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REVIEW ARTICLES

The 'New Economics' of the Minimum Wage? Evidence from New Zealand

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David Card and Alan B. Krueger, ***Myth and Measurement: The New Economics of the Minimum Wage****, Princeton University Press, Princeton, 1995*

THE publication of *Myth and Measurement: The New Economics of the Minimum Wage* has generated considerable interest among policy-makers. It was cited by supporters of the amendment to the US Fair Labor Standards Act raising the US minimum wage from US$4.25 an hour to $5.15 from April 1997. Equally, it has caused considerable consternation among many labour economists. For years, economists seemed to agree on at least one thing: that a rise in the minimum wage reduces employment among low-wage workers, particularly teenagers. This 'consensus view' has been contrasted with the results of public opinion surveys that often reveal support for increases in the minimum wage. Card and Krueger suggest that this favourable public sentiment may be warranted because a higher minimum wage could *increase* employment. So rather than condemning the public and politicians for their economic illiteracy, we should be chastising the economics profession for its overly simplistic theoretical models, its poor empirical methodology and its failure to evaluate honestly and objectively the empirical evidence in this area.

This article summarises and assesses Card and Krueger's analysis.[1] It should be noted at the outset that their work is almost entirely based on empirical findings from the United States. To bring more international evidence to bear on this topic, I present some econometric results from analysis of the adult and recently introduced teenage minimum wage in New Zealand. Both domestic and overseas research on the effects of the minimum wage has recently received considerable attention in New Zealand because of the 10 per cent increase in the adult minimum wage that came into effect on 1 March 1997.

[1] Readers are alerted to two sets of reviews of this book: by Ehrenberg et al. (1995) and Kennan (1995). See also Sloan (1996).

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'Myth'

The title of the book suggests that the economists' 'conventional wisdom' that the minimum wage reduces the employment of low-wage workers is a myth. Although this characterisation of the discipline's earlier research findings is technically correct, it is something of a red herring. Earlier research did show fairly consistent evidence of a 'disemployment' effect from the minimum wage. But the *magnitude* of this effect is relatively small. For example, Brown et al. (1982) conclude that a 10 per cent increase in the minimum wage reduces teenage employment by between 1 and 3 per cent, most probably in the lower part of this range. This is not a big employment effect, especially when the focus is on groups most likely to be directly affected by this legislation.[2]

Why are the employment effects of the minimum wage so small? The usual explanations cite three factors: incomplete coverage, tradeoffs in non-wage compensation, and non-compliance. In every economy, some workers are exempt from the minimum wage, such as those in industries or workplaces not covered by the federal minimum wage in the US, and small employers or the self-employed in all countries. In either case, workers displaced by a higher minimum in the 'covered' sector can find employment in the 'uncovered' sector; and the decline in aggregate employment is lessened if displaced workers are willing to work for lower wages in the uncovered sector. In addition, employers faced with a higher minimum wage may be able to contain their labour costs by reducing fringe benefits and other non-wage costs; any change in the composition of labour costs would curb any reduction in employment. Finally, the monitoring and enforcement of minimum wage laws has always been an issue. If some employers fail to comply with this legal requirement, the disemployment effect is weakened. So although the earlier literature suggests that the minimum wage reduces employment, this effect is relatively modest in size and pertains to only a small proportion of workers.

'Measurement'

Distributional effects. The strength of Card and Krueger's analysis lies in their use of a wide variety of data sources and estimation techniques to distinguish the different effects of the minimum wage in the labour market. Although the key to this work is new estimates on the employment effects, the authors also examine the impact of the minimum wage on earnings and income distributions and poverty rates in Chapter 9, and firm profits in Chapter 10. The results from these two chapters can be quickly summarised.

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[2] For example, suppose the recent 20 per cent increase in the US minimum wage reduces the employment of teenagers by between 2 and 6 per cent, as the earlier literature suggests. If there is no net impact of the minimum wage on adult employment, and teenagers comprise only 5 per cent of the workforce, this relatively large increase in the minimum wage reduces aggregate employment by between 0.1 and 0.3 per cent. This is easily within the margin of error of some sample statistics on aggregate employment.

Gramlich (1976) wrote the classic paper on the distributional effects of the minimum wage. Card and Krueger essentially update this earlier work with data through the early 1990s. They find results that are similar in spirit to those reported by Gramlich: an increase in the minimum compresses the overall wage distribution. What is interesting about these later results is that the 1990 and 1991 increases in the federal minimum wage reversed at least some of the rising wage inequality in the US during the 1980s. Of course, the effects of the minimum wage on family income and poverty are more tenuous, because not all low-wage workers live in low-income families and a large proportion of poor families have no labour market earnings. Card and Krueger admit that their results at best point to a 'modest poverty-reducing effect of the minimum wage' (p. 307). Even if there were no negative employment effects from the 1990 and 1991 increases in the federal minimum, at most 0.2 per cent of aggregate earnings would have been transferred to low-wage workers (p. 277). This work reinforces the image of the minimum wage as a relatively ineffective anti-poverty program.

Card and Krueger correctly state that most of the emphasis in the minimum wage literature has been on workers rather then firms. Yet increases in the minimum wage might reduce profits, which would presumably represent a transfer of wealth from stockholders to low-wage workers. The authors examined changes in the share values of firms that hire large numbers of workers directly affected by the minimum wage, seeking evidence of stock-market reaction to 'news' about impending changes in minimum-wage legislation. The results of this analysis are inconclusive: only weak evidence was found of small declines in shareholder wealth associated with reports about possible changes in the minimum wage. Although this approach is potentially useful, the authors struggle to convince the reader that they have identified the events that would constitute substantial shifts in the market's expectations about changes in the minimum wage. This is particularly problematic in the US, where the nature of the political system means that such expectations are likely to evolve slowly over time. Perhaps the parliamentary systems of Australia and New Zealand, where possible changes in similar legislation might not involve the same extended public discussions, could provide a better testing ground for these hypotheses.

Employment effects. The bulk of the book and the key to its success or failure consists of the evidence on the employment effects of the US minimum wage presented in Chapters 2 through 7. The idea the authors employ is a good one. Although one can find fault with almost any single approach, it is much more difficult to dismiss the results of a multitude of data sets and estimation techniques that point to the same basic conclusion. The authors seek to overwhelm the reader with evidence from various directions that points to the absence of a negative, and perhaps even the presence of a positive, employment effect from the minimum wage. The first results, the most important set of empirical findings in the book, are de-

rived from what the authors refer to as 'natural experiments' involving both state and federal increases in the minimum wage in New Jersey, Texas and California.[3]

The real value of the federal minimum fell steadily with inflation during the 1980s. In November 1989 Congress and President Bush agreed to raise this minimum wage from US$3.35 to $3.80 an hour on 1 April 1990, and again to $4.25 on 1 April 1991. The state of New Jersey increased its state-specific minimum to $5.05 on 1 April 1992. But the minimum wage in the neighbouring state of Pennsylvania remained at $4.25 in April 1992. Card and Krueger judged that this offered an excellent opportunity to study the effects of the minimum wage, with Pennsylvania serving as a 'control group' in their analysis.

Telephone surveys were conducted of 331 fast-food restaurants in New Jersey and 79 similar establishments in Pennsylvania. Managers in these restaurants were first interviewed in late February and early March 1992 (approximately one month before the implementation of the New Jersey law), and again in November and December 1992 (approximately eight months after). The 'conventional wisdom' would predict that the increase in the New Jersey minimum wage would reduce employment in this low-wage industry *relative* to that of Pennsylvania. Yet the authors found relatively weak statistical evidence in their regression analysis of the opposite effect: full-time equivalent employment in the New Jersey restaurants increased relative to their Pennsylvania counterparts.

This research has been subjected to essentially two lines of criticism, both of which are represented in the symposium by Ehrenberg et al. (1995). First, Finis Welch attacked the quality of the data. The survey instruments were poorly designed in some respects. Apparently, little thought was given to providing instructions and training to interviewers. The questions in the survey were somewhat confusing, and failed to solicit information on actual hours worked by employees. Managers were asked about their current 'full-time' and 'part-time' employees, although these terms were never defined. Since Card and Krueger had made the raw data available on the Internet, Welch was able to conduct his own analysis of the data. He found evidence of substantial measurement error in both the employment and the wage variables. Simple descriptive statistics like the extraordinary amount of variation across the nine-month period in the average establishment's employment level cast considerable doubt on the quality of these data and on the conclusions that can be drawn from them.

Second, Daniel Hamermesh took exception to the claim that the New Jersey study constituted any kind of 'natural experiment'. The legislation raising the minimum wage in New Jersey was passed in 1990, well before the 'baseline interviews' in early 1992. This first wave of interviews occurred so close to the implementation of this legislation that it would not be unreasonable to expect that New Jersey restaurants may have already reacted to the impending wage increase by this time. Moreover, the follow-up interviews were held only eight months after this rise

[3] Not all workers in the US are covered by the federal minimum wage. The remainder fall under state legislation. The state minimum wage takes precedence when it is above the federal minimum.

in the minimum wage. Insufficient time may have elapsed to observe any longer-run adjusts to this legislation. Finally, and most important, Pennsylvania was *not* an adequate control. Card and Krueger attribute *all* of the relative difference in employment growth between fast-food restaurants over this period to a single factor: differences in the effective minimum wage between the states. This is equivalent to saying that, in the absence of the rise in the New Jersey minimum, employment growth in this industry would have been identical in the two states. Although Card and Krueger make some attempt to control for regional effects within the states, they admit that localised demand shocks are exceptionally difficult to quantify. Proof of the importance of this issue might be gained by looking at differences in employment growth in this industry between neighbouring states that had the same minimum over the observation period. Who would expect not to find examples of large differences in employment growth in such a sample?

A second study was conducted using data on fast-food restaurants in Texas around the time of the April 1991 increase in the federal minimum wage. Card and Krueger found weak evidence of a positive employment effect in this study too. Restaurants that had to increase their starting wages by the largest amounts to meet the higher minimum wage experienced the largest increases in employment. The 'controls' in this natural experiment were the restaurants that paid starting wages that were initially above the new federal minimum. To a large extent, this work can be criticised for the same reasons given above for the New Jersey study. In particular, the relatively high rate of attrition (33 per cent) of restaurants between the baseline and follow-up surveys is troublesome. Again, key concepts, like 'starting wage', were never defined. The baseline survey (December 1990) occurred more than a year after the passage of the federal legislation. It is also strange that no attempts were made to understand why starting wages varied initially across restaurants. The source of this variation is the key to their analysis.

A third study involved the increase in California's state minimum wage on 1 July 1988 from US$3.35 to $4.25 an hour. This occurred nearly three years before the same increase in the federal minimum. Arizona, Florida, New Mexico and the Dallas-Fort Worth metropolitan area were used as controls. Card and Krueger found that the employment of California teenagers increased between 1987 and 1989 relative to that of the control group. Since the US economy was growing steadily during this period, it is again hard to say whether this result can be attributed to the minimum wage or the economic expansion. Moreover, when the authors focus on retail trade, where many low-wage workers are located, they find evidence of a negative employment effect. In the end, they conclude that the positive and negative employment effects cancel each other out. 'On balance, we believe that the evidence from California shows that the increase in the state minimum wage had ... no large or systematic effect on employment' (p. 110).

Chapter 4 uses cross-state variations in the effective minimum wage to isolate its employment effects. The idea is simple. The 1990 and 1991 increases in the federal minimum wage were more likely to reduce employment in low-wage states. No conclusive evidence was found of any effect of the federal minimum wage on teen-

age employment. The authors admit that they 'cannot rule out the possibility that the increase in the minimum wage had a small negative employment effect on teenagers' (p. 137).

Finally, Card and Krueger re-estimated earlier time series regressions in Chapter 6 with data through 1993. This time-series evidence was primarily responsible for the conventional wisdom that the minimum wage caused small employment losses. First, the authors discuss numerous methodological issues that confront this econometric work. They correctly state that the specification of the regression equation is somewhat arbitrary, and the results are often sensitive to the choice of both specification and estimation techniques. Second, they conclude that, since the statistical significance of the negative employment effects has not increased over time (as it should when sample size increases), this is evidence of 'publication bias': in other words, researchers and journals have chosen to report and publish results that are consistent with prior expectations that the minimum wage reduces employment. Third, the re-estimation of earlier regressions with more recent data shows disemployment effects that are smaller than those from past studies, and now statistically insignificant.

There is a simple alternative explanation for these last two conclusions. The effective minimum wage declined during the 1980s as it fell relative to the average wage. This by itself would mitigate any negative employment effects, and weaken the historical link between the minimum wage and employment. This is exactly what most labour economists would have predicted over this period. It also explains why the statistical significance of these results did not increase with sample size. In the end, it is not necessary to attribute this finding to publication bias. Even if researchers and journals had honestly reported their best estimates of these effects, the declining absolute values of these estimated coefficients may have more than offset the falling standard errors in these longer time series.

In summary, recent time-series and cross-state evidence is *not* inconsistent with a small negative employment effect from the minimum wage. Only the results from the 'natural experiments' suggest that the minimum wage might increase employment. Given the various concerns about this analysis, it would be reasonable to conclude from the totality of the evidence that the negative employment effects of the minimum wage might now be slightly smaller than we thought. This finding, however, is entirely consistent with a decline in the effective minimum wage during the 1980s.

The 'New Economics'

When I first scanned the Table of Contents of *Myth and Measurement*, I was struck by fact that the theory section appeared *after* the empirical evidence. The usual approach is to use theory to form a set of hypotheses that can be tested empirically. Instead, Chapter 11 offers an alternative theoretical framework as a sort of post-mortem on the failure of earlier empirical work to reveal evidence of the employment-reducing effects of the minimum wage.

Although this might seem surprising to those who have not read a labour economics textbook, theoretical models that predict positive employment effects from the minimum wage already exist. These involve 'direct productivity', 'shock' or 'monopsony' effects. The first model says that raising the minimum wage can increase both worker productivity and labour demand, thereby increasing employment. Such an effect is believed to be more relevant in less developed economies, where a higher minimum wage could lead to better nutritional and health standards. Card and Krueger link this idea to more recent efficiency-wage models that suggest that a worker's effort might increase with the wage he or she receives. Unfortunately, this has little to do with a universal rise in the minimum wage that doesn't create unemployment. The efficiency-wage argument rests on the notion that workers expend more effort if they receive a wage above what other employers are willing to offer. This is the 'penalty' associated with losing their current job.

The second traditional model involves the 'shock' to management when faced with an increase in the minimum wage. The idea is that there may be considerable slack in the organisation. When the minimum wage increases, the firm is forced to utilise its workforce more efficiently. If this shock effect is large enough, employment might increase. Although this model might better explain why the disemployment effects are relatively small, it has attracted little interest because it relies on firms forgoing potential profits without adequately explaining why this should occur.

Card and Krueger place most emphasis on the presence of monopsony effects. In the traditional 'static monopsony', there is a single employer in the local labour market. The firm knows that it has to pay higher wages to attract more workers. As a result, it operates 'inside' its labour demand curve. Since the firm can exploit its monopsony power to restrict both wages and employment, a minimum wage has the potential to increase employment. For lower levels of employment, the firm now does not have to pay higher wages to attract more workers. The minimum wage can nullify this monopsony power and force the employer to operate on its demand curve. Economists have generally argued that monopsonies are unlikely to be pervasive because of competitive pressures from a number of directions. The authors instead concentrate on a new 'dynamic monopsony' model. Due to imperfect information, all firms have some discretion over the wages they pay. Employers can reduce quits and increase hires by raising wages, but they will generally be reluctant to do this. An imposed minimum wage, on the other hand, allows them to fill their existing 'stock of vacancies' (p. 378). The result is an increase in employment for small increases in the minimum wage.

This dynamic monopsony model has not drawn a very favourable reaction from reviewers Kennan (1995) and Hamermesh and Welch (both in Ehrenberg et al., 1995). Nobody would dispute the fact that firms can have an impact on turnover by altering the wages they pay. However, these monopsony effects have to be underpinned by 'power' in the labour market. Thus, we come back to the traditional theory of static monopsony. Employment gains from an increase in the minimum wage should occur among employers who face very little competition from other employers.

This theoretical framework does have implications for the earlier empirical analysis in this book. If monopsonies are responsible for the positive employment effects of the minimum wage in the fast-food industry, this suggests where we should be looking for these effects. If the authors could show that their results are largely confined to small communities where teenage employment is concentrated among a few large employers, they would go a long way toward convincing the sceptical reader that they really have broken new ground. More important, the theory implies that 'causality' in this regression could be reversed. Card and Krueger interpret their results as establishing that firms that *must* raise their starting wages by the largest amount to meet the increase in the minimum wage hire more workers. Yet their theory says that employers could *voluntarily* raise starting wages when they want to hire more workers. Perhaps the theory section should have preceded the empirical analysis after all.

Recent Evidence from New Zealand

Chapter 8, on international evidence of the employment effects of the minimum wage, is one of the most disappointing in the book. The empirical results are largely confined to Puerto Rico, along with a couple of studies from Canada and Great Britain. Card and Krueger ignore a study by Gregory and Duncan (1991) on the small employment effects of comparable-worth legislation in Australia.

To add some additional weight to this international evidence, I provide some recent econometric results on the employment effects of the minimum wage in New Zealand. This is an extension of earlier work in this area (Maloney, 1995). New Zealand's minimum wage qualifies as a kind of 'natural experiment'. Until March 1994, the minimum wage covered only adults of age 20 or more. Exempt teenagers between the ages of 15 and 19 are used as the 'control group' in this analysis. Young adults between the ages of 20 and 24 serve as the 'experimental group'. We want to know whether increases in the effective minimum wage reduce the employment of young adults relative to that of teenagers.

Using quarterly data from 1985-93, Maloney (1995) found that a 10 per cent increase in the adult minimum wage reduced the employment of young adults by 3.5 per cent, and increased their unemployment rate by 3.5 percentage points. Even larger effects were found among young adults without school or post-school qualifications. The same increase in the minimum wage caused their employment to decline by 5.7 per cent and their unemployment rate to increase by 6.5 percentage points. In addition to this evidence of a direct, negative employment effect of the minimum wage on young adults, there was weak evidence of an indirect, positive employment effect on exempt teenagers. A 10 per cent increase in the adult minimum wage *increased* teenage employment by 6.9 per cent, and *reduced* their unemployment rate by 3 percentage points. Thus, there is at least some evidence that employers substitute relatively less expensive teenagers for young adults when the adult minimum rises.

One reason for this earlier study was the suspicion that the minimum wage may have increasingly important policy implications in the newly deregulated New Zea-

land labour market. Even though minimum wages have existed in New Zealand since the 19th century, they may have played a minor role compared with other wage floors established through a centralised wage-setting system. The Employment Contracts Act 1991 made compulsory unionism illegal and eliminated the awards system. Previous empirical evidence on the employment effects of the minimum wage has been largely confined to the highly decentralised US labour market.[4]

The econometric results reported here extend the earlier research in three ways. First, the data set is updated to include observations through the second quarter of 1996. Second, the specification of the earlier regressions are modified to address some of the concerns raised by Card and Krueger in Chapter 6.[5] Third, we allow for the implementation of a lower minimum wage for teenagers beginning in March 1994. This means that our 'control group' is now directly affected by this legislation by the end of our sample period. Since the teenage minimum was set at approximately 60 per cent of the adult minimum, we simply introduce a dummy variable for this change in policy.

Table 1

Changes in New Zealand's nominal and effective minimum wages, 1985-96

Date of legislated change	*Nominal adult minimum wage (NZ$/hour)*	*Ratio of adult minimum to aggregate mean wage*	*Nominal teenage minimum wage (NZ$/hour)*	*Ratio of teenage minimum to aggregate mean wage*
Feb 1985	2.50	.313	-	-
Sept 1985	4.25	.502	-	-
Feb 1987	5.25	.482	-	-
Feb 1988	5.625	.467	-	-
May 1989	5.825	.448	-	-
Sept 1990	6.125	.430	-	-
March 1994	6.125	.408	3.68	.245
March 1995	6.25	.408	3.75	.245
March 1996	6.375	.403	3.825	.242

Sources: NZ Department of Labour; Statistics New Zealand, *Quarterly Employment Survey.*

[4] It is worth noting that the employment and unemployment effects of the minimum wage reported in Maloney (1995) were found to be nearly identical in the pre and post-ECA periods.

[5] Specifically, three changes were made to the specification of the employment equations in this new study. First, the dependent variables are now the natural logarithms of the employment-to-population ratios of the relevant age group. The earlier study had divided these employment propensities by those of older adults (aged 25 and over) as a control for unmeasured determinants of this behaviour. Second, both regressions are corrected for first-order autocorrelation. Third, age-specific educational enrolment levels are dropped from the list of regressors. Card and Krueger argue that enrolment rates are endogenous, and likely to be affected by the minimum wage.

Separate employment regressions were estimated for teenagers and young adults using quarterly data from 1985(4) through 1996(2). The dependent variables are the natural logs of the employment-to-population ratios for the two age groups. Our hypotheses are that the adult minimum wage should reduce the employment of young adults, and increase the employment of teenagers. The introduction of the teenage minimum wage should have a negative employment effect on this age group.

Table 2

Estimated determinants of age-specific employment propensities 1985:4-1996:2

Independent Variables	*Teenagers*	*Young adults*
Constant	-1.279	1.295**
	(1.190)	(.371)
Log of effective adult minimum wage	.245	-.377**
	(.311)	(.097)
Dummy for introduction of the teenage minimum wage	.008	---
	(.036)	
Aggregate unemployment rate	-.040**	-.024**
	(.006)	(.001)
Time trend	-.011*	-.007**
	(.007)	(.001)
Dummy for first quarter	-.016	-.000
	(.011)	(.005)
Dummy for second quarter	-.071**	-.023*
	(.012)	(.005)
Dummy for third quarter	-.079**	-.032**
	(.011)	(.005)
Number of quarters	42	42
R^2	.947	.964

Notes: ** Significant at a 1% level, two-tailed test. *Significant at a 10% level, two-tailed test.

Standard errors are in parentheses. Dependent variables are the natural logarithms of teenage and young adult employment-to-population ratios. The estimated coefficient on the log of the effective minimum wage is the cumulative effect from a second-order polynomial with three lags. The nominal minimum wage is divided by average wage from the *Quarterly Employment Survey*. Since the disturbances may be contemporaneously correlated, a seemingly unrelated regression estimation technique was used to improve the efficiency of the coefficient estimates. Both regressions were corrected for first-order autocorrelation. The nominal minimum wage was divided by the mean wage in the economy during that quarter, and the log of this effective minimum was used so that the coefficients can be interpreted as elasticities. The minimum wage was divided by the mean wage because it is believed that the 'relative' minimum wage affects employment. The alternative would be to deflate this nominal minimum wage by the CPI. The use of this alternative regressor does not affect the qualitative findings from these regressions.

The results from this estimation are reported in Table 2. The estimated impact of the adult minimum wage is negative and significant at greater than a 1 per cent level in the youth employment equation. This says that a 10 per cent increase in the

minimum wage now reduces the employment of young adults by almost 3.8 per cent. This effect is slightly larger than the one estimated in the previous study. There is no evidence of a similar negative effect of the adult minimum on our control group of teenagers. In fact, this estimated effect is positive, although insignificant at a 10 per cent level. Unlike the previous study, there is no statistical evidence here of any indirect effect of the adult minimum wage on teenage employment.

No evidence was found of any impact of the introduction of the teenage minimum wage on the employment of this age group. The estimated coefficient is positive, but insignificant. There are a couple of reasons why one might have anticipated this result. First, only nine quarters of data are currently available following the introduction of this teenage minimum. Not enough time has elapsed to identify any employment effect if it does exist. Second, this teenage minimum was set so low relative to the average wage that no such employment effect may exist at all. Table 1 shows this teenage minimum wage was slightly less than 25 per cent of the average wage in the economy. This is considerably lower than the effective minimum wage for teenagers in the US, which has ranged between 36 and 47 per cent of the average wage since the early 1980s.

As Card and Krueger and others have noted, the specification of the time series regressions is fairly arbitrary. There is no agreement about how the dependent and independent variables should be measured, or which explanatory variables should be included in these regressions. The issue here is one of 'robustness'. How sensitive are these basic results to different specifications of these equations? In other words, can the negative employment effects of the minimum wage for young adults be reproduced in a variety of settings?

Although the estimated coefficients on the minimum wage are somewhat volatile, their relative values are meaningful. In regression results not reported, various alternative specifications were used. The estimated effect of the adult minimum on youth employment ranged from around minus 0.1 to minus 0.4. At the low end of this range, the effect was no longer statistically significant. The estimated effect of the adult minimum wage on the employment of teenagers was even more unstable ranging from 0.4 to minus 0.1, but never statistically significant in any regression. Thus, if one chooses any single specification it is possible to produce results that would show no impact of the minimum wage on New Zealand employment. However, the *difference* between the employment effects for these age groups does show consistent evidence across specifications that the adult minimum wages reduces the employment of young adults *relative* to that of teenagers.

Conclusions

New Zealand provides a 'natural experiment' for estimating the employment effects of the minimum wage. Although the results reported above are far from conclusive, they suggest that increases in the minimum wage reduce the employment of the age group most likely to be directly affected by this legislation. Moreover, results reported in Maloney (1995) indicate that these disemployment effects are concen-

trated among the most disadvantaged within this age group, young adults with no school or post-school qualifications.

Myth and Measurement is ambitious in the sheer volume of evidence that it uses to isolate the effects of the minimum wage in the labour market. It demonstrates the potential advantages of using quasi-experimental data to answer these important policy questions. After careful examination, however, it fails to deliver sufficient evidence to overturn the cumulative results from past studies that point to the minimum wage having a small negative employment effect among low-wage workers. It certainly does not provide convincing evidence of a positive employment effect.

Moreover, the title of this book is misleading in purporting to offer a new theoretical framework from which the effects of the minimum wage might be viewed and its positive employment effects anticipated. Even worse, it attacks the credibility of recent labour market research. Yet the authors succumb to the ailments they claim to diagnose in the earlier literature. In the end, their empirical evidence does not support their most provocative conclusions.

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