

# The tale of Goldilocks and the three fears (about the minimum wage)

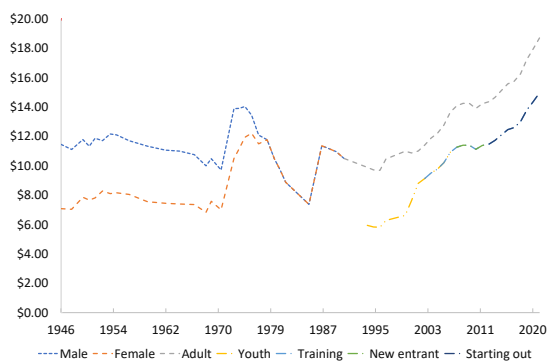
There are three main fears about the minimum wage in New Zealand: that the rate is politically motivated, that it will cost jobs, and that it will not solve serious social problems. Resolving these fears requires recognising that the minimum wage is a Goldilocks policy. Set too low, it will limit the contribution employment can make to wellbeing; set too high, it could cause real economic harm. What can we say about the sweet spot in the middle for New Zealand?

## Introduction

The New Zealand government increased the adult minimum wage to \$20.00 per hour from 1 April this year, the highest nominal and real rate since at least 1946.<sup>1</sup>

### Figure 1 The real minimum wage

Dollars per hour, adjusted to 2017 prices using the CPI



Source: NZIER

In this Insight, we comment on three fears that people have about the minimum wage:

- That it introduces politically motivated uncertainty into the labour market.
- That it has adverse impacts on employment.
- That it is too low, even at \$20.00 per hour, to address genuine social problems in New Zealand.

Before addressing these issues, we present some key facts about the minimum wage.

## Who gets the minimum wage in New Zealand?

In 2020, about 185,900 people received the minimum wage.

However, looking at the ages of those people and how their situation compares with people receiving higher wages reveals some important facts which are highly relevant for policy-making.

As shown in Table 1 over the page, 10 percent of recipients, or about 19,000 workers, were 16 or 17. Around three percent of the working-age population were in this age range. A further 14 percent of minimum wage earners were 18 or 19, making up another three percent of the workforce.

<sup>1</sup> Prior to 1946, minimum wages were set in industrial awards, thus making earlier comparisons difficult.

**Table 1 Who gets the minimum wage?**

Age	Percentage of minimum wage earners	Number of minimum wage workers	Percentage of working-age population
16-17	10	18,590	3
18-19	14	26,026	3
20-24	24	44,616	9
25-64	49	91,091	66
65+	4	7,436	19
<b>Total</b>	<b>100</b>	<b>185,900</b>	<b>100</b>

Source: Maré and Hyslop (2021)

Table 2 presents a different slice of the data: the percentage of workers in each age group that are earning the minimum wage. A disproportionate number of young workers receive the minimum wage: it is earned by 57 percent of employed 16–17-year-olds.

**Table 2 Most young workers get the minimum wage**

Age	Percentage of workers in each age group who earn the minimum wage
16-17	57
18-19	43
20-24	21
25-64	6
65+	8
<b>Total</b>	<b>100</b>

Source: Maré and Hyslop (2021)

As shown in Figure 1, there have been a number of different types of legal minimum wage in force in New Zealand since 1946. Note that New Zealand currently does not have a specific youth minimum wage, which is unusual in OECD countries.<sup>2</sup>

2 Maré and Hyslop (2021, p. 7). A universal youth minimum wage was eliminated between 2001 and 2008. Currently, the ‘adult’ minimum wage is payable to any employee aged over 16, with a carve-out for trainees and ‘starting out workers’.

To the extent that minimum wages are primarily earned by school students working in part-time, after-school jobs, overseas researchers have argued that they may have a relatively limited direct impact on the wellbeing of people who receive them: in effect suggesting this income is additional ‘pocket money’ used for discretionary spending.<sup>3</sup> These scholars also suggest that minimum wages may have dynamic benefits, encouraging people into the labour market, from where they can move on to better-paying roles. However, in New Zealand, the majority of minimum wage recipients are older, and there is limited evidence that younger minimum recipients move on to better paying jobs.<sup>4</sup>

In the core working-age adult group – people aged 25 to 64, which comprises roughly two-thirds of the workforce – six percent of people receive the minimum wage. While this might sound small, more adults earn the minimum wage than are unemployed.<sup>5</sup> This would suggest that from the perspective of lifting the wellbeing of low-income workers, the minimum wage might be as important as increasing benefit levels.<sup>6</sup>

## A rare contentious regulation?

One fear people have about the minimum wage is that it injects politically motivated uncertainty into the labour market.<sup>7</sup>

3 Manning (2021).

4 Maré and Hyslop (2021) show some evidence that the wages of young people who have received the minimum wage increase through time. However, they note that young minimum wage recipients are concentrated in the Agriculture; Retail Trade; and Accommodation and Food Services industries (ibid, p. 30). The Statistics NZ *Quarterly Employment Survey* shows that these industries consistently pay low wages compared to others.

5 In the first quarter of 2020, before the first COVID-19 lockdown, 128,700 or 4.5 percent of the working-age population were unemployed. At that time, 88,830 people who were ‘job ready’ were receiving the Jobseeker Benefit; 62,913 people with a health condition or disability were receiving Jobseeker support; 60,984 people were receiving sole parent support and 93,861 were receiving the Supported Living Payment (Ministry of Social Development (2021)).

6 We are not suggesting that the government needs to decide to either address incomes of low-paid employed or unemployed people. Within available resources, it could do both if that were a priority.

7 Marcetic (2017).

One of the successes of economic policy settings in New Zealand has been the enduring nature of many regulatory regimes. While differences in emphasis occur from time to time, some of the key planks of economic management have been remarkably stable.

For many important policies, there has been general agreement not just about desired outcomes but about underlying analytical frameworks. There is a broad political consensus around climate change in New Zealand.<sup>8</sup> The basic economics of free trade, price stability, fiscal prudence, tax policy, consumer regulation and many other policy areas are rarely debated in New Zealand today.

One positive result of this consensus is certainty: businesses and consumers can be confident that changes in government make-up are unlikely to result in wholesale changes in economic policy settings. This reduces risk and can increase investment.

The minimum wage, however, is one area where a broad political consensus is absent. There is no clear political agreement on the underlying analytical framework, policy rationale, or optimal minimum wage level.

Figure 2 shows how different New Zealand governments have taken different approaches to the minimum wage. The black dotted line is the highest minimum wage paid (between categories like male, female, adult, etc.). The shaded bars show government changes: blue for a National-led government and red for Labour-led.

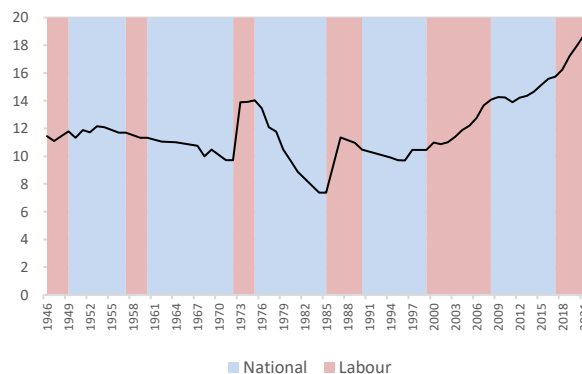
The election of Labour governments since the time of Norman Kirk has traditionally seen large increases in the real minimum wage. Under National governments, increases have been less pronounced, and indeed, before 1995, the real value of the minimum wage tended to fall (due to inflation) during National administrations.

The advent of the MMP electoral system has seen a steady increase in the real minimum wage, but rates of increase have slowed during periods of National-led governments.

8 The Climate Change Response (Zero Carbon) Amendment Bill passed its second reading 119 votes to 1 and was approved “on the voices” (without a single member objecting) at third reading (Parliament of New Zealand (2020)).

## Figure 2 The political economy of the minimum wage

Dollars per hour, adjusted to 2017 prices using the CPI



Source: NZIER

A gross generalisation of political attitudes to the minimum wage is that Labour governments tend to focus on signalling the value of work, while National governments tend to focus more on ensuring the affordability of workers.<sup>9</sup>

These differences are partly philosophical. But they also reflect a polarised economic literature. Both proponents and opponents of particular minimum wage settings can point to empirical economic studies that support their case.<sup>10</sup>

We would stress Clemens’ point about moderate increases. In the US, where there has been considerable analysis of the issue, the federal minimum wage has been a low and declining percentage of the median wage since the late 1960s.<sup>11</sup> The situation in New Zealand is different, as shown in Figure 3. Overseas conclusions about the effects of the minimum wage might therefore not translate directly to New Zealand.

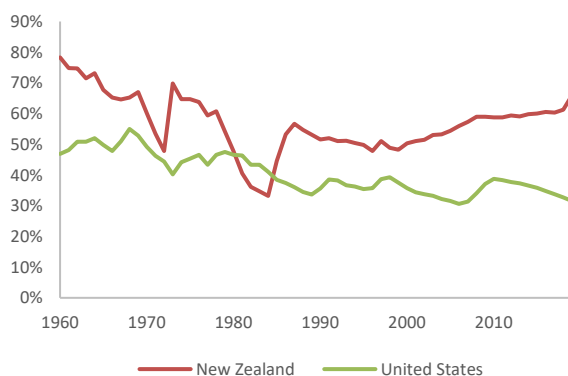
9 To demonstrate how gross a generalisation this is, in 1994, the National government, which three years earlier had enacted the Employment Contracts Act that radically deregulated the labour market, extended the minimum wage to teenagers (Cutbush (1994)).

10 See Clemens (2021) for a review of the recent literature.

11 This ratio is known as the Kaitz index, named after Hyman Kaitz, one time chief of the Division of Statistical Standards of the US Bureau of labour Statistics, who introduced the index in Kaitz (1970). The ratio was included in a regression analysis of the effect of the minimum wage on youth employment.

**Figure 3 The Kaitz Index**

Minimum wage as a percentage of the median wage



Source: OECD

There is nothing wrong with healthy debate. But a shared underlying framework and general agreement on objectives would reduce uncertainty in the labour market and could thereby increase incentives to train, invest and employ.

To help build understanding, we recommend that the Government commission impartial research on a series of issues that continue to be raised in discussions of the minimum wage in New Zealand. The purpose of this research is to build an agreed fact base upon which debate can be had.

The questions we propose be addressed are:

- Is there is a dynamic pattern of people 'growing out' of minimum wage jobs and into higher-paid roles?
- How does the minimum wage affect household incomes, particularly for households with several members in low-wage jobs and people working multiple minimum wage jobs?
- What effects do minimum wage increases have on employers, particularly in sectors with a high proportion of minimum wage workers and businesses with operating margins that make them more vulnerable to increasing wage costs?
- Do increases in the minimum wage motivate firms to raise expectations, increase performance standards, or boost productivity?<sup>12</sup>

12 Below we report results by US economist John Schmitt that suggest that increasing the minimum wage could be a spur to productivity (Schmitt 2015).

- At what point might increases in the minimum wage (or other collective wage determination methods, such as Pay Equity claims) induce reductions in hours worked?
- What changes in business models might be induced by increases in the minimum wage in New Zealand?

Currently, the minimum wage is set by the Government. While there is a statutory requirement to review the minimum wage each year,<sup>13</sup> the Government of the day is largely free to set the wage as it sees fit.<sup>14</sup> Although no guarantee of certainty, introducing a legislative framework within which the minimum wage is set may at least increase the transparency of rate setting.<sup>15</sup>

One option would be for the minimum wage to be set through a formula contained in legislation, rather than being left to ministerial discretion as is the case now. Something like the approach used to determine the rate of New Zealand Superannuation might be a model.

## Minimum wage impacts

A second fear is that the minimum wage costs jobs.

One of the key findings in the overseas literature is that the minimum wage has small impacts at the economy level because it is only received by small numbers of people, concentrated in specific sectors.<sup>16</sup> Metastudies (studies of studies) typically show modest minimum wage increases have scant

13 Section 5 of the Minimum Wage Act. The International Labour Organisation recommends regular reviews of the minimum wage rate to preserve its purchasing power and provide certainty and predictability for employers.

14 In practice, the Minister delegates to officials the role of undertaking a review. In 2020, however, officials recommended that the minimum wage be increased to \$19.15 per hour (Ministry of Business, Innovation and Employment 2020), while the Government decided that it should increase to \$20.00, because this was Labour party policy (Government of New Zealand 2020).

15 The similarly contentious area of industrial relations provides an example of the limits of legislated certainty. Key features have been in legislation for more than 100 years and have been subject to regular review and modification as governments change. See, however, Margaret Wilson's review of 40 years of labour market reforms, which shows that governments of all stripes in New Zealand have progressively narrowed the degree of regulation of this market (Wilson (2017)).

16 Manning (2021).

impacts on employment and hours worked – but there is no universal law that always applies.<sup>17</sup>

Summarising the US literature, Jeffrey Clemens has recently concluded:

*While debate remains contentious, a rising fraction of researchers have concluded that the employment effects of moderately sized minimum wage increases are quite close to zero.*<sup>18</sup>

How can this be? Doesn't every first-year economics student learn that when the price of something rises, the demand for it falls?

This 'downward sloping demand curve' approach is only true when everything else is kept constant.<sup>19</sup> However, starting with pioneering work by David Card and Alan Kruger, economists have been looking to expand their models to include a richer array of variables and interactions.<sup>20</sup>

Barry Hirsch, Bruce Kaufman and Tetyana Zelenska point to three possible explanations for why increased minimum wages might not result in falls in employment. First, even large minimum wage increases may be relatively modest compared to other cost increases that businesses regularly face without undue burden.<sup>21</sup> Second, managers may prefer to avoid potentially costly and counterproductive cuts to employment and hours. Finally, minimum wage increases may have impacts, but not on employment.<sup>22</sup>

In a similar vein, a recent survey of US studies by John Schmitt says employers may pass increased wage costs onto consumers in the form of higher prices, reduce non-wage benefits (such as health insurance and retirement plans), cut back on training, and change the composition of employees.<sup>23</sup> He also suggests that firms might be motivated to raise expectations, increase performance standards, or boost productivity – and that employees paid higher minimum wages might work harder, both to keep their job or to reciprocate.<sup>24</sup>

In New Zealand, recent work by Dave Maré and Dean Hyslop does not find evidence of adverse employment effects from increases in the minimum wage that are substantial compared with other countries.<sup>25</sup> One reason for this might be that in labour markets where firms have some power to set wages, higher minimum wages lead to more equitable outcomes.<sup>26</sup> The authors noted that minimum wage increases were leading to more compressed wage distributions; that results varied (across different firms and industries depending on the share of minimum wage workers employed; and by age and gender, with stronger negative employment effects for women, teens and young adults – but positive impacts for older adults); and that available estimates were fragile.<sup>27</sup>

Overall, Maré and Hyslop found the minimum wage has had quite limited distributional effects in New Zealand. It is likely to act as a floor that provides some protection against worker

17 Schmitt (2015).

18 Clemens (2021, p. 51), citing Wolfson and Belman (2019). Note that Clemens is discussing employment effects, not other effects, like profits.

19 See Clemens (2021) for a detailed discussion.

20 Card and Kruger (1994), who studied the effect of minimum wages on employment in the fast-food sector in New Jersey and the subsequent book expanding on their research, Card and Kruger (1995), generated a firestorm of debate and controversy followed by an upsurge in economic research and analysis. Thomas Leonard suggested that this is because their research challenges one of the core principles of modern economics— neoclassical price theory (Leonard (2000)). See Maloney (1997) for a contemporaneous analysis with a New Zealand slant. Manning (2021) and Schmitt (2015) provide recent reviews of the controversy Card and Kruger's work created.

21 Hirsch, Kaufman and Zelenska (2011, p. 33).

22 Some examples that they discuss are profits (firms employ the same number of people, but owners receive lower returns); levels of customer service (more highly-paid employees might provide better service to customers, which translates into higher sales and profits); other costs (firms are motivated to control non-employment costs);

and staff turnover (more highly paid staff are less likely to change jobs, which reduces employers' overall costs).

23 Schmitt (2015, p. 564). Clemens (2021) examines a wider range of 'non-employment margins' that employers might amend in response to minimum wages, including flexible working conditions (such as allowing workers to have input into scheduling), workplace comfort (due to e.g. the quality of office furniture or adequacy of heating or air-conditioning), safety measures, and research and travel budgets.

24 We are not aware of any research that examines whether increases in minimum wages in New Zealand have led to productivity increases via this channel. But the idea does show an important possible mechanism by which increases in the minimum wage might not adversely impact employers.

25 Maré and Hyslop (2021). Between 2008 and 2017, New Zealand's minimum wage moved "from about the middle of the range of developed countries to near the top" (ibid, p. 2).

26 Ibid, p. 6.

27 Ibid, pp. 25; 30; 34.

exploitation, particularly for workers with low reservation wages, but it is unclear whether increasing minimum wages have increased worker or firm productivity. More research is also needed to determine the relationship between minimum wages and job tenure.<sup>28</sup>

In assessing the results of earlier New Zealand research papers, Maré and Hyslop also conclude that the employment impacts of minimum wages have been “relatively benign”.<sup>29</sup>

Given the extent of recent increases in minimum wage levels and expansions in coverage, these results have surprised some commentators.<sup>30</sup> Two points can explain why results are benign: the minimum wage is only paid to a small portion of the workforce and increases year on year have been relatively small during the period Maré and Hyslop studied. But the fact that, to date, minimum wage settings do not appear to have negatively impacted employment in New Zealand<sup>31</sup> does not mean that large increases in minimum wages can continue indefinitely without negative effects. In particular, Maré and Hyslop have identified “downside risks” for the employment of young people and low-skilled workers.<sup>32</sup>

Most evidence from overseas and New Zealand suggests that modest increases in minimum wages do not have adverse employment effects. An important caveat is that the minimum wage level in New Zealand today, at \$20.00 per hour, is in real terms the highest since 1946 by a significant margin. Internationally, New Zealand has a very high ratio of the minimum wage to median earnings, and this ratio has increased significantly under the current Government.

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28 Ibid, pp. 41-42.

29 Ibid, p. 9.

30 See the discussion following a recent public seminar on the minimum wage in New Zealand hosted by Motu Economic and Public Policy Research (2021).

31 To come to a firm conclusion on this point would require knowledge of a counterfactual: what would have happened if the minimum wage had not increased. In New Zealand, it is difficult to find counterfactuals that can be used in empirical studies. Hyslop and Stillman (2007) could use changes in the age of entitlement to the youth minimum wage as a counterfactual for a short period of time. Numerous studies in the United States have been able to exploit differences in state and local minimum wages to study the effects of increases in the minimum wage (Manning (2021)).

32 Maré and Hyslop (2021, p. ii).

## Minimum wages increase incomes but don't guarantee a good life

A final fear about the minimum wage, which comes from a different perspective, is that it is too low to address important social issues even at the current level of \$20.00 per hour.

Minimum wages can, provided they are set high enough, help reduce low pay in an absolute sense.<sup>33</sup> To the extent that they are enforced, they can help reduce the exploitation of employees with limited bargaining power. In some circumstances, minimum wages can also improve productivity – both directly, through encouraging greater worker effort, or indirectly, by inducing increased investment in training to improve worker skills, leading firms to change their production technologies, or reallocating workers to more productive firms.

Encouraging people to move from benefits to employment has been a key focus of welfare policy in New Zealand.<sup>34</sup> Minimum wages can support this transition by making work pay.<sup>35</sup>

But on their own, minimum wages cannot ensure adequate household income. As Nazila Alinaghi, John Creedy and Norman Gemmill observe, the minimum wage policy is not particularly well targeted at addressing inequality because many low-wage earners are secondary earners in higher-income households, while many low-income households have no wage earners at all.<sup>36</sup>

In addition, minimum wages cannot deliver good jobs for all household members who want to work. Even in multi-earner households, people earning the current minimum wage would struggle to own a house, especially close to where good jobs are in

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33 By definition, people receiving the minimum wage will always be the lowest paid members of the workforce.

34 Rae et al. (2019).

35 Alinaghi et al. (2019) conducted simulations using a model calibrated to New Zealand data that showed that increases in the minimum wage could result in increased labour supply. Their results show that institutional context matters, with the combined effect of the minimum wage with tax and transfer policies influencing the results.

36 Alinaghi et al. (2019). See Creedy et al. (2010) for an example of the importance of the heterogeneity of household income for the design of redistributive policies.

places like Auckland.<sup>37</sup> While they increase the rewards to education, minimum wages do not improve the quality of the education system. High abatement rates in social assistance packages can claw back significant portions of any increase in earnings.<sup>38</sup>

For low-income workers with families, the Working for Families package tops up earnings. A person entitled to full Working for Families benefits earning the minimum wage receives \$23.86 per hour in the hand: \$20.00 from their employer and \$3.86 from the government. This is the 'first round' effect of Working for Families. Dave Maré and Dean Hyslop note that income support policies such as Working for Families can also put downward pressure on low wages by increasing the supply of low skilled workers.<sup>39</sup> How the minimum wage interacts with other policies like Working for Families and training can greatly influence its effectiveness in achieving any given policy objective.

All in all, the minimum wage is a useful policy for addressing social policy issues, but it can only go so far. When assessing the appropriate level of the minimum wage, these limitations need to be acknowledged.

## What determines the Goldilocks range?

Setting the minimum wage should start with remembering that people play multiple roles in an economy. Workers are consumers and providers of labour; firm owners are savers and sellers of goods

37 The rate of increases in house prices across all of New Zealand is such, however, that no realistic level of the minimum wage would be sufficient to allow low-wage households to own their own home.

38 Under the Working-for-Families scheme, the amount of benefit paid reduces as income from employment increases. Currently, once household income reaches \$42,700, WFF Tax Credits are reduced by 25 cents in every dollar of income (Arnesen (2020)). At the same time, income tax is also applied to earnings. For an individual earning \$42,700 per year, the current marginal tax rate is 17.5%. This means that the effective marginal tax rate for such a person is 42.5%. Other targeted social welfare payments, like the Jobseeker Benefit and the Accommodation Supplement have their own abatement regimes, as does the student loan scheme. It is therefore possible for a person receiving the minimum wage and in receipt of WFF, the Accommodation Supplement and with a student loan to face abatement rates over 70%.

39 Maré and Hyslop (2021, p. 5).

and services; the government is a tax collector and provider of the social safety net and an employer in its own right.

In simple labour market models, leisure<sup>40</sup> and the consumption of goods and services are both sources of wellbeing. An increase in hours worked (i.e. less leisure) combined with constant consumption would lead to lower wellbeing.

In more complex labour market models, work itself provides wellbeing benefits in excess of income.<sup>41</sup> In these models, more than just the positive benefits of consumption and the negative value of lost 'leisure' time influence behaviour.

This idea has increasingly been reflected in policy and practice.<sup>42</sup> In launching the current Government's employment strategy in 2019, the Minister for Employment, the Hon. Willie Jackson said:

*Work touches on every facet of our lives – it's how we support our whānau, contribute to our communities and make social connections, and it can help us learn new skills and support our health and wellbeing. It's also one of the best means for social and economic advancement and is critical to supporting a growing and transforming economy.*<sup>43</sup>

On the demand side, traditional models suggest that profit-maximising firms will also seek to balance the costs of employment (wages) with the benefits (the revenue produced from the sale of goods and services).

The work by David Card and Alan Kruger that we cited earlier adds a richer dimension, suggesting that there can be feedback loops from wages to revenue because workers are also consumers. In their study, fast-food workers spent some of their income on fast food and tended to eat close to where they worked. Increasing wages paid to these

40 Economists describe people as selling leisure (time not spent in paid employment) in return for a wage.

41 See for example Kaplan and Schulhofer-Wohl (2018) and Brewley (1999).

42 However, as Holmes (1996) has pointed out, the centrality of employment as a source of wellbeing has a long tradition in New Zealand, dating back to at least 1935.

43 New Zealand Government (2019).

workers boosted demand as well as costs, so there was no overall effect on employment.<sup>44</sup>

Combining the demand and supply sides of the debate gets us to the Goldilocks proposition: that provided it is set ‘just right’, the minimum wage can produce benefits that balance the costs.

Testing costs and benefits in the New Zealand context should also be undertaken, with a view to establishing the Goldilocks rate.

The research we have suggested above to help build a consensus on the minimum wage could also provide information regarding the potential costs of the minimum wage to New Zealand. A model that incorporates the feedback loops from wages to demand, as suggested by Card and Kruger, would be a useful addition to the tools used to judge the effects of the minimum wage.

On the benefits side, issues to be considered flow from the discussion of the role of the minimum wage in addressing social issues.

Based on our reading of the New Zealand and international literature, our best guess is that the Goldilocks range is currently likely to be somewhere between \$18 and \$25 per hour.

## Conclusions

We have examined what we consider to be the main concerns – or fears – raised routinely about the minimum wage.

The first fear is that it introduces politically motivated uncertainty into the labour market. That is, a change of government might lead to a different approach to the minimum wage. We consider this a valid concern that should be addressed, and propose developing an enduring consensus on the role of the minimum wage in labour market regulation and the tax-benefit system.

The second fear is that the minimum wage can have adverse effects on employment. Evidence from overseas and New Zealand suggests that this is not the case, provided that increases in the minimum wage are modest – or, in other words, kept within the Goldilocks range.

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<sup>44</sup> This demand-side dynamic is also cited by migration researchers, who find limited effects of migration on local economies. Peri (2014) is an example.

The final fear is that even at \$20.00 per hour, the minimum wage is too low to address genuine social problems in New Zealand. While a higher minimum wage will have some impact on addressing some social issues, it is poorly targeted at addressing inequality. Transfer payments like Working-for-Families can provide targeted top-ups to wages for employees judged to require more income than their employment provides. Improving education and training outcomes for people who are not well-served currently, adjusting migration policy to minimise any harm to vulnerable locals, and improving the enforcement of existing labour market protections are likely to be more effective than increasing minimum wages.

The early versions of Goldilocks and the Three Bears didn’t end with everyone living happily ever after<sup>45</sup>. While there is no magical future for the minimum wage on offer, the story’s central refrain – “not too hot, not too cold, just right” – provides a useful rule of thumb to apply in New Zealand.

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<sup>45</sup> In the first written version, published by Robert Southey in 1837, a little old woman disturbs the bear. The tale ends:

*Out the little old Woman jumped; and whether she broke her neck in the fall; or ran into the wood and was lost there; or found her way out of the wood, and was taken up by the constable and sent to the House of Correction for a vagrant as she was, I cannot tell. But the Three Bears never saw anything more of her.*



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