake.

Ms Rea: To me, that sounds like yet another way of getting the worker or the would-be student paying for their education and training, from which the employer is going to benefit.

Senator STEELE-JOHN: That was one of my questions as well. Something that we've heard over and over again is the way in which the emphasis on the responsibility for training is switched to the employee from the employer, and the need for that to be reversed.

Ms Rea: That's been an unfortunate aspect of a number of the submissions to this inquiry that I've read, as well as being, as you suggest, very much part of the popular discourse at the moment. I think, at a time when we're talking about the stresses and strains upon the individual having to train and retrain for different jobs throughout their life, the notion that it's up to each person to find some way of financing that is not just unrealistic but also not the right way to be looking at. The way it has to be looked at is from a societal point of view. If it is the view of society that we want people to learn the skills, have the education and training, take on the new jobs and, indeed, be part of creating the new jobs and the benefits that accrue from the work that they do, I would see that as a societal benefit, and I'd be putting emphasis back on the government to fund education and training.

Senator STEELE-JOHN: In your particular sector, there's been a lot of talk about the vital nature of either STEAM or STEM training in dealing with these issues. I wonder if you have any comments around the fact that we seem to be emphasising this as really important at the same time that your sector is as much a victim of trends in relation to casualisation as any other.

Ms Rea: Yes, you've in fact just very succinctly summed up the opening comments I was going to make, which I'll take the invitation to come back to later. I think we've very much caught in this space. It is indeed the people that we represent, in the higher education sector, who do the inventing that comes up with the technology that people are concerned about, as Dr Jones described. We also are responsible for the education and training—and it is a lifelong activity these days—at a time when our very own industry, our very own sector and our very own workers are being casualised at a rate which has not been envisaged before. Indeed, the sorts of conditions that Mr Dwyer was talking about, facing those in the retail area, are the sorts of conditions under which many of our academics, particularly the younger ones, are working. Indeed, as they go from jobs in retail to jobs in higher education and teaching, the young people will report to me that at least they didn't get homework from their retail jobs.

Senator STEELE-JOHN: Finally, Mr Dwyer, I think you brought up a point which we haven't heard in the last couple of hearings but which seems reasonably important, which is the increasingly opaque line between personal and private, in terms of the employee-employer relationship as it relates to data and Facebook. Where should the line between the personal and the private now fall in the employer-employee relationship? Do you have any additional thoughts on where those rights and limitations should fall?

Mr Dwyer: Not in terms of a clear proposition to put on where that line is. Rather, I think the community needs to start considering that. It's almost a conversation that should have started probably a decade ago, but we haven't actually given it the time that I think it warrants. We see now the interaction between social media and the workplace, usually in a negative context. We have to deal with issues arising from comments on a social media platform and whether that does or does not justify perhaps a termination. Yes, there are plenty of cases out there that have dealt with that, but as a community we have not had the broad conversation on the data footprints that I leave at my workplace: who owns those; how can they be used; and who is able to use them? There is a whole lot of—

Senator STEELE-JOHN: I would like to know whether or not that was a factor in my employment. I would think that would be an interesting question.

CHAIR: Ms Rea, would you like to continue with your opening statement?

Ms Rea: I want to emphasise briefly three aspects of our written submission. Our interests are of course in the education and training of the future workforce and in the jobs of those who teach and support their learning. My first point is in relation to the need for a well-managed and coherent post-secondary-education system supporting lifelong learning that is across vocational, further and higher education. This is absolutely critical to the education and training of Australia's current and future workforce. Increasingly, too, more jobs are requiring at least bachelor level degrees and this does put particular pressure upon universities at this time and into the future.

Secondly, I have comments about the funding framework. Government funding policy changes profoundly impact upon students' capacity to train, to educate and to retrain. Funding cuts mean opportunities are cut off midstream and are often lost, to the disadvantage of the student, the workers, the employers and the broader community. I can readily illustrate this point with the MYEFO statement of 18 December last, which froze funding at the 2017 levels for undergraduate Commonwealth Supported Places, or CSPs. The freeze equals a real cut in funding going to all universities, where teaching is already under-resourced and students' learning is compromised with larger and fewer classes, reduced assessments and fewer support services. The freeze does not affect all universities or disciplines equally. Institutions and disciplines that are most heavily reliant on public funding are the hardest hit. This means that regional and outer metropolitan universities, which have more students from disadvantaged backgrounds, and the high-cost STEM—science, technology, engineering and maths—courses.

The contradictions in policy initiatives to encourage STEM enrolments, including just last week the announcement by the Prime Minister to appoint Australia of the Year, Professor Michelle Simmons, as Ambassador for Women in Science, while the same government at the same time is in effect discouraging universities from enrolling more students, especially in the higher cost STEM courses. This does make the policy rhetoric somewhat contradictory. That the freeze falls particularly heavily on students with disadvantaged backgrounds, including disadvantaged regional, rural and Aboriginal and Torres Strait Islander students, also makes a mockery of the equality-of-opportunity rhetoric.

Further to my opening comments I want to speak briefly about the insecure employment in universities. At the very same time that we are relying even more upon the quality of education and training, the post-secondary-education workforce is increasingly employed precariously. Specifically, in universities only one in three employees have permanent jobs. Whilst it is arguable that some of the job changes in higher education are due to technological change, and this will continue, that is not my focus in these comments today. What we are seeing in our universities is a crisis in the academic profession, and it has nothing to do with technological change. It has everything to do with the mode of employment. University management's responses to funding inadequacies and policy instability, or dare I say chaos, have increasingly undermined teaching by employing more academic staff casually. Casuals now do over half of the teaching in our universities, and I'm not using the term 'casuals' loosely. What I'm talking about are tens of thousands of people, highly qualified, who are employed to run classes face-to-face and/or online for a few hours during a teaching session, and also to assess and grade the students, a very responsible activity. They make the decision as to whether you actually qualify for you profession and for a licence to practice. Some are even employed by the hour to write subjects and courses. Casuals have no say in reviewing courses, no increase in their pay rate, despite years of experience in many cases, no sick pay, no paid leave and no job security. They now receive some payment for marking and, in some places, for some other duties, which the union has had to fight very hard for and keeps fighting hard to retain. Many of these casually employed academics work long extra unpaid hours because they care about their students and about their discipline, and, of course, they want a more secure job. Many of these casuals have been employed like this for years.

University education is an expanding, not contracting, sector, yet only about two per cent of all new positions created in higher education over the past decade have been permanent teaching and research positions. Instead, what we are seeing is academic positions casualised when someone retires or resigns. With few academics in career positions, the sustainability of some discipline areas in some universities is in serious trouble.

I will finish with a highly relevant example of how gendered insecure employment is by talking about the situation of women researchers, which has attracted some attention lately, including, I note, some of the researchers working on the very project that I think Mr Dwyer cited, who are also on short-term contracts, which involves investigating what is happening in work and employment. We are well aware that women have had a tough time getting into and sustaining careers in STEM areas. Only about two in 10 senior positions in universities are held by women in these areas today and big research grants are still overwhelming run by men. But the problem starts back where eight out of 10 research-only staff in universities are employed on limited-term contracts—increasingly shorter contracts.

Research by Sharon Bell and Lyn Yates a few years ago asked why it was still so hard for women researchers in STEM areas, considering all the changes that have been made. What they found is that the consequences of sexist attitudes and behaviours persist, but the new problem was the overwhelming levels of insecure employment. Women try to juggle careers from one contract to the next, and have children, but unless they can get some stability of employment they cannot progress their careers. If a woman has children while not in employment, apart from no right to maternity leave she also cannot get back in because she cannot demonstrate continuous investigation and publication.

So, from our point of view the big issue for the future work is how people are employed. In our universities what were good jobs as academics or professional and general staff have become insecure for too many and this is not good for the workers involved, nor for the quality and sustainability of education and training of the future workforce.

CHAIR: I realise you have each made very detailed submissions as well, which some of us have started reading and others will finish reading. Thank you for all the work you've put into that. I am going to try to stay away from issues on which we have received a lot of evidence already and instead stick to some things on which we have not as yet had as much come up about. Mr Dwyer, I think it was you who raised the issue of portable benefits. If we are entering an environment where people are working multiple jobs we might need to rethink how we confer benefits on people and allow them to take them from job to job. That might be something a number of you would like to say something about. How would that work and why is that important?

Mr Dwyer: The first thing to ask is why it is important. It is important because it would, I think, better reflect the nature of the workforce now, where we do have people changing industries or, in our industry, changing employers, as well as those who exit the industry. One of the better illustrations of it—and I know the ACTU turned their mind in some part to this—is long service leave, which is a benefit that presents itself as one that probably could be more readily than most put into a portable framework—that is, like a superannuation account, we have long service leave accounts that we take with us through our working life and cash in at the time that we fall eligible for it, but the money is there.

There is also some equity in that in terms of it not being just one employer who pays for it. At the end, everyone has paid their component on their way through, but the individual worker still maintains the entitlement. That's one of the things that people miss out on in such a fractured and high-turnover workforce; they don't have the capacity to stay with—or aren't able to stay with—one employer for, let's say, the 10 years. I know that there are triggers prior to that, but there is a general framework of 10 years to access long service leave. The person has been in the workforce for 10 years and they may have even been in the same industry; why can't they access long service leave?

Mr Roberts: Can I supplement that? I have a background in the construction industry, where portability of entitlements has been a consideration for many years, dating back to the 1970s, when the industry first established portable long service leave entitlements. That scheme now exists in every state and territory in the country and has functioned as a very effective way of managing the problems of itinerancy that arise in the construction industry.

One issue that we looked at some time ago was the extent to which employees were losing, through insolvency, entitlements that might have been available to them had there been portability schemes in place and contributions being made along the way. For example, in the construction industry, the figure that we came up with for a single year, 2013-14, was that employees lost $137 million worth of entitlements, including superannuation, holiday pay and the like, through employer insolvencies. Of course, that's a figure that's ultimately picked up by the Commonwealth these days through the FEG arrangements. But if portable schemes were in place and applied across industries, not only would employees not miss out but the Commonwealth taxpayer wouldn't be picking up the tab.

Ms Rea: May I add a comment? Obviously, we're very much in support of finding schemes. There are some schemes that work and then you hit the barriers that Mr Roberts was just talking about. I will make the comment, though, that you have to have some benefits and entitlements to have them build up and transfer, and for many in the sorts of casualised roles that I've just been talking about there ain't none.

CHAIR: Got to get them first.

Ms Rea: Super is probably the only one.

CHAIR: Yes. One of the things that I think was in the ACTU submission, but others may have made this point as well, was your view that enterprise bargaining, as it's currently constructed, is no longer working. Can

you just tell us a little more about that? Again, other unions might like to contribute to that. Why is it that you think it's no longer working and what sort of system do we need to be moving to for the future?

Mr Roberts: I will make a few comments, and I'm sure my colleagues will have points to add on top of those. The figures bear out our claim that the enterprise bargaining system is really struggling. If you look at the most recent figures—I think they were released earlier this year—you will see that workers covered by enterprise bargaining agreements have dropped by about 750,000 in the last four years. And at the same time, I think that the figures for award-reliant employees over the last eight years have increased from about 16½ per cent to about 24 per cent of the workforce, so an increase there of 50 per cent.

There are all sorts of reasons as to why that is happening. I think that one explanation is that the rules around bargaining are just so incredibly prescriptive and difficult to manage. Even where unions are following all the processes set out in the act and get to the point where industrial action or some action in support of their claims might take place, you're still confronted with commission processes that can eventually lead to the suspension or termination of the protected action. The matter goes no further and bargaining simply stalls. But to get to that point there are so many rules and prescriptions in the act that make the process incredibly difficult, and I think that a lot of people have simply given up.

CHAIR: Does anybody want to add to that?

Ms Rea: I'll just add that the NTEU certainly hasn't given up, but we've also found the full force of the way the laws are currently structured, in that one of our employers successfully had our agreement terminated at one of the universities—Murdoch University. However, after all of that and the stress and strain, particularly upon the staff involved, we've negotiated and are now looking at a new agreement. It seems to me that the rules are both very much broken in this regard and, frankly, I would say, quite cruel in what's happened to these people involved—amongst my members, and I know it's happened to others—in having to try and defend their working conditions, which seem quite fair and reasonable when compared to others doing similar work in other enterprises. They found that under the current laws they could have their agreement terminated, thus putting them onto the awards, which are very much stripped back in our sector, and then in the end have had to negotiate through the usual processes to get a new agreement, after all. It is of course excellent that that is the case, but that that was the process involved very much points to the need to do it better.

Mr Derrick: If I could round off the comments of my colleagues, which I support, the other observation which we make is that the enterprise bargaining system, as my colleague Mr Roberts has pointed out, is very narrow and very heavily regulated. We would point out that the workforce of 2018 and beyond is unrecognisable compared to the workforce of 2006-07, when the current act was first being considered. We now see very complex arrangements where corporations can reorganise their workforce through subsidiaries, through labour hire, through franchising and through dependent contracting. It effectively means that for a very substantial number of workers it is not legally possible to collectively bargain with the economic decision-maker under the current framework. That is a serious inhibitor on effective collective bargaining today and into the future.

Senator PATRICK: Mr Dwyer, you talked about Facebook, Google and so forth owning 90 per cent of data. I assume that's personal data you are talking about.

Mr Dwyer: I think it's a figure of global data. That's my understanding of it.

Senator PATRICK: You talked about data when people leave companies. I would have thought that in most situations a company retains the IP, the intellectual property, which is often contained within data. I'm just trying to understand where you were going with that.

Mr Dwyer: Again, it is one of those things that I don't think we've turned our minds to effectively. You're right, there will be components of that that would be intellectual property, and maybe some of that would have to stay with the company, but we all leave individual footprints, and we'd submit that some of that data belongs to the individual, and therefore should be able to go with them. That requires a set of rules around it: How do I take it with me? How do I ensure that it's been deleted at the employer's end? And, to your point, where is the line? What data is mine and what part of it is intellectual property that belongs to the company? I know things are moving quickly, but I raise it because it's a conversation that's been started globally amongst unions, but there's a whole lot of thinking that needs to be done in that space.

Senator PATRICK: Thank you for clarifying that. I'm directing my next question at the ACTU's submission. Mr Roberts, in your submission you have some predictions about future workforce composition. It appears that that is derived from a number of different sources. How confident are you in the data that's been provided in your submission?

Is this in some sense data that relies on empirical data versus some prediction on where things are likely to be?

Mr Roberts: It might be best if you point me to the specifics of the submission.

Senator PATRICK: Okay. On page 6 you have a diagram of projected employment growth by industry, and then you also have another graph on page 8 from the Committee for Economic Development of Australia, which talks about how those jobs will change as a function of computerisation. In some sense, that's an attempt to have a look at where we're going to be in the future.

Mr Roberts: Yes.

Senator PATRICK: Really what I'm trying to get to is how much work has actually been done by authorities to look at that data, as opposed to a think tank.

Mr Roberts: I suspect the short answer is 'not enough'. As I understand, there are conflicting schools of thought in this area about where the impacts will be felt. We're confident in the data that we've cited here, but, if you have specific issues about sources or the secondary or primary material in support, I'm happy to take that on notice.

Senator PATRICK: It wasn't an issue. In fact, it's one of the same things: you can't lie about the future. I think that's what salesmen say, at least! It's an attempt to look at where we are in the future, and my question really relates to whether or not we as a nation and as a government are paying enough attention or directing enough focus or effort to look at this sort of stuff very seriously, as opposed to a think tank that you've pulled some of this information from.

Mr Roberts: Again, my short answer is 'probably not'. We haven't given it enough attention, and we should, and this committee is a good sign that our legislators are starting to think seriously about the implications of all this and what it will mean. We're obviously particularly focused on the industrial framework and how work is regulated, and they are all matters that are determined by us—by you as legislators and us as citizens. We're not giving up the argument that this whole debate about technology is out of our hands and will be determined by the technology itself. We're here for the very reason that we want to put the case that this needs to be seriously examined and a framework needs to be put in place that is capable of adapting to the changes that are about to unfold.

Senator PATRICK: As Senator Watt suggested, we've actually heard a lot of evidence on that framework, and I think the committee's got a pretty good handle on that now, which is why perhaps we're steering towards other areas. So it's not that we haven't got your message; it's just that we have got it from other submissions and are now exploring other areas of the space.

This is perhaps to you, Ms Rea: obviously an understanding of the future workforce will affect training, and that's an area where you have an association. Do you have a feel for what is being done in that space, looking at where things are going to be, how that affects your members and whether or not your members are contributing to the problem space?

Ms Rea: Much of the research is done by members in universities who are trying to grapple with many of these issues, including the data issues that Mr Dwyer raised, but many of them are employed, as I just said, on short-term contracts. So the very way they're employed means the continuity of the research is an issue in itself. Indeed, I was listening to the men from the Minerals Council talking earlier about some tension, but I'd prefer to use the term 'collaboration' between tertiary education—both VET and higher ed—and industry, and government, of course. There is plenty of good work going on there but, indeed, one of the problems in that collaboration often raised by industry is the very one that they come back to the VET institute or the university and the person they were talking to is no longer employed.

This becomes particularly critical when you're getting into what it is that we're actually teaching. What are we writing into our courses? How relevant are they to the current demands of the workforce, balanced with the broader societal demands? We have a constant tension between the generic and transferable and being skilled for the moment. That's always been there. I know I started my career as a TAFE teacher. It was far too long ago now to want to recollect, but that was the talk even then—the last time we had a lot of technological change. Those tensions, I think, are good and healthy, but we do need to actually have some stability in postsecondary education, and stability really does come with the stable employment of people so that they can follow through on things. That is probably my main message that I'm trying to get to today. That's really critical.

The work is being done. I've got a very fortunate position. I hear about a lot of what's going on. My own background is as an environmental scientist. In trying to actually see how we do in a multidisciplinary way, we need to find what the problems are, understand what the problems are, do the research and then do the teaching and training that's needed to implement it. I'm optimistic of the capabilities that we have here. What I'm more pessimistic about is that we continue to run our postsecondary education in a chaotic policy environment rather

than in one where people who want to enter as students, whether they're in the workforce at the time or just entering the workforce, can see that they will be able to make their way through courses of study. They may be very short courses or some of them may be long, but all of these will keep adding up over their lifetime. I think that's the confidence we need to give people.

Senator CHISHOLM: This may be for the ACTU. As a senator for 18 months, I've spent a lot of time in regional Queensland, as have Murray and Senator Macdonald. I get a sense that the anxiety in the workforce around technological change is higher in regional areas than it is in capital cities. Is there any evidence that unions have picked up on this? The CFMEU and others might have a view on this as well.

Mr Roberts: I don't think that we've specifically focused on data for regional areas as opposed to urban areas. Maybe we could take that point on notice and come back to you.

Senator CHISHOLM: I suppose what I'm suggesting is that if you're in a capital city your ability to go and look for work elsewhere if your job does change is greater than it is in regional areas. Also, what we've seen is that labour hire and casualisation seem to be having a bigger impact in those regional communities. Therefore, the anxiety amongst the workforce, particularly those who are older, is having an impact on those communities and changing the fundamental nature of them.

Mr Roberts: I don't doubt for a moment that that's correct, particularly when you look at the prevalence of labour hire in some of the regional workforces. That is a real factor playing into people's perceptions of where they might be in the future and how secure their position is. For example, the incidence of labour hire in coalmining has expanded exponentially in the last decade and a half, I would say. I've got no doubt that that is a relevant factor for people in regional areas. Their options, in a sense, are more limited and they're seeing the impact of those non-standard employment practices in their industries.

Dr Jones: Can I add to that not necessarily talking about regional areas but talking about where industries exist in a particular region? I think manufacturing is a good example of that sort of stuff—where you have regions that had a lot of work in one particular area, and, whether it be technological change or whether it be globalisation, that industry changed and there were mass levels of people made redundant or laid off. Studies have shown that, of the people who are laid off, about a third of them will find equivalent full-time work, a third of them won't find work at all and a third of them will find lower income, insecure work. So I agree with your point. That decimates communities when you're not talking about one or two jobs, but you're talking about the main source of income for people within a particular region, yes. Whether you say it's worse—there are different problems taking place. But, in general, this idea of job loss and job change affects everyone. I agree.

Ms Rea: I think in regions where people have been reliant on a few big employers in the one industry, and so on, that people are more concerned cannot be doubted. Then, coming from education and training, I would immediately say one of the other issues is the access to education and training, but it also raises the issue of for what, where people could actually stay in their regions. I think what comes alongside, I suppose, my mantra on education and training is the collaborations, which can create new industry too and in areas that people want to work in.

Senator CHISHOLM: Mr Dwyer, with regard to the casualisation, and I know that you've touched on that in your submission and verbally as well, I know from the Queensland point of view that the casualisation rate has been higher. It's been growing across Queensland, but it's been higher in regional Queensland than it has been in the south-east corner. Is that something that's a trend around Australia? Is that something that you've picked up on within your union or is it something unique to Queensland do you think?

Mr Dwyer: I guess in my understanding of our industry it seems to be more national in flavour. I am aware though that in the recent job figures, in terms of creation of full-time jobs, that was much higher in, say, New South Wales versus Tasmania. When talking to the Tasmanian branch and with what's going on in Tassie, a lot of the jobs growth is in tourism and also in construction. The construction component is providing some full-time jobs but not necessarily long-term, because they're there for the duration of the job. In tourism it seems to be very much casual part-time. And when that goes up our industry will also see an increase in hours around that increased activity, because people will access the shops. So, yes, there are state variations, but I'm not aware of that being a particular issue in Queensland. I can't say whether it is or isn't, but I guess from my point of view the casualisation is more of an issue for us either within sectors or within particular companies. Some companies run at higher casualisation levels than others. That's a constant debate within the industry in terms of us trying to promote more secure employment. Management teams might come in and take a completely different view, and we see a company that had higher levels of permanency then go down, and vice versa.

Senator IAN MACDONALD: Thanks very much for coming along and for your submissions. Mr Roberts, this wasn't my question, but the anxiety in the coalmines I think is more from a push by some in politics to close down all coalmines than from worrying about casualisation of the workforce. You'd agree with that. I know your union is as concerned as I am about that, and trying to do what we can to save jobs in the coalmines.

Mr Roberts: The entire trade union movement is concerned with jobs. That's why we exist. That's why we're here today to put our case about the future of work and how work might be regulated. I'm not going to comment on particular projects. I was mentioning the coalmining industry from the point of view of the growth of labour hire in that industry, the insecurity around fly-in fly-out arrangements and what that means for local communities, and the use of labour hire to push through enterprise bargaining agreements that are literally one cent above the award rate to lock out effective union bargaining from that industry. Those are the sorts of things that our members are concerned about.

Senator IAN MACDONALD: I agree with all of that, but, of course, having a labour hire job is better than having no job at all. And at the rate that one element of our society is going, there won't be any jobs in the coalmines, and that is really causing anxiety in the coalmines that I'm familiar with in central Queensland. I wonder sometimes why the unions aren't more aggressive in supporting those coalmining jobs than they appear to be. It might just be appearance. Is there a response to that or have I got it wrong and you are trying to support them but we just don't see it?

Dr Jones: I'm just going to agree with Tom here that labour hire and casualisation is absolutely a big concern for members—

Senator IAN MACDONALD: It's better than no job at all though; is it not?

Dr Jones: But do you have a race to the bottom with conditions and that because of the situations that arise? We have an example in our submission of where employers and companies are using labour hire and casualisation to undermine local conditions and wages. I don't think that changing industries, changing jobs and structural change within an economy justify the use of labour hire and casualisation to undermine local wages and conditions.

Senator IAN MACDONALD: Would you think that no job is better than a job that's not paying as well as you'd perhaps like to see?

Dr Jones: Obviously we want to create as many full-time, permanent, stable jobs as possible.

Senator IAN MACDONALD: Yes, lots of them are available in the coal industry.

Dr Jones: Some things are going to happen—like structural change within an economy, like others have argued—and you are going to fight for as many jobs as you can, and we do do that, but that doesn't make the other okay. You're taking two issues here and asking which one is more important than the other. I think we have to fight for full-time, stable jobs overall.

Senator IAN MACDONALD: Okay. Well I look forward to your support in trying to save those jobs in the coal industry. I really want to ask Mr Dwyer a question. I go to Woolworths and I do the self-serve thing to prove to myself that I can do it. Of course it won't be long until that's the only thing there. As jobs are lost in front-of-shop retail are jobs increasing with online companies in warehousing, packaging, dispatch and logistics? Is there a correlation there at all?

Mr Dwyer: I think there's a correlation to some degree. Mind you, the material I'm familiar with probably needs to be looked at over a longer period. But it is fair to say that our industry is changing and changing quite rapidly. You are seeing fewer jobs at that front end but there is a growth in jobs in the fulfilment component—and I'm talking about specific chains that I'm familiar with. We are also seeing the creation of hybrids where you can't tell whether it's a shop, a warehouse or an online fulfilment centre. That doesn't particularly cause a problem for us, because we have coverage across that breadth. We do see movement, and I think we will continue to see movement.

Senator IAN MACDONALD: Is it sort of one for one?

Mr Dwyer: That's what I can't accurately answer. There is certainly that movement. Yes, we are seeing more in fulfilment and we are seeing less at the front end. I don't have data on whether they cancel each other out.

Senator IAN MACDONALD: We had from a previous witness some evidence that I thought was amazing about the number of jobs in the very-high-tech area. It blew me away because I was not aware of it. You were talking about part-time work as opposed to full-time work. Again I refer to my shopping experiences. Someone may work at Woolworths and start at 6 pm and go through till 10 pm. That isn't a full day's work, but I assume that with penalty rates their pay would be much the same as someone who works from nine to five. Is that the

case? Do you find that a lot of your members for family reasons—job sharing at home or whatever else—prefer to work fewer hours but at odd hours and hopefully get the same pay? It gives them something to do and gives them some extra money while it suits their lifestyle. Is that something that you experience with your people?

Mr Dwyer: We're like any industry that operates 24/7. We will attract people who have a preference for working particular hours, but there is also a recognition that, unfortunately, after 6 pm, if you're a casual, the retail award doesn't actually provide anything extra.

Senator IAN MACDONALD: Really? Is that true?

Mr Dwyer: The 25 per cent loading for a casual is cancelled out by the 25 per cent penalty. We have an application for that before Fair Work, and we have had one since the beginning of the 2014 modern award review. But if you then move off the award and into agreements, yes, you will have people who have preferences. I accept that, but you will also find that there are penalties associated with certain hours. Where you've got loaded-rates agreements those penalties would be less, because the hourly base rate is higher. It's swings and roundabouts, but I accept the point that there are preferences.

Senator IAN MACDONALD: What I was really getting at was: when you say there is fewer full-time jobs—don't take me up on the figures, but—do you class someone working four hours from six to 10 and earning the same money as someone who works full-time from nine to five as a full-time job, even though it's only four hours as opposed to eight hours—but getting the same pay?

Mr Dwyer: No.

Senator IAN MACDONALD: Is it the terminology of what is a full-time job?

Mr Dwyer: No. The thing that we find, and I think a few submissions have touched on this, is that our part-timers are wanting more hours, not fewer. Some have a happy medium and that's good. A little over 60 per cent of our industry is female, and there are a number of them who have a very strong preference for part time, but that's not for their entire working life. There are other periods when you interview them and they would love a full-time job. We have a real issue with part-timers wanting more hours, and in our bargaining at present we are trying to get clauses where people—

They might get engaged on a flat part-time minimum. If you go back to the award, it's three per week. What is more familiar in our agreements is a nine, or thereabouts, or a 12. But we have now been able to secure agreements with 15s and 24s. That is a 24-hour-minimum part-time engagement, which has been greatly appreciated by members. The other thing, though, is getting a mechanism whereby, if you regularly work 30 hours a week across a 12-month period, you've got some rights to go to the employer and say, 'I know I'm a 20-hour part-timer, but I've worked 30 hours in the last year, and I'd like to ratchet my minimum up by 10 hours.' The business knows that it's there and it's got 30 hours. It's been able to regularly give that employee 30 hours, so they then moved to be a 30-hour part-timer. It's life changing for them: when they engage a bank, the amount of money they could borrow on that could change. They don't have to point to the 20 hours and then try to explain, 'I regularly do more.' They can point to the 30 hours.

Senator IAN MACDONALD: I understand.

Senator SIEWERT: I don't know how many of you were there when the IPA was talking about the fact that we don't need any more regulation for the gig economy. Can I ask for your response to that. What happens if we don't address this issue through legislative amendment? What happens not only to those who are working in the gig economy but to those who are covered by the current system? How much do we undermine their workplace entitlements?

Mr Derrick: We point to the fact that inequality in Australia is at 70-year highs. It is inequality of income and wealth distribution. We point to the fact that the gig economy has, as was observed by Senator Jordan Steel-John earlier today, brought us back, in some ways, to the 17th and 18th century, but this time with an app. Our concern is that workers in the gig economy are being locked out of the system of universal rights that our industrial legal framework was designed to introduce and to protect the interests of workers in what is inherently an unequal power relationship with employers. We fundamentally believe that it is important that we have legislative reform to give essential protections to workers in the gig economy because we've seen what's happened with the changes to the workforce, particularly in the post-GFC environment with the growth in the power of big corporations and big business. We have seen what's happened with the complex arrangements that are now available to corporations to manage their labour force, perhaps to avoid some of the obligations that workers are entitled to under the Fair Work Act. Unless the legislation has a view to the future and has a view to providing protections for all workers, then our concern is that we won't take the opportunity to deal with that growing inequality and we will leave people behind.

Ms Rea: I did listen to the evidence given by the IPA and I have to say I was quite stunned at the notion that for those workers on low and variable hourly rates the focus kept coming back to the fact that it was their responsibility to manage their own risk. These are people who are particularly vulnerable—indeed, vulnerable as we picture them out there on the roads. I was also stunned at the notion that to enable new industries to grow you need to have a lack of regulation that puts the workers in extraordinary danger and allows them to suffer low wages and poor conditions. That is not a way we as a society would want to look at it. That is not the way you get new ideas—to have a go, to be entrepreneurial and innovative and all of those things which we see a lot of value in. We use those terms quite loosely. In the end, on the ground it's somebody riding around on a bike for one of those outfits delivering fast food or whatever or an equivalent sort of job. As a society we have a duty to protect those people.

Mr Dwyer: I have a couple of comments on the gig economy. There is a UK study which is familiar to our sister union in the UK. They have reported to us that in using—I can't remember the name of the platform—various platforms in the gig economy to chase work, it takes on average 18 hours a week to secure the gigs or the tasks. That is effectively half a full-time working week spent online finding your work, and all of that is unpaid. We don't understand as a community yet the erosion that's going on in the gig economy in people's entitlements—the hours that should be paid and the employment relationship that forces people unpaid to go in search of work like that. Another thing that comes out in this gig economy conversation is that this work is a supplement to income—it's just people putting things on top. Well, I am advised that for 40 per cent of Uber drivers it's their sole job; they're not supplementing anything. We also talk about, 'Oh, it's just a few hours here, a few hours there.' One particular food delivery operation has 30 per cent of its workers doing 40 hours or more per week and 10 per cent are reporting that they're doing more than 80 hours. When someone's doing 80 hours, I'd say that there was a real problem with the hourly rate of pay.

CHAIR: We are going to have to leave it there because we're well over time, but that's because there have been lots of interesting things to talk about. Thank you very much for coming along today. You can always supplement your submissions later if there's anything else you'd like to cover off.

Proceedings suspended from 13:24 to 14:06

OETOMO, Dr Denny Nurjanto, President, Australian Robotics and Automation Association

WOODEN, Professor Mark, Professorial Research Fellow, Melbourne Institute of Applied Economic and Social Research, University of Melbourne

CHAIR: I now welcome representatives from the Australian Robotics and Automation Association and the Melbourne Institute of Applied Economic and Social Research. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you. Would you each like to make an opening statement? Then we will have some questions for you.

Dr Oetomo: The Australian Robotics and Automation Association thank the committee for the opportunity to make our thoughts and opinions known on the future of work and workers. We are an association of robotics and automation researchers and institutions, including industries, and therefore I see our expertise with regards to this hearing to be focused on leveraging our understanding of technology and, from there, its socioeconomic impact. We are basically the technologists. I have made a brief submission. Unfortunately it was only submitted yesterday, and I apologise for the timing. We basically made a few points or arguments that we would like to make clear to the committee.

The first one with regard to the context of this hearing is that we would like to argue that technological advances are need-driven and therefore should be embraced. The fear of technology would not be a positive thing, in general. It is actually bringing about productivity and benefits in general.

We would also like to make an argument—this is prevailing thought within the community of robots and automation—against full automation. Human labour will remain a significant part of our socioeconomic activities, and doing otherwise is still not realistic in the near future.

We also make an argument that just because a job contains elements that can be automated, it does not mean that it should be automated. There are a lot of other factors that are not considered. We are referring specifically to a few pieces in the media that have been published that might have caused concern among the general population. A well-known one would be the Frey and Osborne piece written in 2016 that predicted 47 per cent of US jobs can be susceptible to automation. We would just like to point out that the actual outcome of the research stated that such jobs contained tasks that can technologically benefit from the involvement of intelligent computing powers and autonomous systems; it doesn't actually say that they will be automated. I just wanted to clarify those points.

Aside from that, I would just like to conclude by saying that robotics and automation technologies will be a significant part of our socioeconomic future. The main expected difference that it makes today is to the nature of work and how it will be redistributed in terms of the human resources into tasks that best leverage the advantage of human cognitive capabilities. In that case, you will serve the focus of human resources towards the more value-added exercises. Those are all the main points I would like to convey. Thank you.

Prof. Wooden: Thanks to the committee for inviting me here today. The essential premise of my short submission is that technological change is nothing new; it has been with us throughout most of the last 200 years. Indeed, many would argue, including myself, that the biggest, most important technological advances occurred well over a hundred years ago. Think of the internal combustion engine, the telephone, electricity, indoor plumbing—can't live without that! And there is no doubt that technological change is disruptive. But history shows that, while many workers are displaced by technological advances, a great many more jobs, often in new industries previously unimagined, are created.

There has, for example, been much talk in recent years about the disruptive effects of computerisation, but the computer age has been with us for some time now. I think I date it as 1977, which is when the first desktop computers targeting the mass consumer market appeared—the Apple II, the Commodore PET. And the internet age is now in its third decade. So, again, this is not new. What has been the effect on the Australian labour market? Today they have changed our life, have fundamentally changed everything we do—we carry these devices with us—yet the Australian economy today is generating more jobs than it ever has in the past. Indeed, in the very latest labour force survey figures, for January 2018, after you seasonally adjust, the proportion of the working age population in employment was 73.7 per cent. It's never been higher.

Some say the next wave of innovation will be different and that advances in artificial intelligence in particular will herald a workless future. Maybe they are right—I'm not going to pretend I can predict the future—but if that is so then it is still a very long way off. The central task of policymakers today is one that hasn't changed: how to ensure that Australia as a nation can maximise the benefits from the opportunities provided by technological progress while at the same time ensuring all Australians, or as many Australians as possible, share in those benefits.

CHAIR: Thank you very much. I've got some questions, but would anyone else like to kick off?

Senator PATRICK: You asked the question: how can we maximise the opportunities? What's the answer?

Prof. Wooden: I've given a few little clues, and these are really just personal opinions. I think one of the first things is to get our technological infrastructure right, and I don't think we're off to a good start there. We've got the NBN, so already we're rolling out an outdated technology. We're going to be spending all that money and then within a decade we're going to be spending it again, and some. We're going to need to keep up with the world, and that's just one very small example—but a very high-profile one—where we're not doing that well.

'Education and training' is the usual catchcry. I can't really argue with that, but the problem we've got going forward is that the sorts of skills that are going to be most in demand are the things that are hard to teach: the soft skills, the interpersonal skills. A lot of these are acquired through life. You still get the same problems. The people who are most disadvantaged on formal skills often lack the personal skills too because of their background, their bad start in life. So you still have those issues: how to ensure those gains; how to create an education system that can deal with that. It's not just churning out more degrees. Yes, people who get degrees do better, but lots of university graduates will tell you: 'I'm not using my skills. I'm overqualified for my job.' I don't think they're overqualified. They just haven't got quite the right mix of skills. So maybe it is rethinking our education system. But these are big, big questions and I'm not going to pretend I know the answers.

Senator PATRICK: One thing the government is looking at is changes to higher education. There's been a proposition that we need to perhaps have a review of that. Would you say that a review, if it were to occur, must look at not just how to organise the secondary or tertiary education sector but how to do that in a way that is cognisant of future change—which is inevitable, according to almost every witness we've had?

Prof. Wooden: It's always been with us. You've still got to get the fundamentals of education right. I think that a lot of that comes in the early years. You've still got to get the basics right—numeracy and literacy. But when you're preparing people for a vocation, which I think, traditionally, has been more university and post school, I'm not sure we do very well with our TAFE system. How's that faring? It served very well in an era where there was the old traditional apprenticeship in manufacturing. Well, manufacturing jobs are really not going to be with us—not in Australia. But, again, we've known this. We've wrestled with traineeships in the service sector et cetera.

My fundamental point, though, is: how do we create a world where people can take advantage of technology? And the kids today are a lot more savvy with this stuff than we are. They're already growing up with it but we're still going to have a problem with distributing the gains. There are still going to be people who are going to do much, much better—they will do far better from this. One of our concerns, if there is this big surge in productivity—and, by the way, we haven't seen it in recent times; productivity is flat like a stone—is the new wave of entrepreneurs. You had one of the success stories earlier today. The gig economy; no—he's now employing how many thousand workers? He's a multibillionaire—

Senator PATRICK: It's 2½ thousand.

Prof. Wooden: But how do we make sure that people like him don't reap all the gains and that we share them more broadly with some of the people who've missed out and who don't have the soft skills?

Senator PATRICK: Going to you, Professor: we've had a lot of people talking about AI and saying that in actual fact it's lagging the expectation in terms of delivering outcomes.

Dr Oetomo: Yes.

Senator PATRICK: What about in robotics? We see competitions where robots are fighting each other—

Dr Oetomo: That's right.

Senator PATRICK: But in terms of serious applications, clearly, in manufacturing there are some. But in terms of replacing some of the 'mandraulic' jobs, where are we?

Dr Oetomo: It was briefly touched upon in our submission. In fact, that is almost the central point that I would like to make. As I stated, we don't see full automation taking place in the near future. There are a lot of things that you and I take for granted, that we do so easily, but which are very hard to code into a machine. Therefore, there is always room for humans to be paired up with machines to do the job better. So, you won't see a complete annihilation of the sector but you would just have a redistribution of tasks. A human might be in charge of machines, or work with machines, where things that are naturally suited for automation should be automated, because that makes sense. And those that should not, because they are a lot more complex and have accountability, responsibility and things that we generally don't like machines to do, or that are difficult for machines to do, should still be left for humans to be in charge of.

Senator PATRICK: Let's put a time frame around some things—in the next five, or perhaps 10, years. If we looked and said that, clearly, robotics have been bedded in well in places like car manufacturing and other manufacturing places—

Dr Oetomo: That's right.

Senator PATRICK: In the next five to 10 years, where do you think the major change will be. Looking back 10 years from now, what jobs will have been taken over by robotics?

Dr Oetomo: I don't see the day when a full-blown artificial intelligence would be given the responsibility of running very sensitive tasks. I can bring up very simple examples, like house plumbing. I wouldn't automate that, because you call a plumber for that reason. They're going to have to crawl under every set of plumbing, and they're all different. There is too much variation in the type of plumbing in somebody's house. It's going to be around the corner and down the sink and all that, and it's going to be different every time. And there will be the tight bolts that they can't undo and all that. It's different each time. You would be better off equipping a plumber with the right tools—hand tools—to do it rather than saying, 'I could send a robot right now and it will do it.' I don't see that happening, for instance.

Senator PATRICK: In fact, you're answering a different question. You're answering the question of what won't they be doing—

Dr Oetomo: Yes.

Senator PATRICK: What will they be doing? What do you think they will be doing?

Dr Oetomo: In fact, this article that I cited by Frey and Osborne actually cited a very good set of characteristics that they found will be automated. These are the jobs that can be automated. Things that can be automated are things that are clear; you have a set of steps that robots could follow. Those are easy to automate. In fact, they say that accounting is pretty easy to automate because you just follow the rules!

When there are clear rules to follow, robots will do it. When you start leaving them to make judgements, you do not want that. Even shearing a sheep was attempted in the 1980s. Until today no-one else has tried to shear a sheep with a robot, because they know that is a hard job. A student came up to me saying, 'I want to do sheep shearing with robots' and I said no. But then he explained to me that he wanted to build an assistive robot, because

the person who does the sheep shearing would end up with permanent injuries after four years—most of them do—and the job of the robot would be to take away some of the injuries that would happen to the person. So you have a pairing between the best of the human, who has the tactile sensors that know what do with a sheep, and the technology that allows him to protect himself and, at the same time, make the job a lot easier. That would bring about a lot more productivity and gain rather than saying, 'Let's automate sheep shearing.'

Senator PATRICK: If we did automate some sort of robotic task, what are the side jobs that would come with that sort of technology being in play?

Dr Oetomo: For the human, you mean?

Senator PATRICK: Yes. You replace the human with a robot that carries out a particular function. There must be some new functions created that are related to the robot.

Dr Oetomo: Right. I would say that you wouldn't even replace a person. A check-out counter in a supermarket hasn't completely replaced the human, just because the robots can't be entrusted to deal with all possible scenarios. You still have the human to deal with that. There is that one person with 20 machines. There will still be one Woolworths or Coles person around. You wouldn't completely replace a human. You would probably use fewer staff and, therefore, you would probably have better productivity. You would not replace the person completely, because there is often some components of the occupation itself where you would find it difficult to replace a human.

Firstly, within a conventional job as it is, there will be tasks that still reside with the human. This means you automate a fair bit of the subtasks. You would have new jobs in creating the robots and servicing the robots. That is the new job that you would end up having to create. On top of that, there will be new jobs outside of the conventional occupation that would come up, like today with apps and all of that. There will be a job called apps designer, which never used to happen; it never used to exist. So there are several categories, but within the conventional setting of the job itself there will be jobs that will still retain the human and there will probably be new functions created because of the robots.

Senator PATRICK: Thank you. That is very helpful.

CHAIR: In the end, isn't the issue: what happens to the people whose jobs do get displaced? As you say, there are a range of new occupations that arise. The stereotype is the blue-collar male who is going to lose his job. Obviously, there is a massive impact on women as well. What job is coming for those people? Are they going to be ready to do these new jobs that you are talking about in automation?

Dr Oetomo: I think we are training and upskilling. Again, it's person-to-person variation. There is a section in my submission that I call ' Effect of Robotic and Automation Technological Advances on Job Security'. I point out that I could think of five different ways that people could lose a job. You could lose it because of yourself. You could lose it because the company closed down. I said that if you employ the right productivity tool you would actually help to avoid getting less competitive and therefore having your company close down. Then Nos 3, 4 and 5 are probably less important. They argue more for the advantage of the robot. Point No. 2 goes to the loss of an entire sector of industry due to loss of relevance, where the need that the industry serves is no longer there or is significantly and clearly better served through other methods. It is like the scenario that you mention. That is probably the classic scenario which we should be concerned about in terms of retraining people. Potentially, it is not just retraining but a more pre-emptive upskilling to maintain the employability of the workforce. Out of the five points, that is the only one which I thought we should be paying more attention to, because, with the rest of them, I doubt that robotics and automation technological advances in general would actually harm their job. That's only one out of the five points that we're talking about, from the way people lose their jobs.

In terms of context and proportion, I don't see technological advances overall as a factor that reduces the number of jobs—as Professor Wooden also pointed out—but they are a vulnerable sector that we may need to pay more attention to. Again, education, retraining and upskilling is generally the pre-emptive way of dealing with that.

CHAIR: I want to ask you about the ethics of the use of artificial intelligence and technology. A couple of witnesses we've had, in earlier hearings of this inquiry, have talked about the need to urgently try to have a debate about what the ethics around the use of AI and other technologies should be, and it's been put to us that that's quite underdeveloped, both in Australia and internationally.

Dr Oetomo: Yes, that's correct.

CHAIR: Do you have any thoughts on that, and what role is there for government in defining that?

Dr Oetomo: Yes. That's always a difficult question. AI, by its definition—we use them, we code them and we know how it works—differs from our conventional techniques of controlling mechanisms, machines. AI will control machines, will control software, will control things. That's why the impact could be massive if something went wrong. If you have the software to run your defence system and it goes wrong, the impact can be significant.

The difference between artificial intelligence today compared to the conventional code that we used to write in the past—I don't know how deeply I should really go into this—is the fact that there is uncertainty, that we don't know about these codes.

CHAIR: Just in the interest of time, if you'd like to take a question on notice from us and maybe come back—

Dr Oetomo: Sure.

CHAIR: I'd be interested if you could point us to anything that's happening, either in Australia or internationally, that you see as best practice around managing the ethical implications of AI.

Dr Oetomo: There's very little. I think there needs to be a guideline, almost like the old ISO 9,000 type of guideline, that requires codes to comply with certain compliance regulations. The issue with AI, I will point out very quickly. A traditional code is written in a rule base or case base or model base. We do signs. We know physics has laws and Newton's law. If we drop a stone we know how it will behave. If we drop a different mass at a different trajectory we know how it will behave. We know what is expected, so if I tweak it I know what will happen.

The problem with machine learning is you don't have that. You have lots of data. It's predicated upon the availability of a lot of data. Basically, we're saying, 'Here are 100 photos. Here is a chair.' You tell people, 'This is a chair, this is a table and this is a car.' You show them a picture of a glass and you say, 'What is this?' They will say, 'It depends on how you write the code.' You could say, 'If you don't know, then resort to one of the following, that you know.' And they will say, 'It's a cow,' or 'It's a cup.' Sorry, no cup. You've just shown them a chair, a table and a car, so they might say, 'It's a table.' Or you could leave it to the unknown. You could say, 'Extrapolate; interpolate.' Then, because it doesn't have a case, you don't know what it's going to say. So the decision is not—we don't know what to expect, sometimes, when it starts to interpolate or extrapolate a decision. That's where you need to regulate, with the practice where we write codes. We can't leave these things unchecked.

Senator STEELE-JOHN: Professor Wooden, I want to pick up on one of the last lines in your submission. You say, 'The skills that will be most valued are hard to teach: emotional intelligence, creativity, critical thinking and adaptability, which are generally known as soft skills.' What I'm wanting your opinion on is whether you think, fundamentally, our education system is able, at the moment, or designed for the delivery of those skills. We're a bit deep in the weeds but I wouldn't say it necessarily is.

Prof. Wooden: It's very tricky. You probably really want to have an educator in here who could offer a more informed opinion. I think schools and universities, in theory at least, pay a lot of lip service to the notion of creating independence in the student, critical thinking and problem solving. That's all now very much part of the established rhetoric. At the same time, you've still got to teach the core skills from which the foundation. But there's no doubt that, in my opinion, this is the one clear thing that the world of technology brings—and it's already with us, computers—that we're able to use it and benefit. I don't think I can really answer your question and taking it on notice isn't going to help me either. I agree with your sentiments that our systems are not totally well placed. There is an emphasis on qualification—that's just my personal opinion—but universities are, in theory, supposed to encourage critical thinking and problem-solving, and the students who succeed should be better at those skills, and I think they are. We've got lots of university students, all getting degrees, and they're middle-of-the-road. The average quality of a university education has probably dropped in some sense due to the great expansion in our success at getting many more to go to university.

Senator STEELE-JOHN: We heard yesterday that you can do as much as you like at the university level but a lot of these skills aren't properly given emphasis in the pretertiary space and so we, say, drop art a lot sooner. We start teaching kids art, then we go to something else and then we come back to it as optional.

Prof. Wooden: I think the reality is that a lot of young people who will fare well in the future come with these skills through life, through family and through connections. The key thing is: what can the education system do for those disadvantaged kids? That's always been the challenge of the education system—how uplift the most disadvantaged—and that's still the challenge. It's been the challenge of formal education and it will be even worse here, I think.

Senator STEELE-JOHN: Yes, I agree.

Prof. Wooden: Then the problem is we could end up with a world that is less equal, and that is one of the challenges with new technology: it is conducive to greater inequality. The governments have always, in Australia at least, had a desire to rein that in, and I think the challenge will be harder going forward.

Senator STEELE-JOHN: Indeed. We heard earlier from somebody making a submission who was quite passionately of the belief that jobs which would evolve, or were reliant on cars or trucks as forms of transport, would be at risk of rather rapid automation. He had a seven-year-old child and never expected them to learn to drive a car because we'd have driverless cars by then. I'm just wondering, since we've got an expert in the room, what's your view on the speed at which the transport sector will be subject to automation?

Dr Oetomo: It actually surprised me—but what it achieves is understandable and realistic—it may be automated a lot sooner than I originally expected. Barring a few factors, which are the human factors, like the fact that maybe I don't want my car automated, there are a lot of people who buy their BMWs because they want to drive them, not because they want them to be automated and sit in it.

Prof. Wooden: We won't allow them on the roads!

Dr Oetomo: And it is a challenge to automation if you do not have everyone automated.

Senator STEELE-JOHN: Would you be able to give us a 'guesstimate' time frame in your professional opinion?

Dr Oetomo: I can only guess from the technology. The technology is probably less than 20 years away but, again, as I said, just because it can be automated doesn't mean it will be. If you are on a highway, for instance, you often drive and then there will be a jam so you slow down on the M3, or whatever and then you chug along. Then, it just clears up and you start driving again. You think: 'Why's that?' Because there are traffic dynamics. It takes time to slow down and it takes time to start again so you create an inefficient flow in the traffic. If you automate everyone, you can come into a highway, set it onto auto—whatever it's called now—and everyone could travel at 100 kilometres per hour and the computer would organise everything. It knows where you're going—'You should be getting out, so you move to the left lane; you are not getting out yet, so you move to the right lane.' They drive all the cars. If there is one car that is not under the computer's control, it will mess everything up. You can't do that. You just have to have everyone subscripting to it and doing it.

Senator STEELE-JOHN: It's the variability of putting an automatic system with—

Dr Oetomo: Yes. Again, that comes back to variability. Computers are just not good at—I don't know the detail. For instance, one of the algorithms is to follow the lines of the roads, so they follow the lanes. If suddenly something happens and there's a crack on the road and some of the lines are deleted, that would cause some issue with the algorithm. Generally, that's common enough that it would be foreseeable. The car manufacturers who have such features would deal with short errors like that. But, as humans, we know what to do. With machines, again, we don't know what they're going to do. These are the things you have to look after in the transient of the implementation.

Senator STEELE-JOHN: Finally, an example you gave, which I think is actually quite pressing, is the automation of the check-out—the Coles example. What we see there are jobs that have gone and some jobs that have been replaced to make sure that the machines work, because people still want to interact with one or two humans. We see two things there: more jobs have gone than have been replaced just in that check-out space and, also, the jobs that have gone are entry-level jobs that would have been taken by people coming out of unemployment and back into the market or entering the employment market for the first time. Although jobs are replaced by jobs, the way that change is makes the entire dynamic different.

Dr Oetomo: Yes, and that's the transient part; that's the change. They could reshuffle and redistribute the staff to other parts of the supermarket. But I'm guessing Professor Wooden is better placed to answer this.

Prof. Wooden: In my submission I show a chart. It's not due to me; it's from the Reserve Bank. It shows that the jobs that are already declining are anything involving routine skills. You talked about computers—anything that can be routinised. Routinised jobs generally don't require a lot of education or a lot of background, so they are filled by inexperienced people and are entry-level jobs. Anything that can be routinised are the jobs that are going. That's what I'm saying. You can no longer come out of school—maybe you didn't make it to year 12. In the old days you'd get to year 10 and then just say, 'I'm going to get a job.' Those days are gone. You now have to bring something. It doesn't have to be a degree or a qualification or a skill, but you have to bring something that you can add to it.

I think those routine jobs are all gone. Autonomous vehicles is an interesting one because, obviously, it's going to depend on the government. Basically, you're going to have to regulate that into existence. There's no way it'll happen without government. I think we can forget check-out operators. I think the technology must be there

already where you just take your trolley straight out the door and they send you a bill or directly debit your credit card, which they've already got on record. They're gone. But there are a few entry-level jobs going to be left as long as they're not routine. I can think of an example. There's been a growth in personal shoppers. Do you know what they are? Because of the growth in online home delivery, done by contractors, probably, there's someone back in the store now who's having to pick the stuff off the shelves and put it in the basket. I bet you that some of the people who've lost their jobs as check-out operators are now personal shoppers. I don't know which job is more or less challenging. They're probably very similar. The routine jobs are gone. There are still going to be some low-level jobs left, but they require cognitive ability or thinking or variance. You used that word 'variability'. They require that sort of human factor.

Senator STEELE-JOHN: Thank you.

Senator IAN MACDONALD: Won't the robot go along and just pick out your groceries for you?

Dr Oetomo: They can. There are those as well.

Prof. Wooden: That's what they're doing at Amazon.

ACTING CHAIR: Thank you, Professors, that was very, very interesting—very informing. Thank you very much.

HENDERSON, Dr Angus, General Manager, Australian Council of Learned Academies

[14:39]

ACTING CHAIR: Welcome. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you.

Dr Henderson: Yes.

ACTING CHAIR: I now invite you to make a short opening statement and at the conclusion of your remarks I will invite members of the committee to ask questions.

Dr Henderson: ACOLA, the Australian Council of Learned Academies, is a company that sits at the centre of the four Australian learned academies. In doing that we have access to a vast amount of expertise from Australia's finest minds from the different disciplines of humanities, social sciences, science, and technology and engineering. Most of our projects are for the Australian government—indeed, the Commonwealth Science Council and the Chief Scientist. We typically run projects on technology adoption and change because of the impact of technology on society and culture, and the economics of it. From the four academies, we bring experts to drill into these problems of social change.

We have recently completed a major program for the Australian Research Council and the Chief Scientist, called Securing Australia's Future, which was the subject of several reports. I think a minimum of seven of them were referenced in our submission to you. They looked at STEM capabilities and they did an analysis of Australia's comparative advantages. They looked at the role of science and technology, and at research translation and its role in terms of economic development and growth. One of our more recent reports has been on the skills required for an innovative workplace. We did a survey across 100 or more of Australia's most innovative companies and developed a toolkit. We did an analysis and developed a toolkit on what the skills profile might be, and, if you were a human resource manager or, indeed, the CEO of one of these companies, how you might start selecting your staff.

After those 12 reports, we have completed that program and have launched into a new one, which is still for the Chief Scientist and the Commonwealth Science Council. We were talking before about AI, and we're about to launch into a project on AI. One of its focuses will be on the ethics and the social implications of AI. That's under our horizon-scanning program.

Although each of the reports that we have done over the past few years—since 2012, I think—have looked at different areas, like agriculture, unconventional gas, STEM education et cetera, you can pull out a handful of elements which are common between them. That is what I would like to address very briefly here. One is that the services in Australia have been an area of considerable growth and will continue to be. The natural evolution of that has meant that manufacturing and other industries in Australia maybe don't employ less people; indeed, it's the services that have been increasing the numbers of people employed within them. I also notice that in the statistics that the ABS collects—which is relevant to the previous witness—there is no classification of robot technician or app developer. I think, as these roles become more and more prevalent, these are categories that you might start counting heads in.

Another theme throughout it is the development of an innovative workforce—I guess that's education and workforce training. Often, because of the nature of the academies, we look at universities, but the vocational education sector is, I think, a particularly important one. The fundamental is that STEM disciplines are essential, but they're not enough to bring the creativity and the management skills and all of the other things that a competent industry or competent country has to have. You need to bring a mix of these skills, and that was also addressed in the final report on workplace innovation that I talked about.

There's also a positive if you look at the more innovative workplaces. There's a positive correlation between the most innovative workplaces and those that employ and those that have workplace training programs. The ones that maintain and put their education and the professional development of their employees at the forefront are the ones who are most productive and end up succeeding. As I said, vocational education is something that I think also to change. Rather than training people for a specific vocation, I think they need to start giving them the skills so that they can be more adaptable and more capable. Indeed, things like data sciences and IT are obviously going to be key factors to it.

Another theme which has been brought out—the third of four—is better leadership and leadership capabilities. We conducted a survey which showed that, in industry, only 11 per cent of leaders were thought to be capable of having the skills to foster development and growth within the Australian economy and within businesses. This was through the BCA, the Business Council of Australia, survey that we did. Indeed, in the public sector, 23 per

cent of leaders were seen to be capable. Obviously, that involves moving into an international workplace and becoming more globally competitive as well.

The final points to flag are internationalisation and cultural awareness. Australia is a highly multicultural society. If you push multiculturalism to its next stages, it's about trying to leverage networks, interactions and personal relationships with our regional partners and, indeed, internationally. For instance, if a Chinese person comes and studies here and they go back home, there's a business opportunity. It's the businesses that embrace that type of opportunity that end up growing. Similarly, we have a lot of migrants here. They still know people and they still have families wherever they came from. It's those networks which help build the businesses and help them to become the main employers. Thank you.

ACTING CHAIR: I'll start with a couple of questions. What was done with the output of the studies that you have done? You said you provided them to the Chief Scientist. How are they being used?

Dr Henderson: Some of the changes haven't gone very far, but they were all presented to the Chief Scientist, the Commonwealth Science Council, and the Prime Minister's Science, Engineering and Innovation Council, PMSEIC. Through that, they've influenced a number of policy decisions. The Productivity Commission has used a lot of them. They're references for a lot of the Senate inquiries. There was one done on conventional gas. Strangely, the report informed both sides of the argument, for and against, which I guess is a good thing for a balanced report. I can provide a list if it's helpful.

ACTING CHAIR: Some of them are listed in your submission. You mentioned the service industry dominating over manufacturing. One of our witnesses in Sydney, Professor Jim Stanford, wrote a paper that basically said that manufacturing is the source of much innovation and, indeed, most exports. If that is the case and innovation is a key part of developing technology, do you see that as an area that needs to be turned around rather than just accepting that the service industry is growing and manufacturing is contracting?

Dr Henderson: I think the definition of 'services' has also changed significantly. Service manufacturing is probably also one of the lines in there. What I see in that, particularly in terms of jobs, with advanced manufacturing and the change of the manufacturing industry is high-end jobs, and it is not necessarily a high employing role. While it might be a source of significant innovation and, indeed, major exports, it is not necessarily a high employer or an employer of a lot of people.

ACTING CHAIR: Sure. I am just trying to capitalise on intellectual capital. You do need to have that innovation, and export is certainly helpful for the balance of trade, but it also, particularly in manufacturing, provides you with a feedback mechanism so you are not developing things in theory and never putting them into practice and learning—getting that nice feedback mechanism that you have when you build a car and then the next version of the car is based on experiences. I just wonder if we are losing something because of a somewhat relaxed altitude about manufacturing.

Dr Henderson: As I said before, I think manufacturing has changed. I don't think it is going to be assembling cars and things in the future. If you look at medical devices or any of the higher growth areas which have changed to newer technologies, by all means they have changed and they will continue to change. They also play a role in the services industry. It may be that we buy components and assemble them here and then export them.

ACTING CHAIR: So you are suggesting that some of the statistics around manufacturing are in some sense muddied by the fact that the service industry is doing some element of manufacturing?

Dr Henderson: Indeed. Service manufacturing is probably a key part of it itself. I don't think the definition of 'manufacturing' is what it was previously. While that has declined, those roles have been taken up in other places.

ACTING CHAIR: Yet, in Germany, for example, they are at 22 per cent for manufacturing as a function of GDP. It is certainly an economic powerhouse. Admittedly, they are doing things like industry 4.0. I just wonder whether or not us not following that pathway—

Dr Henderson: I think it has a potential for an area. In my opinion, it is a transition that is underway, and it is a long transition. With traditional manufacturing declining, it is perhaps a loss before there is a gain. Germany is probably the leader of that wave to the transition.

ACTING CHAIR: Sure. I think to be fair to the government, the numbers appear to be turning around on some of our manufacturing statistics.

Senator IAN MACDONALD: Can I return to a paper you have written, which, unfortunately, I haven't read, about Australia's competitive advantage. What do we have the competitive advantage in in the technology field? In the old days we had a competitive advantage. We had cheap power. We had coal. We had sheep running all

over the country. We had some competitive advantage. I am struggling to think what our competitive advantage is these days.

Dr Henderson: In technology, I think—

Senator IAN MACDONALD: What does your paper talk about—if you could summarise a whole paper in a couple of lines?

Dr Henderson: In technology, I am probably not fully prepared to respond to that in completeness. The paper does talk about picking areas of opportunity and building on those. Most of those are in the services industry, where we can look to fill gaps within a regional environment, within a regional context, to fill gaps and build on those services. If you look at mining—and I do not necessarily agree with this personally—rather than being an exporter of rural commodities, we should do the value add and start looking further up the value chain where we can command a higher price for it. My personal view is that the competition in that is perhaps prohibitive. It would take some time before Australia could compete with others on the value add. But in technologies, within medicine and within IT—we were talking about app development before—there is a lot of opportunity for Australia in that.

Senator IAN MACDONALD: People say—and I like to think it's correct, because I'm very proud of it—that because Australians are an innovative people we have some advantage in technology. Is that something you'd subscribe to—that Australians, however you define them, have this innate capability in innovation that others around the world don't have?

Dr Henderson: I think Australians are renowned for—and I think the OECD numbers support us being adopters—adopting and then adapting. So, we would take on a technology and adapt it to our own application. Now, that makes it more of an incremental innovation rather than the disruptive innovators that many of the other countries claim to be or that we have examples of.

Senator IAN MACDONALD: We discovered wi-fi?

Dr Henderson: We did, and the catalytic converter. There are numerous examples where Australia has—

Senator IAN MACDONALD: And a Russian born in Atherton up in North Queensland discovered laser.

Dr Henderson: Indeed. There are a lot of examples where Australia has been an innovator. However, overall I think Australia is recognised as being more of an adopter than the first wave of—

Senator IAN MACDONALD: All right. Thanks very much, and thanks for your submission.

Senator SIEWERT: On the point that you were making about adaption and having a vocational education, you said that it has to change and we need skills to be adaptable. Can you articulate a bit further about how you would do that—how we need to change the focus to develop those skills?

Dr Henderson: Broadly speaking, we've run several workshops on this for Innovation and Science Australia, trying to dig into I think what is exactly the question you're asking. And I think by and large the education systems are probably providing a very good sort of boilerplate model. They provide a very good system for how to train someone and teach them to be adaptable, or teach them the skills they need to seek employment. What those workshops were also finding and drilling into is that perhaps programs like work integrated learning are trying to give people the application of those skills where there seems to be a flaw. So, you have a university graduate or a TAFE graduate who comes out, and they've maybe got a whole bunch of skills, but it's about applying those skills and being capable in the culture of a workplace. And I think it's about those softer skills of how to integrate within a workplace and be productive and indeed using the skills that you know and reapplying them in different circumstances. I think most of that would actually come from the application of it rather than from a classroom.

Senator SIEWERT: I'm not quite getting how you can do that. If we're making recommendations about the way we change the vocational training system and what else universities might need to do—I mean more specifically how we would spell it out—and sorry: it's just not sort of solidifying in my brain.

Dr Henderson: I think several of the universities and indeed the Box Hill TAFE out here and a lot of the technical colleges are trying to improve their engagement with industry. That's not just a role so that they have a recipient of their IP. It's also that they have a recipient of their students. And there are numerous examples of a relationship between the employer and perhaps an academic whose student might spend some time in the workplace—work integrated learning type applications, where they can actually be beneficial. Is that helpful?

Senator SIEWERT: Yes. I get the adaptability. I'm trying to work out how we're building resilience for people and how they can easily translate skills into another area, particularly with things changing so rapidly.

Dr Henderson: I guess by not making the skills directly apply to a particulate. More generic IT or coding skills are broadly applicable, but if you train someone in a particular type of data analytics then maybe that's not quite as adaptable. So I think it is abstracting up a level and trying to teach people more general capabilities rather than specifics that they can fit within a precise box.

Senator SIEWERT: Thank you for that. That's helps me process it. Then we come to the point where we are hearing that industry isn't investing in training workers. How do you get people who are adaptable and can specifically deal with the [inaudible] that they're working in for a particular employer if they aren't prepared to invest in the training of people?

Dr Henderson: Sorry, I'm really struggling to hear. Could you repeat that?

Senator SIEWERT: Sorry. I'm trying to work out then who does the training to meet employers' particular needs when we have been told by various witnesses that industry is not investing in training. Where do people pick up the skills that they need for a particular job for a particular employer?

Dr Henderson: I guess by doing the job or the type of job. In an internship or a work integrated learning placement you might have a student work on a production line and they will learn the applications in the example, they will learn how to relate to their co-workers and they will learn a good work ethic, which is not necessarily something that you can teach in a classroom. It does take actually working in the role to understand that.

Senator SIEWERT: Thank you.

CHAIR: I'm going to ask a question that I don't think has come up yet. One of the reports that you refer to is the country comparisons for STEM. We can obviously have a look at the report. I assume that all these reports are publicly available.

Dr Henderson: Yes.

CHAIR: Do you know what that report said about the key strategies of successful STEM countries and what we would need to do in Australia to be at world's best practice?

Dr Henderson: It looks at a number of examples. For instance, STEM educators should be trained in STEM—a maths teacher should be trained in maths and a science teacher should be trained in science—rather than people being put into those roles when they don't necessarily have the background. There are other examples. China has a professional development program where teachers' increase in pay is based on the professional development that they undergo rather than their time in the role, so they are paid for deepening their expertise in teaching STEM skills. There are examples like that. It looks at best examples from Finland, China and the United States. It looks at examples of how they are being innovative I guess in increasing the capacity of teachers to teach in a particular discipline.

CHAIR: Thanks. If no-one else has any questions, thank you very much for your time. We'll have a look at those reports.

CAMERON, Mr Charles, Chief Executive Officer, Recruitment & Consulting Services Association

[15:04]

CHAIR: I now invite the Recruitment & Consulting Services Association. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you.

Mr Cameron: Indeed, thank you. I would add that we are the peak industry body representing recruitment services, workforce services and on-hire worker services.

CHAIR: Thanks for that. Would you like to make an opening statement?

Mr Cameron: I'll make a short statement. I think there's greater value in having a discussion with you and your colleagues around the future of work. It is, of course, a very broad topic and one that we as the peak industry body—representing what some might describe as atypical forms of work—have been grappling with for many years now. I think it's very much accepted that the rise of technology has led to the polarisation of work and, in many circumstances, workers.

We at the RCSA have engaged in broad debate and discussion around the right balance between flexibility and responsibility as we make our way into that new future. From our point of view, we are also members of the World Employment Confederation and we participate in ongoing global discussions around what our colleagues are doing right around the globe. Most recently, you may have seen in the submission that we filed with you a manifesto, which looks to the approach that we at a global level need to take in order to address these issues. I think it's going to be very dangerous for this committee—or, indeed, anybody—to purely look at the future of work in the context of Australia alone and pretend that we can simply put up a wall and seek to protect the traditional ways of managing and governing work and protecting workers' rights, moving forward.

I would encourage the committee, if they haven't had the opportunity, to consider that manifesto titled *No Future of work without social innovation!* and I might just quickly, if it's okay—rather than going to our submission directly—touch upon some of those key trends that are shaping the world of work that I think should be front of mind of the committee in their deliberations.

That starts with the volatility of complex economic environments challenging traditional business models. I would ask the committee to ask the question: what is driving these changes? It is not a construct, in my opinion, of business or those who are simply seeking to increase profit or undermine workers' rights. These are challenges more broadly—and globally, of course—that we need to look at, the new forms of work that are developing on the back of those challenges, globally, that volatility is something that we feel an intermediary can play an increasingly important role in resolving, rather than being seen as part of the problem.

Secondly, new work organisations based on global talent supply chain management need to be considered. We're doing a lot of work, currently, around everything from black economy work right through to modern slavery. Indeed, we've developed our own certification program in conjunction with unions and industry bodies, in particular, starting out in the horticulture industry, to make it simpler for buyers, whether they're corporate or workers, to make the right ethical decisions around which organisations they work with.

Thirdly, there are questions around the relationship to the corporate world: how do they define workers, and what and how are workers wanting to work, moving forward? As much as there are, of course, many who want to work as traditional permanent ongoing employees, there is evidence to indicate that more and more are looking over the horizon and understanding that they need to develop a different approach to work and maybe calling into question the concept of a job and starting to look at how we create work opportunities: digitalisation, redefining work and conditions.

We're doing a lot of work on the gig economy. It may come as a surprise to some that our industry promotes the on-hire of individual workers, and independent contractors might have some real concerns about the gig economy, what we call online freelance work. I would invite the committee to review the definitions of the gig economy and labour hire and many of these terms, which are quite often misunderstood and are often misused as well.

Finally, there are the skills and competencies required into the future, rethinking the way we in which we provide lifelong learning solutions rather than simply relying upon the way we've learned in the past. Many of our members hire huge numbers of workers, day in, day out. They are equally interested in finding ways in which they can continue to provide upskilling and learning opportunities into the future. I think that is going to be the solution to the job polarisation that I started with. I might leave it there, if that's okay.

CHAIR: Thank you, very much. I have just a couple of quick ones to start with. How many does your association have, roughly?

Mr Cameron: We cover both Australia and New Zealand. In Australia we have roughly 700 corporate members, which would represent around about 65 per cent of the volume or turnover in recruitment and what you may know as 'labour hire'. If I could just clarify, 'labour hire' is a very brutal and simple term. Please understand that when it comes to 'on-hire workers', the term used in awards, roughly around 30 per cent are in manufacturing, construction or what we call blue-collar sectors. The remaining 70 per cent are in health and white-collar professional segments of the market.

CHAIR: Is that of your membership or—

Mr Cameron: That's of our membership.

CHAIR: I'm just trying to get a picture of where you fit in and where your members are. Does that cover everything from the large recruitment firms who might be interviewing someone for a job to those companies that on-hire them to other companies?

Mr Cameron: The profile of our members ranges from Decker and Randstad, which are multinational companies, or Hays, which you may be aware of. The types of services they provide, most typically, you might know them as recruitment placement, where our members source candidates and deliver them to a client for their employment or engagement. A lot of the work that is conducted by our members is where they source workers and engage or employ them and on-hire them to perform work on what you might define as a 'labour hire' basis.

CHAIR: You gave us some rough percentages for the type of work your members do—about 30 per cent blue-collar, 70 per cent white-collar. Do you know how many people all up are employed through your member firms?

Mr Cameron: Directly and internally?

CHAIR: If you have those figures, yes, but I'm particularly thinking of those who are directly employed to work—

Mr Cameron: As on-hire workers?

CHAIR: Yes.

Mr Cameron: The estimates for on-hire workers are around 300,000—

CHAIR: Of your members?

Mr Cameron: of our members.

CHAIR: Do you have any idea what percentage that represents of the total on-hire workforce in Australia?

Mr Cameron: That's a very good question and an area that needs a lot further and more precise examination. Part of the problem we have at the moment is even definitions around a labour hire worker versus a professional contractor are vague and imprecise. From our point of view, one of the difficulties is that a single worker, for example, could be engaged and on-hired into an assignment with 14 different clients in any one particular year. The first question to be asked is: is each and every one of those engagements and assignments they are working on defined as an employment? Or is that in fact one individual worker who is working in potentially 14 or 15 different assignments? When it comes to actually understanding the nature of the industry, the most recent inquiry into the labour hire industry, which was conducted in Victoria by Professor Forsyth, indicated that the variables were somewhere between 1.9 per cent of the total workforce within Australia and a little over four per cent. It would be safe to say that approximately one in 25 workers is engaged in an on-hire capacity.

CHAIR: Are there any projections as to the future growth of that sector of the workforce?

Mr Cameron: We don't have those projections at the moment. The union movement over the weekend launched their campaign on insecure work. They have a great focus on labour hire as part of that concern about insecure work. We find that somewhat interesting on the grounds that the actual numbers of labour hire workers have not increased in many years. There are no projections to indicate that it is going to increase as a percentage of the workforce. In many circumstances there is a lot of competition arising from the gig economy—the online freelance platforms. We play more of a matching service and so we are very interested in how that will play out in terms of competition within the market. It's fair to say that our members pride themselves on the difference—and I have also provided as part of our submission that difference—between what we call 'online freelance' or gig work and 'agency work', as it's known more globally. Put simply, our members are hire individuals as employees. They receive all of the Fair Work National Employment Standards entitlements. They receive super, workers compensation, long service leave, parental leave—I won't go on. Of course, around about two-thirds of them are engaged as casual employees, however, and that's mainly due to the short-term nature of the assignments that they perform work in.

On the other hand, there's the rise of the online freelance platforms who, of course, don't define themselves as employers. They say: 'We're just a tech firm. Don't expect us to operate in the same way as an HR or recruitment firm.' As one of our members recently said, 'I will call BS to that because if you are a party that is relied upon to source, place and manage workers on an ongoing basis, we think you absolutely have a responsibility to protect those workers, moving forward.'

CHAIR: Has there been any change in the duration of someone's engagement through on-hire services? I'm trying to get an understanding of why it is something that's more and more raised with, at least, some of us. If you're saying that the overall number of people engaged this way hasn't changed, has something else changed? Is it that people traditionally were engaged via labour hire, or any other way, for a year or two years and now it's a week or two weeks, and there's a lot more uncertainty associated with that?

Mr Cameron: The argument that's presented, interestingly, in *The Guardian*—I'd be happy to share it with you—by a journalist, which I was reading over the weekend, indicated from the statistics, and this would indicate the concern, I think, primarily of the union movement, that there are perceptions of a greater incidence—and I can't verify this—of what we might call longer-term casual employment, so what you might define as full-time casual employment. To that extent, you would probably be aware that the Fair Work Commission held a very long inquiry into that as part of their review of modern awards. They handed down a decision to introduce new law that said after a period of 12 months of regular and systematic employment an employer should be obliged to make an offer of permanent employment. It would appear to us that that is primarily the concern.

If we also look into some of the statistics, certainly from our point of view, that polarisation that's occurring appears to be occurring more amongst males in more traditional manufacturing and construction-type sectors. A lot of the concern that's been presented, I believe, is primarily in representing the interests of those who are lower skilled, more likely to be male and more likely to be in traditional union-represented roles. I think that is why it is continuing to be brought forward in many, not only Senate inquiries but other, inquiries.

Senator IAN MACDONALD: You've already answered my questions with what you've just said. I'm pleased that you're here, and thanks very much for your submission. I had marked on page 8 of your submission that you say:

… there is no evidence to suggest that people are feeling less secure in their employment as Australia's labour market continues to evolve.

That's a negative—'there is no evidence to suggest that'. Is there evidence to suggest the opposite?

Mr Cameron: The union movement conducted a so-called 'independent' inquiry into insecure work some years ago. They, of course, purport that 40 per cent of Australian workers are engaged in insecure work. I think there is an interesting question around what security is in the modern age. One of the great concerns we have is that the concept of security has to look beyond simply what has been defined as security in the past. We need to look at what security will look like into the future. I made that comment primarily because Jeff Borland, a very highly regarded academic within Melbourne university—who was, indeed, relied upon by the union movement in their representations to that review of modern awards—came out quite recently and articulated that the perceptions of workers are that they are not, in fact, feeling as or less secure than they have in the past.

I think it is fair to say, however, that there is no question that for those who have traditionally worked in industries and segments of the market that have had strong union representation, and also those who have not, those who have enjoyed traditional ongoing permanent-style employment, of course, would feel less secure. I don't think anyone could deny that. But there is a huge segment of Australia's workforce and the global workforce who are now starting to stop and ask, 'Can we not work as a fixed-term contract worker?'—a form of work that is defined by the union movement as 'insecure' work. I, for one, since becoming the chief executive of the RCSA, have hired numerous numbers of women who choose to work as part-time employees because they can balance their responsibilities, obviously, as a carer. The same applies to men. We have a number who choose to engage as contract workers or independent contractors because they enjoy the variety, the diversity.

One of the other things that I would say is that we are seeing a larger number using intermediaries to test alternative forms of work. One of the great challenges, I think, for this committee is to look at not just, as I mentioned earlier, simply trying to see the future of work through the prism of how we have managed and legislated work in the past but how we actually provide those who won't have the opportunity to test the waters or to try a different career or skill. We are very proud of the work we do to try and give them that opportunity.

Senator IAN MACDONALD: I am pleased to have your evidence, because if you had read the other submissions almost every witness who is related to a union has railed against your members and treated you—I thought: I'm surprised you didn't come in wearing horns—

Mr Cameron: When I heard the individuals in the street, I was a little concerned as to whether they were possibly coming to tell me that I've got it all wrong.

Senator IAN MACDONALD: We didn't quite work out what that was all about. Perhaps you don't have the statistics or the knowledge about this, but it is my guess that most people who obtain employment through labour hire firms are not members of a union.

Mr Cameron: I think it would be fair to say that there would be a lower percentage of workers employed through a labour hire firm that would be members of unions. We have never been able to verify that, nor have I seen any evidence to indicate that from the union movement. Again, this is simply anecdotal, but I do believe—and I have had discussions with representatives of unions who are very concerned—that the decentralisation of work, the creation of non-traditional work, makes the job of organising union members a lot more difficult. It also makes it more difficult to attract and recruit new members.

I am on the record as stating that I do believe that there is a lot of concern within the union movement driven by what is, I guess, the impact upon membership. The reason I say that, Senator, is that there is a so-called crisis of casualisation. You have probably already heard before this committee about that crisis. If there is a crisis of casualisation, why is it that casual employment as a percentage of the workforce has not increased in 20 years? Labour hire as a percentage of the workforce has not increased in about 10 years. This so-called crisis is something that we are trying to understand, and one can only draw the conclusion that it comes back to being motivated by what I call 'disruption of union membership recruitment and organisation'.

I will also outline that back in 2011, I wrote to the then ACTU, I think, president, Ged Kearney. I invited her to respond to a list of issues that we articulated were of great concern to our industry, because we felt that we could work collaboratively, using social dialogue and concern. They chose not to engage with us. I was told through informal means that, essentially, they would not necessarily be interested in pursuing that, unless, of course, there was some way in which we could promote union membership. It was at that time that I felt that's not the way we should be looking to address these issues. These issues were offshore firms bringing in illegal labourers. It dealt with issues in terms of access to home loans. It dealt with issues around the possibility of portable leave entitlements so that we could actually work together. Even since that, we have decided that, although there isn't a willingness to engage in that dialogue, we are going to still move forward and develop our own schemes. The StaffSure scheme I mentioned a moment ago is a good example of that.

Senator IAN MACDONALD: That is very interesting. Thank you very much for that, Mr Cameron.

Senator PATRICK: I am just wondering, since you are in the business of employment or facilitating employment, whether or not you have had a look at the Fair Work Commission's ruling on Uber at all?

Mr Cameron: I had a cursory glance. I did have a background in workplace relations so I do understand the principles. I think—if you are inviting me to comment on that—

Senator PATRICK: Where I'm going with that—so that you're not ambushed—is that the tax office often has a view about what is a contractor and what is an employee. I know they have a 31-page descriptor for how to determine whether you're an employee or a contractor. Because the Fair Work Commission determined that it didn't meet the criteria laid out in the act for this particular person to be an employee—that there wasn't a employer-employee relationship—doesn't necessarily mean that the tax office would take a similar view. Would you care to comment on that?

Mr Cameron: Of course. I would certainly concur with your views, Senator. There is one great difficulty for our members who engage on-hire independent contractors, which I will affirm is primarily at the professional level and beyond. We do not support on-hire independent contractors in unskilled work. The vagaries and the differences around workers compensation, the definition of 'employee' under superannuation, the definition under payroll tax and the definition under the Fair Work Act make it very difficult to comply. To that extent, we are quite keen to engage on: what is the right balance between flexibility and responsibility? We feel that intermediaries have a great role to play in collecting tax, just out of interest. On the back of what's happened here in Australia with an on-hire professional, an independent contractor, our members are required to collect PAYG withholding tax on their behalf, even though they're not an employee. New Zealand has followed suit. I think that's a really good outcome for Australia. But, yes, there's a lot of confusion.

Senator PATRICK: Yes. Mr Kessaris was the applicant in that particular case. It would be a rare occasion where we did them a favour by getting the tax office to take them to court and seeing what their ruling would be in relation to his employment status and whether that would create an ambiguity that must be sorted out by a parliament, for example.

Mr Cameron: It's interesting, isn't it? You'd be well aware that there have been numerous attempts to define 'independent contractor'. I guess the greatest irony is we have an Independent Contractor Act that doesn't define 'independent contractor'. That probably tells us as much about the difficulties associated with that. What may well be an independent contractor for the purposes of taxation may not necessarily fit with employment or Fair Work legislation. We are very open to having conversations around: what is the right terminology moving forward? Part of the great difficulty is that, as soon as you define anything, it creates the opportunity to walk around it. I'll give you one very quick example of that. In the state of South Australia, which you would know very well—

Senator PATRICK: The good state of South Australia!

Mr Cameron: The good state! Some would argue 'the best state of South Australia'! We recently had a crazy circumstance where South Australia decided to introduce labour-hire licensing. In defining 'labour-hire licensing', they said that it includes any circumstance where you employ and supply a worker to another party to do work. In doing so, they completely left out those you would define as 'contracting services'—the large and what we call gangs of workers that move around but are responsible to the gang master, just as they have in the UK. They've defined, curiously, that they need to license on-hire professionals who are working as locums and executives and accountants, but, when it comes to gangs of pickers in the horticulture industry, we should simply leave them unregulated. Their misunderstanding of labour hire, their misunderstanding of the way in which individuals work and the way in which work is organised is of great concern to us. How do we come up with a solution when we don't even understand the problem?

Senator PATRICK: I note that in your submission you made a recommendation that today's work laws and structures must cover more than the existing non-standard work. So you're suggesting, perhaps in opposition to what the IPA said this morning, that there definitely needs to be regulation that ties in gig economy, contractor, labour hire, employee and casual employee?

Mr Cameron: As you would well know, Senator, casual employees are already very well regulated. Permanent employees, fixed term contractors and ongoing contractors are all very well regulated under the Fair Work Act and a whole range of other pieces of legislation. The area of course that I think does require a lot of attention is those who operate in the field of independent contracting among unskilled workers. That's why we have great concern as to the world of online freelancing, which I mentioned earlier. They hide behind the notion, 'We're a tech firm; we're not actually an employer.' One of the representations that I've made to the Black Economy Taskforce is that there needs to be consideration given to any particular intermediary, especially technology intermediaries, who actually use escrow or receive the payment on behalf of the worker, even though they claim that they are not an employee. They receive that payment and refer and make that payment to the worker. Once it passes through them I think they have a very different obligation to the worker, to the nation and to the economy than somebody who genuinely is just simply a recruitment placement firm. I actually believe that we do really need to look at that. Should we follow the model that the UK have, which is a definition of 'worker' that sits between employee and independent contractor? I certainly think it's worth considering.

What do I have concern about? I have concern that we are going to end up with an uneven playing field, however—that what it will do is promote the idea that you can simply become an online platform and define somebody as a so-called gig worker and somehow that means that you have a different obligation, especially to vulnerable workers, around minimum pay rates, superannuation, workers compensation and the rest of it. I'm not yet sure why we should be relinquishing the ownership of that within the employment space. That decision you alluded to is probably one of the very good reasons why we do actually have to take a closer look at it.

Senator PATRICK: Before we said that sometimes organisations step around legislation. In this case there has been a longstanding hole I guess in the legislation and it just happens that things like Uber and Deliveroo end up benefiting from that hole.

Mr Cameron: I think they do. Would I be so concerned if their business model was primarily aimed at matching and finding work for freelancer professionals where they have the bargaining power, the capacity to manage their affairs properly and the capacity to comply? No, I wouldn't. But when it comes to people setting up ping-pong tables and, even under the NDIS, delivering care services to vulnerable individuals at home, yes, I do have concern, especially once it starts to get into the realms of migrant workers, older workers and younger workers. I think this is a really good example of where RCSA, who may well be perceived as somehow looking to be the protectorate of all flexibility ever known to man, actually thinks that there is a better balance that sits somewhere in the middle but talks about who are the genuinely vulnerable in today's society. Can we come up with a mechanism to protect them without creating some form of back-end discrimination so employers are not attracted to them because of all of those protections? That's the great challenge I think when it comes to the future of work.

Senator PATRICK: That's a really interesting perspective. I have actually asked the tax office the same question I asked about deeming, so I will just wait and see what their answer is.

Mr Cameron: Yes. I think there's a lot more cross-agency collaborative work we could do on all of these items to make life simpler and, lo and behold, actually have people complying more, but we do have to be very mindful of providing the opportunity for others to simply walk around the edges. They clearly are at the moment I think.

Senator PATRICK: Thank you very much for your input.

Senator SIEWERT: I want to go to one of your appendixes—'No future of work without social innovation!' I want to go to element 3 of the policy recommendations, which deals with the new social deal. I would like you to expand on some of those areas. For example, it talks about rethinking funding of social protection to reduce non-wage labour costs and avoiding inequality between different forms of work with regard to labour costs and social contributions. Can you expand on what you mean with those two points?

Mr Cameron: Absolutely. It is certainly worthwhile outlining at the outset that of course this is an attachment that demonstrates our commitment to the discussion of these trends and challenges at a global level. It is drafted by the World Employment Confederation, of which we are a very proud member, but has what I would call a rather European-centric approach to addressing these issues. They have a very healthy approach which looks to greater collaboration and social dialogue between all parties—government, unions and of course business.

But, that having been said, I think that, at a high level, the thing that worries me most about the way in which we look towards the future of work within Australia and even beyond is the lack of trust that we have between one another, the lack of trust around how business can or should be working with unions and with government. We all commence those discussions on the basis that one cannot trust another and that they are in it simply to, for example, drive down wage costs or indeed to drive up profits. I think it's a very destructive approach. I mentioned earlier our approach to the ACTU back in 2011. It was very much grounded on the fact that there are many things that we can do together that they may think that we do not have an interest in.

When we come to inequality between different forms of work, it really goes to the point I made to Senator Patrick a moment ago, which is the idea that, yes, there are many, many different types of work and types of engagement, and, on one hand, we can't ignore those. We have great concerns that somehow anything other than ongoing permanent employment is defined as bad work or non-genuine work or non-meaningful work. We feel that that is of some concern. We need to give all individuals the greatest opportunity to find and to continue throughout their lives in work, possibly other than simply a job.

But what it presents equally, Senator, is the concern around the fact that, once you introduce these different forms, as I was mentioning to Senator Patrick, when it comes to the gig economy, it does create inequalities because, when we talk about an online freelance worker who is matched via a platform or an algorithm into the hospitality industry, arguably—and I say 'arguably' because that could be challenged—those platforms say that those individuals are in business-to-business relationships. They are not entitled to super. They are not entitled to workers compensation. They are not entitled to some of the most basic entitlements. The concern we have there, and it goes to inequality, is not just the inequality in terms of the right of individuals to be protected and to have a healthy and sustainable working arrangement but also the inequality in competition.

That inequality in competition could be elaborated on by the example I gave a moment ago. I provided you an example in the submission of the difference between gig work and agency work. Our members in nursing agencies who source and supply home based care workers will do so having to add approximately 25 per cent over and above the employment entitlement. That's to cover everything from penalty rates to shift loadings to superannuation, workers compensation—you name it. But in other circumstances you can have an online platform that simply introduces an independent contractor to a care recipient based at home, and it simply adds on a very small amount which becomes its margin. There is no additional cost loading to cover the minimum entitlements. So you could in fact have a care recipient getting a quote from an online platform that could be $10 per hour less than a quote through a nursing agency which is our member, and that really concerns me.

I simply add that I have real concerns about the hypercompetition that is created by technology. I think it's going to create marvellous new, innovative ways of providing consumers and care recipients with what they're looking for, but we have to be very careful to make sure we get the balance right to ensure that those who are going to be providing those solutions into the future do get that right balance of protection as well.

Senator SIEWERT: I've got a number of questions that flow out of your comments just then. Thank you for that. I want to go to this issue: then how do you protect those workers? Are you arguing for some better legislative

response around those workers to ensure that those entitlements that they would have under the circumstances you describe are protected under the online or the app process?

Mr Cameron: Platforms, yes.

Senator SIEWERT: Platforms—that's the right word, sorry.

Mr Cameron: I believe that we definitely need to be looking at what the right level of protection is for so-called online freelance workers. The notion that the same worker could work for one of our members as an on-hire employee working as a personal care attendant but then next week, when they can't find work, possibly because our members have been undercut, they can go to a platform and simply engage in the establishment of an ABN and be introduced to a care recipient but on significantly lower charge rates and lower entitlements I think is a concern. This is where that balance between responsibility and flexibility needs to focus. I've raised this numerous times with the Fair Work Ombudsman herself, and this is where I think a lot of the focus of this committee should be looking. That's certainly my position.

We've developed an Online Workforce Solutions Working Group that is looking at this in terms of not just protection of workers but protection of revenue, the collection and also the enforcement of, I guess, taxation activities and activities that go to superannuation. My concern is that, as we see the advent of the online world, we see really the decentralisation of business and working arrangements, and that creates some really significant issues around collection of revenue and defining who should be paying revenue and who will be enforcing the payment of that revenue. That is the responsibility piece that I look at that goes well beyond simply protecting workers.

Senator SIEWERT: Are you also looking at the transfer of those responsibilities in the scenario you were talking about in terms of care recipients?

Mr Cameron: We wish we had the capacity and the revenue to do so. We had a meeting this morning of ANRA, which is a subassociation, the Association of Nursing Recruitment Agencies. In fact, we are now commencing a survey to understand how many of our members are now being undercut by online freelance solutions under the NDIS. I'm very happy to engage in ongoing dialogue if we complete that before the committee completes its inquiry.

Senator SIEWERT: Chair, can I ask one more question?

CHAIR: Yes, but can we make this last one. Thanks.

Senator SIEWERT: Yes. I want to go to part (d) of the new Social Deal, and that is 'favour labour market security over job security'. I think you touched a little bit on it before when you were talking about work security versus job security, but am I in the right train of thought there? That's what you mean there?

Mr Cameron: Yes, that's right. I think we have to overcome the idea that the only form of work that is meaningful is the job as we've known it in the past. I think a creation of a portfolio of opportunities is where we need to start thinking as well.

Senator SIEWERT: Can I ask a supplementary question there, Chair?

CHAIR: Yes.

Senator SIEWERT: One of the issues that I find that people talk to me a lot about is the sense of insecurity. Particularly, there is insecurity as you're moving to the gig, piecework et cetera, but people feel a great sense of insecurity about—in your terminology—where the work is and that chopping and changing all the time and how that relates to security in terms of knowing when you can pay bills and in particular your rent or your mortgage. How do you deal with that in the scenario you've outlined?

Mr Cameron: Put simply, those opportunities to work in small gigs or small parcels of work are not being created by the intermediaries. We say simply that our members are responding to a changing demand-side element within business and government. Governments use an extensive number of on-hire workers themselves. We say, Senator, and again it was another—

Senator SIEWERT: That doesn't make it right, by the way, if the government does it.

Mr Cameron: It doesn't make it right, but globalisation and the challenges that arise from globalisation may not be right, but they're real, and if we don't take an approach that is real then I am concerned that we are going to simply look to impose the solutions of yesterday on the problems of tomorrow. If I could simply say: we think that we actually provide part of the solution, and that is that, by pooling these smaller engagements, we can create semipermanent or indeed permanent work. I say that because one-third of our members' on-hire employees are actually employed on a permanent basis. They don't work at one location, but they are assigned to perform work across multiple assignments. But it's because we can pool those assignments that we can actually convert it into

permanent work. I think that, if we take a more constructive and trustworthy approach to how we deal with it, we can probably look to surprise ourselves as to where the solution might lie.

CHAIR: All right. We are right on the allotted time for the break. Thank you very much for what turned out to be a very long session but very useful. Thanks for your contribution today.

Mr Cameron: Thank you for your time.

Proceedings suspended from 15:45 to 16:02

ALTMAN, Professor Jon, Private capacity

KLEIN, Dr Elise, Private capacity

CHAIR: Welcome. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you. I invite each of you to make a short opening statement and then we will ask some questions.

Prof. Altman: Firstly, I would like to apologise on behalf of Dr Francis Markham, or Mr Francis Markham, I'm not sure if he's got his PhD yet, but he's in New York, so he couldn't attend today.

Thank you for the invitation, taken up by Francis Markham and myself, to provide a submission and give evidence to this important inquiry. To paraphrase a recent Australian Prime Minister: the future of work and workers could be the greatest moral challenge of the immediate to medium-term future. We need to act now.

In our submission we've drawn on our experience of living, working and undertaking research in remote Australia with Indigenous peoples to make a few observations about the future of work and workers, both in those geographic and cultural contexts, and elsewhere. We addressed all the inquiry's terms of reference, and I will summarise that very briefly.

One, we note extraordinarily low employment in remote regions for Indigenous Australians. Only one in three adults is formally employed, and this situation has gotten worse over the last decade, the main reason being the absence of jobs. Two, we note that 35 per cent of Indigenous people are casually employed and that Indigenous Australians work in jobs more vulnerable to automation. Automation risk is gendered, with Indigenous males more susceptible. Such risk is low in remote areas because the remote Indigenous workforce is dominated, percentage-wise, by service jobs and health care and so on, which are difficult to automate.

Three, like many other commentators, we're deeply concerned by widening inequality in Australian society and call for an end to punitive approaches to social security and a return to the time when income support was a citizenship entitlement.

Four, we are deeply concerned that under Australian law Indigenous unemployed in remote Australia are required to work 25 hours for the dole under the punitive Community Development Program, introduced in July 2015. From 1 July 2015 to 30 September 2017 over 400,000 penalties have been applied to 33,000 CDP participants. If a similar rate of penalty were applied to the 760,000 participants in jobactive in non-remote Australia, this would translate to 9.2 million penalties. Penalty rates are impoverishing Indigenous Australians and diverting many from undertaking productive work, in self-provisioning, Monday to Friday.

Five, globally, there is a move away from welfare conditionality and increasing experimentation with basic income pilots that Australia shuns. In remote Australia the Community Development Employment Projects scheme, CDEP, operated as a form of basic income where there were no jobs. The very positive outcome from the scheme, in terms of employment creation, income generation, community empowerment and the establishment of commercial and social enterprises, indicate it should be reconstituted as quickly as possible.

Finally, we highlight the need for alternative approaches, just in case dire predictions about the impact of automation and artificial intelligence on employment levels come to fruition, as a risk management strategy. We're already seeing the negative impacts of a one-size-fits-all approach in remote places today that might be replicated everywhere in the future. We advocate for forms of a plural or hybrid economy that creatively bundle market, state and customary or non-market sectors to enhance wellbeing and access to cash and non-cash income. Economic survival might well require unconditional income support, supplemented by suites of highly diverse productive activities that mobilise local possibilities.

CHAIR: Thank you. Dr Klein?

Dr Klein: My research is about economic rights and a particular concern with growing economic inequality, globally and domestically. I lead a research project examining the cashless debit card trial in the east Kimberley and I've worked for the last two years with the United Nations Panel on Women's Economic Empowerment. I commend you for holding this timely and crucial inquiry into the future of work and I want to underline a sentiment held by most of the submissions raised to you that this is a vital area for bold public policy. This is because, while employment has been the way people have said you get economic security, the institution of employment as a bedrock of society is limited and is increasingly becoming more limited for many.

It is worth noting that around the world the informal economy is the formal economy. In the informal economy life is difficult; you're taking on work wherever you can find it, without labour protections. The informal economy can be up to 90 per cent of the labour market, in some countries in South-East Asia and Africa, if you include agriculture. I say this because many see the challenges facing Australia that are also linked to broader trends in

the global labour market. In Australia full and secure employment is decreasing. The traditional ideal of a stable, permanent full-time paid job is increasingly out of reach for many Australians, especially for young workers, even with degrees.

As documented by the Australia Institute, less than half of Australian workers now fill one of those standard positions. On underemployment, today, about 1.1 million would take more hours if they could. There are challenges in the gig economy and with automation, but this is also about failures of macroeconomic policy, globally and nationally. At the same time, there is an increase in punitive and conditional welfare, and I'm happy to talk more about my research into the cashless debit card. As you just heard from my colleague, Jon Altman, and from his submission with Francis Markham, there are disastrous impacts of the current work-for-the-dole scheme CDP. This trend is unfortunate, because the social security system that was set up to help people avoid poverty is, actually, now driving poverty. While many are facing these challenges, we are also seeing an increase in overwork for those in paid employment, which can result in stress and the reduction of wellbeing.

These are serious challenges, and I know colleagues from previous sessions have already outlined suggestions for improving conditions of work in the formal labour market. However, one area that I think has been overlooked, yet provides much possibility for the future of work, is how many people in Australia are already engaged in meaningful, productive work that largely goes unpaid. Care work and reproductive labour, which disproportionately fall on women, are examples. Research from the Workplace Gender Equality Agency has found that, while women work on average 56.4 hours per week, over 64 per cent of those hours are in unpaid work—that's caring work or household chores—with only 36 per cent of the time spent in paid employment in an average week. Almost the inverse is true for men, where only 36 per cent of hours are spent in unpaid work. There is also care of country. First-nations people, many living remotely where there are no or limited labour markets, engage in productive work on country, undertaking customary, non-market work for livelihoods. This has historically been an issue that has been overlooked in employment policy, except when the CDEP scheme was operational. Other significant areas of unpaid productive labour include people engaged in other work for the community as well as the unpaid work of artists. So, alongside strengthening opportunities for dignified paid work, we have an opportunity here to reorient what norms constitute work. This is about valuing all productive work, even if it isn't in the formal labour market. This is about thinking about what kind of society we want in the future.

A basic income is important here. It delinks economic security from working in the formal labour market, because increasingly not everyone can get a job and not all work is paid. A basic income not only gives people a dignified economic base, so people don't fall through the cracks, and a base to stand on, so people can push back against disempowering labour positions; a UBI also has the potential for those who are interested in engaging in activities not rewarded by the formal labour market to take the time to do so without the threat of destitution. This includes care work, care of country, small enterprises and creative endeavours. To avoid further segregation of parts of society, this exercise requires a transformation of the moralisation of labour. The key to this is redefining what 'work' and 'productive' mean and taking a broader sense of the words, so everyone feels genuinely free to engage in productive activities meaningful to them, something the education system has a crucial role in providing direction on. Thank you.

CHAIR: Thanks very much. Dr Klein, can I just pick up on the point about unpaid care work. I'd be surprised if anyone could argue that women don't shoulder a disproportionate burden there. If we were to recognise that kind of unpaid care work, what would change as a result of that? It's obviously a very important thing symbolically to recognise the unpaid care work that particularly women do, but would it then have flow-on consequences for paid work, the tax regime or the social security regime?

Dr Klein: I think there are couple of things here. First of all, it's not only about providing support to women who want to work in the formal labour market; it's also about challenging the norms around who undertakes care work. At the moment it is disproportionately shouldered by women, so there is a need to do work around redistributing that labour between men and women. I think the rest of your question is about the tax system and things like that. I can take those questions on notice.

CHAIR: Feel free. I now understand more clearly the point you were making—that we actually have to share the burden.

Dr Klein: Yes.

CHAIR: Professor Altman, some of your key points were about the particular problems that Indigenous Australians experience, particularly in remote communities. Have you got any particular suggestions about what we should be doing to open up more employment opportunities for them?

Prof. Altman: I certainly do. I think that really what we are seeing in remote Indigenous Australia is an attempt to prepare people and, to some extent, to discipline them to work in formal mainstream employment that's nonexistent. So you have two options. One is to grow local economies and the other one is to look at other forms of productive work that people might be assisted to engage in. I guess what Francis and I make clear in our submission is that we've seen the Community Development Employment Projects scheme historically work to facilitate forms of economy that are plural that actually get people actively engaged in productive activity on the basis of receiving the equivalent of unemployment benefit payments as, if you like, a base income, but then being able to work extra hours, earn extra income and establish both commercial and social enterprises on the back of, if you like, the dole or CDEP payments, wages, operating as a wage subsidy. So I guess there's nothing hypothetical in what I'm proposing. It's based on concrete evidence from the past that a scheme like the Community Development Employment Project scheme, which gave communities lump sum payments and gave them additional support for capital and administration, was a program that was quite successful in generating extra hours of work, in generating extra income and in generating a range of community enterprises in caring industries, cultural industries, arts industries and so on.

Of course, the old CDEP scheme was also the program that was the precursor for the current Working on Country program, which basically underwrites the ranger programs that we're now seeing in 75 Indigenous protected areas across much of remote Australia that constitute about half of the Australian conservation estate. So there's no shortage of productive opportunity out there. I just think that we need to structure our programs, not to punish people for not getting formal employment that doesn't exist but in fact to support them to engage in a diversity of productive activity that does exist.

Senator PATRICK: To follow up on what you have just been saying, as part of the backpackers tax arrangement there was a negotiated Seasonal Work Incentive Trial, whereby people who were on unemployment benefits could make up an extra $5,000 doing seasonal fruit-picking work, for example. Last time I looked at the figures, the take-up was very, very poor. Are you familiar with that scheme at all?

Prof. Altman: I am, yes.

Senator PATRICK: Have you had a look at that scheme and perhaps at some of the results of that scheme?

Prof. Altman: I haven't looked at the results of that scheme and I'm not sure if you're suggesting that that's a program that should be taken up more by Indigenous people or just people living regionally and remotely. But I can see plenty of reasons why that scheme mightn't work if people have to travel to work. And I think what I have seen with the CDEP scheme is clear evidence that people can earn much more than $5,000 extra a year on top of their unemployment benefit entitlement—that the key issue is, like you said, you don't have the social security taper so that you don't actually lose income for every extra dollar that you earn. I think that was a really important feature of the old CDEP scheme—that people could actually earn extra income without losing their—

Senator PATRICK: And that's the point of this particular scheme as well—you can earn up to $5,000 without losing out. In terms of travel, perhaps in the northern areas of Adelaide—Virginia, for example—you don't have to travel too far to find the horticultural industry, which is just desperate for workers, yet they can't seem to find them. I don't know whether you have a comment on that or whether you, Dr Klein, could provide me with some thoughts on why that program might not be working.

Dr Klein: The fruit picker program?

Senator PATRICK: Yes—basically where you incentivise people. You say, 'You can have an additional $5,000 per annum to establish those social skills,' and the networks you were talking about, Professor, that enable perhaps younger people or unemployed people to go out and earn additional money. In some sense the government set up that scheme, yet the uptake has been very poor.

Dr Klein: My fieldwork and my research has been in Kununurra, which is an agricultural spot, and I don't know if that scheme is operating, but I do know that there are two job centres. There's the CDP job centre, the remote Work for the Dole. When we've been talking to people about the cashless debit card we've been talking about employment, because it's the only way to get off the card, and people have said to me, 'Well, that's for white people. The Indigenous people all get pushed to the remote Work for the Dole. I don't know where that's coming from. I don't know if it's a discourse in the community that that's where people go, but that's exactly how people felt—that there was one space for them and another space for non-Indigenous people.

Senator PATRICK: I don't think there are very many requirements or constraints about who can enter this program. It's simply a case of identifying an employer who requires seasonal labour, basically.

Prof. Altman: I don't think it would work with CDEP—the way the current Indigenous Work for the Dole scheme in remote Australia is, I don't think that program would work, because people aren't allowed to work

above their Newstart allowances. Just wearing the hat of the economist, it would seem to me that having an income threshold of $5,000 might be a bit low. That converts to a hundred dollars a week. I think you'd want to look at the cost benefits of earning an extra hundred dollars a week compared to some of the costs that you might face in participating in that work. It seems to me that, again, with the old CDEP scheme, even when it was being wound back after 2005, you could still earn an extra $20,000 a year as a free threshold zone, where you wouldn't have the taper. It seems to me that $5,000 is a pretty low incentive to get people to go and work extra hours.

Senator PATRICK: Perhaps on notice you could examine that scheme and look at the comparisons and maybe come up with some thoughts on where that could be improved.

Prof. Altman: Yes. I do have some colleagues, by the way, in Deakin who are looking at this issue in relation to horticultural workers coming from the Pacific. As you know, that's a pretty contentious area, because some of those workers are on formal schemes and others work quite informally—in fact, they can work for very low wages, and that might again be an issue in terms of undercutting people who are more formally employed. But I'm certainly happy to look into it.

Senator PATRICK: Obviously all those schemes are designed to say, 'We will give you something extra, and it's not just the payment; it's also, as you rightly suggested, that there are a whole bunch of benefits that flow from the experience of what happens. It seemed in that particular instance there wasn't a lot of take-up, and that causes you to invoke another conversation to try and understand why.

Senator IAN MACDONALD: Professor and Doctor, are you for the CDEP or against it? I'm a fraction confused.

Prof. Altman: Senator Scullion brought in CDP, which sounds very similar to CDEP. Just to make it quite clear, I'm very positive about CDEP and I'm very critical of CDP.

Senator IAN MACDONALD: What's the difference? Could you simply explain that for me?

Prof. Altman: Sure. The difference is that the old scheme basically categorised participants as employed. They received wages and they were paid at award rates. They worked approximately 15 hours a week, paid by the scheme, and then worked extra hours, and they didn't face that social security income taper in terms of their basic income. CDP, the current scheme, requires people to work up to 25 hours a week—five hours a day, five days a week—for the dole. So they earn somewhere in the region of $10 an hour, which is about 80 per cent below the minimum award rate. They are categorised as unemployed and, if they earn extra income, the social security taper does apply. So they don't have an incentive to earn more than about $50 a week, which is the free threshold at the moment.

Senator IAN MACDONALD: And they are usually employed by the local council or Aboriginal corporation.

Prof. Altman: Under the old CDEP there used to be 265 organisations that employed people. They could have been Aboriginal organisations or local councils. There was diversity of institutional forms. Under the current scheme, there are 60 providers. There are 60 regions and each of those regions has a provider. That provider can be a local government organisation. It can be a community based organisation. It can also be a fee-for-service private contractor or it can be not-for-profit organisation.

Senator IAN MACDONALD: You said earlier what we have to do on Indigenous unemployment. One of the options was to grow the local economy. I would ask you if you agree with me, but I wouldn't want to put you in the position of having to say no. I often think the only way we are going to close the gap is by treating Indigenous people like every other Australian—same rights and same responsibilities. I come from Townsville. When QNI closed, people were without a job and so they had to leave town. There was big upheaval. They took their kids out of school. They had to leave town to go somewhere where they could get a good-paying job like they had at QNI so they could save money, buy a house and get themselves ahead, not just live on whatever you call it—CDEP, CDP, welfare or a handout. For as long as Indigenous people are treated as secondary to Australians they are never going to improve, in my view. I was just wondering about your comment on improving the local economy. It's good around Weipa. A lot of Indigenous people work there. In Mount Isa, a lot of Indigenous people work there. Kununurra is a bit better than other places too. There are real jobs there to give these people a chance. How do you think anything we do for a special or separate group of people because of the colour of their skin or their origin is going to help those people, particularly in the work area we are talking about?

Prof. Altman: I think that there's a lot that could be done to improve things for people who have a history of colonisation and a legacy of poor human capital and poor health. They live in communities with poor—

Senator IAN MACDONALD: That is because people, with all the best intentions, made special rules for them.

Prof. Altman: I think that there's a lot of evidence that on an equitable needs basis there's been extraordinary underinvestment in remote Indigenous Australia. If you go to remote Indigenous Australia and look at the quality of the—

Senator IAN MACDONALD: I live up that way. I go there all the time.

Prof. Altman: So you must see how some of these communities have extraordinarily poor access to the internet.

Senator IAN MACDONALD: They've got a culture that's been inculcated in them since Whitlam's time from being told: 'You're special. You've been hardly done by, so you just sit back and we'll look after you.' That's a nice social approach, apparently, but it doesn't do them any good.

Prof. Altman: I have seen many situations where people are living fundamentally differently, are living quite productively and are undertaking jobs in the national interest and in the national strategic interest but are underfunded by the Australian taxpayer. I think one of the fundamental differences between many Australians and Indigenous Australians is that Indigenous Australians actually now have title to a large proportion of remote and very remote Australia under land rights and native title laws.

Senator IAN MACDONALD: But they can't do anything with it.

Prof. Altman: They can do a lot with it, but I think that they need developmental support. I go back maybe as long as you. I gave evidence to the Miller inquiry in 1985, which identified the need for forms of support to remote Indigenous Australia that matched the competitive advantage those areas might have in a range of industries. In the Aboriginal development employment policy and subsequent policies, there was never the developmental support that was required. Now we talk rhetorically about developing the north, but nobody is very concrete about what will actually happen in the north or what will happen on Aboriginal land. I am saying a few things here, but one of the things I would emphasise—and this is what we were trying to say in our submission—is that some of the high levels of unemployment that you are seeing in remote Indigenous Australia could well be replicated in places like Townsville or Cairns and maybe even Sydney or Melbourne and maybe there are some learnings that we need to take from what's happened there. You are quite right: you are not going to close the gap in those remote places and you shouldn't treat people as second-class citizens. You should treat them—

Senator IAN MACDONALD: Governments do.

Prof. Altman: Governments do treat them as second-class citizens. I think that they should treat them not just as citizens but as citizens-plus. That's an argument we can have.

Senator IAN MACDONALD: That's just going the other way. This is probably getting a bit outside the topic. I'd like to talk to you at greater length about it. Collectively, Indigenous people have access to large tracts of land, as you say. But, individually, no-one can use them. They can't really build a house on one because it's not really theirs.

Prof. Altman: But how can you say that? If I am an individual Aboriginal person and I want to go and shoot a kangaroo for my dinner, I can use the land and its resources.

Senator IAN MACDONALD: Yes, you can. If you can make a business out of exporting kangaroo meat then that's great. But some groups won't let us do that now. There are a lot of agricultural pursuits that could happen—I'm talking about the cape and the gulf here—but white man's rules say you can't do it, even though the Indigenous people have been looking after this land for years.

Prof. Altman: It sounds like you are making an argument for self-government and devolution—

Senator IAN MACDONALD: No. We are one group of people in a nation together. You don't start having nations within nations—not if you believe in Australia as I do. Indigenous people have been able to own businesses. Around Weipa they own a very good trucking business. We talk about them like, 'Isn't it amazing they can do it!' They are better than me. They are as good as all of us. Yet we as governments and some people in our society treat them as second-class people who've got to be handed everything with different rules. Sure, they might get a subsistence wage from whatever, but they are never going to be able to get ahead to do what every other Australian can do if they want to work hard and move. They want to educate themselves. They want to educate their children. We have different rules for educating Indigenous children.

Prof. Altman: You are assuming that the goal of equality is an aspiration of all Indigenous people, and that goal isn't necessarily shared by all Indigenous people. Indigenous people often articulate that they'd much rather live on their ancestral land, take care of that land, look after its biodiversity, engage in carbon farming and engage in cultural industries and creative industries. We don't want to assume one pathway. I think part of this inquiry is about saying that that pathway, for all Australians even, might be a bit of a dead-end. So what we need to think

about is maybe the way Indigenous people are trying to, with a great deal of difficulty and, I have to say, not much support from government, create diverse, plural economies. If you like, we could call them survival economies. That is something that should be supported.

Senator IAN MACDONALD: But we spend a lot of money on Indigenous Business Australia and various other schemes. I speak regularly to a group of Indigenous men. They agree with me, I have to say, that the best thing to do for Indigenous people is treat them like everybody else, with the same responsibilities and opportunities as everyone else. As long as we keep thinking that Indigenous people are so silly that Big Brother in Canberra has to look after them, they're never going to improve. I'm afraid that is a prevailing thought with some of my colleagues and a lot of the bureaucracy in Canberra. I despair. They are as good as—they're better than—me, but they're never going to get the opportunities that I've had.

Prof. Altman: The Indigenous people I work with always point to Canberra as always changing the rules, always undermining their opportunity for economic independence and economic growth and reducing their opportunities. Of course there is a category of Indigenous business which is pretty mainstream and has to be competitive, but that's only going to employ a certain proportion—in the case of the work we're doing—of the 140,000 people living in remote and very remote Australia who are Indigenous. For other people, there has to be other forms of economy. They're not all going to be running little businesses because the demand is just not there. The competitive advantage is not there.

Senator IAN MACDONALD: If they're going to live in remote areas as they lived years ago—

Prof. Altman: Nobody wants to live pre-colonially.

Senator IAN MACDONALD: That's exactly right, but they're caught in between wanting to live in remote areas and speak their own language, and that's fine—

Prof. Altman: On their own land.

Senator IAN MACDONALD: Yes, on their own land. But they'll never get a job in Germany. They'll never get a well-paying job in science or perhaps education.

Prof. Altman: I think people realise those entailments of living in that way and I think they're making choices.

CHAIR: We might leave you to pursue this issue outside. Senator Siewert, do you have anything you want to ask here?

Senator SIEWERT: Yes, I do. I want to go to the issue around some of the job opportunities that are available in regional and remote areas. We've been talking quite a bit about the care economy. This seems to me to be an area where we haven't been putting focus on support for training our Aboriginal people in communities to be provide those care services both to those with disability and in the aged-care sector. Have you looked at that, and do you have any thoughts on how we could better invest in those areas?

Dr Klein: I will jump in to say that the point I was trying to make was about acknowledging the labour that's already been undertaken. Just looking at Kununurra, you have 48 per cent of first nations people in Kununurra providing child care for their own children or for other children, whereas non-Indigenous people are almost half of that. Following on from Jon's comments before around CDEP—the old program—there was a possibility of supporting people financially doing that work which they are already doing. Taking a step back and thinking about the future of work, there's a great opportunity to mobilise around the concept of care as a space that has many jobs, but we have to redefine what we mean by paid employment in the formal economy versus unpaid work in the informal economy.

Senator SIEWERT: I understand that and appreciate that, but suppose I am coming from the perspective of work for both. The NDIS is coming—and I know that there are issues around Aboriginal access to NDIS, but at some stage we're going to do that better—so there will be both paid work and the recognition of care positions. Is that a possibility you can foresee or think is worth pursuing?

Dr Klein: I don't see why not. I think that's a great possibility. If there are opportunities to create work, people should have the opportunity to make those choices. The concern is: are there choices for people if they don't want to? Is there a space in which people can engage in productive labour that is, say, on country, without having to work in the formal economy? Increasingly—as Jon's pointed out—we've seen that space being eroded. Absolutely, I think that is a space of great possibility.

Prof. Altman: I would add that, as the NDIS is rolled out, there has to be opportunity for people in remote places to care for people, because so many people out there, as we know, are in bad shape and they need help. Why would you want to bring in outside providers when you've got people in community who can do that job? As Elise said, some people are doing that job unremunerated, but, clearly, if you make it a bit more formalised, it's

likely to be more regularised and more effective and efficient. Without sounding too rhetorical, it just sounds to me that, in societies that value relationality, caring for people sits alongside caring for country. It's a similar sentiment. I should also say that—and, again, this is not press that a lot of Indigenous Australians get—they also care for other Australians. The example that readily comes to mind is their involvement in carbon farming, which is reducing greenhouse gas emissions for the Australian good and for the global good. There's no requirement for people to do that, but this is a business that people are getting into. They're doing it via Tony Abbott's Emissions Reduction Fund and they're competing against other Australians, effectively, to deliver carbon abatement at, I would argue, rock-bottom prices.

Senator SIEWERT: Thank you. In terms of the hybrid economy models, what are the other areas? I've obviously taken on board the comment you made about carbon farming. What are some of the other areas that you think lend themselves to the hybrid economy? I'm particularly looking into the future.

Prof. Altman: The hybrid economy will fundamentally differ from place to place. It's incumbent on providers of support of different activities but also on local and regional community organisations to define what's possible on a regional and local basis. I don't want to be prescriptive. It seems to me that the problem of prescription is writ large with the Community Development Program, where there's an expectation that everybody participating in that scheme will get a mainstream job, even though we know that there are 34,000 people on CDP and there are not 34,000 jobs out there; there's only a fraction of that number of jobs, as Senator Macdonald said. What we need to do is look at where each region, each locality, has competitive advantage. It might be in ranger programs and biodiversity conservation. It might be in carbon farming. It might be in cultural tourism. It might be in caring industries. It might be in providing health services or night patrol. Some of those elements of the hybrid economy will involve substitution of some jobs that are currently done by outsiders, but, if all the jobs done by outsiders were taken up by Indigenous people, you still would have a labour surplus problem. So what you need to do is find areas that can be expanded, with appropriate support, to create other employment opportunities. In all this, it's really important that, at a time when we talk endlessly about food security, we don't overlook the fact that people are looking for opportunity to self-provision. The more people self-provision by fishing or by hunting for themselves, the less they are dependent on the store and the less they are dependent on cash income. It starts changing our notions of how well off or how badly off people are and what their total income is, if we start bringing in non-market or imputed income.

The hybrid economy is concrete in places and it can be demonstrated to improve people's livelihoods, but as a theory and as a model it is highly abstract because it has to change from place to place. What it recognises is that you are going to have a suite of activities that improve people's livelihoods, and that improvement might, for instance, increase people's mortality rates, it might reduce morbidity but it might not deliver employment equality in the way that it is measured in frameworks like Closing the Gap.

Senator SIEWERT: Thank you for that. I was looking for some examples so that people could understand the concepts better. So we need to define 'employment' differently or expand the definition of 'employment'.

Prof. Altman: That's right. At the end of Francis's and my submission, we commended this committee because it seemed to us that it was looking at work much more broadly, beyond paid employment. But then I come here today to give evidence and I find that some members of the committee actually think that work is only paid employment. I think that what the hybrid economy model is and what the reality is in remote Indigenous Australia and what will likely become the reality in non-remote, non-Indigenous Australia is that productive work will not just constitute paid employment.

Senator PATRICK: With that seasonal work incentive trial, I just want to point out that the $5,000 was over a short seasonal period; so, it wasn't over 12 months. They have got some travelling allowances in there. If you have a look at the scheme, I would be interested in how it might compare to CDEP and maybe you could provide something back to us.

Prof. Altman: The scheme is called seasonal—

Senator PATRICK: Seasonal Work Incentives Trial.

Prof. Altman: Okay. I am very much in favour of trials. We don't have enough of them.

CHAIR: Thank you for your evidence today.

HEALY, Dr Joshua, Senior Research Fellow, Centre for Workplace Leadership, The University of Melbourne

[16.47].

CHAIR: Welcome. I understand that information on parliamentary privilege and the protection of witnesses and evidence has been provided to you?

Dr Healy: That is correct.

CHAIR: I now invite you to make a short opening statement and then we will have some questions for you.

Dr Healy: Good afternoon. I appreciate the invitation to be here today. It has been a long day from what I can gather from the itinerary. I might just briefly give an overview of our submission. There is a lot more detail that sits behind it. If I could just talk briefly to our credentials. The centre that I work in has been around for about five years. It was set up in part, at least, with a pot of Commonwealth money to look at workplace leadership, and, as an aspect of that, this issue around future of work. We have been doing that in a research capacity for a number of years.

We have organised a large conference—the kind that brings together industry representatives, some policy makers and academics—on an annual basis. This year we will have our fifth, so, again, we have been talking to these issues and trying to invite others to think about them for some time. The university has also started this subject, the future of work, in an undergraduate course, of which I am the convener. So teaching that material to the next crop of thinkers and practitioners is, I suppose, also a part of what we do. We've been interested in technological aspects of the changing labour market, but I should stress that we're approaching this very much as social scientists—as people with backgrounds in employment relations, economics, history and, to some extent, the law, rather than those often heard from in this terrain with more of a disciplinary focus in physics, computer science or engineering. That's the particular focus that we're taking. To the extent that we're trying to understand technology and technological change, we're doing that as social scientists.

This is fast moving terrain, so it feels like that even in a matter of a couple of months you can see things move on, but what I've put in that written submission are a few contributions that aren't in any particular order that touch on some of our recent work in this space. If I could just talk briefly to those. I was involved in guest editing a special issue of a journal that picked up on this topic of technological disruption and tried to bring people to an understanding of these issues, particularly people with an industrial, employment or workplace relations bent. As part of that contribution I co-authored an introduction that tried to set the thematic terrain and lay out the case for why this was of interest. Within that I was particularly stressing this issue that seems to get overlooked a bit—around the degree to which technology is now impinging on work in the form of job transformation, as distinct from job destruction. We do hear a lot, and there have been some pretty frightening projections made, about prospective job losses. One thing that we've been trying to understand and argue is that that looks too narrowly at the nature of change. We need also to understand what happens within firms and within occupations for people who aren't actually losing their jobs but are, nonetheless, finding tangible impacts on what they do with their time. Stressing that transformation element has been a kind of recurring theme in our work.

I've also done, as part of that contribution to that special issue, some work looking at this manifestation that we're now calling the gig economy that has been picked up in a number of different ways. I'm sure you've been hearing plenty about this in your travels. In particular, that journal article was an attempt to grapple with this view, which seems to have become quickly mainstream, that somehow gig based forms of work represent a necessary or, almost, inevitable future of work. In that paper we try to push back a little bit against that for a number of reasons. Obviously, there is movement on the regulatory front that is, in one way or another, looking at and threatening to curtail certain gig based work operations. But I also think it's important here to keep in mind the kind of general labour market picture. If you think about Australia's economy and its workforce at the moment, we do have a pretty sizeable share of people who are in some state of underemployment, which is on top of those who are not working but are actively looking for work—the unemployed. And you can think of these as being, in a way, ripe conditions for the emergence of this kind of short-term contract based employment, because what it does in its best form is to allow people to quickly move into some kind of paid work. It's certainly not employment, but it is some kind of short-term work, effectively, as they choose it. Once they're in it, I think it's fair to say there is less choice, but in that margin of entry or exit—whether you logon to an app and do a bit of work in the evening or on the weekend—there is an element of choice, and that represents a kind of a low barrier to entry. This is, in a way, what you would expect to see in an economy with a bit of labour market slack. I think it is fair to characterise our current labour market—something in the order of eight or nine per cent of all those who are currently employed say that they are underemployed and that they'd like to have a bit more paid working

time than they've currently got access to. So, we can think of there being a reasonably large number of people who are, in some sense, finding that their demand for hours is unmet. These are ripe conditions for the emergence of this kind of gig economy, but it's not clear that these conditions will always be there. I've been resisting the idea that this gig form of work is necessarily the future, because we know that the business cycle changes and the labour market tightens up. In different circumstances, the prospect of engaging people readily in this kind of peripheral labour market might not be so easily accomplished.

There is a lot more I could say about that, but, if the committee will indulge me, I will just mention that in the last week or so—you may or may not have seen this—the results of a poll were put out by the Economic Society of Australia. From time to time the ESA polls its senior membership on issues of pressing public policy interest, and the most recent poll dealt with this issue of the gig economy. I was one of two people asked to write a commentary on the results of that poll. It was written up in the Fairfax press by Peter Martin a few days ago. What that showed is quite a polarisation of views among very senior members of the economics profession about what they think are likely to be the short-term and long-term consequences of allowing people to participate in work in this new form. The question was: would this inevitably drive down average wages and conditions? There were certainly some people who were strongly of the view that, yes, it would. But, equally, there were more from this subset of the senior economists who disagreed with that view. I mention that because I think it is topical and it serves to underline the uncertainty that still exists even in quite experienced minds about where this subset of the labour market is going. So, I've been pushing back on this idea that in the next 10 or 20 years everybody is going to be doing this gig based kind of work. There are a lot of reasons to be pretty sceptical about that, without ignoring the real challenges that this segment of work poses.

I don't know how much it is of interest, but I have also been suggesting in different fora that we shouldn't be too fixated exclusively on technological aspects of the future of work. I think there's a lot to be said for understanding demographic changes and understanding the city and regional/rural divides that come into play here, as I'm sure you've just been hearing. Climate change, arguably, is another force, and there are global shifts in trade patterns, as we've seen in the news in recent days. All of this impinges. One further contribution that we've made here is thinking about the ageing workforce. One strand of our submission deals with that, which I can speak to a bit more fully if the committee would like.

Regarding the final and most recent thing I will mention, when our submission was made this piece of work was under embargo. It hadn't yet seen the light of day. But this piece of commissioned research that we did for the New South Wales government Department of Education has, I'm pleased to say, in the last week or so been publicly released. I'm happy to share with you the link to the final version of that analytical report if you haven't seen it. I think it represents probably the most recent summation of our views on many of these issues. I'd be happy to talk about that a bit further, if it would serve the interests of the committee. I think that's more or less where I'll leave it, by way of an introduction. I'm happy to take your questions.

CHAIR: You've highlighted a number of issues and challenges facing the labour market into the future. Feel free to pick any of them and give us some suggestions about how we fix them!

Dr Healy: What's top of mind, Senator?

CHAIR: Your academic work spans quite a number of issues that we've been looking at. Why don't we start with technological disruption and what that means for employment relationships into the future.

Dr Healy: I guess that leads us most directly into the New South Wales commissioned piece of work. I suppose what we were trying to do, as well as coming to grips with what is happening on the technological frontier, was to bring what's very much an international debate into the Australian context. A lot of what we are exposed to is American, and it is clear to everyone here—but sometimes it seems to drift a bit from our attention—that the American and the Australian contexts are actually quite different. What we sought to do in that piece of work was to draw out some of those differences and to think about what they might mean. A couple of things really stand out. If you think about the way our labour market has developed, as distinct from the American labour market, one thing that is clear is that we haven't seen the decline in labour force participation rates that have occurred there, particularly among men. If you plot our two countries on a chart, you would see that Australia's participation rate has come down a little bit, but it's not nearly as pronounced as the US case. The Americans have seen a severe dropping out of men with lower levels of education from their labour market over a long period of time, but you don't see nearly the same extent of change in Australia. We need to appreciate that fact. Some would argue that they are just further down the road than we are, and I guess that is a possibility, but another and completely different interpretation is that the composition of our economy and the way we organise and regulate how labour market are different, for one reason or another. Obviously, we are in, if not a boom, then

certainly a very protracted period of economic growth that's done us some good. That contextual feature is important and it means that we shouldn't readily accept the idea that the American now is the Australian future.

That's the labour force participation picture, and another very clear element of difference is around the shift in earnings inequality. For those who are in work, the growth in earnings inequality, and particularly the stagnation and even decline of real earnings, at the lower end of the occupational and skill distribution, Australia has not seen nearly the extent of what's happened in the United States in the last few decades. As well as fewer people finding a place in the US economy, those who are only able to find a place at the low end have not improved, and the worst of them have gone backwards. At the very least it is notable, and we would go further to suggest that it is laudable, that Australia has not yet seen anywhere near the strength of the manifestation of those same trends.

That frames the argument that we try to make in the report around these technological shifts which are now finding their way into our economy. It's clear that as a first world, open economy we are exposed to many of the same technological influences, but the way they will play out in our local economy, I think, is not given or preordained by the American experience. Our view is that the end-of-work prognostications are over-egged. We don't think that in the foreseeable future the estimates of Australia, or indeed any developed economy, losing 40 to 50 per cent of employment are at the very high end of the likely scenarios. Again there is a spectrum of opinion, but an emerging view now seems to be that, as I stated at the beginning, what's much more likely is that we'll see shifts happening within jobs and within firms that will mean that the total disemployment effect is significantly less.

We also tend to be a bit one dimensional, I think it's fair to say, in being very acutely attuned to the potential for job loss and not nearly as focused on the prospects of new employment emerging. History suggests, if you take history as any guide, that a dynamic labour market like ours is pretty good at generating new forms of work in sectors and in areas that are quite difficult to anticipate even just a few years ahead of them happening. The whole gig phenomenon I suppose, for what it's worth, is one instance of this. It would have been very hard for even somebody who spent their professional time talking and thinking about the labour market to have anticipated this shift. So it is difficult to do that.

Certainly what we're seeing is if not a change in the total employment then a churning and a shift in the distribution of where jobs are available. We have certainly seen, as I'm sure others have spoken to you about, a decline in repetitive, routine or task-driven kinds of work and a shift in favour of more non-routine, cognitive, abstract or creative forms of work. I think the odds are in favour of that process continuing. In that context there's emphasis I suppose in a piece of work done for the department of education in New South Wales. They were very interested in the education and skills implications of what was going on.

I think what's truly remarkable is the growth that we've seen in Australia with the number of people going beyond mandatory school education and obtaining some kind of postschool qualification, whether at vocational level or at university. We've seen a huge increase in the proportion of the population with these qualifications, so a huge run up in their supply that has nonetheless been met by a drastic increase in demand. It differs of course by particular fields, but in a very meaningful sense the run up in skilled labour supply has sort of been met by growth in skilled labour demand. That I think reflects this shift in favour of people who are capable of doing less routine, more cognitive, cooperative, human-to-human based tasks—those remaining tasks and jobs that are very difficult to automate.

CHAIR: Thank you.

Senator CHISHOLM: I'm just interested in the disemployment effects you mentioned and shifts within workplaces. Have you got a view on where the training regime needs to go to accommodate such changes? Is what we've currently got adequate? If it changes, what sort of direction do we need to look at?

Dr Healy: I'm sorry to say that I don't sort of have a well-formulated view on that. One proposition is that there's going to be more job change—that in some sense people are going to be moving more frequently between specific jobs, between employers or, at the outside, potentially between occupations. Look at the sort of work that is done by organisations like the Foundation for Young Australians, for instance. They do talk about these sorts of portfolio careers, which implies that there's going to be more turnover of people between jobs. I don't think we're really seeing that yet, but there is a prospect of seeing that more down the line of course.

I think historically we've been pretty bad, by and large, at providing transitional assistance to people, providing bridging forms of training and almost microcredentials that allow people to supplement their existing skill sets without completely changing their stripes. I think we need to see more of that. I don't think we're doing enough of that at present. If these expectations around more people shifting jobs more frequently are borne out then we will need to see more imaginative investment in that kind of training. In particular, I would underscore the people who

are coming out of long-term careers if not in a single firm then doing a single kind of work. We've seen, historically, very bad outcomes for people displaced from long-term manufacturing careers, particularly if they were blue-collar men and particularly if they were nearing the end of their traditional working life. If we're going to be enticing people to extend their working lives, as much of the future-of-work discourse seems to expect, then we will need to target more of this sort of transitional assistance particularly at that population demographic, I believe.

Senator CHISHOLM: You touched on potential different outcomes based on age and area—regional versus city. Particularly in regional versus city, is there anything you could add to that response about what the potential risk differences are between them?

Dr Healy: I suppose the best single piece of evidence on this was the attempt that was led by researchers at the University of Sydney to do an Australian analogue to the Frey and Osborne projections of future job loss—the, now well-rehearsed estimate that something like 40 per cent of US jobs will be under threat in the next couple of decades. That piece of research was done as part of a CEDA report by researchers at the University of Sydney, and it did attempt to look at the sort of urban-rural or regional differences there. I don't recall their numbers off the top of my head, but I do remember that they seemed to show that the likelihood of a significant proportion of jobs being automated in the foreseeable future was higher in those non-metro areas. They mapped it out across census districts and suggested that that probability is higher outside of the cities.

That's the best single thing I know of, and it's not my own work, but I think that does seem to accord with a fair bit of other work demonstrating that jobs growth has been particularly concentrated in the inner cities. If you look at the well-paid, more-secure thinking based, abstract types of jobs, the prototypical good jobs, much of that jobs growth has happened, at least in Victoria, very close to the Melbourne CBD. There's not much of it outside that inner sanctum. If you look at the American picture as one salutary lesson about how bad things could get, you do see seriously depressed pockets of large areas of their economy where all of the old jobs have gone and, essentially, nothing new has replaced them other than the prospect of working in the online economy, in, for want of a better descriptor, what appears to be a global race to the bottom on pay. That's the sort of bleak scenario of where I hope we're not headed.

Senator IAN MACDONALD: I have a couple of questions. Again, Dr Healy, thanks very much for your submission and for the evidence you've given today. You mentioned earlier that your research showed that most people in a category you were investigating wanted more work. They were underemployed. What did your research show about people who take a second job instead of getting more hours in their principal job? Do many people say, 'I'll drive a Uber car or work at a check-out late at night'?

Dr Healy: Two things occur to me. I suppose the percentage of people who are in that category of the underemployed is not my discovery; that's obviously based on evidence collected by the ABS. I think we don't yet know enough about this moonlight economy, if you will. It seems to be the case that quite a few people go into doing work like Uber or other kinds of platform work to supplement their main source of income. This is based on American evidence, but many people do it as sort of a stopgap in between their search for some other more substantive kind of job. It is a bit of a coming and going sort of phenomenon in that sense for certain people. I don't have really clear estimates or even a profile of the kinds of people that do that, but the ABS have tried, in a bit of their other work, separately from the labour force survey, to understand multiple job holding. They show, I think—from recollection—that something well in excess of a million Australians are working more than one job. Some are working in excess of two. Presumably at least some of them are finding an easy avenue into making a bit of extra money on the side by setting up on Uber, but they don't envision that that would be their main source of income. It's a way of, I suppose, smoothing out some volatility in their main source of income.

Senator IAN MACDONALD: Do you find that people are not so concerned about job security? I remember when I left school I always knew that if I didn't matriculate to take a tertiary course I could always get a job as a teacher or in a bank, where my father worked. And, once I had those jobs, I'd be there for life. That was important back 100 years ago when I was young. But nowadays I'm always surprised, with the young staff who work for me, that they work for two or three years and then something happens, they get a better job and they just move off. It's completely foreign to—

CHAIR: They run for parliament!

Senator IAN MACDONALD: Yes, they do indeed.

CHAIR: How do they get a better job than working for you!

Senator IAN MACDONALD: That's very true actually! Dr Healy, how do you see that playing out into the future? It's come that far in 50 years, say. In the next 50 years, will people worry about a job at all?

Dr Healy: If what you mean is, 'Do they care much about it within this gig, this minor sort of bolt-on to the main economy?' I think by and large not. People going to work in that realm know that very little assurance of job security has been made to them. I don't imagine most people enter that particular sphere of gig based platform work with a view to it being their long-term pursuit. If that's what you mean, then I think job security probably is not the principal preoccupation. More generally than that, there's a lot of conjecture around about millennials being quite a different sort of generation from their predecessors. I teach them, so I encounter this pretty often. The academic work on this suggests that, if anything, they are less different from, say, generation X and the baby boomers than we might like to imagine. One thing that that work suggests is that they would like to see themselves having a degree of predictability and stability in their longer term careers. They may well acknowledge and accept that the initial phases of a career involve a lot of bopping around and trying on different sizes and ultimately, hopefully, finding something that fits. But I think the evidence is that, looking at the entire span of their future careers, they're no less concerned about their job prospects and the security of their job tenure than earlier generations were.

Senator IAN MACDONALD: Particularly in your field, where you're teaching probably a certain type of student—they seem to me to be more confident now than in the past. They say, 'Well, if that doesn't happen, I'll get another job somewhere.' Is that what you've found, not only from your academic research but from your interaction with people you lecture?

Dr Healy: It probably is a non-representative group in some ways, but I think they've had to become more confident because they sense, rightly, that competition for good jobs is intense. I think there's a bit of bravado around this that one needs to be very clear about one's capacities or one gets overlooked. It doesn't pay to hide your light under a bushel, so to speak. I think that plays into it.

Senator IAN MACDONALD: You've been talking about a basic living wage or a universal wage. Do you foresee a time in the future where there will be the better of people who are out there doing all the work and a certain group who will never be really gainfully employed in income-earning pursuits? They'll be gainfully working in volunteer work or care work and things like that. Do you foresee a group of people who are unemployable, not in the old sense of being unemployable that I grew up with but people who are not in the same intellectual or opportunity category as others who'll get all the jobs and then have to look after those who are not able to be gainfully employed in an income way?

Dr Healy: As a consequence of some further progression of automation?

Senator IAN MACDONALD: We heard today from a guy from Sydney. I think he said he employed 3,000 people worldwide but all in this very high-tech—even just listening to him, I was lost, not that that's a great benchmark. Clearly, there is a group of very clever people now doing what this guy does—the mind just boggles!—but there will be some people who will be left behind. When they can't pack the shelves at Woolworths anymore because there are robots doing that, what will they do? Will those who get the good jobs and make the big money have to look after them in this way such that you'll have two classes of society?

Dr Healy: I think that's a pretty worrying and maybe even dystopian version of what might transpire. I wouldn't be confident about which outcome we might be heading towards. The US situation, again, is salutary because that is a very unequal society. The divide there—and, let's face it, it's also in other countries but acutely so there—between those that are participating and at the top of their game and those that are unable to find even the most meagre foothold at the bottom is really very wide. I would hate to think that we're all inevitably marching towards that same future.

Senator IAN MACDONALD: Half of us will be in the top category.

Dr Healy: There is some more optimistic news in other work that's been done. I don't know if you're familiar at all with this idea of the new geography of jobs. There was some good work done a few years ago where this seemed to pick up. One thing that came out of that research, which was looking at where those good jobs, those high-skilled jobs, are located—and it goes to the earlier question in a way—is that there are a lot of spillover effects from the creation of these high-tech innovation sector jobs. The estimate I'm thinking of is that something like five additional non-innovation jobs, if you will, are created through each additional one in the innovation sector. So those skilled good jobs, in a way, have knock-on effects because those winners in turn demand a lot of other services. There are those who have lower educational attainment, and there are other real barriers to participating in the tech economy or in the skilled economy, but we may well see a shift away from people stacking supermarket shelves, in your example, to providing more of the person-to-person services or—

Senator IAN MACDONALD: Like mowing my lawn and cleaning my house.

Dr Healy: Potentially, or looking after your children or looking after your ageing relatives or whatever it might be. I would like to imagine that one version of that future might entail the people who do that kind of work being a bit better valued for it than they are at present.

Senator IAN MACDONALD: Sometimes they'd be better off; the guy that mows the lawn gets more than I do. Thanks for that, Dr Healy.

CHAIR: Senator Siewert, you've been patiently waiting.

Senator SIEWERT: Dr Healy, I'd like to ask you about attachment 4 in your submission and the comments you made in your opening statement about older workers. I want you to expand on the end of your comments in that section where you suggest that we need a more holistic policy response to workforce ageing which will require better evidence against ageist barriers, workforce participation, late-career transition and aspirations, and older workers' job performance. I would like to ask you to expand on those comments around the evidence there. There is already quite a body of evidence including from the Human Rights Commission and the commissioner on ageing report from a couple of years ago in terms of some of the workplace discrimination against older workers. Also, what role will technology and the changing face of technology play in that area also in the gig economy? It's only a small task to explain—

Dr Healy: Yes, that's right, exactly. In the piece of work we did around ageing, which is part of an ongoing project, what we were trying to argue is that we tend to think about the big picture side of population ageing and the demographic shift and the budgetary crunch that we see coming that's been coming a long time, but the inducements particularly to get older workers to continue to work for a little bit longer seem to be missing at least some part of the picture around what it is actually that these older workers want and what sort of barriers they might run up against. I think you're right to mention the technological capacity or the aptitude around moving with the times. That is an element of it. And, even when that might be a bit overblown, there do tend to be, as that very good piece of work by the Human Rights Commission showed, these entrenched stereotypes and prejudices around what people could do, even if that's not really representative of the reality. What we were suggesting—and I guess this is a call to arms for the research community as much it ever could be—is that we need to get busy with trying to understand what actually happens in our workplaces when this extension of careers is anticipated or sought. There just seemed to be a lot that we didn't know there, and I absolutely commend the detailed piece of work that was done by the Human Rights Commission. At the moment we are in the process of reporting on a piece of work that we did that looked at the presence and durability of these ageist-type biases that affect older people, particularly in work but not only in the context of work. Do keep an eye out for that. I'm happy to forward that on, if it's of use, when that comes out.

On the technological side, I think that's an open question. I think that we haven't yet gone far enough past the sorts of inherited stereotypes of older workers being a bit less willing to adapt to new technology, a bit slower to adopt new technology and therefore likely to be outsprinted by these tech-savvy millennials. I think that's a convenient story, but I don't know if we've got that much real evidence around what's happening yet. To come back to an earlier point, I do think that when these big technological shifts have the effect of pulling the rug out from under an entire industry or an entire firm, that does hit hard those who have been working in one line of work for a long time and who are at the point where they're thinking about their nearing prospects of retirement.

If you think about not just the big currents of technological change but the big crashes in our business cycle—there's good evidence to show that a sizeable number of particularly blue-collar men who were displaced in the recession in the early nineties in Australia never went back to work. There are problems with even managing career transitions for those who aren't being chucked out of their jobs, and there are even more acute and severe barriers for those who have to find a way back in after their circumstances change against their will.

Senator SIEWERT: Thank you. From the technological perspective, it was more the second part of your answer that I was looking at, in terms of where industries are completely hollowed out and people haven't had the time to transition or there haven't been satisfactory transition processes in place or support for people to transition. I think into the future it's going to happen increasingly quickly, or there's a potential for there to be quiet a quick hollowing out.

Dr Healy: I think the problem—and this is speaking a little bit more speculatively—is that those big picture shifts seem to have the effect of amplifying what people were already thinking but hadn't yet acted on. If your own inherent bias is that the older members of your workforce are going to be a bit slow to pick up the new then, when this technological change really bites, that is almost an opportunity to deal a bit of a harder hand to those nearing the end of their careers. To reiterate the earlier point, having the misfortune of losing a job and then having to, in effect, start again is hugely challenging for people who are not right at the beginning of their careers.

As earlier questions took me to, a degree of churn early on in your career when you're just trying to find a foothold might be normal and expected, but it's severely difficult to come back from that later on.

Senator SIEWERT: Yes. It also has severe ramifications for our social security system. If you either have to survive for a number of years on your savings or are wearing those savings down because you can't access social security, you're then going on in a fairly precarious state into the pension system.

Dr Healy: Yes. In a way, it comes back to what we were saying—that the big picture and the stuff that has been telegraphed now for many years in the intergenerational reports is around the things that we're in all likelihood going to need to do to keep people working for longer. Increasing the qualifying age for the pension is one of those. In a way, the goalposts are in some sense moving further away. But, in regard to how we enable people to bridge between jobs when they do need to change, I just think we've got a lot of thinking and work left to do in helping people to do that successfully, because too many people are falling through the gaps, and that has lifetime consequences, and it has absolutely physical consequences.

CHAIR: That's great. Unless anyone has got anything more, I think we're all done for the day. Thank you again, Dr Healy, for giving us some good information there to chew over.

Dr Healy: I appreciate it. Thanks for your time.

CHAIR: That concludes today's proceedings. I thank all the witnesses who have given evidence to the committee today. Thanks also to broadcasting, Hansard and the trusty secretariat for all their hard work. I declare the hearing adjourned.

Committee adjourned at 17:36