

What Do Labour Economics and Industrial Relations Have to Say to Each Other?

Morley Gunderson

Volume 78, numéro 4, 2023

URI : <https://id.erudit.org/iderudit/1111500ar>

DOI : <https://doi.org/10.7202/1111500ar>

[Aller au sommaire du numéro](#)

Éditeur(s)

Département des relations industrielles de l'Université Laval

ISSN

0034-379X (imprimé)

1703-8138 (numérique)

[Découvrir la revue](#)

Citer cet article

Gunderson, M. (2023). What Do Labour Economics and Industrial Relations Have to Say to Each Other? *Relations industrielles / Industrial Relations*, 78(4). <https://doi.org/10.7202/1111500ar>

Résumé de l'article

Mutual gains can be made through greater cross-pollination between labour economics and industrial relations. The paper is organized around common criticisms of labour economics, with examples from industrial relations. Such criticisms, and their underlying principles, often explain important concepts in industrial relations, which can provide insights that may enhance labour economics. The intent here is to apply a forward-looking lens to advance theoretical and empirical reflection on current and future aspects of work and employment.

Summary

Labour economics has evolved from an earlier emphasis on institutions and descriptive analysis, which it shared with industrial relations, to its current emphasis on rigorous theory and empirical techniques, which it now shares with economics. Common criticisms of labour economics are highlighted in this paper, with examples from industrial relations. The criticisms include: making unrealistic assumptions; assuming that everyone is rational and has perfect information; relying on exit as the device to discipline markets; ignoring voice and loyalty; having a quantitative orientation that assumes everything can be quantified and analyzed from cause to effect; being imperialistic and thinking that economics can be applied to all elements of human behaviour; ignoring power imbalances, historical determinism and institutions; being obsessed with outlining unintended consequences of well-intended policy initiatives; ignoring the internal labour markets within firms; being obsessed with efficiency; ignoring important issues of distribution and equity; dealing only with the effects on private parties; ignoring broader effects on society at large; and operating in a silo and ignoring other disciplines.

While defending labour economics from those criticisms, industrial relations applies a forward-looking lens to advance theoretical and empirical reflection on current and future aspects of work and employment by highlighting the mutual gains that can be had from labour economics incorporating principles that are well established in industrial relations, such as inequality of bargaining power, importance of voice and loyalty, inductive reasoning through qualitative analysis and narratives and use of mixed methods that involve both quantitative and qualitative analysis. Industrial relations can benefit from principles of labour economics both empirically and theoretically, since empirical work is essential to test and advance theory. Specific examples from the literature are given to illustrate how each field can contribute to the other.

What Do Labour Economics and Industrial Relations Have to Say to Each Other?

Morley GUNDERSON

Professor at the Centre for Industrial Relations and Human Resources and in the Department of Economics, University of Toronto, 121 St. George Street, Toronto, Ontario, Canada, M5S 2E8

morley.gunderson@utoronto.ca

Abstract

Mutual gains can be made through greater cross-pollination between labour economics and industrial relations. The paper is organized around common criticisms of labour economics, with examples from industrial relations. Such criticisms, and their underlying principles, often explain important concepts in industrial relations, which can provide insights that may enhance labour economics. The intent here is to apply a forward-looking lens to advance theoretical and empirical reflection on current and future aspects of work and employment.

Summary

Labour economics has evolved from an earlier emphasis on institutions and descriptive analysis, which it shared with industrial relations, to its current emphasis on rigorous theory and empirical techniques, which it now shares with economics. Common criticisms of labour economics are highlighted in this paper, with examples from industrial relations. The criticisms include: making unrealistic assumptions; assuming that everyone is rational and has perfect information; relying on exit as the device to discipline markets; ignoring voice and loyalty; having a quantitative orientation that assumes everything can be quantified and analyzed from cause to effect; being imperialistic and thinking that economics can be applied to all elements of human behaviour; ignoring power imbalances, historical determinism and institutions; being obsessed with outlining unintended consequences of well-intended policy initiatives; ignoring the internal labour markets within firms; being obsessed with efficiency; ignoring important issues of distribution and equity; dealing only with the effects on private parties; ignoring broader effects on society at large; and operating in a silo and ignoring other disciplines.

While defending labour economics from those criticisms, industrial relations applies a forward-looking lens to advance theoretical and empirical reflection on current and future aspects of work and employment by highlighting the mutual gains that can be had from labour economics incorporating principles that are well established in industrial relations, such as inequality of bargaining power, importance of voice and loyalty, inductive reasoning through qualitative analysis and narratives and use of mixed methods that involve both quantitative and qualitative analysis. Industrial relations can benefit from principles of labour economics both empirically and theoretically, since empirical work is essential to test and advance theory. Specific examples from the literature are given to illustrate how each field can contribute to the other.

Keywords: labour economics; mutual gains with industrial relations

1. Introduction

Mutual gain is an important concept in industrial relations, as is its counterpart of Pareto improvement in labour economics. The aim here is to highlight the possible mutual gains from greater cross-pollination between the two fields. The paper is organized around common criticisms of labour economics, with examples from industrial relations. Such criticisms, and their underlying principles, often explain important concepts in industrial relations, as well as how the principles of industrial relations can provide insights that may enhance labour economics.

2. Evolution of Labour Economics and Industrial Relations

As outlined in Boyer and Smith (2001) and Kaufman (2012, 2020), prior to the 1960s labour economics was close to industrial relations, with both disciplines having a strong emphasis on institutions (e.g., Lester, 1946) and descriptive analysis. The stress was on case studies and observations in the “real world” as opposed to abstract theorizing and model building. Economic forces were downplayed, and the assumptions of competitive markets challenged. This symbiosis between industrial relations and labour economics began to change around the 1960s, when the neoclassical perspective began to dominate labour economics; in other words, with the application of conventional economic tools to the labour market. Underlying those tools were the basic forces of supply and demand, as illustrated in Thomas Carlyle’s quote: “Teach a parrot the terms supply and demand and you’ve got an economist.”

The divergence between labour economics and industrial relations can be illustrated by the changing nature of the labour economists who became presidents of the American Economics Association. Earlier presidents included Richard Eli in 1900-01, John R. Commons in 1917, Sumner Slichter in 1941 and Edwin Witte in 1956. They were all labour economists in the industrial relations tradition. If we look at subsequent presidents who were labour economists, we find Gary Becker in 1987, Sherwin Rosen in 2001, Orley Ashenfelter in 2011 and David Card in 2021. They were all labour economists in the neoclassical economics tradition.

3. Criticisms of Labour Economics

3.1 Assumptions of the Models Are Not Realistic

In his development of a political economy model of early industrial relations, Kaufman (2018, p. 132) approvingly cited earlier scholars who had described orthodox neoclassical economic theory with its unrealistic assumptions as a “romantic day-dream” and a “pleasant fantasy.”

Many models of behaviour in labour economics start off with unrealistic simplifying assumptions, such as perfect competition, full information, no transaction costs and no risk or uncertainty. Such assumptions are made initially, but then relaxed to examine the implications of adding more realistic assumptions, such as risk and uncertainty, imperfect information, asymmetric information and transaction costs. The Nobel Prize winner Oliver Williamson (1985), for example, focused on the notion that economic decisions are made largely to economize on transaction costs.

For example, if transaction costs are largely independent of hours worked (e.g., commute costs and childcare costs), they can deter individuals from entering the labour market and incurring those costs, but, if they do enter, such costs can induce them to work long hours to amortize those quasi-fixed costs. This can be a rational decision and help explain a wide range of industrial relations phenomena, including: employing only the existing workforce for long hours and with overtime, rather than hiring new workers; making extensive use of temporary help, outsourcing and gig workers; hoarding labour and providing short-time work during recessions; and ensuring long hours of work and lack of work-life balance for many individuals, who may be burdened with substantial fixed costs (Benjamin et al., 2021, pp. 177-186).

Employers can also face quasi-fixed costs associated with recruiting, hiring and training at the hiring stage, as well as expected termination or firing costs that can be factored in at the hiring stage (Lazear, 1990). To amortize those fixed costs over a longer working time, employers may rationally engage in a variety of phenomena familiar to the industrial relations literature. Employers may have the core workforce do overtime at premium pay, rather than hiring new workers at straight-time pay and thus incurring their quasi-fixed costs. Employers may segment the workforce into a core of “insiders,” who are protected because of their associated quasi-fixed costs, and a periphery of “outsiders” or non-standard workers, who are hired on a contingent basis through limited-term contracts, seasonal and part-time work, subcontracting and use of temp-help agencies.

The above issues are addressed by perspectives that are closer to industrial relations. The segmented or dual labour market perspective, involving core and peripheral workers (Doeringer and Piore, 1971), emphasizes the internal labour markets within firms, where pay and human resource decisions are based on administrative rules and procedures largely isolated from the forces of competition that dominate the external labour market. In his influential work on the fissured workplace, Weil (2014) described how the rise of non-standard work serves to circumvent labour laws that are designed to protect workers, as emphasized in industrial relations. As an aside, Doeringer, Piore and Weil were all supervised by John Dunlop, an icon of industrial relations.

By dropping the assumption of perfect information and examining the consequences of imperfect and asymmetric information, scholars have gained insight into a variety of industrial relations phenomena. Asymmetric information, for example, can explain why even risk-averse workers may not accept small wage concessions spread over a larger workforce, as opposed to risking costly layoffs for a few workers. Employers always have an incentive to argue that they do not have the ability to pay larger wage increases. In such circumstances, unions may rationally reject small wage concessions and compel employers to engage in layoffs as a mechanism to elicit truth-telling from the employer. If employers are doing well and have greater ability to pay, they are more likely to settle for higher wages than for layoffs, which would be costly to them in terms of meeting their market demands (Wachter, 2012). In essence, this strategy elicits truth-telling from the employer when they have private information on their ability to pay.

A similar process of information revelation is at work in asymmetric and imperfect information models of strikes (Cousineau and Lacroix, 1986; Reder and Neumann, 1980). Again, the employer always has an incentive to argue that wage demands cannot be met. In such circumstances it may be rational for the union to confront the employer with the choice of either accepting a strike or agreeing to the wage demands. If demand for the product or service is high and the employer has the ability to pay, the employer is more likely to agree to the wage demands. In essence, this strategy gets the employer to reveal the true ability to pay.

In addition to the asymmetric information perspective on strikes, labour economists advance the joint-cost theory of strikes (Kennan, 1986; Siebert and Addison, 1981). Strikes may occur for many reasons given by scholars in industrial relations. They may be due to misinformation and

miscalculations by the parties. They may provide a safety valve to release pent-up frustrations. They may enhance the reputations of the bargaining agents. They may adjust the expectations of the rank-and-file. Finally, they may determine the resistance points of the parties and the trade-offs they are willing to make. The joint-cost perspective argues that whatever is inside the “black box” of the reason for strike action, the strike will be less likely and of shorter duration when the joint cost to *both parties* is higher than the cost of other mechanisms for resolving their differences.

Both perspectives—asymmetric information and joint cost—have been used to specify the determinants of strike incidence and duration as well as the expected and actual impact of a wide range of industrial relations policy variables in Canada, including cooling-off periods, mandatory strike votes and bans on replacement workers (Cramton, Gunderson and Tracy, 1999). Campolieti, Hebdon and Dachis (2014) used the asymmetric information and joint cost theories to explain how these various industrial relations policy variables affect strikes. They also went on to enrich their analysis with several institutional features of the bargaining relationship (emphasized in industrial relations), including divergence in expectations between union leaders and rank and file, financial resources of the union and reductions in the number of issues subject to bargaining.

3.2 Economics Assumes that Everyone Acts in Rational Self Interest

This criticism is illustrated by an industrial relations article on framing by Budd, Pohler and Huang (2022, p. 272): “The neoliberal- egoist frame is derived from neoclassical economic thought and rests on a set of assumptions that employers, managers, and employees are rational agents pursuing their self-interest (hence, “egoism”) in economic markets that approximate ideal competitive conditions.” Kaufman, Barry, Gomez and Wilkinson (2018, p. 675) state: “Unrestrained self-interest and free market competition, contrary to the utopian invisible-hand story in mainstream economics, work to undermine cooperation-based institutions and moral codes.”

But *Homo Economicus* does not have to involve a narrow interpretation of rational self-interest and non-cooperative behaviour. The term “rational” in economics is used to imply that agents will act in a consistent manner to achieve whatever goals they set. It says nothing about the goals themselves. The goals could be motivated not only by self-interest but also by altruism, as in volunteering for no pay or for caring about the fairness to fellow workers or the poverty of others, or the intergenerational effects of climate change (Bénabou and Tirole, 2006; Fehr and Schmidt, 2006; Freeman, 1997). At the other end of the spectrum, the goals could be motivated by revenge and may even come at a cost to the party seeking revenge (Fehr and Gächter, 2000).

3.3 Exit as a Device to Discipline Markets, Ignoring Voice and Loyalty

This criticism is illustrated in Kelly (2018, p. 708): “Even when employees do face problems at work, their preferred current solutions, at least in the liberal market economies, appear to be overwhelmingly individualistic: take up the issue with their line manager or quit and find another job.” Godard (2017, p. 11) stated: “Where workers are underpaid or treated unfairly, they are always free to quit and find another job.” Kaufman (2010, p. 434) likewise stated: “The labor market also provides full protection to workers since with zero cost they can quit and find jobs elsewhere and go elsewhere.”

Labour economics does rely heavily on exit as a solution: consumers going to a competitor for a better price-quality combination, or workers leaving for other employment to get a better wage and better job quality. In fact, all that is needed is the credible *threat* of exit by *some* consumers or workers for competitive forces to work.

This is illustrated by the labour economics literature on discrimination: competitive market forces should dissipate discrimination because firms that do not discriminate should outperform those that do, since non-discriminating firms will hire and promote the cheaper but equally productive

group that is discriminated against. Alternatively stated, there is little survival value in paying excess amounts to a preferred group when an equally productive minority group is available. Certainly, there are reasons why discrimination may survive in the face of such market forces. As outlined in Gunderson (2006), customers may be willing to pay a premium to satisfy their tastes for discrimination. Co-workers may resist integration. Discrimination outside the labour market can spill over into the labour market because family responsibilities are unequally shared and thus result in a “motherhood penalty.” Educational institutions and guidance counsellors can foster the segregation of women into lower-paying careers (Levine and Zimmerman, 1995). Although these offsetting forces can foster discrimination, competitive market forces in the form of exit should *dissipate* discrimination (discriminating firms not surviving, and minorities exiting discriminating firms for ones that do not discriminate). The empirical evidence from labour economics strongly supports the view that competitive market forces help dissipate discrimination (Gunderson, 2006).

While labour economics does emphasize the importance of exit to foster competitive market forces, it has benefited from the industrial relations concepts of voice and loyalty (Freeman and Medoff, 1979, 1984; Budd, 2004; Bryson, Gomez, Willman and Kretschmer, 2013). Freeman was supervised by John Dunlop, as were Doeringer, Piore and Weil. This was one of the ways that ideas from industrial relations percolated into labour economics!

The conventional wisdom is that unions, through their monopoly, cause high wages. Freeman and Medoff turned this causality on its head by also emphasizing the reverse: high wages cause unionization because unionized individuals have no incentive to leave (exit) high-wage firms; hence, they turn to voice to improve their situation through due process at the workplace. In essence, reduced exit helps increase the voice of unions through, for instance, the grievance procedure and two-way communication with management. Freeman and Medoff argued that the voice of unions can increase productivity, morale, loyalty and commitment and reduce departures and turnover. In the industrial relations literature, voice is also regarded not only as a means to achieve other ends but also as an end in itself to foster the dignity and self-determination of workers (Budd, 2004, pp. 23-28).

The importance of voice and loyalty appears in the literature on efficiency wages, whereby firms may rationally pay above the competitive norm to foster loyalty and reduce exit and turnover (Krueger and Summers, 1988). The use of voice and loyalty (as opposed to market forces of exit) also appears in the literature on reputation, relational investing, and corporate codes of conduct fostered by advocacy groups and NGOs (Lazear and Freeman, 1987). The importance of loyalty as opposed to exit is supported by survey evidence in Elliott and Freeman (2002) that consumers are willing to pay loyalty premiums ranging from 5% to 25% to buy products produced under good labour standards.

In a special issue on the use of voice across various disciplines Wilkinson and Barry (2016) showed how the industrial relations concept of voice has contributed to the human capital theory of labour economics by highlighting how harnessing employee knowledge can add economic value to the firm and be a source of competitive advantage by providing shop-floor solutions to organizational problems. These insights into voice and loyalty have clearly enriched the conventional labour economics emphasis on exit as a means to foster competitive market forces.

3.4 Quantitative Orientation that Assumes Everything Can Be Quantified and Analyzed from Cause to Effect

Criticism of econometrics is exemplified by Arthurs (2016, p. 2): “Perhaps Thomas Huxley, the 19th century public intellectual, was right when he observed that some ideas are able to survive long after their brains have been bashed out. Neo-liberalism might be a case in point. Other examples include the false promise of trickle-down prosperity, the mindless pursuit of labour market

flexibility and the *foregone conclusionism of much econometric analysis* [emphasis added]. Nonetheless, these discredited ideas continue to dominate much policy discourse.” The concern with quantification is also illustrated in McCloskey and Ziliak (https://www.amazon.ca/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Steve+Ziliak&text=Steve+Ziliak&sort=relevancerank&search-alias=books-ca) (2008).

In their analysis of leading industrial relations journals, Wilkinson and Barry (2016, pp. 141-148) described a shift from inductive, qualitative and policy-oriented research, typical of industrial relations research, to deductive, quantitative and discipline-oriented research, especially labour economics. They highlighted the risks: “(i) quantification may focus research on the more readily quantifiable topics (such as turnover), to the detriment of possibly more important topics (such as culture); (ii) it can also focus research on the statistical relationship between X and Y rather than on the causal mechanisms (the little black box) linking them and/or the influence of the environment in which they operate.”

Applied empirical econometrics has made its greatest advances in labour economics, including the economics of education. The intent has been to mimic the gold standard of random assignment (also increasingly used in labour economics) to ensure causality as opposed to simply association or correlation. Such causality is important for policy and practical reasons (emphasized in industrial relations) and for testing of hypotheses derived from theory, and thereby to advance theory. Examples of causal estimation are given below:

- *Regression discontinuity* designs, where individuals just at the margin of being treated or not are considered to be as good as randomly assigned and are compared;
- *Random assignment at the margin*, where scarce slots in a program with a pool of applicants are allocated randomly;
- *Natural experiments*, where an “act of nature” or exogenous shock essentially assigns people to a treatment group and a comparison group (e.g., natural disasters, pandemics, political coups, immigration shocks, etc.);
- *Sample-selection correction* procedures, where the outcome equation includes a correction term, which is estimated from a separate equation that predicts treatment assignment on the basis of all available background factors;
- *Instrumental variable procedures*, where exogenous instruments are used to predict the probability of receiving treatment or intervention (and thereby to purge unobserved confounding);
- *Matching procedures*, where individuals in the treatment group are matched with persons in the control group, in terms of observable characteristics or propensity scores (with probability of receiving treatment being conditional on those same characteristics);
- *Difference-in-difference* estimation, where before-and-after comparisons use a comparison group that does not receive the treatment, resulting in a “double-differencing” that controls for unobserved time-invariant factors and common time shocks;
- *Synthetic comparison groups*, where an appropriate comparison group is extracted from several *potential* comparison groups.

While many of these procedures have been applied to issues in industrial relations, as a personal observation, there is considerable scope for their further application. There is also scope for improvement to methodology through better understanding of the qualitative details of data gathering. In their analysis of global supply chains Amengual, Distelhorst and Tobin (2020) used

mixed-methods research, combining qualitative case studies and interviews with quantitative analysis. In their analysis of alternative channels of adjustment to minimum wages, Hirsch, Kaufman and Tetyanazelenska (2015) also used mixed methods: not only econometric estimation but also payroll data from franchise owners, a separately administered written survey of restaurant managers, qualitative/anecdotal data from field-level interviews with restaurant owners and managers and a survey of individual employees.

Qualitative narratives are slowly being introduced into economics—with emphasis on slowly. The Nobel Prize winner and past president of the American Economics Association, Schiller (2017, 2020) used historical narratives from newspaper articles, diaries, stories, books, newsreels and sermons. Bewley (2002) interviewed over three hundred executives, labour leaders, professional recruiters and advisors to the unemployed to show how wages tended not to fall during a recession because of concern over morale and loyalty to the firm.

3.5 Imperialistic Thinking—Application to All Elements of Human Behaviour

In referring to the “arrogance of economists” *The Economist* (April 8, 2023, p. 65) stated: “The discipline’s imperialism—its tendency to claim the territory of fields adjacent to economics as its own—is a bugbear of social scientists.”

It is certainly the case that the basic principles of labour economics have been applied to a wide range of areas that are not conventionally thought of as in the realm of economics (Becker, 1976). In fact, “Economic Imperialism” is the title of an article on that issue (Lazear, 2000). However, the test of whether it can be applied to so many elements of human behaviour should rest on its explanatory power and the insights it provides, and not on an assertion that it is out of its realm.

The *economics of fertility and family formation*, for example, has shown that women with high potential earning power have fewer children, other things equal, because of the high cost of children due to interruptions in their careers and associated earning losses (Becker, 1960; 1981). This high cost can affect the timing and spacing of births (Merrigan and St. Pierre, 1998). It also suggests that improving the education and labour force participation of women in developing countries may be a viable population control policy. Finally, it indicates how the pill and other methods of contraceptive control can facilitate the labour force participation of women (Goldin and Katz, 2002).

The *economics of crime* has shown that crime can be modelled as an occupational choice where individuals respond to market incentives and are more likely to commit crime when the opportunity cost of such an action is low because of high unemployment and few job opportunities (Freeman, 1999; Koskela and Viren, 1997).

The *economics of education* has shown that education can be regarded as an investment in human capital with future monetary returns, and that a main cost of acquiring education is the opportunity cost or income forgone by engaging in additional education (Hanushek, Machin and Woessmann, 2016). It also suggests that education can have positive social spillover effects in various forms.

3.6 Power Imbalances

The neglect of the role of differences in bargaining power is illustrated in Godard (2017, p. 11): “Neoliberals generally view the labour management relationship as a free and equal exchange between two rational economic actors with different yet compatible goals....Because labour market forces ensure that neither party is at an economic disadvantage, power and conflict should play little role.”

While power imbalances are certainly acknowledged in labour economics, they have not received the central attention that they are given in industrial relations, where rectifying the imbalance of power between employers and workers is a central tenet of labour regulations. This neglect in labour economics, however, is being rectified by recent developments in such areas as dynamic monopsony (Ashenfelter, Card, Farber and Ransom, 2022; Benjamin et al., 2021 pp. 200-206; Card, 2022).

The earlier perspective of monopsony tended to assume that employers faced a perfectly elastic supply of labour, meaning that they could hire all the labour they needed at the going wage rate for a given type of labour. That is, they were wage takers and not wage setters. The exception was often relegated to the one-industry town, where employers had the market power to set wages. More recent developments, however, indicate that many employers have monopsony power in that they can alter the flow of workers into their firm through their wage policy. If they lower wages, they will lose some, but not all, of their workforce because many are tied to their household and local community, or they lack good information on alternative employment. Their mobility may also be restricted by non-compete clauses or even collusion by employers, since anti-trust laws have failed to protect workers to the same degree that they have protected consumers from monopoly in the product market (Posner, 2021). Conversely, if such employers raise their wages, they will increase their inflow of new workers. Yet they are reluctant to do so, even to alleviate labour shortages, because they fear having to do the same for similar incumbent workers for reasons of internal equity. In other words, by raising wages for new workers, employers incur an additional cost in the higher wages that they have to pay to similar incumbent workers.

Clearly, raising pay can be very costly to employers, who prefer to employ fewer workers and pay them lower wages than they would pay if they acted competitively. Such monopsony power can also explain various phenomena that are familiar to industrial relations. For employers, these include:

- accepting persistent labour shortages, since raising wages to alleviate them implies having to pay higher wages to similar incumbent workers
- using outside contracting to fill the shortages
- using non-wage mechanisms, such as moving expenses, signing bonuses and advertising, rather than paying higher wages, since the higher wages would have to be paid to similar incumbents
- trying to differentiate new recruits from incumbents; for example, by requiring credentials that the new recruits have, even if those credentials are not relevant for the job
- requiring pay secrecy, so that incumbents do not know what new recruits are paid
- asking each new worker what their former pay was, in order to individualize their pay (i.e., pay the reservation wage, along an upward sloping supply curve)
- trying to differentiate otherwise similar workers, along the lines of gender or immigrant status or paper qualifications
- a lack of an adverse employment effect from minimum wage legislation (as predicted by neoclassical labour economists) since employers are no longer constrained by having to pay higher wages to attract new recruits since they have to pay the minimum wage.

By recognizing the greater bargaining power of employers, labour economists have moved toward a position that has been central to industrial relations.

3.7 Role of Institutions in the Market

Hirsch, Kaufman and Zelenska (2015, p. 5) stated: “Past and present writings in the *institutional tradition* [emphasis added] emphasize several central ideas: rejection of a well-defined downward sloping labor demand curve; labor markets that are imperfectly competitive, institutionally segmented, socially embedded, and prone to excess supply; and the importance of technological and psycho-social factors in firm-level production systems and internal labor markets (ILMs) as determinants of cost and productivity.”

That position is nuanced by Kaufman (2010, p. 449): “They [institutionalists] do not view the competitive model of labor markets as completely wrong or useless; rather, their position is that it provides certain useful insights and ways of thinking about markets but is also prone to yield systematically misleading answers and conclusions because it unduly neglects human and institutional considerations.”

It is true that the earlier institutional and descriptive analysis of labour markets as exemplified by Lester (1946) has given way to application of basic economic tools to the labour market. As indicated previously, laws and institutions (hereafter simply “institutions”) are often simply treated as exogenously given, and their impact evaluated. However, increasingly, attention is paid to regarding institutions as endogenous, and their behaviour is now often explained by principles of economics. This can be illustrated in various areas.

Blais, Cousineau and McRoberts (1989) provided Canadian evidence on how minimum wage legislation is endogenously affected by political interest groups. Many of the causal estimation procedures discussed previously have arisen because of concern that the effect of the institution under study is correlated with unobservable factors that cannot be controlled for but which also affect the outcome. The solution is to find a situation where the institution can be regarded as exogenous, a situation equivalent to random assignment. For example, Knepper (2020) obtained causal estimates of the impact of unions through regression discontinuity (discussed previously) by comparing situations where the union won the certification election by a close vote with those where it lost by a close vote, the rationale being that winning such closely contested elections is “the luck of the draw” or close to random assignment. Campolieti (2018) used propensity score matching to estimate union wage effects by comparing the wages of union workers with those of workers who have the same probability of being a union member but are non-union. Gunderson and Krashinsky (2015) obtained causal estimates of the effect of apprenticeships by using the fraction of certified journeypersons who can train apprentices—an exogenous variable that influences apprenticeship status but does not affect wage outcomes, other than by altering a worker’s apprenticeship status. The economics of education literature is replete with attempts to find exogenous institutional factors that affect the ability to obtain additional education and which therefore control for the effect of unobservable factors, such as natural ability or organizational skills (Gunderson and Oreopoulos, 2020). Oreopoulos (2016), for example, estimated the monetary returns to schooling by using compulsory schooling laws that exogenously affect the educational decisions of youth.

Institutional changes, such as the decline of unions and earlier declines in real minimum wages, have clearly contributed to rising wage inequality (DiNardo, Fortin and Lemieux, 1996; Fortin and Lemieux, 1997; Fortin, Lemieux and Lloyd, 2021; Nickell and Layard, 1999). Card and Freeman (1993) showed how small differences in laws and institutions between Canada and the U.S. can explain large differences in outcomes.

The *race to the bottom* is of great concern in industrial relations. Businesses are increasingly able to relocate their plants and investments to jurisdictions that offer lax labour laws and regulations, with the result that the legal environment is being harmonized downward toward the lowest common denominator. In essence, the laws and regulations are endogenously affected by the

threat of such competition for business investment and for the associated jobs. The market forces of globalization, trade liberalization and supply chains, including containerization, affect laws and institutions, including unionization. The evidence of such a race to the bottom, though controversial, strongly suggests that such market forces have constrained labour laws and regulations, including those on unionization. As stated by DiGiacomo (2016, p. xxvi), “No one would suggest that labour has regained its former strength, and it is not likely to do so as long as governments are preoccupied with the competition for investments.” Gomez and Gunderson (2022) concluded: “Our perspective is that there are numerous factors that could break the link between the imperatives of globalization/integration and harmonization to the lowest common denominator ... but they would only *weaken* the link so that downward harmonization would occur *towards (but not to)* the bottom in *most but not all* policies.”

3.8 Focus on External Labour Markets, rather than on Internal Labour Markets within Firms

Budd and Bhawe (2019, pp. 3-19) stated: “In the pluralist employment relationship, in contrast, job ladders and other elements of the internal labor market result from a mixture of pressures, such as economic efficiency, relative bargaining power, and customs ... But compared to egoist theorizing, limited ports of entry from the external labor market into the internal labor market are seen as shielding some human resource practices from competitive pressures.... From this pluralist perspective, then, the determination of human resource management practices occupies a conceptual middle ground between the complete determinism of competitive (external) labor markets in the egoist model and the unilateral managerial control of the unitarist model.”

Earlier labour economics focused almost exclusively on the external labour market, as opposed to the internal labour market within firms. The emerging field of personnel economics, however, seeks to use basic principles of economics to explain the administrative practices within the internal labour markets of firms (Lazear, 1998).

Personnel economics uses basic principles of economics to explain the existence of personnel practices, and changes in them. Such practices were often thought to reflect administrative and internal rules. Understanding the causal reasons for such practices is important to predict how they may be influenced by policy changes (e.g., banning mandatory retirement) and to predict how they may change in the future, since the underlying determinants may change (e.g., shift to work from home).

As described by Gunderson (2001), this emerging discipline has explained the following personnel practices: deferred compensation, where individuals are underpaid relative to their productivity in the early years of their tenure in return for being overpaid in their later years; mandatory retirement rules and the implications of banning them; exorbitant executive salaries; overtime and long-hours co-existing with unemployment; risk-averse workers who accept the risk of layoff instead of agreeing to small wage concessions to avoid being laid off; reluctance of firms to raise wages to reduce persistent labour shortages and job vacancies; use of piece rates instead of hourly pay or salaries; tenure or “up-or-out” rules, where people are periodically evaluated and fired if they do not meet performance standards, rather than being allowed to work for lower pay commensurate with their performance; and the fissured workplace, including such aspects as non-standard employment, contracting-out and use of temporary workers.

3.9 Obsession with Unintended Consequences of Well-Intended Policies

Peetz (2021, p. 21) stated: “Policies relying on various forms of market mechanisms often failed to meet their objectives, frequently delivering the greatest benefits to those already with the most resources, and away from those with fewer resources—the ones that may have been targeted by

the policy.” In referring to the impact of minimum wages, Kaufman (2010, p. 430) indicated the possible negative unintended consequences: “Opponents, for example, cite a number of reasons why a minimum wage is a very blunt and sometimes perverse instrument to reach these goals: it reduces jobs for low-wage workers, increases unemployment, does little to reduce poverty (because the majority of minimum wage workers do not live in such households), reduces training opportunities for youth, and reduces wages for low-skilled workers in uncovered jobs.”

Economics has been labelled as the dismal science in part because of its tendency to outline the unintended consequences of well-intended policies. It is indeed important to determine the full effect of policies, and how private actors may react to them, so that policy-making can anticipate their reactions.

For example, ban-the-box is a policy where the employer is forbidden to ask about criminal records. The intent was to enable released criminals to obtain employment and thereby re-enter society and reduce their risk of recidivism. Blacks in particular were disproportionately incarcerated and given criminal records. Unfortunately, Black employment dropped in those states that had a ban-the-box statute compared to those that did not. Because employers could not differentiate those who had a criminal record from those who had none, they engaged in statistical discrimination by becoming less likely to hire Blacks in general, on the assumption that Blacks were more likely to have a criminal record (Doleac and Hansen, 2020).

Similarly, when the disabled are provided with employment protection, their employment opportunities may be reduced because the employer fears subsequent litigation and accommodation requirements (DeLeire, 2000). The worker likewise ends up bearing part of the cost of accommodating the return to work of an injured co-worker who requires workplace accommodations (Gunderson and Hyatt, 1996). Payroll taxes initially imposed on the employer are subsequently shifted back to the worker in the form of lower wages (Kesselman, 1996).

Such unintended consequences, as highlighted by labour economists, do not mean that the policies in question should not be adopted. Rather, they mean that the private actors in the employment relationship often respond in subtle ways to a new policy, and such responses should be considered when the policy is being formulated.

3.10 Obsession with Efficiency, to the Detriment of Distribution and Equity

Budd, Pohler and Huang (2022, p. 273) described conventional economics as “the neoliberal- egoist perspective that assumes that HR policies and practices largely respond to what the market dictates. Moreover, this thinking embodies the neoliberal, laissez- faire assumption that competitive markets and free choice result in *fair outcomes* [emphasis added] because abuses are prevented by the ability to freely exit the relationship.” Kaufman (2018, 137) likewise suggested that neoclassical economics gives theoretical justification to the mainstream’s “distribution doesn’t matter” position. Godard (2017, p. 10) stated: “According to neoliberals, market forces not only drive management to pursue maximum efficiency, they also ensure that workers are fairly and equitably treated.”

The emphasis of economics is certainly placed on greater efficiency so as to expand the size of the pie that can be distributed. But distributional and equity issues are definitely emphasized, albeit perhaps insufficiently. Efficiency benefits from globalization, trade liberalization, market-oriented reforms and the platform and gig economy are emphasized in labour economics. It is the case that the adjustment consequences are often given mere lip service, including their tendency to fall on vulnerable and disadvantaged workers, as emphasized in industrial relations. However, increasingly, economic studies are documenting the negative effects from market-oriented

adjustments, plant closings, mass layoffs and restructuring from manufacturing to polarized high-end and low-end services. Examples include:

- Earnings losses of 20 to 30 percent, as well as increased mortality rates and reduced life expectancy for those who lose a job and move to their next-best alternative (Morissette, Zhang and Frenette, 2007; Sullivan and von Wachter, 2009)
- Negative long-term effects on health in general (Black et al., 2015; Michaud, Crimmins and Hurd, 2016) including effects that show up more than 30 years after a job loss due to a layoff or plant closing
- Negative long-term effects into middle age, especially for disadvantaged youth, on career advancement, earnings, marriage and divorce, criminal activities, alcoholism, health and mortality rates in middle age (Daly and Delany, 2013; Schwandt and von Wachter, 2019; Vobemer et al., 2018; von Wachter, 2020)
- For older workers forced into involuntary retirement, negative effects on health and cognitive functioning (Kuhn et al, 2020)
- Increases in substance abuse, opioid crises and suicides resulting from job loss (Case and Deaton, 2020)
- Long-term intergenerational effects due to child neglect and reduced education of children (Kalil and Ziol-Guest, 2011; Stevens and Schaller, 2011)
- Increases in crime and anti-social behaviour (Dell et al., 2019; Dix-Carneiro, 2018).

Market-oriented reforms can increase inequality and polarization. Such effects are regarded as negative not only in their own right but also because they can foster social unrest and increase resistance to efficiency-motivated changes. Much of the empirical work in labour economics has examined the effect of these reform initiatives not only at the mean of the distribution but also at various quantiles of the distribution, as well as in relation to various indicators of inequality.

3.11 Concern with Effects on Private Parties, to the Exclusion of Broader External Effects on Society at Large

Kaufman (2010, p. 445) stated: “NE [neoclassical economics] typically brings externalities into the analysis as “exceptions” to the operation of competitive markets.”

Externalities or third-party effects are described, for example, by the literature on the social returns to education (Gunderson and Oreopoulos, 2020). That literature provides causal evidence that the third-party or social returns to education are in the neighbourhood of 7 to 10 percent per year of schooling, which is similar to the range of the private returns to individuals who acquire additional education, implying total returns to individuals and society at large in the neighbourhood of 14 to 20 percent. Examples of the spillover effects on third parties include:

- Knowledge spillovers, as additional education of individuals can increase the productivity of others, including through peer effects
- Reductions in criminal activity
- Increased civic participation, for instance in voting and volunteering
- Improvements in health, family planning and parenting skills that can have effects on children of subsequent generations

- Reductions in social expenditures through such positive third-party effects

3.12 Operating in a Silo, Ignoring Other Disciplines

This criticism is perhaps best illustrated by the previous discussion of the imperialistic nature of labour economics, which applies its methodology to a wide range of other disciplines.

Labour economics, however, is incorporating such insights as nudges, framing, default options, peer effects, bounded rationality, cognitive biases, cognitive dissonance and the importance of narratives from such disciplines as behavioural psychology. Behavioural economics, borrowing from psychology, is a rapidly growing branch of economics. The Nobel Prize winner James Heckman, for example, has documented the importance of the Big Five personality traits (Openness to Experience, Conscientiousness, Extraversion, Agreeableness and Neuroticism) in affecting life outcomes, such as wages, health and longevity (Heckman, Jagelka and Kautz, 2021). Job skills are affected by such traits, as well as by education, parenting, the environment and economic incentives. Flinn, Todd and Zhang (2018) described how personality traits affect labour market outcomes and the gender wage gap.

4. Concluding Observations

Clearly, labour economics is guilty of some of the criticisms made against it by other disciplines, including industrial relations. But it is innocent of many other criticisms, and it is addressing still other criticisms by incorporating principles that are better established in industrial relations, such as unequal bargaining power, the importance of voice and loyalty, and inductive reasoning through qualitative analysis and narratives. Certainly, labour economics should be open to recognizing its shortcomings and problems and open to ideas from industrial relations and other disciplines. As with Alcoholics Anonymous, recognition of the problem is the first step toward dealing with it!

As a personal assessment, I believe that industrial relations can benefit from greater utilization of causal estimating procedures that have already been utilized, and often developed, by labour economists. Conversely, labour economics can benefit from greater utilization of insights gained through rigorous qualitative methods that are more common in industrial relations. Such methods can be used to identify possible variables and their interactions for causal estimation, as well as aid in interpreting the empirical results. As is well established in industrial relations, mutual gains are feasible.

References

- Amengual, Matthew, Greg Distelhorst, and Danny Tobin. 2020. "Global Purchasing as Labor Regulation: The Missing Middle." *Industrial and Labor Relations Review* 73(4): 817-840. doi : <https://doi.org/10.1177/0019793919894240>
- Arthurs, Harry. 2016. "Mining the Philosophers' Stone: Sixteen Tons and What Do You Get? Another Day Older and Deeper in Doubt." *Osgoode Legal Studies Research Paper Series*, 12(12): 1- 8. doi : <https://doi.org/10.2139/ssrn.2798882>
- Ashenfelter, Orley, David Card, Henry Farber, and Michael Ransom. 2022. "Monopsony in the Labor Market: New Empirical Results and New Public Policies." *Journal of Human Resources. Special Issue on Monopsony* 57: S1-S10. doi : <https://doi.org/10.3368/jhr.monopsony.special-issue-2022-introduction>

- Becker, Gary. 1960. "An Economic Analysis of Fertility." In *Demographic and Economic Change in Developed Countries*, edited by James Duesenberry and Bernard Okun, 209-231, Princeton: Princeton University Press.
- Becker, Gary. 1964. *Human Capital*. Chicago: University of Chicago Press.
- Becker, Gary. 1976. *The Economic Approach to Human Behavior*, University of Chicago Press. doi : <https://doi.org/10.7208/chicago/9780226217062.001.0001>
- Becker, Gary. 1981. *A Treatise on the Family*. Cambridge: Harvard University Press.
- Bénabou, Roland and Jean Tirole. 2006. "Incentives and Prosocial Behavior." *American Economic Review* 96 (5): 1652-1678. doi : <https://doi.org/10.1257/aer.96.5.1652>
- Benjamin, Dwayne, Morley Gunderson, Thomas Lemieux and Craig Riddell. 2021. *Labour Market Economics: Theory, Evidence and Policy in Canada*. 9th edition. Toronto: McGraw-Hill.
- Bewley, Truman. 2002. *Why Wages Don't Fall During a Recession*. Harvard University Press.
- Black, Sandra E., Paul J. Devereux, and Kjell G. Salvanes. 2015. "Losing Heart? The Effect of Job Displacement on Health." *Industrial and Labor Relations Review*. 68 (2015) 833-61. doi : <https://doi.org/10.1177/0019793915586381>
- Blais, André, Jean-Michel Cousineau and Kenneth McRoberts. 1989. "The Determinants of Minimum Wage Rates." *Public Choice* 62(1): 15-24. doi : <https://doi.org/10.1007/BF00168011>
- Boyer, George and Robert S. Smith. 2001. "The Development of the Neoclassical Tradition in Labor Economics." *Industrial and Labor Relations Review* 54: 199-223. doi : <https://doi.org/10.1177/001979390105400201>
- Bryson, Alex, Rafael Gomez, Paul Willman and Toby Kretschmer. 2013. "The Comparative Advantage of Non-Union Voice in Britain, 1980-2004." *Industrial Relations* 52 (1): 194-220. doi : <https://doi.org/10.1111/irel.12001>
- Budd, John. 2004. *Employment with a Human Face: Balancing Efficiency, Equity and Voice*. ILR Press.
- Budd, John and Devasheesh Bhave. 2019. "The Employment Relationship," In *Sage Handbook of Human Resource Management*. Edited by Adrian Wilkinson, Tom Redman, Scott Snell, and Nick Bacon, pp. 41-64.
- Budd, John, Dionne Pohler and Wei Huang. 2022. "Making Sense of (Mis)Matched Frames of Reference: A Dynamic Cognitive Theory of (In)stability in HR Practices." *Industrial Relations* 61:268-289. doi : <https://doi.org/10.1111/irel.12275>
- Campolieti, Michele. 2018. "Matching and Inverse Propensity Weighting Estimates of the Union Wage Premium: Evidence from Canada, 1997-2014." *Industrial Relations* 57(1):101-130. doi : <https://doi.org/10.1111/irel.12202>
- Campolieti, Michele, Robert Hebdon and Ben Dachis. 2014. "The Impact of Collective Bargaining Legislation on Strike Activity and Wage Settlements." *Industrial Relations*, 53(3): 394-429. doi : <https://doi.org/10.1111/irel.12063>
- Card, David. 2022. "Who Set Your Wage?" *American Economic Review*. 112(4): 1075-1090. doi : <https://doi.org/10.1257/aer.112.4.1075>
- Card, David and Richard Freeman (eds). 1993. *Small Differences That Matter: Labor Markets and Income Maintenance in Canada and The United States*. University of Chicago Press for the National Bureau of Economic Research. doi : <https://doi.org/10.7208/chicago/9780226092898.001.0001>
- Case, Anne, and Angus Deaton. 2020. *Deaths of Despair and the Future of Capitalism*. Princeton University Press. doi : <https://doi.org/10.1515/9780691217062>
- Cousineau, Jean-Michel and Robert Lacroix. 1986. "Imperfect Information and Strikes: An Analysis of Canadian Experience, 1967-1982." *Industrial and Labor Relations Review* 39(3): 377-388. doi : <https://doi.org/10.2307/2524097>

- Cramton, Peter, Morley Gunderson and Joseph Tracy. 1999. "Impacts of Strike Replacement Bans in Canada." *Labor Law Journal* 50(3): 173-180.
- Daly, M., and L. Delaney. 2013. "The Scarring Effect of Unemployment Throughout Adulthood on Psychological Distress at Age 50: Estimates Controlling for Early Adulthood Distress and Childhood Psychological Factors." *Social Science and Medicine* 80: 19–23. doi : <https://doi.org/10.1016/j.socscimed.2012.12.008>
- DeLeire, Thomas. 2000. "The Unintended Consequences of the Americans with Disabilities Act." *Regulation* 23: 21-24.
- Dell, Melissa, Benjamin Feigenberg, and Kensuke Teshima. 2019. "The Violent Consequences of Trade-Induced Worker Displacement in Mexico." *AER: Insights* 1(1): 43-58. doi : <https://doi.org/10.1257/aeri.20180063>
- DiGiacomo, G. ed. 2016. *Human Rights: Current Issues and Controversies*. Toronto: University of Toronto Press, 2016. doi : <https://doi.org/10.3138/9781442609556>
- DiNardo, John, Nicole Fortin and Thomas Lemieux. 1996. "Labor Market Institutions and the Distribution of Wages: 1973-1992." *Econometrica*. 64:1001-1044. doi : <https://doi.org/10.2307/2171954>
- Dix-Carneiro, Rafael, Rodrigo R. Soares, and Gabriel Ulyssea. 2018. "Economic Shocks and Crime: Evidence from the Brazilian Trade Liberalization." *American Economic Journal: Applied Economics* 10:158–95. doi : <https://doi.org/10.1257/app.20170080>
- Doeringer, Peter and Michael Piore. 1985. *Internal Labor Markets and Manpower Analysis*. Routledge Press.
- Doleac, J.L. and B. Hansen. 2020. "The Unintended Consequences of 'Ban the Box': Statistical Discrimination and Employment Outcomes When Criminal Histories are Hidden." *Journal of Labor Economics* 38(2): 321-374. doi : <https://doi.org/10.1086/705880>
- Elliott, Kimberly and Richard Freeman. 2002. "White Hats or Don Quixotes? Human Rights Vigilantes in the Global Economy," in *Emerging Labor Market Institutions for the 21st Century*, Richard Freeman, Joni Hersch and Lawrence Mishel (eds). Chicago: University of Chicago Press. doi : <https://doi.org/10.3386/w8102>
- Fehr, Ernst, and Simon Gächter. 2000. "Fairness and Retaliation: The Economics of Reciprocity." *Journal of Economic Perspectives* 14 (3): 159–81. doi : <https://doi.org/10.1257/jep.14.3.159>
- Fehr, E., and K. Schmidt. 2006. "The Economics of Fairness, Reciprocity and Altruism—Experimental Evidence and New Theories." In *Handbook of the Economics of Giving, Altruism and Reciprocity*, edited by S.-C. Lohm and J. Ythier, 1:616–84. Oxford: Elsevier. doi : [https://doi.org/10.1016/S1574-0714\(06\)01008-6](https://doi.org/10.1016/S1574-0714(06)01008-6)
- Flinn, C. J., Todd, P. E., and Zhang, W. 2018. "Personality Traits, Intra-Household Allocation and the Gender Wage Gap." *European Economic Review* 109:191–220. doi : <https://doi.org/10.1016/j.eurocorev.2017.11.003>
- Fortin, Nicole and Thomas Lemieux. 1997. "Institutional Changes and Rising Wage Inequality: Is There a Linkage?" *Journal of Economic Perspectives* 11: 75-96. doi : <https://doi.org/10.1257/jep.11.2.75>
- Fortin, Nicole, Thomas Lemieux and Neil Lloyd. 2021. "Labour Market Institutions and the Distribution of Wages: The Role of Spillover Effects." *Journal of Labor Economics* 39: S369-S412. doi : <https://doi.org/10.1086/712923>
- Freeman, Richard. 1997. "Working for Nothing: The Supply of Volunteer Labor." *Journal of Labor Economics* 15(1): S140–S166. doi : <https://doi.org/10.1086/209859>
- Freeman, Richard. 1999. "The Economics of Crime." In *Handbook of Labor Economics*. Vol. 3, Part C. Edited by Orley Ashenfelter and David Card. Elsevier Publisher pp. 3529-3571. doi : [https://doi.org/10.1016/S1573-4463\(99\)30043-2](https://doi.org/10.1016/S1573-4463(99)30043-2)
- Freeman, Richard and James Medoff. 1979. "The Two Faces of Unionism." *Public Interest* 7: 69–93. doi : <https://doi.org/10.3386/w0364>

- Freeman, Richard and James Medoff. 1984. *What Do Unions Do?* New York: Basic Books. 1984.
- Godard, John. 2017. *Industrial Relations, the Economy and Society*. 5th edition. Captus Press.
- Goldin, Claudia and Larry Katz. 2002. "The Power of the Pill: Oral Contraceptives and Women's Career and Marriage Decisions." *Journal of Political Economy* 110(4): 730-770. doi : <https://doi.org/10.1086/340778>
- Gomez, Rafael, and Morley Gunderson. 2022. "Implications of Regional and International Integration for Workplace Policy and Law," Presented at a Conference on *Rethinking the Foundation of Workplace Law*, Toronto.
- Gunderson, Morley. 2001. "Economics of Personnel and Human Resource Management." *Human Resource Management Review* 11: 431-452. doi : [https://doi.org/10.1016/S1053-4822\(01\)00048-1](https://doi.org/10.1016/S1053-4822(01)00048-1)
- Gunderson, Morley. 2006. "Male-Female Wage Differentials: How Can that Be?" *Canadian Journal of Economics* 39(1): 1-21. doi : <https://doi.org/10.1111/j.0008-4085.2006.00336.x>
- Gunderson, Morley and Douglas Hyatt. 1996. "Do Injured Workers Pay for Reasonable Accommodation?" *Industrial and Labor Relations Review* 50: 92-104. doi : <https://doi.org/10.1177/001979399605000106>
- Gunderson, Morley and Harry Krashinsky. 2015. "Returns to Apprenticeship: Analysis Based on the 2006 Census," *Industrial and Labor Relations Review* 68(5):1078-1101. doi : <https://doi.org/10.1177/0019793915591990>
- Gunderson, Morley and Phil Oreopoulos. 2020. "Returns to Education in Developed Countries," In *Economics of Education*, 2nd edition. Edited by S. Bradly and C. Green. Elsevier Publishers, pp. 39-51. doi : <https://doi.org/10.1016/B978-0-12-815391-8.00003-3>
- Hanushek, Eric, Stephen Machin and Ludger Woessmann (eds). 2016. *Handbook of the Economics of Education*. Elsevier Publisher
- Heckman, James, Tomáš Jagelka and Timothy Kautz. 2021. "Some Contributions of Economics to the Study of Personality," In *Handbook of Personality: Theory and Research*, edited by O. P. John and R. W. Robins. New York, NY: Guilford Press. Pp. 853-892.
- Hirsch, Barry, Bruce E. Kaufman and Tetyana Zelenska, 2015." Minimum Wage Channels of Adjustment (<https://ideas.repec.org/a/bla/indres/v54y2015i2p199-239.html>) ." *Industrial Relations* 54(2)199-239 (<https://ideas.repec.org/s/bla/indres.html>) .
- Kalil A., and K. Ziolo-Guest. 2018. "Parental Employment Circumstances and Children's Academic Progress." *Social Science Research* 37: 500-515. doi : <https://doi.org/10.1016/j.ssresearch.2007.08.007>
- Kaufman, Bruce. 2010. "Institutional Economics and The Minimum Wage: Broadening the Theoretical and Policy Debate." *Industrial and Labor Relations Review* 63(3) 427-453. doi : <https://doi.org/10.1177/001979391006300304>
- Kaufman, Bruce. 2012. "Economic Analysis of Labor Markets and Labor Law: An Institutional/Industrial Relations Perspective." *Research Handbook on the Economics of Labor and Employment Law*. Edited by Cynthia Estlund and Michael Wachter, 52-106. Edward Elgar Publishing. doi : <https://doi.org/10.4337/9781781006115.00008>
- Kaufman, Bruce. 2018. "How Capitalism Endogenously Creates Rising Income Inequality and Economic Crises: The Macro Political Economy Model of Early Industrial Relations," *Industrial Relations* 57(1): 131-73. doi : <https://doi.org/10.1111/irel.12201>
- Kaufman, Bruce. 2020. "Richard Lester's Institutional-Industrial relations Model of Labor Markets and the Near-Zero Minimum Wage Employment Effect: The Model Card and Krueger Ignored but Shouldn't Have." *Journal of Economic Issues* 54(4): 1002-1032. doi : <https://doi.org/10.1080/00213624.2020.1818514>
- Kaufman, Bruce, Michael Barry, Rafael Gomez and Adrian Wilkinson. 2018. "Evaluating the State of the Employment Relationship: A Balanced Scorecard Approach Built on Mackenzie King's Model of an Industrial Relations System," *Relations industrielles/Industrial Relations* 73(4) 664-701. doi : <https://doi.org/10.7202/1056973ar>

- Kelly, John. 2018. "Rethinking Industrial Relations Revisited." *Economic and Industrial Democracy* 39(4) 701-709. doi : <https://doi.org/10.1177/0143831X18777612>
- Kennan, John. 1986. "The Economics of Strikes." In *The Handbook of Labor Economics*, edited by Orley Ashenfelter and Richard Layard. Amsterdam: North Holland. doi : [https://doi.org/10.1016/S1573-4463\(86\)02009-6](https://doi.org/10.1016/S1573-4463(86)02009-6)
- Kesselman, Jonathan. 1996. "Payroll Taxes and the Financing of Social Security." *Canadian Public Policy* 22: 162-178. doi : <https://doi.org/10.2307/3551907>
- Knepper, M. 2020. "From the Fringe to the Fore: Labor Unions and Employee Compensation." *Review of Economics and Statistics* 102(1): 98–112. doi : https://doi.org/10.1162/rest_a_00803
- Koskela, Erkki and Matti Viren. 1997. "An Occupational Choice Model of Crime Switching." *Applied Economics* 29(5): 655-660. doi : <https://doi.org/10.1080/000368497326859>
- Krueger, Alan and Larry Summers. 1988. "Efficiency Wages and the Inter-Industry Wage Structure." *Econometrica* 56: 259-293. doi : <https://doi.org/10.2307/1911072>
- Kuhn, A., S. Staubli, J-P. Wuellrich, and J. Zweimüller 2020. "Fatal Attraction? Extended Unemployment Benefits, Labor Force Exits, and Mortality." *Journal of Public Economics* 191: 1-19. doi : <https://doi.org/10.1016/j.jpubeco.2019.104087>
- Lazear, Edward. 1990. "Job Security Provisions and Employment." *Quarterly Journal of Economics* 105: 699-726. doi : <https://doi.org/10.2307/2937895>
- Lazear, Edward 1998. *Personnel Economics for Managers*. New York: Wiley.
- Lazear, Edward. 2000. "Economic Imperialism." *Quarterly Journal of Economics* 115: 99-146. doi : <https://doi.org/10.1162/003355300554683>
- Lazear, Edward and Richard Freeman. 1997. "Relational Investing: The Workers Perspective." In *Meaningful Relationships: Institutional Investors, Relational Investing, and the Future of Corporate Governance?* NY: Oxford University Press. doi : <https://doi.org/10.3386/w5436>
- Lester, Richard. 1946. "Shortcomings of Marginal Analysis for Wage-Employment Problems." *American Economic Review* 36: 63-82.
- Levine, Phillip and David Zimmerman. 1995. "The Benefit of Additional High-School Math and Science Classes for Young Men and Women." *Journal of Business and Economic Statistics* 13(2): 137-149. doi : <https://doi.org/10.1080/07350015.1995.10524588>
- McCloskey, Deirdre (https://www.amazon.ca/s/ref=dp_byline_sr_book_1?ie=UTF8&field-author=Deirdre+Nansen+McCloskey&text=Deirdre+Nansen+McCloskey&sort=relevancerank&search-alias=books-ca) and Steve Ziliak (https://www.amazon.ca/s/ref=dp_byline_sr_book_2?ie=UTF8&field-author=Steve+Ziliak&text=Steve+Ziliak&sort=relevancerank&search-alias=books-ca) . 2008. *The Cult of Statistical Significance: How the Standard Error Cost us Jobs, Justice and Lives*. Ann Arbor: University of Michigan Press. doi : <https://doi.org/10.3998/mpub.186351>
- Merrigan, Philip and Yves St. Pierre. 1998. "An Econometric and Neoclassical Analysis of the Timing and Spacing of Births in Canada from 1950 to 1990." *Journal of Population Economics* 11: 29-51. doi : <https://doi.org/10.1007/s001480050057>
- Michaud, P., E. Crimmins, and M. Hurd. 2016. "The Effect of Job Loss on Health: Evidence from Biomarkers." *Labour Economics* 41: 194-203. doi : <https://doi.org/10.1016/j.labeco.2016.05.014>
- Morissette, R., X. Zhang, and M. Frenette. 2007. "Earnings Losses of Displaced Workers: Canadian Evidence from a Large Administrative Database on Firm Closures and Mass Layoffs." Statistics Canada. Analytical Studies Branch Research Paper Series, No. 291.
- Nickell, Steve, and Richard Layard. 1999. "Labor Market Institutions and Economic Performance." In *Handbook of Labor Economics*, vol. 3C, edited by Orley Ashenfelter and David Card. Amsterdam: Elsevier Science. doi : [https://doi.org/10.1016/S1573-4463\(99\)30037-7](https://doi.org/10.1016/S1573-4463(99)30037-7)

- Oreopoulos, Phil. 2016. "Estimating Average and Local Average Treatment Effects of Education When Compulsory Schooling Laws Really Matter." *American Economic Review* 96: 152-175. doi : <https://doi.org/10.1257/000282806776157641>
- Petz, David. 2021. "Institutional Experimentation, Directed Devolution and the Search for Policy Innovation." *Relations industrielles / Industrial Relations* 76(1): 69-89. doi : <https://doi.org/10.7202/1075574ar>
- Posner, Eric. *How Antitrust Failed Workers*. Oxford University Press, 2021. doi : <https://doi.org/10.1093/oso/9780197507629.001.0001>
- Reder, Melvin and George Neumann. 1980. "Conflict and Contract: The Case of Strikes." *Journal of Political Economy* 88: 867- 86. doi : <https://doi.org/10.1086/260912>
- Schiller, R. J. 2017. "Narrative Economics." *American Economic Review* 107(4): 967- 1004. doi : <https://doi.org/10.1257/aer.107.4.967>
- Schiller, R. J. 2020. *Narrative Economics: How Stories Go Viral and Drive Major Economic Events*. Princeton University Press. doi : <https://doi.org/10.1515/9780691212074>
- Schwandt, H., and T. von Wachter. 2019. "Unlucky Cohorts: Estimating the Long-Term Effects of Entering the Labor Market in a Recession in Large Cross-Sectional Data Sets." *Journal of Labor Economics* 37: S161 -S198. doi : <https://doi.org/10.1086/701046>
- Siebert W. and J. Addison. 1981. "Are Strikes Accidental?" *Economic Journal* 91(362): 389-404. doi : <https://doi.org/10.2307/2232592>
- Stevens, A.H., and J. Schaller. "Short-Run Effects of Parental Job Loss on Children's Academic Achievement." *Economic Education Review* 30 (2011) 289-299. doi : <https://doi.org/10.1016/j.econedurev.2010.10.002>
- Sullivan, D., and T. von Wachter. 2009. "Job Displacement and Mortality: An Analysis Using Administrative Data." *Quarterly Journal of Economics* 124:1265-1306. doi : <https://doi.org/10.1162/qjec.2009.124.3.1265>
- Vobemer, Jonas, Michael Gebel, Olena Nizalova and Olga Nikolaieva. "The Effect of an Early Career job Loss on Later Health in Europe." *Advances in Life Course Research* 35 (2018) 60-76. doi : <https://doi.org/10.1016/j.alcr.2018.01.001>
- von Wachter, Till. 2020. "The Persistent Effects of Initial Labor Market Conditions for Young Adults and Their Sources." *Journal of Economic Perspectives* 34 (2020) 168-194. doi : <https://doi.org/10.1257/jep.34.4.168>
- Wachter, Michael. 2012, "Neoclassical Labor Economics: Its Implications for Labor and Employment Law." *Research Handbook on the Economics of Labor and Employment Law*. Edited by Cynthia Estlund and Michael Wachter. 20-51. Edward Elgar Publishing. doi : <https://doi.org/10.4337/9781781006115.00007>
- Weil, David. 2014. *The Fissured Workplace: Why Work Became So Bad for So Many and What Can Be Done to Improve It*. Cambridge, MA: Harvard University Press. doi : <https://doi.org/10.4159/9780674726123>
- Wilkinson, Adrian and Michael Barry. 2016. "Voices from Across the Divide." *German Journal of Human Resource Management*, Special Issue: From Silence to Voice 30: 338-344. doi : <https://doi.org/10.1177/2397002216649899>
- Williamson, Oliver. 1985. *The Economic Institutions of Capitalism*. New York: Free Press.