



NEW ZEALAND COUNCIL OF TRADE UNIONS  
*Te Kauae Kaimahi*

**Submission of the  
New Zealand Council of Trade Unions  
Te Kauae Kaimahi**

to the

**Productivity Commission**

on the

**inquiry into  
Technological Change and the Future of Work**

P O Box 6645

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## 1. Introduction

- 1.1. This submission is made on behalf of the 27 unions affiliated to the New Zealand Council of Trade Unions Te Kauae Kaimahi (CTU). With over 310,000 members, the CTU is one of the largest democratic organisations in New Zealand.
- 1.2. The CTU acknowledges Te Tiriti o Waitangi as the founding document of Aotearoa New Zealand and formally acknowledges this through Te Rūnanga o Ngā Kaimahi Māori o Aotearoa (Te Rūnanga) the Māori arm of Te Kauae Kaimahi (CTU) which represents approximately 60,000 Māori workers.
- 1.3. We are heavily involved in consideration of New Zealand’s preparedness for the future of work, including membership of the Government’s Future of Work Tripartite Forum. We therefore see this inquiry as a part of a much larger work programme. Our submission is aimed primarily at raising issues for further discussion rather than a detailed analysis of possible policies, some of which are being actively discussed elsewhere in government.
- 1.4. We support the submission of our affiliate, the Public Service Association.

## 2. General

- 2.1. The CTU has addressed many of the issues relating to the future of work and improving working people’s live in a number of publications, policies and actions

over at least the last 15 years. For example *Te Huarahi Mo Nga Kaimahi: The CTU Vision for the Workplace of the Future* described what decent work and decent lives might look like. Suggesting we learn from countries such as Denmark, Finland, Sweden and Norway, it once again called for a tripartite approach to the changes that are needed to achieve this.

2.2. It described “a decent workplace” as having five key features:

1. It will be highly productive, add value to quality goods and services and reward workers with high wages and excellent conditions of work.
2. It will be a centre of lifelong learning that invests in people, lifts transferable skills – not merely job-specific ones – and constantly strives to develop the workforce.
3. Workplace practices will be based on fairness and respect in a high trust environment that values participation, diversity and flexibility.
4. It will have strong networks with others in the industry and the community and will recognise the value of public services and constructive social partnership with government and business.
5. It will be healthy, safe and sustainable and its work will be engaging and rewarding, while recognising that people have lives outside of work.

2.3. Our general approach to the issues raised by the future of work are summarised in our submission to the Labour Party’s Future of Work Commission, which is available on our web site (New Zealand Council of Trade Unions Te Kauae Kaimahi, 2015).

2.4. There are two main overlapping areas that must be considered when considering the future of work.

2.5. Firstly, jobs must be good jobs: well paid, secure, safe, satisfying and offering work-life balance. This is not possible unless we also aim for full employment. Independently of changes that affect the nature of work, we should be improving the quality of people’s working lives.

2.6. Secondly we must be adaptable to change, whether brought about by ourselves or by factors beyond our control.

- 2.7. Changes in technology, the environment (especially climate change) and the international economy provide continual threats and opportunities as to the nature of jobs, and to the nature of work itself. Domestic changes such as the ageing of the population, urbanisation (and depopulation of regions), and natural disasters bring changes in jobs too. In addition, firms are constantly restructuring or going out of business.
- 2.8. These require specific responses but also require there to be an underlying strategy for **transition** in order to ensure that as far as possible it is **just**. That means that the costs do not fall on those who are unable to bear them, have little or no control over them, and do not substantially benefit from them. As the recent OECD study of New Zealand's support for displaced workers put it, "The downside of flexible labour market regulations is that the costs of economic restructuring largely fall onto individual workers" and it showed that in New Zealand these costs were higher, and less mitigated by government assistance, than in most other OECD countries.
- 2.9. Such a strategy also prepares for "what comes after": in particular, it finds ways to replace jobs that are destroyed with ones that are at least as good.
- 2.10. It is imperative that we anticipate these changes and prepare for them as far as possible.
- 2.11. As the International Labour Organisation's (ILO's) Global Commission on the Future of Work emphasises in its report *Work for a Brighter Future* (International Labour Office, 2019),

Countless opportunities lie ahead to improve the quality of working lives, expand choice, close the gender gap, reverse the damages wreaked by global inequality, and much more. Yet none of this will happen by itself. Without decisive action we will be heading into a world that widens existing inequalities and uncertainties. (p.10)

- 2.12. More than, that, it calls for change to be people-centred:

We propose a human-centred agenda for the future of work that strengthens the social contract by placing people and the work they do at the centre of economic and social policy and business practice. This agenda consists of three pillars of action, which in combination would drive growth, equity and sustainability for present and future generations... (p.11)

- 2.13. Their three pillars have many similarities to ours (below): Increasing investment in people's capabilities; Increasing investment in the institutions of work; and Increasing investment in decent and sustainable work. They emphasise the need not just adaptation to the changes in technology, climate, and globalisation, but to create *good* work as a goal in its own right.
- 2.14. We urge the Commission to consider the ILO report and its recommendations. New Zealand is an active member of the ILO and has a responsibility to consider its findings seriously.
- 2.15. New Zealand has experienced very significant changes over the last 30 years. Those changes provide object lessons in badly managed change. Some of the changes were inevitable: among them, opening of the economy leading to the destruction of many industries, and technology change (such as containerisation of shipping and major advances in telecommunications and computers). But even though the changes were inevitable in some form, their speed and timing, the measures taken to protect people through the transition, and the consideration given to "what comes after" were policy choices.
- 2.16. The governments of the 1980s and 1990s made the decision to restructure the economy on neoliberal principles: the view that private interests acting through markets create optimal outcomes for society. As a direct result they failed to:
- 2.16.1. Put in place policies to replace destroyed industries with high value, high productivity ones; instead it was "left to the market", and investment went into financial and property speculation instead. The right to use policies needed to nurture new industry were signed away in international agreements starting with the WTO. Good jobs were too often replaced with poor jobs.
- 2.16.2. Ensure working people shared in any gains that did occur. Instead employment rights were stripped bare in the Employment Contracts Act resulting in a small wealthy minority benefiting, creating the huge rise in inequality over the period. Ultimately the net gains to the country were few as demonstrated by New Zealand's poor economic growth and productivity record.
- 2.16.3. Protect people through the transition and help them into new jobs. Instead New Zealand's world-leading social security system was turned into a creator of poverty, and retraining for new jobs and technology was "left to the market" along with apprenticeships and other employer-based training.

- 2.16.4. Strengthen the role of the state to provide the structures needed for positive change such as better education, training, support for industrial development, strong infrastructure development and regulation of private monopolies, and protection against unsafe workplaces and exploitation. Instead the capability of the state was steadily reduced through deregulation, privatisation, contracting out and underfunding.
- 2.16.5. Protect and strengthen social cohesion, including tripartism between government, unions and employers. Instead employers were given free rein to crush the union movement rather than work with us.
- 2.17. As in this case, change can be used by a powerful minority to take advantage of the rest of society. Automation could lead to even greater concentration of wealth, income and power than we have now. For good reason, this makes people more suspicious of change and resistant to it. As in this case too, the gains can be severely reduced.
- 2.18. In short, we know change will happen. It can have good outcomes for working people or it can have bad outcomes. Good outcomes will not come about unless we look ahead and plan for them. That requires working people organised through the union movement acting together with government and employers.
- 2.19. Learning from this, there are three key pillars to a framework that will both develop good jobs and enable us to adapt positively to change. All are necessary for success: it is a three-legged stool that will fall over if any leg is weak.
- **Industry policy** that supports investment and diversification of our economy into more productive, high value industry, replaces industries that are no longer viable due to change, and adapts to, or takes advantage of, developments like technological or climate change;
  - **Employment law** that strengthens collective bargaining so that the benefits of change and productivity growth flow through into wages, better job security and conditions, and encourages productive, participatory, high-trust workplaces and tripartism; and
  - **A capable state** including a social security system that genuinely provides security of income plus training and support ('active labour market policies') for those who lose their jobs due to change or due to an increasingly

insecure job market; education and training systems that prepare people for life and work; strong infrastructure and regulatory capacity.

- 2.20. Other policies (such as taxation, regulation, and international economic arrangements) must be consistent with these elements.
- 2.21. One weakness in New Zealand's current institutions is a serious lack of industry coordination, including both employers and unions, to develop and implement industry approaches. This forms a significant barrier to progress in a number of areas related to the future of work including meeting training needs, industry development, and it was emphasised by the Fair Pay Agreements Working Group (2018) as a weakness in our industrial relations structure. In this they were following what the OECD now regards as good practice for labour relations performance (e.g. OECD, 2018).
- 2.22. A final general matter: we note that the Commission has adopted the following definition (p.1):

**Technological disruption** is “the advent of a new or existing technology that is used and/or created in such a way that it renders the incumbent firm obsolete, over years or decades. Often it is the business model, rather than the technology itself disturbing the existing market or value network, creating new markets in its wake” (Sullivan 2015). Rapid or widespread disruptive change is likely to impose significant adjustment costs for many firms, for their employees, for households and the entire economy.

- 2.23. However this is a limited definition. Technological disruption can occur in ways that do not necessarily affect *firms*. It can be disruptive to other parts of society including to people in the course of their work. For example the advent of telecommunications from the telegraph, telephone, and email, onwards enabled significant changes to society in terms of more rapid and easier communications, and communications in new forms. Low cost private vehicles and air transport, contraceptives, radio and television, and some functions of social media (in addition to those that are disrupting conventional news media) are just a few other examples that created disruptive social change which at least for some years was not disruptive to firms other than creating new industries or allowing existing ones to expand. Some of them (like the replacement of public transport with private vehicles) has had profound environmental effects and has shaped our cities in ways that have in turn affected working people's ability to get to work and choice of work in good and bad ways.

- 2.24. In the workplace, there is potential for social disruption through surveillance (such as cameras facing truck drivers, increasingly ubiquitous use of surveillance cameras in retail and the ability to monitor employees' productivity by counting keystrokes or other metrics), the use of artificial intelligence and psychometric testing to make or assist decisions on the suitability of a person for a job (such as the screening of job applicants mentioned on p.9 of the issues paper), and the use of customer "likes" or dislikes through social media to judge performance. They have potential benefits but also potential grave dangers to fair treatment of employees and the trust which is the basis for "decent work". In addition of course, technological change in the workplace can disrupt the lives of employees without threatening the viability of the firm. The introduction of new technologies which a firm may adopt to increase its profitability or just to survive, may lead to job loss or the need for retraining in ways which some workers may not be capable of or cannot afford without assistance.
- 2.25. We suggest that the Commission should consider these issues as a strand of its inquiry. It is additional to the analysis presented in Chapter 2 ("Technology and the Labour Market").
- 2.26. The following uses the chapter structure of the issues paper.

### **3. Technology and the labour market**

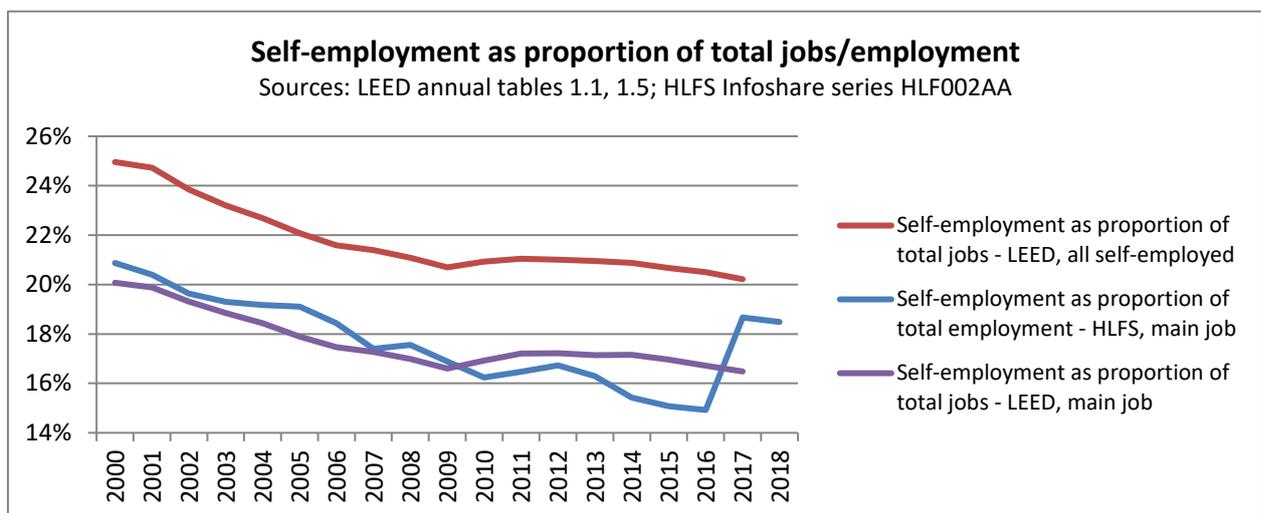
- 3.1. We observe at the outset that to regard employment as a "labour market" misconstrues the employment *relationship* which requires not simply an exchange of money and labour. It is an ongoing relationship that is impacted by the degree of trust, by how workers judge that they are valued (through their pay and through other aspects of their employer's behaviour), by their security in the job, and by the personal relationships and social value that people derive from their jobs. It is impacted by ongoing power imbalances which affect both terms of employment and less easily defined matters such as workers' control of their work, their ongoing training and upskilling, their participation in the enterprise's development, their health and safety, gender and racial prejudice, and much more. The power imbalances reflect that as a "market", it is racked by monopsony, both direct in some cases (a small number of employers available to the employee) and more broadly, for the many reasons such as those above that an employee may be reluctant to leave the job (see for example Manning, 2003; Naidu & Posner, 2018; Naidu, Posner, & Weyl, 2018a, 2018b). Most workers also depend on the income from work for the ongoing standard of living of their dependents and themselves. It is the

primary way that most households derive benefit in the way of income from the operation of the economy and is therefore an important economic and social institution.

- 3.2. The relationship is therefore far more important and more complex than is suggested by describing it simply as a “market”. The discussion paper takes a step towards this on page 18, quoting the Australian Productivity Commission as saying that labour “is not just an ordinary input. There are ethical and community norms about the way in which a country treats its employees.” We submit that the New Zealand Productivity Commission should go further than that and recognise that, as the International Labour Organisation’s Declaration of Philadelphia, to which New Zealand is bound, puts it, “labour is not a commodity”, and therefore treating it as a ‘market’ as is the tendency throughout the discussion paper fails to grasp the reality of the relationship.
- 3.3. Many aspects of technological change affect the quality of the employment relationship and these are entirely missing from Figure 2.1 “How technological change can affect the labour market”. Yet these are critical to the way firms and society can respond to change.
- 3.4. It would be worth reflecting on the use (p.6) of the “Walmart effect’ as a positive example of “technology-induced reductions in the prices of goods and services”. Walmart has also profited from achieving dominant market positions in multiple communities around the US, and from paying minimum wages to its staff. It is highly controversial in the US for these reasons (e.g. Krugman, 2015). In 2015 it gave its staff a modest pay rise, resulting from public pressure, showing that its choice of wage levels was voluntary. Its low wage business model has been compared with Costco, a rival chain, which is noted for its significantly higher wages which are rewarded by lower staff turnover and higher engagement while maintaining good profitability (see for example Altman, 2012, pp. 185–186; Bary, 2007; Crystal, 2005). If Walmart is a canonical model of technological change, working people will be justified in treating it with great suspicion.
- 3.5. It illustrates why we are determined that new jobs should be good jobs – ‘decent work’ – and why simply allowing the market to determine outcomes will lead to opposition to change.
- 3.6. Similar points could be made about other examples given, Uber (see below) and Amazon (see for example Shears, 2018).

3.7. The discussion paper also notes correctly (p.7) that “Although internet-enabled gig work has attracted considerable attention in recent years, on-demand and piece-work labour arrangements are nothing new. They were once common practice in the construction and dock industries...” It should also be noted that they were bitterly fought, and the subject of some of the earliest union organising in New Zealand as it was internationally. Workers tried to reduce the insecurity of their income, gain reasonable control over their own lives, and reduce the arbitrariness of the work arrangements which gave employers huge power to make arbitrary, sometimes discriminatory decisions over whether workers got work at any time. While there has been considerable regularisation of dock work, casualisation, rostering and security of income, for example, are still central issues which have led to extended disputes in recent times.

3.8. This is all the more reason that we should treat ‘gig work’ with caution. Casualised, uncertain and insecure work arrangements may suit some people for part of their lives (for example when they have no dependents) or as additional income, but the small proportion of jobs that they provide indicates that in the end, most working people want secure work. Over 90 percent of employees are still in permanent positions according to the Household Labour Force Survey (HLFS), and both the HLFS and administrative data (Linked Employer-Employee Data) show a steady reduction in the proportion of self-employed in total employment<sup>1</sup>.



3.9. The example is given on p.8 of trucking where it is asserted that

<sup>1</sup> A change in methodology in the HLFS that took effect from the June 2016 quarter resulted in an apparent jump in self-employment, but comparison with LEED data shows that this was an over-correction. In any case the jump still left self-employment at a lower proportion of all employment than 2005, with a continuing downward trend.

truckers in the United States, who are typically independent contractors who own their own trucks because of “moral hazard” problems, that is, “an employer needs to worry about the driver not being careful with the vehicle, whereas the independent trucker has every incentive to take good care of it”.

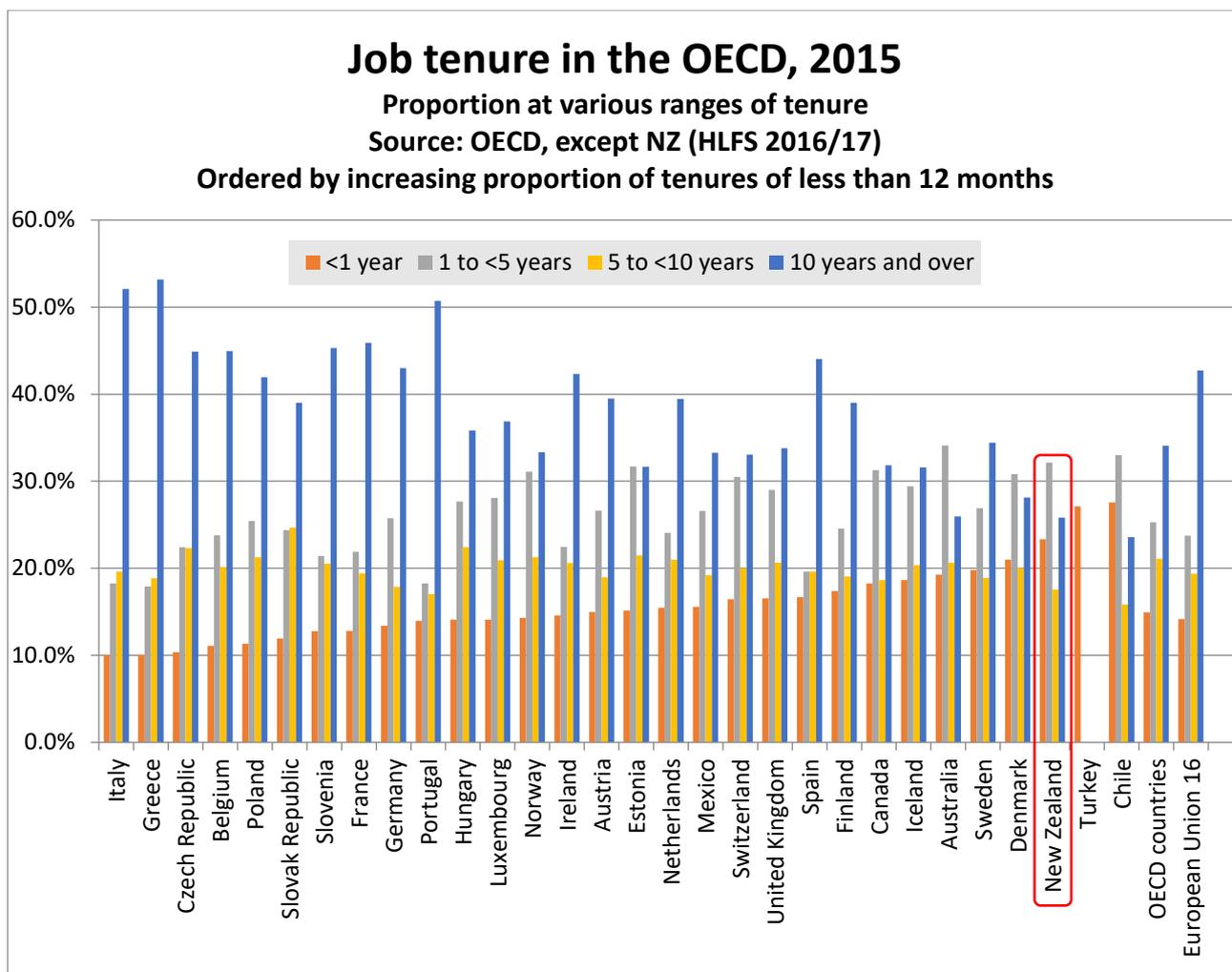
And that

computerization can alleviate this problem, allowing companies to monitor drivers using onboard computers, and reducing barriers to their hiring drivers as salaried employees.

- 3.10. This describes a low trust employment model which will lead to further lowering of trust and gaming of the monitoring system. As the discussion paper observes:

Such technological developments, however, may increase the ability of employers to control their staff, and reduce workers’ autonomy. One recent example is a bracelet developed by Amazon for its warehouse staff that can “precisely track where warehouse employees are placing their hands and use vibrations to nudge them in a different direction” (Solon 2018).

- 3.11. In any case, there is ample evidence in New Zealand of the ability of road freight employers being able to control their drivers, and indeed impose exploitative conditions. This applies whether they are employees or contractors. See for example the recent series by Maria Slade on the trucking industry *The Spinoff* website (Slade, 2019). In one article, “Transport’s dirty little secret: The truckers breaking the law just to survive”, she quotes a doctoral thesis on the subject, by AUT researcher Dr Clare Tedestedt George which the Commission should refer to.
- 3.12. Instead, as we have noted above, drivers find the increased surveillance oppressive and are leaving the industry because of it, as our affiliate, FIRST Union, found in a survey of drivers (Hatton, 2019). As we called for above, this inquiry should investigate such developments as a topic in its own right. Their use should be regulated and workers’ rights in the matter should be recognised and enabled.
- 3.13. The point is correctly made that “Technological change benefits many, but not all”. We agree that workers who are made redundant need much better assistance than is currently provided in New Zealand and address this further on in our submission.
- 3.14. Job churn is high in New Zealand as alluded to on p.8-9. Indeed, it is one of the highest in the OECD as the following figure shows. It is similar to Denmark, which has much greater support for workers who lose their jobs.



3.15. The issues paper describes this as “New Zealanders mov[ing] jobs in search of better opportunities and more suitable matches to their skills, interests and circumstances.” Yet it may also reflect our low wage economy with frequent reports from the labour inspectorate and unions of employers acting unlawfully, including gross disrespect for the law and their employees’ rights and dignity. Workers may move from one poor job to another. It is not objective to assert that this is simply about searching for better opportunities.

3.16. It is commonly asserted that such switching between jobs is beneficial to productivity because it creates better matching between employees’ skills and employers’ skill needs. Yet the evidence for this is poor. The Commission’s own work quotes international research showing New Zealand has notably poor job matching, with mismatched employees largely having higher skills than the job requires (New Zealand Productivity Commission, 2016, p. 97). There are potential productivity benefits from longer tenure such as accumulation of firm-specific knowledge. Security of tenure also encourages employees to take a longer term view including

in innovation and it encourages both employees and employers to invest in relevant training (see for example Acharya, Baghai, & Subramanian, 2010, 2014; Kahn, 2016). We return to this later in the submission.

- 3.17. A balance must be struck between adaptability on the one hand, and on the other hand, strengthening of human and social capital, including the non-economic and non-employment benefits to wellbeing of secure jobs and longer tenure.
- 3.18. Increased support for workers when they do lose their jobs (including retraining, replacement income close to previous income, assistance with career planning and job search) is part of that balance, as is encouraging and providing ongoing training and development throughout people's working lives.

#### **4. Scenarios**

- 4.1. The issues paper (p.13) notes that there are factors other than technology impacting on the future of work including net migration, demographic change, responses to climate change, and global trade, some of which are ruled out of scope of this inquiry.
- 4.2. However we point out that what is described as “changing preferences for work and leisure” is more accurately considered in terms of domestic demands on working people, including caring for children and older relatives. This is not “leisure”, and often not a “preference” but a fact of life. Much of it is unpaid work which can be affected by technology. It can become ‘marketised’, in some cases by use of technology. An example is the use of platforms such as Airbnb and the Mycare platform in New Zealand which mediates between people needing help at home, such as people with disabilities, and care workers. On the other hand, it can come under pressure as a result of longer working hours or multiple jobs (including unpaid time taken between jobs that is not available for unpaid work or leisure).
- 4.3. More generally, the issue of *time sovereignty* should be considered. As the ILO's Global Commission on the Future of Work describes it (International Labour Office, 2019, p. 40):

*We call for measures that create working time autonomy that meets the needs of both workers and enterprises.*

Historically, efforts have been made to limit and reduce maximum hours of work, accompanied by increases in productivity. This remains an important policy objective.

Transformative technologies and changes in the organization of work pose new challenges to the effective application of these limits. Information and communication technologies that allow work to take place anywhere, at any time, blur the line between working time and private time and can contribute to an extension of working hours. In a digital age, governments and employers' and workers' organizations will need to find new ways to effectively apply nationally defined maximum limits on hours of work, for example by establishing a right to digitally disconnect.

Too many workers continue to work excessive hours, which leaves them time poor. Large numbers of women throughout the world struggle to balance work and care responsibilities. Many workers have to work long hours because their household is poor or would risk falling into poverty were their hours reduced. At the other end of the spectrum are workers who do not have sufficient work. Nearly one out of every five workers in the world with short hours report that they would like to work more. For many of them, working hours can be highly variable and unpredictable, without a guaranteed number of paid working hours or income per week and with little or no say about the timing of their work.

Workers need greater time sovereignty. The capacity to exercise greater choice and control over their working hours will improve their health and well-being, as well as individual and firm performance. Governments, employers and workers need to invest effort in crafting working time arrangements that give workers choice over scheduling, subject to the company's needs for greater flexibility. Social dialogue serves as an important tool for shaping innovative working time arrangements tailored to both workers' and employers' needs. This would allow workers, both men and women, to schedule their hours in accordance with their domestic responsibilities.

- 4.4. Variation of the business cycle is noted as an impact on work. It emphasises that macro-economic policy that prioritises high levels of good quality employment is an important strategic factor in coping with change.

***Q1. Are the scenarios developed by the Commission useful for considering the future labour market effects of technological change? How could they be improved?***

***Q2. What other consequences might be expected under each scenario?***

- 4.5. The Commission proposes four Scenarios. We are not yet convinced that they add substantially to understanding the issues at stake, but in any case comment briefly on each.
- 4.6. **Scenario 1: More tech & more jobs.** We note that the wages of those with skills in demand have not “soared” in general in New Zealand, though some have. Issues other than simply productivity and scarcity are clearly factors that need consideration

including bargaining power of workers and the employment relations regulatory context. For example, the growth in technology may lead to greater industry concentration and increased monopsony power of employers which counteracts scarcity factors (e.g. Autor, Dorn, Katz, Patterson, & Reenen, 2017 and references to Naidu et al above). High levels of job churn will require more than mid-career training: a full range of income replacement and active labour market policies is necessary. It is suggested that an economy with more resources enables redistribution: in fact, redistribution is a viable option at any level of resources, exemplified by redistribution being stronger between the 1950s and 1970s when economies (including New Zealand's) were much smaller.

- 4.7. **Scenario 2: More tech & fewer jobs.** The suggestion is made that this might lead to unemployment and falling wages. Once again, technology is not the sole determinant of wages, nor employment levels. Other factors such as bargaining power affect wages, and aggregate demand and macro-economic policies affect employment levels. Reasons for increased regulation of technology may be broader than limiting its use: for example to mitigate or control its negative side-effects (such as for privacy, or electric scooters injuring pedestrians).
- 4.8. **Scenario 3: Stagnation.** This scenario covers slower innovation or slower adoption of technology. It appears to assume that most productivity growth is due to adoption of new technology rather than wider adoption of existing technology or incremental improvements in existing technology or in its use.
- 4.9. **Scenario 4: Steady as.** The current rate of change continues. We obviously have options to optimise New Zealanders' wellbeing within this scenario including many of the policies noted in regard to the other scenarios.
- 4.10. In general, in all scenarios, improvements in institutions and policies would allow better use of technology, distribution of income and greater control over outcomes. We particularly note those outlined in our introductory comments in Section 2 above.

***Q4. How should government monitor the impacts of technological change on the labour market?***

***Q5. What policy objectives should governments pursue for the labour market of the future?***

***Q6. What are the potential tensions between different policy goals? How might such tensions be best addressed?***

- 4.11. We agree that the specifics of change are difficult to predict. However, when coupled with other major impacts on society including globalisation, climate change and demographic change, there is a high likelihood that there will be increased disruption of, and changes to, work. We therefore need to develop appropriate institutions and policies to be ready for these changes, while also dealing with specific situations as they arise. See our outline in Section 2 and in answer to questions below.
- 4.12. A key principle is that such changes will be undertaken on the whole because they benefit firms (either minimising losses or improving profitability). There may also be a degree of public good to the extent that rising productivity leads to rising incomes distributed among all New Zealanders either individually or through greater resources available to governments to improve public infrastructure or services. Given however that the changes benefit firms or a public good, the costs should not be borne by workers who may lose from the changes. Firms should be expected to pay for the externality of job loss and disruption to the lives of their workers; society has a responsibility to support displaced workers both in its role of supporting its citizens through hardship and in recognising the public benefits of the change.
- 4.13. Such support should include income replacement for a limited time (such as two years as is common in Europe) at a level comparable to ACC income replacement which is 80 percent of previous income up to a maximum. This should be conditional on active engagement in job searching or training supported by active labour market policies. These include provision of free retraining (not merely 'employability' courses) and recognition of prior learning, assistance with career planning and job searching, and assistance with relocation if that becomes necessary.
- 4.14. It should be preceded by opportunities for ongoing retraining while in work (lifelong learning), rights to consultation and job search assistance when redundancy is notified, and follow up, if wanted, after finding a job to ensure the quality and security of employment is maintained.
- 4.15. The government should be active in industry development to ensure as far as possible that dying industries are replaced by ones with similar or higher productivity and wages.
- 4.16. Labour laws should ensure that workers receive the benefits of rising productivity in rising real wages rather than falling behind as they have in the last three decades.

As stated on page 18, they should offset power imbalances which as we have described are the rule (not the exception) in the relationship.

- 4.17. We need a *capable* state, as distinct from a minimal one. It should be capable of providing excellent education and training to prepare New Zealanders for life and work, ensuring they have the adaptability needed for change, and for ongoing training throughout their working lives. It should have the regulatory capability and capacity needed for the challenges ahead, including new technology, globalisation, climate change and improved labour conditions. It should have the skills and experience to support and develop productivity industry. It should continue to provide the public services needed for improving living standards and a civilised society. Taxation and other revenue is needed to fund these requirements.
- 4.18. We describe many of these features in more detail below.

## **5. Labour market policies and institutions**

- 5.1. We would be highly concerned if this inquiry became a review of New Zealand's employment law. The Commission has no particular expertise in employment law.
- 5.2. The focus of the inquiry as far as this goes should simply be whether working people have sufficient protection in the face of potentially major challenges to working conditions and security of work, and whether they stand to receive a fair share of any productivity gains in the economy.
- 5.3. Our responses should be read in this light, and without prejudice to our view that this is not the proper place for an inquiry into New Zealand's employment laws.
- 5.4. The issues paper suggests that New Zealand's low level of employment protection (the lowest in the OECD) helps workers gain re-employment more quickly. Firstly it should be recalled that in historical terms, unemployment in New Zealand for the last 30-40 years has been high compared to the experience from the 1950s to 1970s when the unemployment rate was never above 2 percent and often below 1 percent (Chapple, 1994) yet employment and dismissal were much more highly regulated. Secondly, the quick re-employment also goes with significant income loss both in absolute terms (e.g. Hyslop & Townsend, 2017) and compared to the rest of the OECD (e.g. OECD, 2017). In other words, the new job is often at a much lower pay rate, suggesting not only loss of wellbeing for the worker but productivity loss for the economy. Thirdly the somewhat higher (but not much higher) incidence of longer

term unemployment in countries like Denmark, Norway and Sweden, which have employment protection around the OECD median, is likely to reflect the fact that unemployed workers in those countries have much stronger support in terms of retraining, job search, career planning, relocation assistance and income replacement than New Zealand. The somewhat longer duration of unemployment is not a hit to a household's income and wellbeing as it is in New Zealand, and the evidence of meta studies is that longer time in retraining, job search etc leads to better long term results in employment outcomes (Card, Kluve, & Weber, 2010, 2015). These countries have notably better productivity performance than New Zealand.

- 5.5. In addition, duration of unemployment may not be particularly meaningful when there are substantial numbers of people who would like to work but are not classified as unemployed in official statistics – what Statistics New Zealand calls “underutilised” (including part timers wanting more hours). The OECD reports a related but more restricted measure of “marginally attached workers”<sup>2</sup> and New Zealand's rate was 12<sup>th</sup> highest out of 33 countries in the OECD in 2017 at 2.9 percent, worse than Denmark, Norway and Sweden and markedly worse than the OECD average of 1.8 percent. This comparison is similar to that for the weighted average for the period since 2000.
- 5.6. We conclude that stronger employment protection is possible without compromising workers' wellbeing and especially if our active labour market policies were improved to OECD best practice.
- 5.7. We agree that 90-day trials have not improved hiring. That is an important finding in considering whether employment protection has an impact on employment levels. However the issues paper has misinterpreted Chappell and Sin (2016) to say it focused on the period including larger firms: their study looked at both the previous period when 90-day trials applied to only firms with less than 20 employees (from 2009) and when it applied to all firms (from 2011) and used the changes as a natural experiment to draw their conclusion of finding “no evidence that the ability to use trial periods significantly increases firms' overall hiring”.

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<sup>2</sup> “Marginally attached are persons aged 15 and over, neither employed, nor actively looking for work, but are willing/desire to work and are available for taking a job during the survey reference week. Additionally, when this applies, they have looked for work during the past 12 months.” See [https://stats.oecd.org/Index.aspx?DataSetCode=MA\\_I](https://stats.oecd.org/Index.aspx?DataSetCode=MA_I). Percentages are reported as Share of the labour force to make it comparable with unemployment rates.

- 5.8. The list of legal protections in Figure 4.2 excludes the very important one of collective bargaining rights.
- 5.9. The paper asserts that “increasing employment protection could come at the expense of flexibility benefits” and gives as an example Uber drivers. It cites as evidence a survey by Uber of Uber drivers in Australia showing that “most driver-partners (61%) believe the flexibility to determine their own working hours is more important than having guaranteed pay and entitlements”. This is of course a biased sample because it is self-selected: presumably most people deciding to drive for Uber do so because they have that preference. It is more surprising that 39 percent do not prefer it. Uber has a very high driver turnover rate which is typical of such operators (Mims, 2019): for many (likely most) of them, the work is only additional income or a fill-in between jobs and not a satisfactory permanent and complete income source. It is well known that drivers in many countries are taking actions to be declared employees to obtain their labour rights. Mims asks whether such operations are in fact viable in the long term given their turnover.
- 5.10. In addition it is important to consider the impact of operations such as this on other operators and society more generally. The low paid ‘Uber’ model undercuts competing conventional taxi operators and makes it difficult or impossible for such models to survive paying a liveable (let alone Living) wage. The effect is to replace relatively secure and permanent employment with poorly paid employment without even minimum employment standards available to employees. It is not a necessary result of technology: it is primarily due to the employment model that Uber has deliberately chosen.
- 5.11. Insecure, low paid employment is not a basis for raising families, raising a mortgage to buy a house, and in times of severe housing shortages may even make renting a house difficult. Neither is it a basis for life-long learning and retraining. If it is allowed to drive out more secure employment, it undermines vital pillars of a stable and healthy society.
- 5.12. The discussion of existing employment law appears to focus on Australian law (e.g. p.73ff) without recognising existing provisions in New Zealand law. For example, courts in New Zealand are required to look at the real nature of an employment relationship under s6(2) of the Employment Relations Act 2000 (ERA). New Zealand’s Health and Safety at Work Act 2015 (HSWA) replicates Australia’s

broadening of the concept of employer to a Person Conducting a Business or Undertaking (PCBU).

***Q7 For each of the future scenarios, what policies would provide the best mix of worker protections and low barriers to workforce participation?***

***Q8 What are the likely consequences of a large-scale increase in the proportion of independent contractors in the workforce? How should government respond to any negative consequences?***

5.13. See our comments above and in section 3.

5.14. Three steps should be taken:

5.14.1. Strengthen protections for workers to be employees as the preferred position, ensuring their employment rights. This could include extending provisions in the ERA which allow certain workers to be deemed employees. The s6 test of employment status could be extended to codify tests and factors in common law and add further (non-exhaustive) factors - “economic dependence” (to capture dependent contractors) and “imbalance of bargaining power”.

5.14.2. For those in genuinely uncertain categories, institute basic rights akin to employment such as minimum payments or piece rates, taking steps to ensure that this does not create a situation that would undermine employees’ rights by allowing employers to use these uncertain categories to avoid their employment responsibilities. This step would include consideration of extending PCBU concept under the HSWA to obligations with respect to minimum employment entitlements.

5.14.3. Strengthen the existing capacity for independent contractors to bargain collectively.

***Q9 What types of worker protections might be required where technology provides employers with a growing ability to monitor staff or discriminate against some people?***

5.15. As already noted (at paragraph 3.9) we do not accept that advances in technology such as monitoring of workers will persuade employers to hire workers as employees rather than contractors and therefore overcome the problem of employers evading employment responsibilities.

5.16. We are however concerned at the potential for technology to discriminate and invade privacy in unacceptable ways. As we have noted, in the workplace there is

potential for social disruption through surveillance (such as cameras facing truck drivers, increasingly ubiquitous use of surveillance cameras in retail and the ability to monitor employees' productivity by counting keystrokes or other metrics), the use of artificial intelligence and psychometric testing to make or assist decisions on the suitability of a person for a job (such as the screening of job applicants mentioned on p.9 of the issues paper), and the use of customer "likes" or dislikes through social media to judge performance. They have potential benefits but also potential grave dangers to fair treatment of employees and the trust which is the basis for "decent work".

- 5.17. For example, the algorithms used for "artificial intelligence" can have in-built gender, racial or other bias, and intense surveillance can be stressful and disturbing to workers, can be used to force unreasonable "speedup" in working, and can be intrusive on their lives ("Algorithmic prejudice: Facebook's ad system seems to discriminate by race and gender," 2019; "Facebook charged with discrimination by US Department of Housing," 2019; Hatton, 2019; Keogh, 2019). Using social media to judge performance opens the door to prejudice in ways that can be very harmful to the victim's current and future employment with none of the usual protections of requiring robust evidence and fair process.
- 5.18. These are additional reasons why regulation of technology needs to be among policy options. In some cases, technology may be at such risk of misuse that its use should be severely limited or even not permitted. We may want to favour labour-assisting technology and discourage labour-replacing technology if increased unemployment is a greater cost to society than any benefits from the labour-replacing technology. Further exploration of these issues is needed.

***Q11 How might minimum wage settings affect incentives on firms to adopt labour-replacing technologies? What changes to minimum wage policy might be appropriate under each of the future scenarios?***

- 5.19. There is now a large research literature finding minimal impact on employment from minimum wages. For example Belman and Wolfson's book *What does the minimum wage do?* (Belman & Wolfson, 2014) surveys and summarises the literature to that date.
- 5.20. There are multiple 'channels of adjustment' that firms use to adapt to minimum wages. There is evidence that one of the channels can be increased productivity (e.g. Georgiadis, 2013; e.g. Huang, Loungani, & Wang, 2014; Mayneris, Poncet, & Zhang, 2014; Zelenska, 2011). It is likely that this is true of any significant wage

increase though the minimum wage has been studied particularly intensively. The 'efficiency wage' theory (for which there is empirical evidence) that firms may pay higher wages because it is rewarded by improved performance by their employees is a similar result.

- 5.21. Suggesting that it would go as far as driving automation is therefore an exaggeration and raises different issues. Labour-replacing technology is only one possible 'channel of adjustment' and only one way to raise efficiency or productivity. The decision would depend on many more factors including the availability of the automation technology and its capital and running costs, and the competitive position of a firm. Labour-assisting (rather than labour-replacing) technology may achieve the same end from the firm's point of view. It may be illustrative that supermarkets with significantly different pay rates (Countdown compared to Pak'n Save for example) have both moved towards automation of their checkout operations through customer operated checkout machines. The availability of such equipment is likely a stronger driver: a firm will automate if it increases its profitability regardless of wage levels.
- 5.22. Automation may not be a bad thing if it leads to remaining staff being paid higher wages due to their increased productivity, and if their greater spending power then increases demand which leads to creation of replacement employment. But it is precisely because the change may lead to some workers losing their employment that support for them over that time is so important, and why we need industry policy to ensure that replacement employment is good quality and improves New Zealand's productivity rather than continuing along the current low wage and productivity road.

***Q12 What changes might be required to minimum notice periods under each of the future scenarios?***

- 5.23. We assume that this question refers to redundancy situations rather than dismissal or resignation for other reasons. We support long notice periods in redundancy situations, along with requirements for employers to consult with workers and unions and for employers to retrain or redeploy staff as first preference rather than laying them off. Such provisions are often negotiated into collective employment agreements, but New Zealand's low coverage of collective agreements is a problem in ensuring such protections: action is needed to expand collective bargaining such as through the proposed Fair Pay Agreements. Such provisions are needed

regardless of Scenario because restructurings and closures occur for a variety of reasons, not only because of technology changes.

- 5.24. There is a second reason for long notice periods: as the OECD report (OECD, 2017) referred to also suggested, there should be a requirement for all significant redundancy situations (such as those affecting more than a few employees) to notify an appropriate agency, currently the MSD, so that assistance with redeployment of staff can be provided. We suggest a “flying squad” approach where agency staff with appropriate skills, experience and knowledge of local job opportunities and skill requirements are provided onsite to assist laid off workers with training options, considering career options, job search and providing information and assistance if necessary regarding income support. They should work closely with unions and employers and education providers in doing this. A number of our affiliates have considerable experience in these kinds of situations and where MSD has been willing, have worked with it to assist workers. Acting before the workers have actually been laid off is better for them and is likely to be a saving to the government.
- 5.25. We propose that regional job centres be established with union and employer governance, which have staff with the required skills and knowledge of local employment, education and training opportunities. Such centres could also assist workers and employers with training and immigration inquiries, and administer immigration rules that require knowledge of regional skill demand and supply. They should have a role in developing and implementing regional employment strategies and plans, and workforce planning for particular industries. They should do this in partnership with other agencies, local government, unions, employers, education providers and other stakeholders.
- 5.26. The OECD (2017) described examples of international good practice for such services which could be drawn on. These include the Rapid Re-employment and Training Service in Ontario, Canada, which “provides an immediate response to large-scale layoffs with the objective of connecting individuals with EmploymentOntario services to help them regain employment” (p.103), and Job Security Councils in Sweden which

are based on collective agreements between social partners in a sector or occupational field, such as white-collar workers in the private sector. Job Security Councils are actively involved in the process of restructuring and provide advice and consultation to

employers and trade unions at an early stage in the process. They also provide transition services and guidance to workers who are made redundant, through individual counselling, career planning, job-search assistance and outplacement services. (p.104)

***Q13 How effective is the income support system in assisting different groups of people? What specific challenges might arise under the future scenarios? What changes to the system might be needed to address these challenges?***

***Q14 What are the advantages and disadvantages of the following policies under each of the future scenarios – universal basic income, unemployment insurance and redundancy compensation schemes? What other income support policies are worth considering?***

5.27. We agree with the Welfare Expert Advisory Group (WEAG) report and the OECD (OECD, 2017) that the current income replacement system is totally inadequate, particularly for the first 1-2 years after job loss. Income replacement is too low, both to enable workers and their families to continue to live in dignity and maintain their commitments such as mortgages and rent, and in comparison with other OECD countries, particularly in northern Europe. Eligibility requirements disqualify too many workers, primarily because eligibility is assessed including a spouse's income. This applies whatever the employment relationship – permanent, full time or part time, casual, seasonal or unsecure.

5.28. Income replacement levels should be related to the income the worker was receiving prior to losing his or her job. It should be unrelated to a spouse's income because the need is to allow their household to continue as normally as possible while the worker is retraining or searching for a new job. The current situation is, as the OECD (OECD, 2017) described it, lumping the costs of change on workers and their families, rather than internalising it to the employer or sharing it socially.

5.29. To ensure that such support is available to workers in all forms of employment relationship, income replacement should be a universal entitlement. This means it should not be tied to tenure or contribution levels. We see a suitable package having the following features:

5.29.1. It should be funded partly from compulsory experience- and size-rated employer levies and partly from general taxation, underwritten by government, and including the following features.

5.29.2. Maintenance of 90 percent of prior income during unemployment for up to 12 months, conditional on commitment by the worker to acquiring new skills if necessary, and job searching;

- 5.29.3. Active labour market policies to provide support in career planning and job search to find new jobs, and assistance in moving to another region if necessary;
  - 5.29.4. Financial and practical support for acquiring new skills and qualifications;
  - 5.29.5. Tripartite design, governance and implementation of the programme;
  - 5.29.6. Normal unemployment benefits (restored to a liveable level as recommended by the WEAG) to apply after 12 months if still unemployed.
- 5.30. We point out that income replacement at this level increases the effectiveness of automatic stabilisers in the economy, which is particularly important at times of large-scale job loss.
- 5.31. We also support a legislated entitlement to redundancy payments set at four weeks payment for the first year plus two weeks for each year thereafter up to a maximum of 26 weeks' pay. The statutory redundancy pay should be tax-free and should not count towards benefit stand-downs or abatements. In relation to company insolvency the cap on employees as preferential creditors should be raised in terms of both money (it currently sits at \$20,340) and time (it is limited to four months arrears). We suggest removing the time limit completely (it is all owed money) and raising the cap to at least \$30,000. There is a problem with companies "phoenixing" to avoid liabilities to workers. The phoenixing provisions in the Companies Act are weak. However, s 142Y of the ERA allows employees and Labour Inspectors to pursue "persons involved in breaches" where the employer is no longer able to pay. This could be widened slightly to address these issues.
- 5.32. The issues paper was concerned that if a large share of labour was replaced by capital, the cost of such schemes would be too high and a disincentive to hire workers. The counters to that are:
- 5.32.1. In such a scenario the need for such support is even greater, both to maintain the wellbeing of workers and their dependents, and to maintain aggregate demand in the economy.
  - 5.32.2. Continuing to place the cost of change on workers is highly inequitable and will lead to resistance to any change.

5.32.3. Owners of capital are benefiting from such changes (otherwise they would not introduce the increased capital). Currently they bear none of the cost of the 'side-effects' of such changes that workers suffer from the loss of their jobs. Levying them forces them to share in and take account of the externalities of their decisions. Redundancy payments would be a direct cost to an employer to compensate its workers for their loss as a result of the employer's increased profitability. Levies (perhaps risk-rated) would still attribute at least some of the cost to employers as a group, making it visible, but would spread the cost, recognising that there may be longer term public interest in upgrading productive capacity and maintaining firm viability.

5.33. In short, such schemes are a cost of change that is currently borne by workers and their families but should be borne by employers and society generally. It makes society better able to manage change in a positive way. Not paying it does not make the cost go away – it just shares it highly inequitably, principally loading it on people who may be least able to bear it and control its occurrence, with long term disadvantageous effects and increasing resistance to change.

***Q15 How might the effectiveness of active labour market policies change under the future scenarios? What changes would be needed to the design of active labour market policies under each scenario? What other active labour market policies might be needed?***

5.34. Current active labour market policies are weak where they exist, and do not exist in some important respects. Much strengthened policies are needed regardless of scenario because technology is not the only cause of involuntary job loss.

5.35. Though we understand there has been some strengthening of MSD programmes since the change of Government, they are still very weak by OECD standards. Many of the training programmes are for 'employability' rather than increasing skill levels. While the example given in Box 8 (p.30) is positive, both Taylor Fry's work, MSD's own statistics, and LEED statistics show that only about 40 percent of beneficiaries leave the benefit for work, and many of those jobs are inadequate, leading to them rapidly returning to the benefit. MSD's evaluations are seriously flawed because they in general count an exit from the benefit system as 'success' regardless of whether work is found and regardless of the quality of the work. Evaluations of work-related policies should be on the basis of finding good quality work.

5.36. It is crucial that a medium to long term perspective is taken for active labour market programmes. While it is of course ideal if a person very quickly finds a good job (comparable to his or her previous work in terms of income, security, and use of

their skills and experience), in practice the process will be more difficult in many cases. It may take time to find a job that matches the person's skills, experience and previous income, but this is in the interest of both the person and society because it makes best use of the skills available. It can be expected that it takes time for education and training to both occur and take effect as the learner applies the new knowledge and skills in a job, but reskilling is in the interests of the individual, employers and society.

- 5.37. Card, Kluge and Weber's (2010, 2015) findings that impacts of training are in the longer run (after two years) are therefore important, and should not be used to dismiss the viability of training as an option. The type of training is important and it may well be that 'employability' type training, some of which does little more than reduce expectations of finding good work, and at best reorders people in the job queue rather than enabling the expansion of job and career opportunities, is not very effective.
- 5.38. There is a large literature evaluating the effectiveness of different forms of active labour market programme, and we should learn from this while ensuring we take local circumstances into account. As above, care must be taken to ensure that evaluations are on the basis of the purpose of the programme. Most often that should be finding good quality work, not simply exit from the active labour market or benefit system. However as we describe in the next paragraph, sometimes the wellbeing of the participants is the principal consideration. In addition the role of such schemes in economic stabilisation should be borne in mind.
- 5.39. Regarding the effectiveness of public sector job creation schemes, which tend to show as poor in the research literature, again we need to consider the exact type of scheme and its purpose. Expanding public services, creating good jobs as a result, could be expected to be effective and should be considered as an option. In addition, New Zealand has a long record of job schemes that carry out needed work for local government and voluntary organisations. These may well be more effective than schemes that create jobs with little real purpose. But even schemes with relatively weak results in terms of leading to long term employment may be desirable for some groups of people if they are not in them for long (they find a job). This is because such schemes help them maintain contact with others, provide a structure to their lives and if properly supervised may lead to training opportunities. Such schemes may well be good for their participants' wellbeing even if their ultimate

economic effect is small. They may also be useful in maintaining aggregate demand during downturns in the economy.

***Q16 Are there particular areas where occupational regulation makes it harder for people to shift jobs or adjust to technological change? Would this change under each of the future scenarios?***

- 5.40. We are very cautious in considering weakening of occupational regulation. Occupational registration can play a crucial role in quality control of professions, giving clients both some assurance of the competency of the professional and a means to take a complaint should that be necessary. We are very aware of the false promises of deregulation and 'light-handed' regulation which have too often been disastrous in New Zealand, with examples including employment relations and workplace health and safety, rail safety, road safety (including road freight and recent revelations regarding light-handed oversight of Warrants of Fitness inspections), disastrous failures of finance companies, and hugely costly leaky buildings.
- 5.41. If registration cost is a barrier and there is a public interest in more people entering a particular profession then some form of regulation of the cost of registration, funding of the professional body, or subsidy for registration, accompanied by regulatory oversight, are likely to be better solutions than deregulation of occupations. We agree that there could well be more need for regulation of professions in the future, such as where there are significant safety or ethical impacts from the design and implementation of artificial intelligence systems.

**6. Education and skills**

- 6.1. There is a reported change in the attitude of large companies, particularly in Europe, towards attracting and retaining the skills they need. For example the McKinsey Global Institute reports from a survey of executives "82 percent of executives at companies with more than US\$100 million in annual revenues believe retraining and reskilling must be at least half of the answer to addressing their skills gap" rather than hiring new talent (Illanes, Lund, Mourshed, Rutherford, & Tyreman, 2018). They are realising that it is much more cost effective (and doubtless has other advantages as well) to retrain existing staff than to bear the cost and uncertainty of layoffs followed by recruitment of people with the skills that are needed. This is preferable for workers too in maintaining security of employment. We submit that this should be encouraged and supported among New Zealand firms. It implies a stronger emphasis on workplace training and reliance on ongoing upskilling: lifelong learning.

That in turn requires that to meet these needs we have the education and training systems which provide training suitable for work-based learning by workers of a wide variety of ages, skills and educational backgrounds, and the support structures for workers to enable them to undertake the education and training.

***Q17 How well do the current outcomes from the education and skills system position New Zealand to respond to changing technology and different future scenarios?***

- 6.2. As the issues paper notes, New Zealand's workers are well qualified by OECD standards. Yet as we (and the Commission) have already observed, New Zealand appears to have very high levels of mismatching between qualifications and jobs, with mismatched employees largely having higher skills than the job requires. This may be a reflection of New Zealand employers' poor record in undertaking the investment needed to increase the sophistication of their products and the attendant skill needs. It is a puzzle, given an apprenticeship system still recovering from its near destruction during the 1990s and the above evidence for over qualification rather than under-qualification, why New Zealand rates highly in on-the-job training in OECD comparisons. While it is known that work-based training is more often made available to those who already have higher education levels, it raises questions about the quality of other in-work training. Yet this is crucial for adaptation to new technology, and other changes in work.
- 6.3. There is also a well-documented problem of a sizeable portion of the workforce having inadequate literacy, language or numeracy skills for their jobs. The 2014 PIAC survey of adults showed that although New Zealand adults score above the OECD average in literacy, numeracy and problem solving skills, over a million people in the working age population have limited literacy and numeracy (Literacy Alliance, 2018).
- 6.4. We see the provision of ongoing upskilling of New Zealand workers as a crucial issue, and would like to see it made a universal entitlement.

*Learning for Life*

- 6.5. The CTU supports universal access to lifelong learning for all working people. As we prepare for and shape the future of work, it is essential that working people have access to the education, including in-work training and skill development, they need to respond to new challenges.

- 6.6. Supporting learning for life will enable New Zealand to lift productivity through innovation and worker engagement; create opportunity with high-wage, high-value jobs; and be resilient through change.
- 6.7. The CTU vision is for every worker to be a lifelong learner, with:
- opportunities to develop skills and advance in their chosen field
  - clearly identified learning goals and a plan for reaching them
  - a voice in shaping how they learn at work
  - clear entitlements and time to learn
  - access to relevant high-quality courses, institutions, and qualifications
  - options to learn “on the job” and to combine training with employment

#### *Social Partnership*

- 6.8. In their 2019 report *Work for a Brighter Future* (International Labour Office, 2019), the ILO Global Commission on the Future of Work calls for a lifelong learning ‘eco-system’ based on social partnership, with complementary roles for government, employers, unions, and education institutions. As part of this approach, the Global Commission calls for formal recognition of a universal entitlement to lifelong learning and the establishment of an effective lifelong learning system.’
- 6.9. The value of social partnership between government, trade union, and employers is also emphasised in a 2019 report from the OECD, *Getting Skills Right: Making adult learning work in social partnership*, based on a survey of OECD member states. The survey highlighted good practice where social partners jointly define and manage training systems in Austria, Denmark, Germany, Iceland, Italy, and the Netherlands. In other states, making up around half of the OECD, social partners ‘contribute to the definition of the training system’ at a high level. New Zealand ranked in the lower half of the OECD for social partnership in lifelong learning based on current practice, with the social partners having only ‘a consulting role’. New Zealand has an opportunity to improve this situation by incorporating recommendations from the OECD and ILO Global Commission to build social partnership for lifelong learning.
- 6.10. The CTU recommends that Government, unions and employers commit to social partnership for lifelong learning. As part of this, Government should coordinate with unions and employers as social partners to develop learning plans for each industry, mapped to workforce needs and skill shortages. As noted above, there is evidence from Europe for tripartite involvement being an effective strategy (see also for

example McLaughlin, 2009, 2013) and unions frequently negotiate for training requirements in collective employment agreements. The proposed Fair Pay Agreements also have that intention and have the added advantage of being able to address training needs on an industry-wide basis, resolving co-ordination and 'prisoner's dilemma' failures where individual employers are unwilling to invest in training because they fear their trained employees will be poached by another employer.

- 6.11. We need to create a culture of support, expectation and enthusiasm for ongoing learning throughout our lives. The engagement of workers and unions in creating this culture is a vital one because they have an interest in both gaining skills in the short run and ensuring learning advances workers' careers and industries. This brings constructive pressure to advance education and training, and to ensure it is not solely short-term and employer-specific. We discuss this further below.
- 6.12. A further possible model that would strengthen this approach is the process overseen by Singapore's tripartite Future Economy Council, supported by the Ministry of Trade and Industry, to develop Industry Transformation Maps and an associated Skills Framework.<sup>3</sup>

#### *Approach to Vocational Education*

- 6.13. An integrated approach to vocational education in New Zealand requires us to get the incentives right, in terms of funding, strategy, and relationships, for ITPs and wānanga to be actively involved in workplace learning and complementing rather than competing with the role of industry bodies.
- 6.14. New Zealand's current approaches to both on-job and off-job training have strengths that should be maintained and built on. There are also weaknesses and challenges to overcome. The greatest weakness in the current system is the separation between on-job and off-job systems of vocational education, reinforced by a competitive funding model that sees ITPs competing with ITOs, as well as with PTEs, wānanga and each other.

#### **Q18 What changes to immigration policy to address skills needs might be required under different future scenarios?**

- 6.15. We support immigration when there is robust evidence of a skill shortage, so we support current moves towards increasing skill requirements for inward migration

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<sup>3</sup> See: <https://www.mti.gov.sg/en/ITMs/Overview> and <https://www.skillsfuture.sg/skills-framework>

and making training of more local workers a precondition of recruiting migrants. The aim should be to fulfil the bulk of New Zealand's skill needs from our own population wherever possible.

***Q19 What, if any, further measures are needed to improve skills among adults with low proficiency to enable them to successfully participate in any future labour market?***

***Q21 What, if any, further measures are needed to address any digital divides in New Zealand?***

6.16. As noted above, we recognise the need to improve access to foundation-level Language, Literacy, Numeracy and Digital Literacy training for all workers. Dedicated programmes should be available to any worker with a self-identified need, including those already enrolled in other training programmes, and including workers on temporary work visas. We have worked with Business New Zealand, the Industry Training Federation and education providers through the Literacy Alliance to find ways to address this challenge. Continuing efforts are required, and the Commission should consult with the Literacy Alliance on this.

6.17. One measure which is particularly relevant is the 'Learning Representatives' programme. The programme was modelled on one in the U.K. where it is still running. It is based on the principle that many workers want and need assistance in identify their skill needs and how to obtain them, and are more willing to discuss their needs with peers, because the admission of a skill gap or of literacy, language or numeracy problems may compromise their prospects with their employer. The programme trains representatives on the job to enable them to give advice and support to their co-workers, as well as being an interface with the employer advocating for appropriate training and development opportunities for workers. The CTU trained learning representatives until its funding was stopped by the Government in 2012. The programme received positive evaluations (e.g. McDonald, H & Alkema, A, 2014).

6.18. Training needs are not limited to the foundation-level however.

***Q22 What factors underpin New Zealand's apparently poor matching of skills with jobs? To what extent are mismatches a problem?***

***Q26 How well equipped is New Zealand's education and skills system to support people to adapt to technological change over the course of their careers?***

6.19. The lack of effective industry-based structures which discuss, identify, address and coordinate industry needs is a key missing element. While ITOs (or their replacements under the proposed reforms) play some of that role, they do not

address the problem we mentioned at the outset in this section. Training on an industry-wide basis presents a co-ordination and 'prisoner's dilemma' problem. Individual employers are unwilling to invest in training because they fear their trained employees will be poached by another employer. All employers and employees lose as a result. Market pressures have clearly failed to resolve this.

- 6.20. As we mentioned, structures in Europe which involve both employers and unions as part of collective employment negotiations provide a structure to resolve this. The employee representatives bring pressure for training which prevent it being side-lined. Addressing it as an industry means employers can ensure that they are all contributing, and can all expect benefits from the effort. Involvement of worker representatives means that the balance necessary between short term micro training needs and workers' career aspirations – between small, perhaps unrelated, perhaps uncredentialed training units, and progress towards an industry-recognised full qualification – can be negotiated. Such structures can provide assurance of governance and purpose for government funding agencies.
- 6.21. We have mentioned that the proposed Fair Pay Agreements are one such collective industry mechanism. Multi-employer collective agreements (MECAs) could also provide one. They exist in publicly funded Health and Education.
- 6.22. We discussed skill mismatching above. It could well be a symptom of poor investment and productivity by firms, rather than a cause. Ewart Keep and colleagues (Keep, Mayhew, & Payne, 2006) argue that the demand for skills from employers is as important as supply of skills by workers, and that weak productivity performance is closely related to the lack of demand.

***Q27 How might the incentives for firms to invest in staff training change under each of the Commission's future scenarios? Under which scenarios would there be a case for greater government investment in firm-based training?***

- 6.23. We see ongoing and universally available work-based training as a crucial need under any scenario. Technology is not the only reason for changes in work, and much better life-long learning arrangements are needed if New Zealand's economy is to increase its productivity.

***Q28 What changes are needed to provide prospective students, including adults and those already part-way through a career, with the skills needed to make informed decisions about education and careers?***

- 6.24. As addressed under active labour market policies, we need much improved advice and support for people who have lost their jobs. See that section.

## **7. Firm and economic policies**

***Q29 Which barriers to competition and investment should be priorities for reform in a government innovation strategy?***

***Q30 Are there particular regulations or areas of regulation that will need to be updated to maximise the benefits from technological change? Do these areas differ, depending on the future scenario?***

***Q31 What changes, including to government funding for R&D, might be needed to improve the returns to firms from innovation?***

***Q32 What steps should be taken to promote technology transfer and build absorptive capacity in New Zealand firms?***

***Q33 What steps should be taken to strengthen the international connections of New Zealand firms?***

- 7.1. As our introductory remarks stated, we see industry policy as one of the legs of the three-legged stool that is an effective response to change.
- 7.2. Industry policy – a package of policies that guide industry development in a desired direction – is essential in order to
- 7.2.1. Raise productivity and the value-added content of production so wages can rise in real terms, improving living standards;
  - 7.2.2. Ensure that industries which are threatened due to factors such as technological change, international competition or climate change are either helped to raise their performance or replaced by new industries providing good jobs;
  - 7.2.3. Take advantage of opportunities that arise as the result of change, such as ‘green’ industries, new technologies, and the expertise gained from responding to the Canterbury earthquakes;
  - 7.2.4. Diversify New Zealand’s economy to reduce the risks of dependence on a relatively narrow range of products which could be hit by international developments (as manufacturing was hit during the Global Financial Crisis);
  - 7.2.5. Address regional development needs.

- 7.3. They were a missing element of the changes to economic policies in the 1980s and 1990s, leading to unnecessary unemployment, social distress and ultimately the economy taking its low productivity road.
- 7.4. A government role in industry development is essential for success in attaining these objectives. Versions of such policies were the basis of most of the now developed economies in their early stages and of the rapid development of East Asian economies such as South Korea, Japan, China and Taiwan (see for example Chang, 2002). Mazzucato (2015) in her book, *The Entrepreneurial State: Debunking Public vs. Private Sector Myths* shows that there has historically been and still is an essential role for the state in innovation. The recent book *New perspectives on industrial policy for a modern Britain* (Bailey, Cowling, & Tomlinson, 2015) looks at aspects of the revival of industry policy in Britain.
- 7.5. Proctor (2011), Bentley (2017) and Goran Roos among others have put this case strongly for New Zealand.
- 7.6. Macmillan and Rodrik (2012) in a comparison of the development paths of many countries, showed that since 1990, “structural change has been growth reducing in both Africa and Latin America, with the most striking changes taking place in Latin America. The bulk of the difference between these regions’ productivity performance and that of Asia is accounted for by differences in the pattern of structural change, with labor moving from low- to high-productivity sectors in Asia, but in the opposite direction in Latin America and Africa... Structural change, like economic growth itself, is not an automatic process. It needs a nudge in the appropriate direction, especially when a country has a strong comparative advantage in natural resources.” While they are considering developing countries, we should not ignore the lesson: structural change such as that undergone during the 1980s and 1990s can be damaging to the economy (and society) unless deliberate action is taken to guide it in the right direction – specifically towards higher productivity industries.
- 7.7. Success requires much more direct and strategic government support for promising sectors of industry. Examples of such policies given in our *Alternative Economic Strategy* (CTU, 2010) include:
- Priority being given to:
- Broadly defined sectors such as ICT, high level processing of agricultural products, or developing environmental products and services;

- Cross-sectoral themes such as being environmentally beneficial, or high productivity;
- National and regional Infrastructure Plans.

It proposed, among other actions:

- Financial support through tax credits; the injection of funds through purchase of shares; and development finance institutions or arrangements.
- Support for both industry and government research and development, and funding extension services staffed by people with deep industry and marketing experience who can form a knowledge bridge between researchers and firms to put both local and overseas developments into practice.
- Considering whether competition rules are sufficient to both ensure pricing and supply of basic infrastructure such as electricity serve social and economic development needs, and to enable development of larger size economic units needed for competitiveness for exporting and import competition. (It is also important to consider the trend elsewhere that the growth of the digital economy has led to high levels of industrial concentration, creating opportunities for anti-competitive practices and constraints on competition (e.g. Autor et al., 2017; Mitchell, 2018). Many digital applications create industries which tend towards one or a small number of firms because of network and scale effects. The incumbents then act to protect that position. This can impact jobs as well as consumers.)
- Use of government procurement to support promising firms, and support for local producers ('buy kiwi made').
- Strategies for Ports and for Shipping to ensure best use of our ports, survival of New Zealand coastal shipping services, and efficient transport to international markets.
- Development of public transport in cities including both bus and rail, and support for local suppliers of equipment such as KiwiRail's Hillside and Woburn workshops.
- A "human infrastructure" fund to provide long term funding certainty to tertiary education and workplace training with encouragement for private contributions.

- Continued full government ownership of state owned enterprises and considering their role in industry development.
  - Workplace productivity development incorporating increasing worker participation, making the most of new technology, and development of better management practices via programmes of mentoring and training through tertiary education programmes and employer organisations.
- 7.8. Assistance should not be open-ended or unconditional. It should be based on performance, and it should be temporary though not necessarily short term. While ensuring accountability it should recognise that firm development is not a short term process of steady growth. Assistance must be sufficiently patient to take into account the fluctuations of markets and external forces.
- 7.9. It should integrate into better employment policies, with assistance conditional on industry collective agreements, keeping the focus on raising productivity through investment rather than holding down wages. It should also meet expectations of improving environmental management.
- 7.10. Industry development is assisted when it makes full use of the knowledge and expertise of the people who work in it: 'industry' includes the people who work in it and should not be conflated with 'business'. It therefore depends on good working relationships. Innovation is encouraged by trust and secure employment because it encourages the risk-taking that is needed to try new ways of doing things. For example Acharya, Baghai and Subramanian (2010, 2014) find that stronger protection against wrongful dismissal leads to greater innovation in firms.
- 7.11. Unions have been involved over the last two decades in workplace productivity initiatives which emphasise the need for participation of workers in the processes needed to raise productivity. Worker participation can also contribute to innovation. There is good evidence that well designed practices can be effective and should be encouraged and supported by government but they require a change in management approaches and increased trust in the workplace. There is a large variety of what are described as High Performance Work Practices as covered in the issues paper. Not all are equal and not all are effective. The quoted results on effectiveness are therefore unsurprising.
- 7.12. For example the paper reports (p.46) that "Most high-performance work practices in New Zealand relate to training and flexible working hours, with bonuses being

relatively uncommon". We would regard training and flexible working hours (though only if at the choice of the employee) as desirable but not the point of High Performance, High Engagement work practices. The latter have worker (and union) participation at their heart, making use of the knowledge that workers have of the work that they do, and providing assurance that they will get a fair share of the benefit from improvements. They build and require a high trust, collaborative environment. Individual bonuses are not part of this: they typically reward the individual where improvements must be collective to be sustained. In reality individual initiatives build on previous experience and practice and rely on fellow workers to succeed. Individual bonuses are divisive rather than encouraging collaboration and participation and are particularly ineffective for jobs with complex requirements and desired outcomes, which are likely to constitute an increasing part of work in the future.

- 7.13. The low quality of management in New Zealand has been documented in international surveys and in the issues paper, yet little is done to remedy it. Too often it is a command-and-control style that is bad for productive workplaces, lowers trust, and increases health and safety risks. However the types of 'people management' practices cited as desirable in the paper with "its practices around addressing poor performers, promoting and retaining high performers" again go against effective high performance, high engagement workplace practices because they emphasise the performance of individual employees and management control rather than participation, engagement, trust and cooperation.
- 7.14. We recorded above the importance of the state in innovation. This begins with a strong capability in research, science and technology. New Zealand's capability has been weakened by a system excessively based on short term and competitive funding which does not encourage long-term research. In the long run, it is 'blue skies' research that leads to significant advances in technology (and social progress) but our research system does not encourage this sufficiently. It also needs to encourage the takeup of research results by industry, but the institutions which bridge research and industry are too few or too weak. Commercialisation must be done in a way that both protects researchers from commercial influence that would undermine their independence, and encourages communication between researchers and industry. Bentley for example advocates a new network of University-based technology hubs modelled on the Centres of Research Excellence

and the Auckland University-based Product Accelerator technology hubs, fully funded by government (Bentley, 2017, p. 154).

- 7.15. The government should share in the proceeds of commercial development it has helped. We should consider new forms of Intellectual Property ownership similar to 'open source' software and 'creative commons' licensing in order to enable sharing of their development by firms and in education, extracting the widest benefit rather than conferring limited monopolies (see Stiglitz & Greenwald, 2015).
- 7.16. The financial system is part of New Zealand's industry development problem. Exporters and local producers competing with imports cannot thrive unless we bring down the high exchange rate which virtually all observers (among them the Reserve Bank) agree is chronically and unsustainably high. It is largely driven by, in the shorter run, high interest rates in New Zealand compared to rates in the main financial centres of the world, encouraging short term financial flows into New Zealand which drive up the exchange rate; and in the longer run by our main commodity exports (e.g. Mabin, 2010; McDonald, 2012; Merrouche & Nier, 2010; Reddell, 2013).
- 7.17. New Zealand is suffering from an economy excessively driven by unproductive financial profit-seeking and the "Dutch disease"<sup>4</sup>— a few commodities driving the exchange rate to the detriment of the rest of the tradable sector such as manufacturing. This makes it even more difficult for new export industries to grow.
- 7.18. Policies could include broadening the Reserve Bank's objectives to include the exchange rate (as well as employment), and the use of a wider range of policy tools such as controlling banks' use of overseas funding for lending on mortgages in New Zealand. It needs to be accompanied by encouraging the growth of savings in New Zealand – and their investment in productive enterprises. Addressing the cost of housing is an important aspect of this.
- 7.19. While we have covered above the actions needed to assist workers when significant job loss occurs, such as in crises or firm closures, the state should also anticipate as well as possible changes in industries and be working to ensure jobs are replaced with good or better ones by assisting the development of replacement industries.

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<sup>4</sup> The "Dutch disease" is an economists' term referring to the problem that the Netherlands had when it found a large natural gas field in 1959. It applies to any situation when natural resource exports (in the Dutch case, gas) drive up the exchange rate, making it difficult for manufactured exports to compete.

Some are relatively easy to anticipate such as the demise of hydrocarbon based energy sources as a result of responses to climate change, and the lead-in time provides plentiful opportunities to nurture replacement industries and jobs. The government has a responsibility to prepare for the future as well helping people through present difficulties.

- 7.20. Many of the policies we may need to use are hamstrung by international trade agreements like the CPTPP which make control of the financial system, international financial flows and overseas investment more difficult, and severely weaken government procurement and state owned enterprises as industry development tools. They strengthen intellectual property rights, which as the issues paper notes (p.49) provides little benefit to innovation and for a country like New Zealand which has an interest in sharing innovative ideas rather than being excluded from them, takes us in the wrong direction. Directly relevant to this inquiry is the development of e-commerce chapters and agreements which constrain our ability to regulate the digital domain, including in such areas as privacy and protection of personal information, the spread of violent behaviour, access to algorithms to assess for example whether they are discriminatory, competition, employment conditions and the enforcement of local laws (a recent example being entertainment ticket reselling). They could also enable or make more difficult the taxation of international digital corporations. A much more analytical approach is needed to the merits of such agreements than simply calling for more of them (p.52).
- 7.21. The growing gap between the most productive firms and the rest in New Zealand, recorded at page 47, which “suggests barriers to the transmission of ideas and technology and the reallocation of resources from low-productivity to higher-productivity firms” again raises questions as to whether job churn is productive. Employees taking knowledge of improved practices with them when they change jobs is supposed to be an important method for transmission of higher performance. High job churn may mean we are losing more in accumulated knowledge on the job than we are gaining in spreading good practices. The fact that the slight (2.7 per cent to 3.5 per cent) wage premium in foreign-owned firms is lost when an employee leaves for a local firm (Maré, Sanderson, & Fabling, 2014) provides further evidence. Maré, Sanderson and Fabling comment: “These findings give little support to the argument that foreign firms provide substantial indirect or spillover benefits to domestic firms through human capital accumulation and labour mobility.”

7.22. This makes it all the more important that reskilling is available when people lose their jobs.

## 8. Conclusion

8.1. We have made a wide range of suggestions for addressing the issues raised by technological (and other) and other change and its impact on work. They are based on our view that while the precise nature of change cannot be predicted, creating good policies and institutions is the best response. In this there is a lot to learn from world leaders such as the Nordic countries and others in northern Europe.

8.2. Our proposals are based on the three-legged stool of **Industry policy** that supports investment and diversification of our economy into more productive, high value industry, replaces industries that are no longer viable due to change, and adapts to, or takes advantage of, developments like climate change; improved **Employment law** that strengthens collective bargaining so that the benefits of change and productivity growth flow through into wages, better job security and conditions, and encourages productive, participatory, high-trust workplaces and tripartism; and a **capable state** including a social security system that genuinely provides security of income plus training and support for those who lose their jobs due to change or due to an increasingly insecure job market; education and training systems that prepare people for life and work; strong infrastructure and regulatory capacity.

8.3. We have questioned some of the evidence raised in the issues paper.

8.4. However we have not been able to deal with all the detail raised in the paper. We would be happy to discuss the issues further with the Commission.

## 9. References

Acharya, V. V., Baghai, R. P., & Subramanian, K. V. (2010). Labor Laws and Innovation. *National Bureau of Economic Research Working Paper Series, No. 16484*. Retrieved from <http://www.nber.org/papers/w16484>

Acharya, V. V., Baghai, R. P., & Subramanian, K. V. (2014). Wrongful Discharge Laws and Innovation. *Review of Financial Studies, 27*(1), 301–346. <https://doi.org/10.1093/rfs/hht009>

Algorithmic prejudice: Facebook's ad system seems to discriminate by race and gender. (2019, April 4). *The Economist*. Retrieved from <https://www.economist.com/business/2019/04/04/facebooks-ad-system-seems-to-discriminate-by-race-and-gender>

- Altman, M. (2012). The Living Wage, Economic Efficiency, and Socio-Economic Wellbeing in a Competitive Market Economy. *Forum for Social Economics*, 41(2–3), 166–186. <https://doi.org/10.1007/s12143-011-9095-8>
- Autor, D., Dorn, D., Katz, L. F., Patterson, C., & Reenen, J. V. (2017). *The Fall of the Labor Share and the Rise of Superstar Firms* (Working Paper No. 23396). <https://doi.org/10.3386/w23396>; NBER: <http://www.nber.org/papers/w23396>
- Bailey, D., Cowling, K., & Tomlinson, P. (Eds.). (2015). *New perspectives on industrial policy for a modern Britain* (First edition). Oxford, United Kingdom: Oxford University Press.
- Bary, A. (2007, February 16). Costco: The “anti-Wal-Mart.” *Barron’s*. Retrieved from <http://walmartwatch.blogspot.co.nz/2007/02/costco-anti-wal-mart.html>
- Belman, D., & Wolfson, P. J. (2014). *What does the minimum wage do?* Upjohn Institute Press.
- Bentley, R. (2017). *Innovate!: transforming New Zealand’s technology-based economy*. Wellington, New Zealand: Steele Roberts Aotearoa.
- Card, D., Kluve, J., & Weber, A. (2010). Active Labour Market Policy Evaluations: A Meta-Analysis. *The Economic Journal*, 120(548), F452–F477. <https://doi.org/10.1111/j.1468-0297.2010.02387.x>
- Card, D., Kluve, J., & Weber, A. (2015). *What Works? A Meta Analysis of Recent Active Labor Market Program Evaluations* (Discussion Paper No. 9236). Retrieved from Institute for the Study of Labor (IZA) website: <http://ftp.iza.org/dp9236.pdf>
- Chang, H.-J. (2002). *Kicking away the ladder: development strategy in historical perspective*. London: Anthem.
- Chappell, N., & Sin, I. (2016). *The Effect of Trial Periods in Employment on Firm Hiring Behaviour* (Working Paper No. 16/03). Retrieved from The Treasury website: <http://purl.oclc.org/nzt/p-1834>
- Chapple, S. (1994). *HLFS-Consistent Labour Market Data* (Working Paper No. WP 94/16). Wellington, New Zealand: New Zealand Institute of Economic Research.
- Crystal, G. (2005, August 24). Costco-Wal-Mart Pay -- Don’t Discount Difference: Graef Crystal. *Bloomberg*. Retrieved from [http://www.sddt.com/News/article.cfm?SourceCode=20050824fp&\\_t=CostcoWalMart+pay+Dont+discount+difference#.WVrIMOILeRE](http://www.sddt.com/News/article.cfm?SourceCode=20050824fp&_t=CostcoWalMart+pay+Dont+discount+difference#.WVrIMOILeRE)
- CTU. (2010). *Alternative Economic Strategy, Tetahi Atu Ōhanga Rautaki: An economy that works for everyone*. Retrieved from <http://union.org.nz/policy/alternative-economic-strategy>
- Facebook charged with discrimination by US Department of Housing. (2019, March 29). *Stuff.Co.Nz*. Retrieved from <https://www.stuff.co.nz/technology/social-networking/111638395/facebook-charged-with-discrimination-by-us-department-of-housing>
- Fair Pay Agreements Working Group. (2018). *Fair Pay Agreements: Supporting workers and firms to drive productivity growth and share the benefits. Recommendations from the Fair Pay Agreement Working Group, 2018*. Retrieved from New Zealand Government website: <https://www.mbie.govt.nz/business-and-employment/employment-and-skills/employment-legislation-reviews/fair-pay-agreements/>
- Georgiadis, A. (2013). Efficiency Wages and the Economic Effects of the Minimum Wage: Evidence from a Low-Wage Labour Market\*. *Oxford Bulletin of Economics and Statistics*, 75(6), 962–979. <https://doi.org/10.1111/j.1468-0084.2012.00713.x>

- Hatton, E. (2019, May 23). Truckies leaving job over poor pay, driver-facing cameras. *RNZ News*. Retrieved from <https://www.rnz.co.nz/news/national/389844/truckies-leaving-job-over-poor-pay-driver-facing-cameras>
- Huang, Y., Loungani, P., & Wang, G. (2014). *Minimum Wages and Firm Employment: Evidence from China* (Working Paper No. WP14/184). Retrieved from International Monetary Fund website: <http://www.imf.org/external/pubs/cat/longres.aspx?sk=42395.0>
- Hyslop, D., & Townsend, W. (2017). *The Longer Term Impacts of Job Displacement on Labour Market Outcomes* (Working Paper No. 17–12). Retrieved from Motu Economic and Public Policy Research website: <http://motu.nz/our-work/population-and-labour/individual-and-group-outcomes/the-longer-term-impacts-of-job-displacement-on-labour-market-outcomes/>
- Illanes, P., Lund, S., Mourshed, M., Rutherford, S., & Tyreman, M. (2018). *Retraining and reskilling workers in the age of automation*. Retrieved from McKinsey and Company website: <https://www.mckinsey.com/featured-insights/future-of-work/retraining-and-reskilling-workers-in-the-age-of-automation>
- International Labour Office. (2019). *Work for a brighter future - Global Commission on the Future of Work*. Retrieved from [https://www.ilo.org/global/publications/books/WCMS\\_662410/lang--en/index.htm](https://www.ilo.org/global/publications/books/WCMS_662410/lang--en/index.htm)
- Kahn, L. M. (2016). *Permanent Jobs, Employment Protection and Job Content* (Discussion Paper No. 9961). Retrieved from Institute for the Study of Labor (IZA) website: [http://papers.ssrn.com/sol3/papers.cfm?abstract\\_id=2789999](http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2789999)
- Keep, E., Mayhew, K., & Payne, J. (2006). From Skills Revolution to Productivity Miracle— Not as easy as it Sounds? *Oxford Review of Economic Policy*, 22(4), 539–559. <https://doi.org/10.1093/oxrep/grj032>
- Keogh, B. (2019, May 27). Independent watchdog needed to probe Government’s use of AI: law, computer science experts. *Stuff.Co.Nz*. Retrieved from <https://www.stuff.co.nz/technology/112954104/independent-watchdog-needed-to-probe-governments-use-of-ai-law-computer-science-experts>
- Krugman, P. R. (2015, March 2). Walmart’s Visible Hand. *New York Times*, p. A19.
- Literacy Alliance. (2018). *Stepping up to better working lives: Workforce literacy in New Zealand*. Retrieved from Literacy Alliance website: <https://www.skillshighway.govt.nz/news/literacy-alliance-stepping-up-to-better-working-lives>
- Mabin, G. (2010). *New Zealand’s Exchange Rate Cycles: Evidence and Drivers* (Working Paper No. 10/10). Retrieved from The Treasury website: <http://purl.oclc.org/nzt/p-1346>
- Manning, A. (2003). *Monopsony in Motion: Imperfect Competition in Labor Markets*. Retrieved from <http://www.jstor.org/stable/j.ctt5hhpvk>
- Maré, D. C., Sanderson, L., & Fabling, R. (2014). *Earnings and Employment in Foreign-owned Firms* (No. MWP1410). Retrieved from Motu Economic and Public Policy Research website: <http://www.motu.org.nz/our-work/population-and-labour/firm-performance-and-labour-dynamics/earnings-and-employment-in-foreign-owned-firms-2/>
- Mayneris, F., Poncet, S., & Zhang, T. (2014). *The cleansing effect of minimum wage : Minimum wage rules, firm dynamics and aggregate productivity in China* (Working Papers No. 2014–16). Retrieved from CEPII website: <http://www.cepii.fr/CEPII/en/publications/wp/abstract.asp?NoDoc=7139>

- Mazzucato, M. (2015). *The Entrepreneurial State: Debunking Public vs. Private Sector Myths*. Anthem Press.
- McDonald, C. (2012). *Kiwi drivers - the New Zealand dollar experience* (Analytical Note No. AN2012/02). Retrieved from Reserve Bank of New Zealand website: [http://www.rbnz.govt.nz/research\\_and\\_publications/articles/details.aspx?id=4240](http://www.rbnz.govt.nz/research_and_publications/articles/details.aspx?id=4240)
- McDonald, H, & Alkema, A. (2014). *Careerforce Learning Representatives: Encouraging learning at work*. Heathrose Research Ltd.
- McLaughlin, C. (2009). The Productivity-Enhancing Impacts of the Minimum Wage: Lessons from Denmark and New Zealand. *British Journal of Industrial Relations*, 47(2), 327–348. <https://doi.org/10.1111/j.1467-8543.2009.00726.x>
- McLaughlin, C. (2013). The role of productivity coalitions in building a ‘high road’ competitive strategy: The case of Denmark and Ireland. *European Journal of Industrial Relations*, 19(2), 127–143. <https://doi.org/10.1177/0959680113482245>
- McMillan, M., & Rodrik, D. (2012). *Globalization, Structural Change, and Productivity Growth* (Discussion Paper No. 01160; p. 40). Retrieved from International Food Policy Research Institute website: <http://www.ifpri.org/publication/globalization-structural-change-and-productivity-growth>
- Merrouche, O., & Nier, E. (2010). *What Caused the Global Financial Crisis - Evidence on the Drivers of Financial Imbalances 1999 - 2007* (Working Paper No. 10/265). Retrieved from IMF website: <http://www.imf.org/external/pubs/cat/longres.cfm?sk=24370.0>
- Mims, C. (2019, May 4). In a Tight Labor Market, Gig Workers Get Harder to Please. *Wall Street Journal*. Retrieved from <https://www.wsj.com/articles/in-a-tight-labor-market-gig-workers-get-harder-to-please-11556942404>
- Mitchell, S. (2018, February 15). *Amazon Doesn't Just Want to Dominate the Market—It Wants to Become the Market*. *The Nation*. Retrieved from <https://www.thenation.com/article/amazon-doesnt-just-want-to-dominate-the-market-it-wants-to-become-the-market/>
- Naidu, S., & Posner, E. A. (2018). *Labor Monopsony and the Limits of the Law*. Retrieved from <https://irs.princeton.edu/sites/irs/files/naidu%20posner%20limits%20of%20law%20conference%20draft.pdf>
- Naidu, S., Posner, E., & Weyl, E. G. (2018a). Antitrust Remedies for Labor Market Power. *Harvard Law Review*, 132(2), 536–601.
- Naidu, S., Posner, E., & Weyl, G. (2018b). *More and more companies have monopoly power over workers' wages. That's killing the economy*. Retrieved from Vox website: <https://www.vox.com/the-big-idea/2018/4/6/17204808/wages-employers-workers-monopsony-growth-stagnation-inequality>
- New Zealand Council of Trade Unions Te Kauae Kaimahi. (2015). *Submission of NZCTU on the Labour Party Future of Work Commission*. Retrieved from NZCTU website: <http://union.org.nz/policy/ctu-submission-labour-party-future-work-commission-future-work>
- New Zealand Productivity Commission. (2016). *New Models of Tertiary Education*. Retrieved from New Zealand Productivity Commission website: <http://www.productivity.govt.nz/news/new-inquiry-new-models-of-tertiary-education>
- OECD. (2017). *Back to work, New Zealand: improving the re-employment prospects of displaced workers*. Retrieved from <http://dx.doi.org/10.1787/9789264264434-en>

- OECD. (2018). The role of collective bargaining systems for good labour market performance. In *OECD Employment Outlook 2018* (pp. 73–123). [https://doi.org/10.1787/empl\\_outlook-2018-en](https://doi.org/10.1787/empl_outlook-2018-en)
- Procter, R. (2011). *Enhancing Productivity: Towards an Updated Action Agenda* (Occasional Paper No. 11/01; p. 71). Retrieved from Ministry of Economic Development website: <http://www.med.govt.nz/about-us/publications/publications-by-topic/occasional-papers/11-01-pdf/view>
- Reddell, M. (2013, March 26). *The long-term level “misalignment” of the exchange rate: Some perspectives on causes and consequences*. Presented at the Exchange Rate Policy Forum: Issues and Policy Implications, Wellington, New Zealand. Retrieved from [http://www.rbnz.govt.nz/research\\_and\\_publications/seminars\\_and\\_workshops/Mar2013/5200823.pdf](http://www.rbnz.govt.nz/research_and_publications/seminars_and_workshops/Mar2013/5200823.pdf)
- Shears, D. (2018). Rich pickings? Exploitation is part and parcel of the Amazon business model. *Hazards Magazine*, (143). Retrieved from <http://www.hazards.org/insecure/richpickings.htm>
- Slade, M. (2019, January 16). Transport’s dirty little secret: The truckers breaking the law just to survive. Retrieved February 11, 2019, from The Spinoff website: <https://thespinoff.co.nz/business/16-01-2019/transport-sectors-dirty-little-secret-truckers-breaking-the-law-to-survive/>
- Stiglitz, J. E., & Greenwald, B. C. (2015). *Creating a learning society: a new approach to growth, development, and social progress* (A reader’s edition). Retrieved from <http://cup.columbia.edu/book/creating-a-learning-society/9780231152143>
- Zelenska, T. (2011). *Channels of Adjustment in Labor Markets: The 2007-2009 Federal Minimum Wage Increase* (PhD Thesis, Georgia State). Retrieved from [http://digitalarchive.gsu.edu/econ\\_diss/70/](http://digitalarchive.gsu.edu/econ_diss/70/)