

## HOOVER AND WAGES IN THE DEPRESSION: A COMMENT ON DOUGLAS MACKENZIE

DANIEL KUEHN

*ABSTRACT:* In a recent article appearing in this journal, Douglas MacKenzie (2010) argues that President Hoover's business conferences artificially propped up wages in the early years of the Depression, aggravating unemployment. MacKenzie's (2010) critique of Hoover fails on at least two counts: it commits an aggregation fallacy and ignores the vast literature on real wage cyclicalities, and it exaggerates a series of historical points on the authority that Hoover had to implement his high-wage policy. Readers of MacKenzie (2010) could also benefit from new research on Hoover's business conferences by Rose (2010), although MacKenzie (2010) himself certainly cannot be blamed for failing to incorporate such recent research.

*KEYWORDS:* business cycle, wage cyclicalities, Great Depression

*JEL CLASSIFICATION:* N12, E32, J30

---

Daniel Kuehn (dk8229a@student.american.edu) is a Ph.D. student at American University. The author thanks Jonathan Finegold Catalan and two anonymous referees for thoughts on the draft of this paper.

## INTRODUCTION

Few economists, mainstream, Austrian, or otherwise, can expect a great deal of sympathy for furnishing a defense of the economic policies of President Hoover. This comment will not mount a full-scale defense, but it will argue that Hoover may not be guilty of all the havoc attributed to him in Douglas MacKenzie's "Industrial Employment and the Policies of Herbert C. Hoover," appearing in an earlier volume of this journal.

In November and December of 1929, Hoover held two conferences with industrial leaders to encourage them to maintain wages and employment in the wake of the recent Wall Street crash. Hoover's conferences can be seen as a fulfillment of two visions. First, Hoover's own vision of "associationalism," whereby government, business, and labor voluntarily come to an understanding on industrial policy (Hawley, 1974). Second, the more broadly held "high wage doctrine," which suggests paying workers higher wages allows them to "buy back the product" (Gallaway, 2010; Taylor and Selgin 1999). MacKenzie (2010) argues that Hoover's business conferences kept real wages artificially high in the early years of the Depression, turning a typical downturn into a catastrophe.

## UNUSUAL HISTORICAL CLAIMS ABOUT HOOVER

MacKenzie (2010) makes several claims about Hoover that merit closer scrutiny. President Hoover is presented as a decisive and efficacious economic planner, and (with important qualifications) this is certainly a role to which he aspired. However, simply taking Hoover's word on this point is fraught with problems. MacKenzie (2010) uses several incidents from Hoover's tenure as Commerce Secretary and as president to bolster his case that the president could plausibly execute the high-wage vision of the 1929 conferences. However, the case is weak and the inferences drawn about Hoover's power are substantially overstated.

The Railway Labor Act of 1926 is cited as an example of Hoover's authority, despite the fact that the act remedied the excesses of the earlier Railway Labor Board, rendering federal intervention *less* likely. In 1921, the Railway Labor Board and the major railways implemented a twelve percent wage reduction. In

response, rail workers called a national strike, introducing major supply interruptions and provoking the Department of Justice to step in and outlaw the strike (Northrup, 1971). The Railway Labor Act of 1926 represented an attempt to avoid this disruptive interplay of corporate austerity, labor unrest, and severe federal intervention by requiring the railways and the union to exhaust a series of mediation procedures before proceeding with a strike. Certainly the law was interventionist as a piece of labor relations legislation (Northrup [1971] calls it “the most comprehensive control of labor relations and disputes on the American scene”), but the idea that it could function as a tool for Hoover to implement federal wage policies is implausible. The Railway Labor Act of 1926 reduced the likelihood of federal dictation of wage policies, even as it formalized a particular model for the conduct of labor relations.

MacKenzie (2010) also suggests that the statistical agencies of the federal government could be enlisted in the effort to monitor firms’ implementation of the high-wage policies promoted at the November and December conferences. Once again, though, MacKenzie (2010) glosses over the nature of federal data collection in the 1930s, thereby giving the false impression that Hoover had substantial coercive power at his disposal. Labor statistics were the least adequately collected economic statistics produced by the federal government; most statistical work was concentrated on trade, financial, and agricultural statistics. The reasons for the retardation of federal labor statistics are simple: labor policy was primarily a state and local responsibility, rather than a federal responsibility (Duncan and Shelton, 1978).

The paucity of federal data is colorfully illustrated in an anecdote shared by Frances Perkins (Governor Roosevelt’s industrial commissioner in New York, and the future Secretary of Labor in the Roosevelt administration). Hoover’s preferred employment statistics in 1930 were extrapolated from the U.S. Employment Service (a WWI-era job placement agency) data, and in 1930 the president made an announcement in the press about improved employment conditions on the basis of the Employment Service reports. Commissioner Perkins, who had access to higher quality data from New York contradicting the president’s claims, confirmed her figures with Hoover’s own

Bureau of Labor Statistics before publicly humiliating Hoover with an announcement that he was relying on inaccurate data. Duncan and Shelton (1978) note that the administration's credibility on questions of employment "never recovered" from the Perkins revelation. Hoover's employment data during the post-conference period was therefore widely considered to be suspect, although it was at least available in some coherent condition. Data on wages and pay scales was not as advanced as the data on employment, and was "barely beyond the pilot stage" (Duncan and Shelton, 1978). The wage data that was available certainly were not surveyed comprehensively enough to be used to monitor the conference attendees in the way that MacKenzie (2010) implies it was. Comprehensive, firm-level wage data only became available to the federal government with the inauguration of the federal unemployment tax in 1935, and it is highly doubtful these data were used to intimidate reporting firms.

MacKenzie (2010) cites a series of historical episodes as evidence that the Hoover administration had the tools at its disposal to monitor and discipline firms into following the principles set out in the November and December conferences. Most of these, upon inspection, appear to be weak claims. But another problem with MacKenzie's (2010) argument is that Hoover consistently noted *three* activities that he believed businesses should voluntarily partake in during a depression: maintain wages, maintain employment, and maintain investment (President's Conference on Business Cycles and Unemployment, 1923; Myers and Newton, 1936). The high wage doctrine is the most widely remarked upon because it seemed to be the most counter-intuitive and because it was the clearest pro-labor stance of the three planks of Hoover's associationalist approach to macroeconomic policy. Even if we were to entertain MacKenzie's (2010) assertions about Hoover's success, this leaves those who cite the high-wage doctrine as a major aggravator of the Depression in an awkward position. They have to explain why Hoover chose to implement his vision in such an imbalanced way. If we are to accept the argument that wage maintenance was successfully implemented, why did Hoover stand idly by as his other two stated goals failed quarter after quarter for the duration of his term in office? Economists are taught to be suspicious of "corner solutions" in human behavior,

and yet this is exactly what MacKenzie's (2010) argument requires. If Hoover had the ability to maintain high wages, why would he refrain from using it to achieve the remaining two-thirds of his agenda? Even if these goals operate at cross-purposes, there is no reason to think that Hoover would pursue one to the complete exclusion of the others. Bernanke (1995) notes this problem with relying on inadequate wage adjustment to explain the Depression as well, pointing out that both parties to a wage contract have a strong incentive to renegotiate (i.e., lower the wage), something which is not true of debt contracts. MacKenzie (2010) provides no explanation of this apparent paradox. A more likely explanation is that Hoover made vague appeals to charity and calls for employers to be cognizant of the struggles of the laboring classes without having any real impact on the course of events.

## RECENT FINDINGS ON THE HOOVER CONFERENCES

Rose (2010) has recently published what he understands to be the first direct empirical test of the impact of Hoover's conferences on the Depression. His results contradict MacKenzie's (2010) claim that the conferences kept wages artificially high, or that they had any appreciable effect on unemployment. Of course, MacKenzie's (2010) omission of Rose's (2010) research cannot be ascribed to negligence; it was simply not available at the time. Nevertheless, the findings make an essential contribution to the evaluation of MacKenzie's (2010) own work, since Rose (2010) is able to compare the wage policies of the firms that attended Hoover's conference to those firms which did not attend. It is therefore worth summarizing those findings in this comment.

First, Rose (2010) compares the elapsed time until wage cuts were implemented for firms that attended the November 21 conference with the time it took large firms who did not attend to implement these cuts. While he notes a small increase in the time it takes for wage cuts to be implemented for attendees, this differential disappears when controls are added for a firm's industry and its assets. Rose's (2010) conclusion is that firms with characteristics that predisposed them to delaying wage cuts were disproportionately represented at Hoover's conference, such that when these characteristics are accounted for, there is no discernable

difference between attendees and non-attendees. The absence of any evidence of an impact by the conference is maintained when “early movers,” or firms who cut wages so early in the Depression that they would not have been influenced by Hoover’s efforts, were excluded from the sample.

A potential critique of Rose’s (2010) comparison of attendees to non-attendees is that large firms (which disproportionately attended) tended to cut wages later than small firms regardless of whether they attended Hoover’s conferences. Rose (2010) addresses this potential problem by performing a difference-in-differences analysis. He compares the difference in the time until wage cuts between large firms attending the Hoover conferences and small firms in the same industry to the difference in the time until wage cuts between large firms who did not attend the conference, and small firms in their industries.<sup>1</sup> This specification of the test ensures that the earlier insignificant results are not simply an artifact of the behavior of large firms. Again, Rose (2010) finds no evidence in the difference-in-difference analysis for any impact of Hoover’s conferences and even less statistical significance after additional control variables are included.

Rose (2010) notes that if attendees were able to accomplish what Hoover’s associationalist doctrine envisioned—an industry-wide standard for wage maintenance—we would not expect the initial regressions or the difference-in-differences to detect an impact for the conferences. He therefore runs a final set of models on industry-level data comparing industries with high levels of attendance at Hoover’s larger December conference with industries that did not attend. None of the industry-level model specifications provided a statistically significant relationship between conference attendance and wage cuts. Four of the five models indicated that industries represented at the December conference cut wages more rapidly than industries that did not (although, as noted, none of

---

<sup>1</sup> If  $L_H$  are large firms attending the Hoover conference,  $S_H$  are small firms in the same industries as the  $L_H$  population,  $L_N$  are the sample of large firms not attending the Hoover conference, and  $S_N$  are small firms in the same industry as the  $L_N$  sample, then the standard difference-in-differences estimator is  $(L_H - S_H) - (L_N - S_N)$ . Subtracting the second term from the first term allows Rose (2010) to “difference out” changes common to all large firms. More information on difference-in-differences estimators is provided in Ashenfelter and Card (1985).

these results were statistically significant). However, the prospect that conference attendees set a broader standard for the industry could be extended further; conference attendees could potentially have set a standard for the entire economy raising doubts about the relevance of Rose's (2010) findings. In this case firms and industries represented at the Hoover conferences, as price leaders, would be expected to act first (as Rose (2010) observes in the data). The appropriate counterfactual in this situation would be to compare wage setting behavior in the entire economy to wage setting behavior if no conferences had been held; a counterfactual which is clearly unavailable to researchers.<sup>2</sup>

Rose's (2010) work is important because it is the first to investigate the impact of Hoover's November and December conferences using disaggregated, firm-level data. The results suggest that Hoover's wage conferences had no discernable impact on the wage policies of attendees, a finding that is consistent with the literature on real wage cyclicality reviewed below.

## AGGREGATION BIAS AND REAL WAGE CYCLICALITY

Another serious problem with MacKenzie's (2010) argument is that he neglects a broad literature on real wage cyclicality, which casts doubts on his interpretation of the aggregate wage and employment record. In the Depression and in many post-war episodes, industry-level wage data are countercyclical, precisely as MacKenzie (2010) suggests. However, to use this empirical fact to justify theories driven by sticky or artificially propped-up wages is to commit a serious aggregation fallacy; aggregate wages have long been known to suffer from composition bias (as DeLong [1998] points out in his response to Vedder and Gallaway's [1993] *Out of Work*, which relies on the same aggregation fallacy that MacKenzie [2010] does). Research suggests that during post-war recessions, firms generally maintain employment contracts with high-wage workers and end contracts with low-wage workers. This drives up average wages because the composition of the workforce changes over the business cycle (Bowlus, Liu, and Robinson, 2002). To address this bias in the aggregate data,

---

<sup>2</sup> I owe this insight to an anonymous referee.

macroeconomists have turned to individual level data to look at the cyclicity of wages for individuals or more homogenous groups of workers.

This literature on the cyclicity of the real wage in disaggregated data, which Abraham and Haltiwanger (1995) describe as “a small explosion of research,” begins with the work of Stockman (1983), Raisian (1983), and Coleman (1984). These authors use the Panel Study of Income Dynamics (PSID) to compare aggregated and disaggregated wage adjustment patterns. Subsequent work, including a celebrated paper by Bils (1985), uses the National Longitudinal Surveys (NLS) to explore disaggregated wage cyclicity. After Bils (1985), most studies of real wage cyclicity used one of these two datasets: the PSID or the NLS. Examples of the post-Bils (1985) literature include Mather (1987), Keane, Moffit, and Runkle (1988), Blank (1990), Tremblay (1990), Beaudry and DiNardo (1991) Solon, Barsky, and Parker (1994), and Shin (1994) although this list is not exhaustive. In contrast to studies using aggregated data, research relying on disaggregated data suggests a modest *pro-cyclicity* for real wages. To put it differently, the disaggregated studies demonstrate that aggregation introduces a counter-cyclical bias driven primarily by the shifts in the composition of the workforce over the business cycle. Studies which use PSID data generally find greater degrees of aggregation bias than studies using NLS data (Abraham and Haltiwanger, 1995). Other differences exist as well; Shin and Solon (2007) find that PSID data suggest that salaried worker wages are less cyclical than hourly worker wages, while this differential does not emerge in NLS data.

The classic PSID and NLS studies form the backbone of the literature on disaggregated real wage cyclicity, but other investigations have been conducted as well. Levy and Newman (1989) find that composition bias impacts aggregate wage cyclicity in developing economies as well. Messina, Strozzi, and Turunen (2009) provide evidence of composition bias in aggregate statistics in many OECD countries besides the United States. Martins, Solon, and Thomas (2010) look specifically at the cyclicity of the wages of newly hired workers. They note the reliance of recent search and matching models on the rigidity of the wages of newly hired workers, and demonstrate that even this sub-population exhibits wage cyclicity when the data are disaggregated.



Unfortunately, microdata from the Great Depression are simply not available for analysis.<sup>3</sup> Nevertheless, the presence of bias in real wage cyclical estimates in aggregated post-war data should cast serious doubts on assumptions about the import of aggregate cyclical during the Depression. MacKenzie (2010) rests his entire argument on the behavior of these aggregate data. Three decades of research on real wage cyclical indicate that such arguments should be severely qualified if they are made, but MacKenzie (2010) fails to cite a single paper that explores or comments on this well-known aggregation bias. While differences between the Depression and the post-war period covered by the real wage cyclical literature make generalizability of the post-war results difficult, the findings of this literature need to be considered in any treatment of wage cyclical during the 1930s.

## CONCLUSION

Hayek said that “the curious task of economics is to demonstrate to men how little they know about what they think they can design.” MacKenzie (2010) assumes that Hoover’s mistake was to think he could design an economy operating at full employment, but the real problem may be far more fundamental than this. Hoover’s actual mistake may have been in assuming he could design an operable high-wage policy at all. Ironically, MacKenzie’s (2010) entire case is dependent on the assumption that Hoover was able to achieve what he thought he could design. A substantial amount of evidence suggests this may not be true, and if there is no reason to believe Hoover *was able* to prop up wages, any argument about the effect that the business conferences had on the Depression are rendered stillborn. Disaggregated real wages may or may not have remained too high. The evidence on this question for the Depression is unclear, although the evidence on wage cyclical from the post-war period does not support MacKenzie’s (2010) claims. Nevertheless, even if wages were too high in the Depression, Rose’s (2010) recent work demonstrates that there is little evidence of culpability on the part of President

---

<sup>3</sup> Silver and Sumner (1995) note a reduction in wage cyclical during the 1930s, much like MacKenzie (2010), although they do not use disaggregated data and are therefore liable to the same composition bias.

Hoover. Our thirty-first president, who is more likely than most of his predecessors and successors to receive censure, may deserve a reprieve on this point.

## REFERENCES

- Abraham, Katharine G., and John C. Haltiwanger. 1995. "Real Wages and the Business Cycle." *Journal of Economic Literature* 33, no. 3: 1215–1264.
- Ashenfelter, Orley, and David Card. 1985. "Estimating the Effect of Training Programs on Earnings." *Review of Economics and Statistics* 60: 47–57.
- Beaudry, Paul, and John Dinardo. 1991. "The Effect of Implicit Contracts on the Movement of Wages Over the Business Cycle: Evidence From Micro Data." *Journal of Political Economy* 99, no. 4: 665–688.
- Bernanke, Ben S. 1995. "The Macroeconomics of the Great Depression: A Comparative Approach." *Journal of Money, Credit, and Banking* 27, no. 1: 1–28.
- Bils, Mark J. 1985. "Real Wages Over the Business Cycle: Evidence From Panel Data." *Journal of Political Economy* 94, no. 4: 666–689.
- Blank, Rebecca M. 1990. "Why Are Wages Cyclical in the 1970s?" *Journal of Labor Economics* 8, no. 1: 16–47.
- Bowlus, Audra, Haoming Liu, and Chris Robinson. 2002. "Business Cycle Models, Aggregation, and Real Wage Cyclicity." *Journal of Labor Economics* 20, no. 2: 308–335.
- Coleman, Thomas Sedgewick. 1984. "Essays on Aggregate Labor Market Business Cycle Fluctuations." *University of Chicago Ph.D. Dissertation*.
- DeLong, J. Bradford. 1998. "It Doesn't Work." *Critical Review* 12, nos. 1–2: 59–69.
- Duncan, Joseph W., and William C. Shelton. 1978. *Revolution in United States Government Statistics 1927–1976*. U.S. Department of Commerce: Washington, D.C.
- Gallaway, Lowell E. 2010. "Unions, the High Wage Doctrine, and Employment." *Cato Journal* 30, no. 1: 197–213.

- Hawley, Ellis W. 1974. "Herbert Hoover, the Commerce Secretariat, and the Vision of an 'Associative State,' 1921-1928." *Journal of American History* 61, no. 1: 116-140.
- Keane, Michael, Robert Moffitt, and David Runkle. 1988. "Real Wages over the Business Cycle: Estimating the Impact of Heterogeneity with Micro Data." *Journal of Political Economy* 96, no. 6: 1232-1266.
- Levy, Victor, and John L. Newman. 1989. "Wage Rigidity: Micro and Macro Evidence on Labor Market Adjustment in the Modern Sector." *The World Bank Economic Review* 3, no. 1: 97-117.
- MacKenzie, Douglas W. 2010. "Industrial Employment and the Policies of Herbert C. Hoover." *The Quarterly Journal of Austrian Economics* 13, no. 3: 101-119.
- Martins, Pedro S., Gary Solon, and Jonathan Thomas. 2010. "Measuring What Employers Really Do about Entry Wages over the Business Cycle." *NBER Working Paper* no. W15767.
- Mather, Jane E.. 1987. "In Search of Cyclical Wage Differentials." NBER Working Paper.
- Messina, Julian, Chiara Strozzi, and Jarkko Turunen. 2009. "Real Wages over the Business Cycle: OECD Evidence from Time and Frequency Domains." *Journal of Economic Dynamics and Control* 33, no. 6: 1183-1200.
- Myers, William Starr, and Walter H. Newton. 1936. *The Hoover Administration: A Documented Narrative*. Charles Scribner's Sons: New York, p. 27.
- Northrup, Herbert R. 1971. "The Railway Labor Act: A Critical Reappraisal." *Industrial and Labor Relations Review* 25, no. 1: 3-31.
- President's Conference on Unemployment. 1923. *Business Cycles and Unemployment: Report and Recommendations of a Committee of the President's Conference on Unemployment*. New York: McGraw-Hill Book Company, Inc.
- Raisian, John. 1983. "Contracts, Job Experience, and Cyclical Labor Market Adjustments." *Journal of Labor Economics* 1, no. 2: 152-170.
- Rose, Jonathan D. 2010. "Hoover's Truce: Wage Rigidity in the Onset of the Great Depression." *The Journal of Economic History* 70, no. 4: 843-870.

- Shin, Donggyun, and Gary Solon. 2007. "New Evidence on Wage Cyclicity Within Employer-Employee Matches." *Scottish Journal of Political Economy* 54, no. 5: 648–660.
- Shin, Donggyun. 1994. "Cyclicity of Real Wages Among Young Men." *Economic Letters* 46, no. 2: 137–142.
- Silver, Stephen, and Scott Sumner. 1995. "Nominal and Real Wage Cyclicity During the Interwar Period." *Southern Economic Journal* 61, no. 3: 588–601.
- Solon, Gary, Robert Barsky, and Jonathan Parker. 1994. "Measuring the Cyclicity of Real Wages: How Important is Composition Bias?" *Quarterly Journal of Economics* 109, no. 1: 1–26.
- Stockman, Alan. 1983. "Aggregation Bias and the Cyclical Behavior of Real Wages." Working Paper, University of Rochester.
- Taylor, Jason, and George Selgin. 1999. "By Our Bootstraps: Origins and Effects of the High-Wage Doctrine and the Minimum Wage." *Journal of Labor Research* 20, no. 4.
- Tremblay, Carol Horton. 1990. "Wage Patterns of Women Over the Business Cycle." *Quarterly Review of Economics and Business* 30, no. 1: 90–101.
- Vedder, Richard K., and Lowell E. Gallaway. 1993. *Out of Work: Government and Unemployment in Twentieth Century America*. New York: Holmes and Meier.
- Ziegler, Robert H. 1981. "Herbert Hoover, the Wage-Earner, and the "New Economic System" 1919–1929." in *Herbert Hoover as Secretary of Commerce 1921–1928: Studies in New Era Thought and Practice*, ed. Ellis W. Hawley. Iowa University Press: Iowa City.