

What is a minimum wage for? Empirical results and theories of justice

IFS Working Paper W14/24

David A. Green

The Institute for Fiscal Studies (IFS) is an independent research institute whose remit is to carry out rigorous economic research into public policy and to disseminate the findings of this research. IFS receives generous support from the Economic and Social Research Council, in particular via the ESRC Centre for the Microeconomic Analysis of Public Policy (CPP). The content of our working papers is the work of their authors and does not necessarily represent the views of IFS research staff or affiliates.

What is a Minimum Wage For? Empirical Results and Theories of Justice

David A. Green*

September 19, 2014

Abstract

I undertake a political economy exercise of a type described in John Rawls' A Theory of Justice; namely, one in which economic institutions are judged by how well they match the key principles in theories of distributive justice. My main contention is that such an exercise is integrally related not only to economics in general but to empirical economics in particular. I argue that most standard theories of justice place a large weight on self and social respect and that such respect has a lot to do with the position a person holds in the productive process - their wage and employment outcomes. That, in turn, means that assessments of justice in the real world hinge critically on how labour markets actually function in assigning wages and employment. The answers to these questions are ultimately empirical. I explore these ideas by examining one particular institution (the minimum wage) in relation to a set of the most prominent recent theories of distributive justice. This exercise leads to a different emphasis on what minimum wage related outcomes need study, and to a claim that minimum wage setting is related to standards of fairness defined relative to the location of the low skilled wage distribution.

1 Introduction

At the outset, I think it is worth explaining the title of this paper and why it expresses what I will try to accomplish in it.¹ I view this paper as an exercise in what I will call Rawlsian political economy. Roughly speaking, I see Rawlsian political economy as the exercise of comparing institutions in a society to principles emerging from theories of justice. My main contention is that an exercise of that type is integrally related not only to economics in general but to empirical economics in particular. I will argue that most standard theories of justice place a large weight on self

*Vancouver School of Economics at UBC and International Research Fellow, IFS

¹This paper started as a special lecture sponsored by the journal, Canadian Public Policy. I would like to thank Herb Emery and Steve Lehrer for giving me the opportunity to give that talk and for their helpful comments. I am also grateful to Charles Beach, Paul Beaudry, Charlie Brown, and Andrew Green for insightful comments.

and social respect and that such respect has a lot to do with the position a person holds in the productive process - their wage and employment outcomes. That, in turn, means that assessments of justice in the real world hinge critically on how labour markets actually function in assigning wages and employment. The answers to these questions are ultimately empirical. This implies that political philosophers - to the extent that their theories of distributive justice are connected to the real world - should be interacting with empirical workers who study labour markets. On the other side, paying more attention to questions of justice has the potential to widen the set of issues studied by empiricists. Too often, I believe, empirical economists act as if we are just programme evaluators, leaving the question of what programmes to evaluate to someone else. I have no objection to the evaluation part of the empirical literature but I believe we should consider theories of justice and whether they guide us toward different issues as well. I am going to argue that this is the case - that there are issues in labour economics (including some of the most fundamental questions we face) that emerge as deserving more attention once we look through this lens.

To put some tangible meat on these bones, I am going to work with one particular policy/institution - the minimum wage. I'll talk more about why I focus on the minimum wage in the third section but, at the very least, it is a well-studied and well-defined place to start. One admittedly weak part of the paper is that, apart from one brief section, I examine the minimum wage in isolation from other policies affecting the wage structure. The bigger question of how to design a complete set of policies that would generate a just wage structure (and whether the right set of other institutions would render a minimum wage unnecessary) is beyond the scope of what I can cover here. I hope to show that even focusing on a single policy can help illuminate what we need to know to support discussions of justice, even if I'm not able to establish whether the minimum wage is indicated as an appropriate policy under various theories of justice.

I will proceed in three main steps. In the first, I will discuss some of the main theories of redistributive justice of the last few decades and ask what place the minimum wage would hold within each. I will argue that answering the latter question often involves empirical assessments.

In the second main section, I will take a look at what we know from empirical studies of minimum wages (mainly in Canada) about the questions raised in the discussions of theories of redistributive justice. In places, we already have a lot of the information we need, but I will argue that some of the deeper and, I think, more interesting questions could use with more study.

In the third section, I will ask how minimum wages are actually set in Canada. Both Rawls and Sen argue that theories of justice are attempts to formalize common notions of fairness and justice. My goal in this last section is to try to understand what notion of justice (if any) Canadian policy seems to be pursuing. I argue that minimum wages in Canada are set based on notions of fairness - essentially representing an attempt to ban unfairly low wages - and that this implies that minimum wage setting has a complex relationship with movements in inequality.

2 Rawlsian Political Economy

The question of why a society such as Canada implements a minimum wage is clearly a question of political economy. That is, a question concerning the interaction between the economy and political and social institutions. In the field of modern political economy this question would be answered as a positive exercise, attempting to characterize the preferences of self-interested agents and the way their interactions result in this particular policy being implemented. Without wanting to deny the interest of that line of inquiry, I want to focus attention on a more normative definition of political economy. That is, asking whether a society attempting to attain some broad social goal would implement a minimum wage. More specifically, I will focus on the notion of political economy set out by John Rawls in *A Theory of Justice*.

To understand what I mean by a Rawlsian notion of political economy, consider the following statement from *A Theory of Justice*:

Justice is the first virtue of social institutions, as truth is of systems of thought. A theory, however elegant and economical must be rejected or revised if it is untrue; likewise laws and institutions no matter how efficient and well-arranged must be reformed or abolished if they are unjust. (Rawls(1999),p.3)

The point of this quote is both that justice is the prime virtue of institutions but also that we should judge institutions by how well they accord with principles of justice.² Later in the book, Rawls embarks on an investigation of the principles of justice he has derived "as a conception of political economy, that is, as standards by which to assess economic arrangements and policies, and their background institutions." (Rawls(1999, p. 228) I will call an exercise in which we measure existing and potential institutions and policies against principles embedded in theories of justice a Rawlsian political economy exercise.

The idea of judging institutions by some standard of the good of society is, of course, not alien to economists. Parts of the field of Welfare Economics is concerned with this same exercise. Rawls himself notes this but rejects calling what he is considering Welfare Economics because he sees that term as too linked to a utilitarian conception of justice. I think switching terms in this way also helps in emphasizing the primacy of justice as the key standard for judgement.

But if justice is the prime concept against which institutions are to be measured, what role would economists (and, even more, empirical economists) play in this type of political economy exercise? One common answer could be found in the First and Second Theorems of Welfare Economics. Recall that the First Theorem says that under certain assumptions, any competitive equilibrium is a Pareto optimum (i.e., no one can be made better off without making someone else worse off). The Sec-

²There is a potential distinction between just institutions and institutions that generate just outcomes (see, Yeo et al(2009) for a discussion of this in the context of Canadian health care). Since my focus is on empirical outcomes, I will discuss the justness of institutions mainly in relation to the justness of their related outcomes.

ond Theorem says that, under certain assumptions, any Pareto optimum can be reached as a competitive equilibrium starting from some specific initial set of endowments. Given the Second Theorem, it is up to society at large to determine the preferred final distribution (potentially, according to some theory of justice). The job of economists is then to make sure the economy is running so as to generate the appropriate competitive equilibrium. In the image used by Charles Blackorby in his 1990 Innis Lecture, economists are the equivalent of mechanics making sure the machine runs well. Where the machine runs to or how fast is decided by someone else (Blackorby(1990)).

In his Innis Lecture, Blackorby argues strongly against this concept for the role of economists. He points out that the Welfare Theorems are built on assumptions such as there being a fixed number of agents with fixed preferences, perfect information, and perfect competition - all of which we know to be fictions. Of course, Blackorby argues, what matters is not that these are fictions (since all theories and most assumptions underlying empirical specifications are fictions) but that once we relax these fictions, we end up in a situation where efficiency and equity cannot be so neatly decoupled. We end up in a world where economic policy prescription necessarily involves distributional decisions. Rawls, in fact, provides a clear reason why this would be the case in the following passage discussing the impact of choosing particular economic institutions:

”... the social system shapes the wants and aspirations that its citizens come to have. It determines in part the sort of persons they want to be as well as the sort of persons they are. Thus an economic system is not only an institutional device for satisfying existing wants and needs but a way of creating and fashioning wants in the future. ... Since economic arrangements have these effects, and indeed must do so, the choice of these institutions involves some view of human good and of the design of institutions to realize it. This choice must, therefore, be made on moral and political as well as on economic grounds. Considerations of efficiency are but one basis of decision and often relatively minor at that.” (Rawls(1999),p. 229)

The truth of the statement that institutions shape preferences has strong support in Canadian policy. Herb Emery’s work on the history of the public health care system in Canada shows that this system did not arise because of fundamentally different preferences relative to our American cousins yet polling now shows that Canadians have strongly different views on nationalized health care (Emery(2010)). Indeed, Canadians often list the health care system as something fundamental to who we are. Importantly, as Blackorby points out, such a shift in preferences implies that the Pareto principle is silent as a criterion for choosing whether or not to implement nationalized health. As a result, the Welfare Theorems, which are built on the notion of Pareto efficiency must also fail as a guide for the role of economists.

One of my claims in section 4, where I discuss various theories of justice, will be that a key component in several of them is that the reinforcement of self respect and mutual respect among citizens is a central feature of just institutions. This fits with Rawls’ notion that institutions

shape preferences in important ways. It also fits with Blackorby's main conclusion that in a second best world, we cannot avoid inter-personal comparisons in decision making. Since what role we play in the production process is fundamental to both our self-respect and how we are viewed by others, this means that understanding how the labour market functions is crucial to evaluating the justice of the economic institutions that frame that market. At the risk of being overly repetitive, it is worth emphasizing that this is not just because labour market institutions are key to the efficiency of an economy but because they determine roles that are of fundamental importance for considerations of the justice of a society.

Based on all of this, my goal in the remainder of the paper is to take a particular policy - the minimum wage - and hold it up against various theories of justice. My intention is not to reach a final conclusion on whether the minimum wage is or is not a just policy in the sense of being supported or rejected by most theories. Rather, I want to ask two questions. First, what can we as economists (and, in particular, empirical economists) contribute to the deliberation about whether the minimum wage fits with any particular theory? Second, (turning the investigation on its head) what, if any, notion of justice does the implementation of minimum wage policy in Canada seem to support?

3 Why Study Minimum Wages?

Why take minimum wages as the focus of the attention in a discussion of the role of empirical economists in what I have called a Rawlsian political economy exercise? After all, minimum wages only directly affect about 5% of workers in Canada. In addition, one might well argue that, as an institution, minimum wages are of second order importance relative to the institutions being considered in theories of justice. Rawls, for example, takes the "primary subject of justice" to be how "major social institutions distribute fundamental rights and duties and determine the the division of advantages from social cooperation." (Rawls(1999), p. 6) Those major social institutions include, as examples, the legal protection of freedom of thought, competitive markets, and private property in the means of production. Perhaps not surprisingly, the minimum wage doesn't make the list.

I see minimum wages as relevant for this discussion for three reasons. First, I think it is possible to see this policy as a specific representation of deeper considerations about the labour market as a social institution. The decision to implement a minimum wage is a decision not to simply trust in the market as the means to assign value for work. It is a decision to interfere with the most essential building block of a market economy: the price mechanism. And it does so without an obvious economic efficiency justification such as exist in the case of interference with prices related to goods that generate externalities. It suggests either that a society rejects the individual's value of marginal product as the basis for determining what portion of output she deserves for her work or it implies a rejection of the notion that wages truly equal the value of marginal product. In either case, it reflects something deeper about the justice of a free labour

market.³

Second, minimum wages may be particularly useful when trying to gauge what notion of justice our society is pursuing. For many, more important policies and institutions (such as the form of the tax system), current implementations will reflect a combination of notions of justice and attempts by individuals and groups to pursue their own direct self-interest. In recent polling, over 70% of Canadians responded yes to the question of whether they were in favour of increases of the minimum wage. The proportion of people who support the policy in general but may or may not be in favour of an increase in the level would presumably be even larger. Given this level of support, the support must cross party lines, strata defined by income, etc.. It seems possible that the fact that the minimum wage is seen as directly affecting so few people frees them up to express their notions of what is just without reference to their own position in society. To the extent this is true it both makes minimum wages an interesting object of investigation and calls into question the strong emphasis in some parts of modern political economy on competing self-interest as the means to understanding policy decisions. If, as Rawls argues, one requirement of just institutions is that they are self-perpetuating - increasing the desire of citizens to act in accordance with the concept of justice embodied in them - then analysing institutions as if they are only about competitive self-interest hampers the discussion from the outset.

The third reason for studying the minimum wage is more prosaic. There is a relative mountain of empirical work on minimum wages and their impact on the labour market. It seems interesting to consider whether that mountain has any use in the pursuit of larger questions about how to constitute a just society.

4 Theories of Justice

In this section, I will provide a brief discussion of how minimum wages in particular, and the willingness to have the state interfere with the price mechanism in general, would be viewed in some key theories of distributive justice.⁴ The list of theories of justice I consider is by no means exhaustive, and many readers may well feel that I do not do the theories that I do discuss full justice. My desire to consider more than one theory means that I will necessarily sacrifice nuance in the discussion. My hope, though, is that I will be able to capture key features that are important for meeting my goal of understanding minimum wages within the context of each theory.

³This outlook is actually in line with Rawls' discussion. He discusses stages of the realization of principles of justice. In the first stage (behind the veil of ignorance) the basic principles are agreed upon. In the second, they are enshrined in a constitution that forms the framework for specific laws. It is in the legislative stage that follows that minimum wage laws would be set. (Rawls(1999)) These will reflect the basic principles and so examining them can give us some insight into those principles.

⁴Roemer(1996) defines theories of distributive justice as theories of "how a society or group should allocate its scarce resources or product among individuals with competing needs or claims."

4.1 Rawls

Rawls' theory of justice is a natural place to begin our investigation, in part, because it has been so hugely influential. Even the quickest tour through recent writings in political philosophy brings one to the conclusion that a remarkably large portion of this literature is defined relative to what Rawls wrote in *A Theory of Justice*.

Many elements of the argument in *A Theory of Justice* are so well known that I will not take up much space trying to summarize them. Rawls' approach to identifying the unique best theory of justice is in the contractual tradition and much emphasis has been placed on the mechanism of the veil of ignorance as the means through which the key principles of justice are identified. Rawls employs the veil of ignorance (behind which rational individuals who do not know what position they would hold in a society deliberate over the principles of justice that would guide that society) as a means of emphasizing the notion of fairness in the sense of impartiality among citizens as a precursor to justice (Sen(2009)). Rawls argues that these individuals would unanimously agree on two key principles:

"a. Each person has an equal right to a fully adequate scheme of equal basic liberties which is compatible with a similar scheme of liberties for all.

b. Social and economic inequalities are to satisfy two conditions. First, they must be attached to offices and positions open to all under conditions of fair equality of opportunity; and second, they must be to the greatest benefit of the least advantaged members of society." (Rawls(1993) as quoted in Sen(2009))

Importantly, Rawls argued that the first principle holds absolute primacy over the second: the principle of liberty holds a special place in his theory.

In considering the last, "Difference" principle, Rawls specifically rejects a welfarist approach to evaluating what is meant by the "benefit" of an individual. He does this, in part, based on an argument that the inter-personal comparisons of well-being that are needed to make a welfarist approach effective for determining justice are too burdensome given people's widely disparate views on what they value. Instead, he argues that each person should be allowed to pursue their own notion of the good and be responsible for that notion. The need to make comparisons of individual utilities is circumvented by focusing on an index of "primary social goods". These goods are "things which it is supposed a rational man wants whatever else he wants" (Rawls(1999)), and are viewed as precursors to whatever goals a person pursues. The list of primary social goods includes: "rights and liberties, opportunities and powers, income and wealth. (A very important primary good is a sense of one's own worth..." (Rawls(1999)). This latter element, the social basis of self-respect, will be of special importance in my discussions that follow. Rawls defines the social basis of self respect as, "those aspects of basic institutions that are normally essential if citizens are to have a lively sense of their own worth as moral persons and to be able to realize their highest

order interests and advance their ends with self confidence.”(Rawls(1982) as quoted in Roemer(1996), p. 165) The point of the Difference principle is that any inequalities in social primary goods, including the bases of self-respect, are only allowable to the extent they are for the benefit of the least well off (measured in terms of an index of these goods).

Where might minimum wages (or any similar market intervention) fit in this conception of justice? Since liberty is given primacy in Rawls’ formulation, we can begin there. Minimum wages act as a restriction on voluntary exchange in the labour market. That is, there may well be a worker who would freely agree to a wage below the minimum wage. It seems unlikely, though, that Rawls would view this violation of perfect freedom as of essential importance. In fact, one of Sen(2009)’s main criticisms of Rawls is that he does not give enough emphasis to freedom of exchange. At the same time, the advantages of the minimum wage in terms of promoting the other principles of justice would seem to have to be clear in order to by-pass the liberty consideration.

Turning to the second set of principles, we can break considerations down into those that I will call materially instrumental and others that I will call socially instrumental. By materially instrumental I mean that the minimum wage could be important in insuring that individuals have enough income to attain their fair share of social primary goods. Rawls includes income and wealth on the list of such primary goods because they would allow individuals to obtain goods such as food and shelter. So the materially instrumental goals of minimum wages would be related to whether it would help or hinder the least well off in obtaining those types of income-enabled goods. What I mean by socially instrumental effects are effects of minimum wages in changing other social primary goods - in particular, the societal basis of respect.

The most direct question we can ask in considering the materially instrumental effects of minimum wages is whether it increases the income going to the least well-off. Answering this is an empirical issue and reduces, in part, to the trade-off between higher wages for those who get minimum wage jobs and potentially lower access to employment for others - that is, the elasticity of employment with respect to the minimum wage. Of course, volumes have been written in trying to estimate this elasticity and so this is one place where empirical economists can make a contribution to considerations of justice. But answering whether a minimum wage increases the earnings of those most affected by it is only part of what we need to know. We also need to know how the earnings of the directly affected translate into family income for families at the bottom of the income distribution. There is a much smaller literature addressing this question.

Less directly, minimum wage impacts can be discussed in relation to the Difference Principle. The Difference Principle allows for differences in wages and income related to innate ability if those differences result in greater efficiency that is to the benefit of the least well-off. In essence, Rawls recognizes that the more able may need to be paid more to implement their abilities in production (as opposed to in enhancing their leisure) and allows society to bribe them to do the right thing (Roemer(1996)). To the extent that a minimum wage reduces the wage differential paid

to the more able, it risks reducing efficiency and, with it, the index of primary social goods going to the least well-off. Whether it does so relates to questions about whether minimum wages affect student schooling decision, levels of training, and career choices. Again, these are empirical questions.

Whether wage differentials enable greater efficiency (and whether, therefore, minimum wages damage efficiency) raises deeper questions about how wages are assigned. There are clearly a range of possibilities for this. At one extreme, is the standard neoclassical model, with wages equalling the value of marginal product of the worker. As I have already said, in that situation, wage differentials can be justified under Rawls's theory because paying a worker her marginal product is part of reaching an efficient equilibrium that is to the benefit of all. At the other extreme is a model which we might call the extreme sociological model in which wages are socially determined and reflect relative power in dividing rents rather than anything related to ability or productivity. In that case, it would seem defensible for the government to alter wages by fiat.⁵

In between these models of wage determination we might see a model with labour market frictions and wage bargaining in the Diamond-Mortensen-Pissarides vein. In these models, frictions (informational and otherwise) prevent workers seeking jobs and job vacancies seeking workers from meeting perfectly easily. Once workers and firms do meet, each can threaten to leave the match and rob the other of the benefits of working productively together. In this scenario, the wage can be seen as being determined through bilateral bargaining with the true wage being determined by the productivity of the match (the bargained wage cannot be higher than the value of what the worker produces), the value of the options the workers and firms have outside the match, and other factors that affect relative bargaining power. In this world, wages are related to productivity but there is also an element of luck in a worker meeting a more productive firm. Moreover, elements of workers' lives outside the job such as any wealth they inherited, their marital situation, etc. can affect the wage outcome. Thus, the wage includes elements that do not relate to productive efficiency. In this situation, a minimum wage can be seen as the government enhancing the bargaining power of workers by outlawing wages below a certain level. It is possible that this could be an optimal policy under Rawls' principles in the sense that it allows wage differentials among high ability workers (where the differentials could have important effects in increasing efficiency) while restricting differences in the left tail of the wage distribution. Since these different models of how wages are set have different implications for whether minimum wages are a just institution, the empirical question of how wages are actually assigned in an economy becomes relevant for determinations of the justice of minimum wages as a policy.

Another dimension of the materially instrumental effects of minimum

⁵This, though, raises deeper questions about why, in the Rawlsian thought experiment, the deliberations on justice would result in a wage setting institutions that are based on power. I will return to that set of questions when discussing Sen, who explicitly discusses the utopian nature of the Rawlsian thought experiment.

wages is their impact on working conditions. In Acemoglu(2001), firms can choose between offering good or bad jobs. Good jobs pay higher wages and benefits, and because of this, have low worker turnover. Bad jobs pay lower wages and low or no benefits and face high worker turnover. The two types of jobs can co-exist because the lower flow profits when a job is filled in the good jobs workplace are offset by lower turnover costs than in the bad jobs workplace. A minimum wage disturbs this equilibrium by effectively pricing bad jobs workplaces out of the market. This, in itself, may be seen as a positive step under Rawls' theory. It seems reasonable that fair equality of access to jobs that workers value (jobs with stability and good wages) is the true goal being sought in the second principle of justice. Further, workplaces with lower turnover may well be workplaces where there is more investment in training, generating potential efficiency increases that can benefit the least well-off. Again, whether this is true is an empirical question: are higher minimum wages associated with lower job turnover and more training?

The discussion so far treats labour market outcomes as purely instrumental in a material sense: it is through the labour market that most individuals will earn the income that Rawls lists as a primary social good. But the discussion in the previous section points to a more integral relationship between justice and labour market outcomes, including wages. Rawls puts strong weight on both self respect and respect from others in society. In our society, that respect has a lot to do with the role we play in the productive process. In a comparison of a scheme where some set of citizens receive the income associated with their just share of what is produced simply as transfers and a scheme where they receive it as part of contributing work, the latter is almost certainly associated with greater self-respect for the recipients. For most people in our society, work allows a means to realize talents that is fundamentally satisfying. Moreover, the respect we get from others is strongly related to whether we are seen as productive members of society. This means that how the labour market allocates employment and wages is fundamentally related to the determination of whether it is functioning as a just institution. This is partially recognized in Rawls' argument that all individuals should have equal opportunities to pursue the career of their choice (subject to their talents), though Roemer(1996) argues that the importance of labour is not made explicit enough in Rawls' theory.

What this suggests is that a certain primacy should be given to market and other institutions that provide the primary social goods to the least well-off in ways that also allow them to participate in the productive activities of society. Once we consider employment in this sense, though, we also need to consider the wage. Low wages relative to what is paid commonly in the market would almost certainly be associated with low self respect and low respect from others. Wages are widely seen as at least partly related to productivity and, so, relative wage comparisons are elements in determining the allocation of respect. A minimum wage can then be seen as banning wages that harm self-respect. On the other hand, if minimum wages lead to a reduction in employment then they will harm the respect for those who are no longer employed. Thus, empirical questions about employment effects of minimum wages are also relevant

here. In addition, there are interesting questions about the extent to which wages do affect respect.

Finally, the minimum wage can also be related to Rawls' theory of justice through implications of how just institutions are chosen and supported in a number of ways. First, it may also be possible to see the fiction of the Veil of Ignorance as relevant for thinking about the minimum wage. As Roemer(1996) argues, the implication that deliberations behind the veil lead to a maxi-min formulation can be seen as hinging on an assumption that the decision makers are infinitely risk averse. In that case, it might be possible to see them as putting a restriction on how low wages can go even in the face of wage inequalities that are seen as necessary to improve the overall efficiency of the economy.

Second, Rawls also argues that part of what makes an institution (or the policies that flow from it) just is that it serves to reinforce the idea of justice in society at large. Institutions that leave some too far behind (or being paid what they see as an unfair wage) erodes belief in the set of institutions and an inclination not to play their role in upholding them. The empirical question here would be whether jurisdictions with higher minimum wages are also ones where citizens are more likely to believe that their society is fair. An interesting correlate of this is that the minimum wage may come to help define what are fair wages. In an laboratory experimental setting, Falk et al(2006) show that imposing a minimum wage alters the reservation wages of the "workers" in their set-up. Even after the minimum wage has been removed, workers are less willing to accept wages below the former minimum, which the authors argue reflects a recalibration of what are viewed as fair wages.

4.2 Nozick

In *Anarchy, State and Utopia*, Robert Nozick adopts a very different approach to assessing justice in a society: one that is almost entirely process determined. If a distribution is arrived at through acquisitions or transfers that are themselves just then the resulting distribution is just. Since voluntary exchange in a market is a just form of transfer, there is seemingly an a priori argument for the justice of distribution arising in market economies. Certainly, the banning of voluntary exchanges because they happen to be at low prices would not pass muster as a just institution under this theory.⁶

While this conclusion seems straightforward, it is worth emphasizing the relationship of Nozick's theory to our more general point that the functionings of labour markets and determinations of justice are integrally linked. Quoting Nozick at length,

"most persons do not accept current time-slice principles as constituting the whole story about distributive shares. They think it relevant in assessing the justice of a situation to consider not only the distribution it embodies, but also how that distribution came about We think it relevant

⁶Interestingly, in 1923 the US Supreme Court declared unconstitutional a District of Columbia minimum wage law on the basis that it violated right of contract.

to ask whether someone did something so that he deserved to have a lower share.”(Nozick(1973), p.50 as quoted in Varian(1974))

Nozick argues from this to a theory of justice almost entirely focused on process. But regardless of whether one follows him in that conclusion, the truth of the quoted statement is hard to deny - we, at least partly, think of the justice of an outcome in relation to how citizens obtained their share. Since the labour market is the main route through which those shares are allocated, justice must, even more than in other theories, relate to how the labour market functions.

4.3 Dworkin and the Luck Theorists

Another of the main lines of inquiry on distributive justice was initiated with Ronald Dworkin in two articles asking, if we are interested in equality then equality of what? (Dworkin(1981a,1981b)) These articles can be read, in part, as a critique of Rawls for not paying enough attention to the role of individual responsibility. Behind Rawls’ Veil of Ignorance, when the basic principles for society are being determined, those involved in the discussion do not know either the preferences or talents they will have in the actual society. This has implications for the chosen principles but it also means that people will not be held accountable in justice considerations for either their preferences or their talents. A person who chooses not to use his talents for anything other than playing on the beach would have the same claim to the primary goods as an equally talented person who uses her talents to contribute to the production of goods for society.

Dworkin proposes an alternative version of the Veil. In his stylized thought experiment, a set of people on an island are given equal amounts of shells with which to bid for society’s resources and output. Importantly, the bidders know their own preferences but not the value of their talents in the economy that will eventually emerge. In essence, Dworkin draws the Veil in such a way that people are responsible for their preferences (including having a strong love of leisure) but not for the eventual value of their talents. In part, this means that the extreme leisure lover will get fewer productive resources because he will be outbid for them by the hard worker. But Dworkin also argues that the bidders will buy not only goods but also insurance against the possibility that their talents will not be highly valued in the society that emerges.

These types of models are often described as creating a division between ”brute” luck (outcomes of lotteries run by nature and for which the person has no moral responsibility) and ”option” luck (outcomes of decisions made by the person and for which he is morally responsible). The consequences arising out of a decision not to work are examples of option luck and society has no reason in justice to compensate the person for them. On the other hand, outcomes arising from having low valued talents are brute luck and society does have some obligation to address them. In Dworkin’s theory, what society should do is redistribute from those with positive brute luck to those with negative brute luck through the tax and transfer system.

Insurance as a concept plays a central role in these discussions. The tax

and transfer system can be seen as the insurance system that the bidders behind the Veil would have bought into. Because there is no insurance scheme in the real world related to differences in talents, society as a whole sets up the scheme. It is also important that brute luck can be turned into option luck when insurance exists. In a classic example, having your house burn down sounds like brute luck, in which case society as a whole should help you re-build. But if fire insurance exists and you did not buy it then the fact that you don't have money to rebuild your house is an example of option luck and there is no moral obligation on your fellow citizens to help you re-build.

There appears to be no immediate reason why one would have minimum wages under this theory unless it is an effective means of redistribution. This takes us back to the empirical questions of how minimum wages affect the distributions of wages and employment, and whether they ultimately benefit low income families.

If labour markets operate as in search and bargaining models then there is some amount of luck involved in who gets the highest paid jobs. Exactly how much is hard to gauge, though the common result of low explanatory power in wage regressions suggests the element of luck could be large. At first pass, this appears to be brute luck and those who benefit could, in justice, be expected to share with those who draw low wage jobs. In that case, a minimum wage could be seen as truncating the downside of the lottery. This could be an effective way to address justice issues with this particular lottery. The main complication arises from the criticism of this class of theories that it is sometimes hard to disentangle brute from option luck (e.g., Anderson(1999), Wolff(1998)). In this case, if more effort in job search produces a greater probability of getting the "lucky" draw or more patience means the person has a higher reservation wage then high wage earners are reaping the benefits of conscious choices and should be allowed to keep those benefits.

If, on the other hand, wages equal marginal products then different wages are reflections of differences in talents for which a person is not morally responsible - differences that can legitimately be redistributed. Then, as before, the question reduces to whether minimum wages are an effective part of a redistributive scheme toward low wage earners. Again, though, closer examination suggests that conclusions are not so clear cut. On one hand, one could easily interpret the decision to get an education as essentially taking out an insurance policy against future bad luck. In that case, low productive abilities can be seen as a choice and low wages as reflecting option luck rather than brute luck, implying that no redistribution is called for. On the other hand, parents have a strong influence on their children's educational outcomes and whether a person happens to be born with parents who care about education is a matter of brute luck. This is another instance where empirical studies can be helpful in determining a question of justice. In this case, the relevant literature is the one on cross-generational education and income correlations - a place where economists can and do contribute to ethical debates (e.g., Corak(2013)). The discussion also indicates, as in the discussion of Rawls, that the question of how wages are assigned is of fundamental importance in justice considerations.

Finally, it is worth raising Wolff(1998)'s concerns about the information burden associated with determining allocational fairness in the real world under these theories. Essentially, if two people have equal abilities but put in different effort then society has no cause to insure the person who puts in less effort. Alternatively, if two people put in the same effort but have different outcomes then society does have a reason in justice to help the lower outcome person. But this means determining levels of effort and ability. Given what we know about complementarities between the stock of human capital and its return, the necessary separation of effort and ability would be difficult and may be impossible.⁷ In the meantime, as both Wolff(1998) and Anderson(1999) point out, society will have told lower ability people in a very public way that they are unworthy. Both argue that this robs the person of respect and is therefore highly problematic. The minimum wage is an interesting policy in that context because it is applied regardless of individual circumstances and so never calls a person out on their innate abilities. This is unlikely to be contentious if the minimum wage is set so low that we can all agree that no one deserves so little for their work. But at some higher minimum, issues related to whether the person should have invested in education to become more productive, who actually pays for the minimum wage, etc. would come into play. This could be part of the reason that minimum wages tend to be set below standards such as allowing the individual to buy enough goods to get their family out of poverty.

4.4 Sen, Nussbaum and Capabilities

One of the primary contributions to thought on social justice following Rawls has been the functionings and capabilities approach developed by Amartya Sen, Martha Nussbaum and others. In part, this approach can be seen as redefining what is of concern for citizens. Instead of Rawls' primary social goods, this theory starts with the idea of individual functionings: "the various things a person may value doing or being." (Sen(1999)). In Sen's words, "The valued functionings may vary from elementary ones, such as being adequately nourished and being free from avoidable disease, to very complex activities or personal states, such as being able to take part in the life of the community and having self-respect." (Sen(1999)). Sen also refers to functionings as substantial freedoms - freedoms to do and to be that can actually be realized. The set of functionings a person has access to is then called her capabilities. The goal of social justice is to equalize capabilities, that is, to give people equal access to self-realizing choices.

Sen has argued that equalizing capabilities is different in important ways from equalizing Rawls' primary social goods. For example, a disabled person may require more income and other social goods to be able to access the same substantial freedoms as a non-disabled person. In Rawls' theory these extra allocations would not be required as they would be in the capabilities approach. However, Roemer(1996) argues that this is not the key distinction between this approach and Rawls: it would be possible to

⁷Dworkin, in fact, makes this point in Dworkin(1981b, p. 314.

redefine primary social goods in such a way that their value comes from the freedoms they entail rather than just the goods in themselves. To the extent this is true, the conclusions we reached in discussing Rawls would carry over. That is, considerations about how the minimum wage affects the efficiency of the overall economy would continue to be important. Moreover, it is reasonable to assume that a key functioning is access to a rewarding job that is part of a basis for social and self respect. In that case, considerations about the role of minimum wages in affecting whether firms tend to offer good or bad jobs also re-emerges.

A more fundamental difference in the capabilities approach relative to Rawls is the role of freedom. While Rawls gives freedom a primary role, freedom is more integrally incorporated in the core of the capabilities theory. The size of the set of functionings (the capability) a person faces is important in itself since the freedom to choose is good in itself. Most importantly, Sen argues for freedom of exchange, and especially freedom of exchange in labour markets, as being an important good in itself. This, again, supports the idea that the form and functioning of labour markets cannot be separated from conceptions of justice. It also raises the possibility that minimum wages could be judged as being bad under this theory to the extent that they reduce employment - essentially limiting the ability of workers to make exchanges they may value. However, Sen argues that a focus on functionings means that one can move away from simply valuing individual options based on the person's own value assessments. A slave may form constrained expectations and tastes but this does not reduce their right to access a more complete set of functionings than they might dream of (Roemer(1996, p. 190)). In a similar vein, the freedom of workers to accept low wage jobs because they do not believe the market can deliver anything better is not a freedom Sen would defend. Moreover, Sen distinguishes between what we might call real and apparent freedoms. Workers may have a legal freedom of exchange but not a real freedom if the relative bargaining power of workers and firms is so unequal that the realized set of outcomes from exchange is limited. To the extent this is true, a minimum wage would be justified as the government essentially entering the bargaining process on the side of low skilled workers by requiring that the wage outcome of bargaining not be too low.⁸ Empirical studies of the effect of minimum wages on the distribution of wages - both in terms of what proportion of workers are paid exactly the minimum wage and the effects of changes in the minimum wage on wages above the minimum - can provide insights into the extent of any such bargaining

⁸Thies(1991) argues that debates about early minimum wages in the US were focused on exactly these points. Public opinion moved from the position that any wage arrived at through bargaining that did not involve physical force was just toward a notion that wages, however arrived at, were not just if they did not allow workers a level of decency. The view that wages might not meet a reasonable standard of decency because of imbalances in bargaining is stated clearly in Supreme Court Chief Justice Taft's 1923 statement, "Legislatures, in limiting freedom of contract between employer and employee by a minimum wage proceed on the assumption that employees, in the class receiving the least pay, are not upon a full level of equality with their employer and in their necessitous circumstance are prone to accept pretty much anything that is offered. They are particularly subject to the overreacting of the harsh and greedy employer." (as quoted in Thies(1991))

power effects.

As described earlier, Sen focuses on substantial freedoms, which incorporates an ability to realize the associated beings and doings. He criticizes excessive focus on income as a goal in poverty and inequality discussions because there are a number of factors that mediate between income and substantial freedoms. Of particular interest to us is his argument that relative income matters - that "relative deprivation in terms of incomes can yield absolute deprivation in terms of capabilities." (Sen(1999) This is the case because our social roles and opportunities depend in part on what we can afford relative to what is viewed as standard in our own society. In support of this, he quotes Adam Smith's example that a day-labourer in his time would be ashamed to appear in public without a linen shirt even though the Greeks and Romans presumably lived comfortably without linen shirts.

It is instructive in our discussion to continue a bit further in the quote from Smith. He argues that workers hold this opinion about having a linen shirt because being without one "would be supposed to denote that disgraceful degree of poverty which, it is presumed, nobody can well fall into without extreme bad conduct." This, I think raises two points in considering minimum wages. First, that what matters is access to sufficient resources to show others that you must not be of bad character. This means that the appropriate level of the minimum wage would not be measured in terms of an absolute bundle of goods but as relative to other wages in the economy. It is wages that are so low that those employed at them could not afford what their fellow workers have that are of concern. Second, the quote from Smith brings back the point that the wage itself could be important in determining respect and therefore, in Sen's terms, capabilities. A very low wage might well be seen as a signal that the worker is guilty of "bad conduct" or, at least, is an unproductive member of society. We might then be allowed to ban such wages as not conducive to creating a society with equal capabilities.

There is another sense in which very low (relative) wages affect capabilities. If an individual must work long hours at the wage she receives in order to keep body and soul together then she necessarily has less time and energy to take a full part in the social and political life of her community. Since these are, in themselves, important functionings, this also speaks against allowing wages that are excessively low.

This discussion helps highlight the central role of both social and self respect in the capability approach. Nussbaum, in her version of the approach, lists one of her ten core capabilities as "having the social bases of self-respect and nonhumiliation; being able to be treated as a dignified being whose worth is equal to that of others." (Nussbaum(2011)). My argument throughout this paper is that considerations related to the social bases of self-respect is both what integrally ties labour markets (and therefore the study of them) to determinations of justice, and the element of labour markets that we as economists tend to miss.

This raises the question of whether one gets lower social status for earning the minimum wage. To my mind, this is probably would be the case if people knew your exact wage (knew you were a minimum wage worker) but this would not usually be known. Instead, what having a

minimum wage means is that we all know that anyone who is working is not being valued by the market at some extremely low rate, i.e., that all workers deserve our respect. However, if the minimum wage simply prices lower ability workers out of the market then it has an opposite effect: it helps identify lower ability people for lower respect (they will be the non-workers). This, too, is an empirical question: does any unemployment generated by a minimum wage increase fall on one set of workers or is it spread widely as various workers cycle through employment and unemployment?

Sen argues that his approach to the theory of justice differs from that in Rawls, Dworkin, and most other recent writers in the area in another fundamental dimension. If one reads works such as *Development as Freedom*, it often seems frustratingly light on overall prescriptions. Unlike the clear rules for institutions embodied in the two main principles of justice in *A Theory of Justice*, simple rules do not emerge. What is meant by equalizing capabilities seems situation dependent and is often discussed in terms of specific examples rather than very broad principles. Roemer(1996) in fact criticizes Sen's work on this basis. But Sen(2009) states that this is a conscious choice of an alternative perspective on social justice. He classifies much of recent philosophical work in this area as following Rawls in an approach that he calls "transcendental institutionalism". By this he means an attempt to identify the institutions "that cannot be transcended in terms of justice" (Sen(2009), p.5) rather than trying to compare just and unjust institutions in existing societies. This approach, Sen argues, "concentrates on getting the institutions right, and it is not directly focused on the actual societies that would ultimately emerge." Those societies will follow from the institutions. Indeed, in Rawls, truly just institutions are self-reinforcing in this sense.

We have already encountered this point in our discussion of Rawls and the minimum wage. There, I argued that minimum wages might be seen as a just policy if wages were assigned based on social power rather than productivity. But in an optimal labour market, wages would not be assigned in this way and the minimum wage might be irrelevant. Similarly, one might well argue that in a truly optimal (in the sense of Rawlsian justice) set of institutions citizens would not associate respect and social standing with one's wage. In that case, too, discussions about minimum wages and their effect on justice through the channel of respect become moot. In fact, in general, a minimum wage seems like a band-aid on a set of imperfect labour market institutions. It seems likely that if we were designing the perfect set of such institutions, we would design them in such a way that they delivered the means to obtain primary material goods and respect without having to ban certain transactions and prices. Improved positions of the least well-off would hopefully arise more organically. But in Sen's alternative approach to justice - what he calls the "realization-focused comparison" approach - we concentrate on the world as we encounter it and compare the justice of one set of institutions against another in that context. For us, this means considering whether the minimum wage is a useful bandaid on our imperfect set of institutions in the sense of moving us toward greater justice. This includes thinking about minimum wages in a world where it is the case that we judge others

(and ourselves) in part by the role played in the production structure, and we use the wage as a signal of that role. I view the exercise I am undertaking in this paper as in the spirit of Sen's "realization-focused comparison approach" and my discussion of Rawls, Dworkin and Nozick as addressing the application of their principles to the real world rather than grappling with their theories in the rarified realm of thought experiments.

Sen argues further that an important correlate of there not being one best set of just institutions is that there can be different concepts of justice that apply to any one real world decision; that all of those concepts can be seen as legitimate at the same time; and that they can point in different directions. This, to Sen, is the world we face and wishing for a purer one where one conception of justice transcends all others is wishful thinking and not helpful in the real world decisions we need to make to advance justice. My attempt to examine a variety of theories of justice follows in this vein. In particular, if minimum wages are supported as an institution in a variety of theories (under particular circumstances in the real world) then we could conclude that they are, indeed, a just institution. If they are supported under some but not under others then conclusions clearly become more complex and less clear-cut.

4.5 Summary

The discussion of minimum wages in the context of some specific theories of justice reveal several over-arching themes.

1. All of the theories have to do with the "fair" allocation of society's resources and product. Sen defines fairness as being centered on "a demand to avoid bias in our evaluations, taking note of the interests and concerns of others as well, and in particular the need to avoid being influenced by our respective vested interests." Sen(2009). This is perhaps best embodied in the decisions that would be made by Adam Smith's Impartial Spectator (Smith(1790)). For Jonathan Wolff, the concrete realization of fairness is the demand that "no one should be advantaged or disadvantaged by arbitrary factors." (Wolff(1998), p.106)
2. To the extent that wages are viewed as "unfair", the implication from the last quote is that people see at least some wages as having a degree of arbitrariness to them. This immediately raises the question of how wages are assigned and, in particular, whether wages really equal the value of marginal product as we often assume.
3. Respect, both for oneself and across individuals in society play an important role in all the theories. Both Rawls and Sen see respect as a key part of what we are seeking to equalize. For Nozick equal respect is also a core principle - but for him it is expressed as giving everyone the equal respect of allowing them to make their own decisions and take responsibility for their own failures - not being paternalistic in determining certain exchanges to be less valuable. As discussed earlier, characteristics, such as respect, that have the power to alter preferences cause troubles for the simple story of how economics relates to theories of justice and force us into a world

where conceptions of justice cannot be so easily separated from what we study.

4. I have argued that being paid a very low wage relative to others can be seen as a source of loss of both self and social respect. This follows from the argument in Wolff(1998) that being seen as of low talent is a source of shame in a society. Having a low wage can then lead to a sense of shame in two ways. One is through not being able to purchase what is needed to appear as an equal in society. The second is through the low wage itself. It would be a source of loss of respect to have to take a job that pays so much less than what everyone else is earning since it would seem to imply that the wage earner is clearly of low talent.
5. Evaluating fairness often involves a high information requirement. For Sen and the capability theorists, this takes the form of needing to know a person's underlying circumstances to determine how to help them obtain equal access to capabilities. For Dworkin and the luck theorists, it involves information on whether a person is in a particular state out of voluntary choice or because of occurrences for which they are not morally responsible. Rawls may be a key exception since he proposes distributing primary resources without regard to circumstance or responsibility, but the inclusion of respect in the list of those resources complicates this conclusion.
6. To the extent that fairness typically has high information requirements, a policy such as the minimum wage is interesting since it makes no attempt to use such information. Perhaps this is part of why minimum wages are typically set well below the level that would allow a worker to achieve a standard poverty line. It is only at low levels that a broad set of voters agree that the wages must be unfair. Once they get to higher levels, considerations of the circumstances and responsibilities of the individuals will come into play.

5 Empirical Evidence in Support of Debates About Justice

My argument to this point has been that one cannot separate how labour markets function from decisions related to the justness of institutions and policies. Moreover, we have encountered some parameters that could be estimated and which serve as key inputs to deliberations within specific theories of justice. In this section, I will briefly discuss some of what we know (and don't know) from empirical investigations. The main goal is to consider what more we need to investigate.

I will frame the discussion in this section in terms of a set of big questions. I don't claim to answer these questions or even to cover all the literature associated with each.

5.1 Do Minimum Wages Reduce Employment?

It's best to get this question (the one that has seen the most study) out of the way right off the bat. In our discussions of theories of justice this question comes up both because of concerns about the costs underlying attempts to raise the wages of least advantaged and because of concerns that if minimum wages generate a persistent unemployed class then they may suffer in terms of self and social respect.

With minimum wages set at the provincial level and varied relatively frequently, Canada serves as an excellent laboratory for studying the effects of minimum wages on all aspects of the labour market. Canadian researchers have used that variation in innovative ways to try to estimate employment effects. The consensus in the very large volume of US studies (much of which uses worse variation than is available in Canadian data) is that a 10% increase in the minimum wage would induce between a 1% and 3% decrease in the employment rate for teenagers.⁹ In Canada, Baker et al(1999) find a much larger elasticity of about -0.6 over the longer run in a very original application of techniques from time series for decomposing effects into high and low frequency variation components. Campolieti et al(2005) examine the impact of minimum wage increases on transitions from employment to unemployment of 16 to 24 year olds between 1993 and 1999. Their results indicate an elasticity for employment of between -0.3 and -.5. Similarly, Campolieti et al(2006) find larger estimated elasticities for teenage employment than are common in US studies using a more standard difference in differences approach with Canadian data. However, in Brochu and Green(2013), in an ancillary estimation, we found an elasticity of -.25 for teenagers in Canada using a standard difference-in-differences approach for the period from 1979 to 2008. Further investigation revealed that the time period matters. All of the earlier, larger estimates used data ending in the late 1990s. Once one extends the data to include the 2000's the estimated elasticity declines. I don't know of any study that has established why this might be the case.

A key point from this literature is that estimated significant effects on employment apply almost exclusively to teenagers. Estimates of a standard specification for youths aged 20 to 24 for Canada results in a statistically insignificant estimated employment rate elasticity of -0.05, with smaller and less well-defined estimates for adults (Brochu and Green(2013)).¹⁰ It is interesting that Campolieti et al(2005)'s focus on those who should be most directly affected by minimum wage increases (those with wages between the old and the new minimum wage just before a minimum wage hike) obtain similar estimates to what are obtained for all teenagers in the same period. My conclusion from an examination of the literature is

⁹However, studies that focus on local labour markets using cross-state variation in adjacent counties (such as Dube et al(2010b)'s extension of the analysis in Card and Krueger(1995)) find much smaller or even positive impacts on employment.

¹⁰Differences in effects by age raise lifecycle considerations that I have sidestepped. Making teenager labour more expensive relative to that of older workers could be beneficial in terms of lifetime well-being if it leads to non-employed teenagers staying in school and not competing down the wages of workers who are in their prime earning years. Indeed, this is the basis of Neumark and Wascher(2011)'s argument that minimum wages can enhance the effects of the EITC in the US discussed in section 5.2.

that minimum wages have small to medium impacts on employment for teenagers but virtually no impact for older workers. That suggests that concerns (raised in the discussion of Rawls) that increased minimum wages would impose substantial efficiency costs on the economy that would affect our ability to help the least well-off should not be given heavy weight.

However, our concern about employment effects in relation to notions of respect is more concentrated. There, the concern is that employment effects could fall on a small group in a persistent way, singling them out for a loss of self and social respect. I do not know of a study of long term effects on labour market outcomes of those who are laid off or not hired in the first place due to a minimum wage increase. Given the levels of turnover in low skilled labour markets, I suspect that minimum wage employment effects are shared widely, as is access to the higher paying jobs after the minimum wage increase. This would imply that this concern about using minimum wages is also unfounded; but more study would be useful.

5.2 Is the Minimum Wage an Effective Redistributive Tool?

All the theories apart from Nozick's potentially indicate a need to redistribute toward the least well-off (however being well-off is defined in the relevant theory). An obvious question is then whether the minimum wage is a useful tool for accomplishing this redistribution.

The first step in addressing this question is to ascertain whether the minimum wage affects the wage distribution. If, for example, there were sufficient exemptions that minimum wage legislation is of limited applicability then we would not expect any further effect on poverty. The evidence on this for both Canada and the US is clear. The minimum wage does truncate the wage distribution. In BC in 2010, for example, fewer than 2% of workers earn a wage below the legal minimum. As is well known, there is also a spike in the distribution at the minimum wage (see, for example, the figures in Dinardo et al(1996)). Moreover, Fortin and Lemieux(2014) present estimates using an approach developed in Lee(1999) that indicate that increases in the minimum wage are associated with increases in wage percentiles even above where the minimum wage directly "bites". In other words, their evidence indicates that an increase in the minimum wage not only leads to truncation of the wage distribution at a higher level but also to positive spill-over effects higher in the distribution.

But, as several authors have noted, the translation from an impact on the wage distribution to an impact on the bottom of the family income distribution is unclear. Mascella et al(2009) examine the set of wage earners in Ontario in 2004 who would be affected by the large increase in the minimum wage that was staged in for that province between 2004 and 2010. Defining this group of workers as low wage earners and households with income below Statistics Canada's Low Income Cut-Off (LICO) as poor households, they show that only 23% of poor households had a low wage earner. Thus, the majority of workers who received the minimum

wage increase were in non-poor households.¹¹ Based on these arguments, many economists have concluded that minimum wages are, at best, a blunt instrument for addressing poverty (e.g., Shannon and Beach(1995), Brown(1988), and Campolieti et al(2012)).

But even if an instrument is blunt, it doesn't necessarily imply it is useless or even harmful (though the phrase seems intended to damn with faint praise). Even the oft-quoted result that nearly 50% of minimum wage earners are teenagers and young adults living with their parents implies that over 50% are groups such as heads of households that are the target of anti-poverty policy. Low educated females are disproportionately represented in the ranks of those affected by minimum wage increases, for example. Moreover, the argument that about 80% of those who would receive a minimum wage increase live in non-poor households - that is that it also affects the wages for the non-poor - is hardly a strong argument against using this tool unless negative efficiency effects are so large that a poorly targeted policy becomes a danger. But we have already seen that a small portion of workers actually receive the minimum wage and negative effects on employment are negligible for all but teenagers. The minimum wage can't both be a huge job slayer and have no effect on the wages of low wage workers at the same time.¹²

I believe that there are two points that can be taken away from existing empirical work on the minimum wage and poverty. The first is that there is considerable uncertainty about the true answer. This arises, in part, because much of the work is in the form of simulation exercises which are always dependent on the underlying assumptions. Further, when Campolieti et al(2012) estimate the impact of minimum wages on poverty rates directly using provincial level data and a difference-in-differences specification, the standard errors on the estimated effects are large and the 95% confidence intervals encompass both large poverty reduction effects and (somewhat smaller) poverty increasing effects.¹³ This may suggest that

¹¹This follows both because a substantial number of minimum wage earners are teenagers living in higher income households and because poor families, to some degree, are poor because of lack of work rather than low wages. Moreover, to the extent that minimum wage increases are passed on to consumers through higher prices, the minimum wage would be the equivalent of a regressive tax both because poor households spend a larger proportion of their income on goods and services and because the specific goods and services produced by workers affected by the minimum wage are disproportionately consumed by poor families.(MaCurdy and McIntyre(2001)).

¹²Campolieti et al(2012) use estimates of negative employment effects in a simulation exercise where they argue that at plausible elasticities, the poverty reducing effects of minimum wages are greatly reduced. But this exercise has two issues. First, it is not at all clear that the elasticity estimated for teenagers applies to other groups of workers affected by the minimum wage. There are good reasons to think that teenagers are not perfect substitutes for other minimum wage workers (e.g., maturity and commitment to school). Second, Campolieti et al(2012) apply the employment effects by setting wage earnings for a predicted set of workers to zero. But, as Brown(1988) points out, with high turnover in these markets, it is almost surely more reasonable to see the employment effects as wide spread rather than concentrated.

¹³For the US, MaCurdy and McIntyre(2001) generate simulations that include price effects and conclude that the minimum wage is, on net, a regressive policy tool. To the best of my knowledge, no Canadian study takes account of price effects. It would be interesting to know whether differences in relevant elasticities of demand and the industrial composition of minimum wage impacts between Canada and the US affect the applicability of the MaCurdy

there is not enough variation in over-time variation in poverty by province to allow for convincing estimates one way or the other.¹⁴ There is also uncertainty because some of what we would want to evaluate lies outside the range of available data variation. Many of the existing minimum wage rates would place single individuals above the low income cut-off where they live (Battle(2011)) but a move to a minimum wage that would put families above the low income cut-off - the kind of move that underlies calls for Ontario to move its minimum wage to \$14 per hour - are more difficult to evaluate. Such a move would certainly make the minimum wage relevant to a pool of workers who are more likely the preferred target of redistribution (i.e., one with fewer students living at home and more heads of household (Goldberg and Green(1998)) but the extent of any associated employment effects and spill-over effects onto other workers is not entirely clear.

The second point, though, is that the best guesses of effects of relatively small minimum wage changes (i.e., the point estimates) indicate small effects in the direction of reducing poverty (e.g., Macella et al(2009), Campolieti et al(2012)). This would imply that if we were only allowed one tool to accomplish redistribution or combat poverty, the minimum wage wouldn't be it. But, of course, that is not the actual question. The actual question is whether the minimum wage should be one of a set of tools. Neumark and Washer(2011) estimate positive interactions between minimum wages and the EITC benefit rate in the US in helping low income families because of disemployment effects on teenagers competing with single mothers in low skilled jobs. Rothstein(2008) argues for using minimum wages in conjunction with the EITC for other reasons. Boadway and Cuff(2001) show that a minimum wage used in conjunction with optimal income tax schemes in a second best world can increase the amount of feasible redistribution toward the least able. This is an interesting result which, to the best of my knowledge has not been investigated empirically (i.e., to see whether, at the very least, high minimum wages and more redistributive tax schemes tend to coincide). In the end, the minimum wage appears useful for helping in redistribution but likely not to a large degree for the kinds of minimum wage changes typically considered. This may suggest that the rationale for those kinds of changes may lie elsewhere.

5.3 Do Minimum Wages Alter the Form of Jobs?

In Brochu and Green(2013), we use Canadian provincial variation to examine whether job turnover rates are different in high versus low minimum wage regimes (as opposed to examining whether there is turnover at the time of a minimum wage increase, which is what is studied in, for example, Campolieti et al(2005)). We find that a higher minimum wage causes a reduction in the rate at which unemployed workers find jobs but, surprisingly, it also causes a reduction in the job separation rate. More

and McIntyre(2001) results to Canada.

¹⁴Sen et al(2011) use a similar methodology but find better defined estimates implying that minimum wages substantially increase poverty. Given the large and varied set of controls included in their regression, however, it is difficult to be sure of what is being estimated and whether to trust the results.

specifically, we find that a 10% increase in the minimum wage induces a 5% reduction in the probability a job is terminated within the first 6 months of job tenure (roughly, the allowable probation period in most provinces' layoff notice legislation), with much of the reduction accounted for by layoffs rather than quits. In work carried out at the same time, Dube et al(2012) also find reductions in separation rates in the US for teenagers and workers in the restaurant industry. An advantage of using the Canadian Labour Force Survey data is that it includes education, which allows us to define the relevant labour market on this basis instead of by age group. We find that the standard result that changes in minimum wages have no effect for adults or even, often, for young adults actually arises from exactly offsetting effects in terms of lower hiring rates and separation rates. For teenagers, the larger employment rate effects arise from a combination of the same size separation rate effect as for adults with a larger negative effect on hiring. The key point for workers of all ages (and both genders), though, is that an increase in the minimum wage pushes the labour market to a lower turnover equilibrium with both longer jobs and longer unemployment spells.

Is this lower turnover equilibrium a good outcome? It depends, at least in part, on how workers value higher wage, more stable jobs versus longer spells of non-employment between jobs. That, in turn, would depend on the generosity and accessibility of the employment insurance and social assistance systems. But it can also depend on imperfections in the functioning of the economy. Thus, Acemoglu(2001) argues that an increase in the minimum wage can shift the economy in which there are too few "good" (high paying, high investment) jobs because workers are able to hold up high investment firms to one with fewer "bad" (low wage and investment) jobs by effectively pricing the latter firms out of the market. Further, if good jobs are ones with more stability in terms of job tenure, this could have a side-effect in the form of inducing more investment by firms. Findings on the relationship between minimum wages and training are sparse and varied. Acemoglu and Pischke(1999) argue that compressing the wage structure using minimum wages can result in firms being more likely to invest in general human capital for their workers. They then present empirical work for the US which indicates that the net effect of minimum wages on training is minimal. On the other side, Neumark and Wascher(2001) find large negative effects of minimum wage changes on training rates for teenagers. The only evidence on this for Canada of which I am aware is from a report by Michael Baker (Baker(2005)). His conclusion is that the Canadian data is not up to the task of effectively estimating this relationship.

5.4 Does the Wage Equal the Value of Marginal Product?

In the discussion of theories of justice in Section 4, the question of whether wages equal the value of marginal product of workers came up on several occasions. In broad intuitive terms, the justice of the wage distribution will relate, in part, to whether wages correspond to workers' contributions

to the social product. Describing it as social product, of course, raises issues related to factors such as externalities that put a wedge between the value of an added worker to a firm in a particular industry and the value to society of adding that worker in that industry. But my concern is more with how labour markets function: whether, for the most part, we can see a worker's wage as a reflection of her productivity for the firm.

This is an instance where the minimum wage is useful as a means of understanding how the labour market works. That is, having a wage that covers a non-trivial fraction of workers manipulated from outside the market is helpful in understanding how wages and employment are assigned. In that sense, the substantial spike in the wage distribution at the minimum wage is a clear challenge to a standard neoclassical model in which heterogeneous wages map directly onto heterogeneous productivities. In such a model, the wage distribution would simply be truncated at the minimum wage and all those with productivity below the minimum wage would be unemployed. Moreover, as Brown(1988) points out, if firms did pay workers with varying abilities the minimum wage (say, in the period just after a minimum wage increase), one would expect the spike to unravel as firms should be willing to pay the more able among the minimum wages earners slightly above the minimum wage in order to keep them from being poached by competitors. But the spike at the minimum wage is not only evident in plots of the wage distribution in any North American distribution in which the minimum wage is not trivially low compared to the remainder of the distribution - the spikes appear to be a persistent feature. In another interesting piece of evidence, Jales(2014) shows that there is substantial spike at the minimum wage in the wage distribution in the formal sector in Brazil but there is also an almost equally large spike in the wage distribution for the informal sector (which, by definition, is not directly affected by labour regulations.) Similarly, Dinkelman and Ranchod(2012) find that the introduction of a minimum wage in the informal domestic workers sector in South Africa led to an increase in wage paid toward the minimum wage even though there was no enforcement of the new law. They interpret this as potential evidence in favour of a role for fairness standards in wage setting, with the minimum wage acting as the fairness benchmark.

The evidence in Brochu and Green(2013) showing that layoff rates are lower in higher minimum wage regimes is also difficult to reconcile with a standard neoclassical model. In the second half of that paper, we argue that the turnover patterns fit, instead, with a search and bargaining model with firm and worker heterogeneity. That class of models is also able to explain a minimum wage spike as an equilibrium phenomenon since labour market frictions prevent it being unravelled in the manner just described. Essentially, in all matches where the minimum wage is above the wage that would have been bargained in the absence of a minimum wage but below the productivity of the match, the match will continue with the minimum wage replacing the bargained wage. This is the direct sense in which minimum wages can be seen as the government strengthening the bargaining of workers.

In a different context, Paul Beaudry, Ben Sand and I have a set of papers in which we argue that wage setting fits with search and bargain-

ing models but not with a standard neoclassical model of wage setting (Beaudry et al(2010, 2012). We show that if we compare wages in a particular industry (e.g., construction) across cities, those wages are higher in cities with an industrial composition that has a high weight on high paying industries (e.g., a city like Hamilton in the 1970s with well-paying steel industry jobs). The idea is that workers in that industry can bargain a better wage in a high wage city because their options outside the current match are better. Assuming that a different industrial composition does not alter productivity within a given industry such as construction, the fact that the city's industrial composition affects wages implies that wages are not being simply paid their marginal product. We show that the search and bargaining model has very strong over-identifying restrictions that cannot be rejected in US data. Jeanne Tschoop(2014) has taken this further with results broken down by industry and occupation and shown that the result holds even under conditions where one allows for productivity to be different by industry-city cell.

An even broader question is the extent to which notions of fairness affect wage setting. Some versions of efficiency wage models are based on the idea that perceptions of lack of fairness in wage setting can affect worker morale and, with it, productivity. A key pattern in the data that is often referenced in this regard is the asymmetry in wage changes: nominal wage increases are much more common than nominal wage cuts (Bewley(2005)). It is interesting, in this regard, to note that there are literally no examples of nominal minimum wages being cut in Canada going back at least to the 1960s (Green and Harrison(2006)).¹⁵ This, I believe, is a strong piece of evidence that minimum wage setting is related to perceptions of fairness.

In my opinion, the question of how wages are assigned is one of the core questions in labour economics, and one that has receive less attention in recent years than it did in previous generations of researchers. Given that we have better data and improved understanding of econometric tools, this is a place where it could be feasible to make progress on issues that are of direct interest for thinking about justice.

5.5 Does Respect for a Worker Follow Her Wage?

My argument for why justice and the study of labour markets are so intertwined rests partly on the claim that it is in the labour market that workers obtain the means of their self and social respect. The extent to which this is true seems to me to be an open question (and perhaps represents the weakest point in my argument). One might argue that it is a question that fits more in the purview of sociologists, but that has hardly seemed to be a sticking point in determining what economists have studied in the past.

As a final word in this section - I have purposefully ordered the questions from the ones about which we know the most to the ones about

¹⁵As an extreme example, the right wing Liberal government that took power in BC in 2001 inherited a staged increase in the minimum wage that was not yet complete. The new government did not even stop the increment due to take place after they entered office let alone roll back what was at that point the highest minimum wage in Canada.

which we know the least. I did this to highlight that, of course, empirical labour economists have already done considerable work that contributes to considerations of social justice (even if it isn't always described in those terms), but thinking in relation to social justice also has the potential to shift weight toward issues about which I think we know much less.

6 What Do We Seem to Use the Minimum Wage for (And does it have anything to do with Justice?)

In this section, I will briefly consider the positive question, what determines minimum wage levels in Canada? I actually see this as part of the overall goal of attempting to understand how minimum wages relate to notions of justice. Both Rawls and Sen argue that theories of justice are attempts to formalize common ideas about justice. Rawls argue that the theories can then serve to shape debates on justice, generating a feedback loop to public perceptions. In that sense, understanding the basis on which minimum wages are set can help in understanding their relationship to underlying notions of justice. The discussion that follows is based on work with Kathryn Harrison in a book chapter (Green and Harrison(2006)) and a subsequent paper (Green and Harrison(2013)).

Of course, the first possibility to consider is that minimum wages are not set based on justice at all. More standard political economy investigations of minimum wage setting are based on Becker's model of competing groups. Business groups - especially those related to the retail sector - are hypothesized to be the main opponents of minimum wages while unions are seen as the main supporters. Thus, a common empirical approach is to regress minimum wages on measures of the strength of the retail sector and of unions.

There are several reasons to question the relevance of this approach to understanding minimum wage setting. First, support for minimum wage increases in polling has tended to be substantial both in Canada and other developed countries in recent years.¹⁶ With levels of support consistently in excess of 70% it seems unlikely that political decisions on the minimum wage would just be determined by competing interest groups - especially when one considers that with only about 6% of workers directly affected by the minimum wage, those interest groups are not large. Moreover, attempts to estimate the effects of measures of business and labour group influence on the minimum wage show weak, mixed results (Blais et al(1989) and Dickson and Myatt(2002)). In our own estimates, measures of the strength of business opposition (the proportion of workers who are in the retail sector and the corporate tax rate) and the strength

¹⁶The numbers in support are, in fact, surprisingly similar across jurisdictions. An Ipsos-Reid poll found that 76% of British Columbians supported a minimum wage increase in 2000. A less scientific on-line poll by the *Windsor Star* in January 2014 found 74% in favour of a minimum wage increase in Ontario, and a Pew Research poll for the US found 73% in favour raising the US federal minimum wage to \$10.10.

of worker support (the proportion of workers who are unionized) have statistically insignificant and economically insubstantial effects in provincial panel data regressions with the minimum wage as the dependent variable when other variables such as the median unskilled wage and the inflation rate are included (Green and Harrison(2013)).

The second main hypothesis is that the minimum wage is being set as an anti-poverty device, with movements reflecting concepts of what constitutes poverty. This is actually a rationale that is often given by politicians in the US in support of minimum wage increases (Sobel(1999)). But there are reasons to believe that this is more rhetoric than reality. If the minimum wage were truly about redistribution to the poor then one would expect it to be set at a level commensurate with a poverty line and then indexed to the price of consumption goods. Instead, the real minimum wage has varied widely over time. Ontario's real minimum wage (in 2005 dollars) rose from \$6.24 in 1970 to \$8.66 in 1978, fell to \$6.83 in 1990 and then rose again to \$7.81 in 2007 and to \$9.15 in 2012. At the moment only two provinces (Ontario and Nova Scotia) index their minimum wage to the CPI and even those policies have only been instituted very recently. In our panel estimates with nominal minimum wage changes as the dependent variable and various driving force variables on the right hand side, this shows up in the fact that the inflation rate does not enter significantly.¹⁷ In addition, if the minimum wage were primarily about redistribution then one would expect it to move both up and down as different sides in the redistribution debate exchanged influence. Benefit rates for social assistance, for example, have moved both up and down in the last twenty years. But, as already discussed, even right wing governments do not cut nominal minimum wages.

We argue that the determinants of movements in the nominal minimum wage fit with a claim that minimum wages are set based on notions of fairness. That is, that one can see the minimum wage as an attempt to ban wages that are unfairly low. This potentially fits with the behavioural economics literature on fairness. Charness and Rabin(2002), for example, present experimental results which support the existence of "charity" social preferences in which individuals place positive weight on outcomes for those worse off than themselves. But their results (and those in other papers referenced in Fehr and Schmitt(2006)) also indicate support for what Fehr and Schmitt call "strong reciprocity" based social preferences. Of particular interest for us are results in Fehr and Fischbacher(2004) indicating that experiment participants are willing to pay a price to punish people who are perceived to have acted unfairly even when the respondent is a third party who is not directly involved in the transaction in question.¹⁸ From this result, it is only a small step to the hypothesis that societies may express such preferences in policies designed to punish or ban behaviour deemed to be unfair or greedy. The implication being that

¹⁷One might be concerned that this is merely a reflection of collinearity with other included variables such as the median nominal unskilled wage but the coefficient on the latter variable is well defined and the point estimate of the inflation effect is small.

¹⁸In this sense, the "reciprocity" label might be misplaced. These might more accurately be described as preferences for justice, and not all notions of justice are built on reciprocity (Nussbaum(2006)).

policies may be expressions of societal notions of justice as well as (or, perhaps, instead of) reflections of self-interest or charity.

In an attempt to test whether fairness in this sense plays a role in minimum wage setting, we next look for the standard against which wage fairness is measured. We argue for two measures. First, we turn to Kahneman et al(1986)'s arguments that individuals judge the fairness of a price or wage using the price in a "reference transaction," and that they use market prices and wages as these references. The idea is that markets naturally balance the demands of competing interests (workers and firms in this case). Based on this, we propose that the "going" wage for unskilled workers could act as a reference for what are unfairly low wages, and use the median wage for adult workers who are high school graduates or high school drop-outs.¹⁹ In Figure 1, we plot the real median unskilled wage and real minimum wage for Alberta from 1997 (the first year in which wages are available in the Labour Force Survey) through 2012, with both series normalized to 1 in 1997. The two wages move strongly together, with the right wing Alberta governments adjusting the minimum wage in a way that matches the rapid rise in the median unskilled wage after 2004. Figure 2 contains the same plots for Ontario. Here, the relationship is dominated more by the political cycles, with the real wage declining in the Conservative government years in the late 1990s and early 2000s followed by increases once the Liberals took power, but the cycle moves around the flat unskilled wage trend. In addition, in our panel estimates, the median unskilled wage enters as a strongly significant and positive determinant of the minimum wage. Moreover, in a Granger causality exercise we find that the minimum wage does not Granger cause the median unskilled wage but the median unskilled wage does Granger cause the minimum wage. That is, median unskilled wage changes tend to pre-date changes in the minimum wage.

The other fairness benchmark we propose is the minimum wage in other provinces. That is, in trying to determine whether a given minimum wage is fair, citizens of one province may look to what has been determined in other provinces for guidance. This also turns out to be a significant determinant and we argue that provincial minimum wages move in a way that implies a "race to the middle". We argue that the combination of the significance of both minimum wages in other provinces and the median unskilled wage as determinants of nominal minimum wages with the lack of significance of the CPI points to minimum wages being set based on an idea of fairness that relates to relative wages. But, of course, the distinction between this and setting minimum wages to combat poverty may not be large if we consider relative poverty measures that focus on what people can purchase relative to others in society. Further, we find that the political position of the party in power matters for minimum wage setting, and which type of party gets elected will be related to the power of interest groups such as small business and unions even if they don't directly determine the minimum wage itself. Thus, we would not

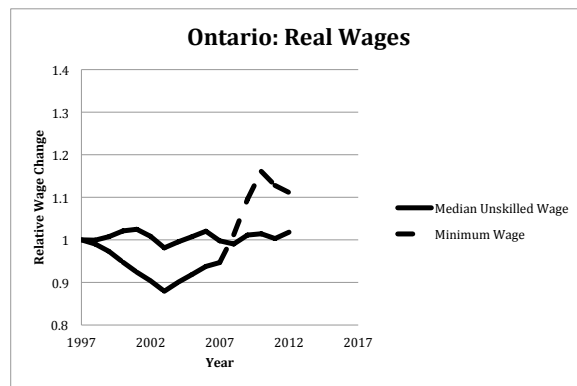
¹⁹We use the median wage because the mean wage would be affected by movements in the minimum wage while, given results that suggest minimum wages have only limited spillover effects on above minimum wages, it would not affect the median wage.

Figure 1: Alberta, Real Unskilled Wage and Minimum Wage



Author's calculations using the Labour Force Survey for 1997 through 2012. In each year, observations for March and November are pooled (because respondents are in the survey for 6 months, I use observations from months that are over 6 months apart to avoid double-counting some individuals). The wage is the median hourly wage for workers whose highest level of education is high school graduation or high school drop-out. The minimum wages correspond to the adult minimum wage in effect on March 15 of each year. Minimum wages are from the Government of Canada Labour Program website. Both series are deflated using the Core Consumer Price Index (Bank of Canada definition) from Cansim table 3260021.

Figure 2: Ontario, Real Unskilled Wage and Minimum Wage



Author's calculations using the Labour Force Survey for 1997 through 2012. In each year, observations for March and November are pooled (because respondents are in the survey for 6 months, I use observations from months that are over 6 months apart to avoid double-counting some individuals). The wage is the median hourly wage for workers whose highest level of education is high school graduation or high school drop-out. The minimum wages correspond to the adult minimum wage in effect on March 15 of each year. Minimum wages are from the Government of Canada Labour Program website. Both series are deflated using the Core Consumer Price Index (Bank of Canada definition) from Cansim table 3260021.

argue that minimum wages are set based only on relative wage fairness but, rather, that it seems to be a predominant determinant.

It is worth noting that "fairness" often enters the justifications of provincial governments for minimum wage changes. In the government press release accompanying the most recent minimum wage change in Ontario, the minimum wage increase is described as part of the government's "commitment to fairness" (Ontario(2014)). Similarly, the BC government described the 2011 minimum wage increase in that province as "a fair and reasonable step forward in putting families first and building our economy"(British Columbia(2011)). Note that these are governments from the opposite sides of the political spectrum.

If, as we argue, minimum wages are being set based on notions of eliminating unfairly low wages, this has several interesting implications. First, it suggests that voters and the governments reacting to them do not view wages as simple reflections of the value of marginal product. If they did then it would be hard to describe low wages as unfair. There is clearly a belief that there is room for businesses to set wages in ways that capture more or less of some surplus and that the government needs to step in to ensure that businesses don't take advantage of low skilled workers. As discussed in the last section, whether this belief is an accurate reflection of wage setting in the economy is an interesting point of entry for empirical labour economists into justice debates.

At first glance, the idea that minimum wages are set based on standards of fairness might seem to indicate that public policy setting has elements that express more "positive" social values than are evident in political economy models based on pure self-interest. But if the benchmark for fairness is the going wage then in periods of declining real wages (such as in the 1980s and early 1990s in Canada), the minimum wage will be allowed to decline in real terms as well. Thus, policy setting based on fairness standard may ultimately exacerbate movements in inequality.

7 Conclusion

In this paper, I have investigated the implications for empirical work in economics of comparing economic institutions to the principles from theories of justice (what I have called a Rawlsian Political Economy exercise). My main argument is that in the real world, where it is not possible to neatly separate efficiency from equity considerations, much of what economists study has direct implications for deliberations on justice in a society. In that case, pursuing a Rawlsian Political Economy exercise has the potential to expand the set of questions that economists ask and altering the focus in their research agenda. At the same time, since policy deliberations are inherently multi-disciplinary, it could imply that economists act less like hired guns who come in to evaluate the efficiency aspects of policies and interact more fully with other parts of the policy deliberation process.

At the heart of this exercise is a claim that principles underlying the main modern theories of justice place considerable weight on both self and social respect and that a person's place in the production structure is a key

determinant of that respect. That, in turn, means that understanding how wages and employment are assigned in an economy are key to deliberations about the justice of institutions and policies within it. One could carry out such deliberations within the rarified world of thought experiments concerning the optimal set of institutions. But if the deliberations are framed in terms of questions of how to design or adjust institutions in the real world so as to move a society toward greater social justice then the issues of how wages and employment are assigned become empirical matters. In that sense, the work that empirical economists do has the potential to be integral in deliberations about the justness of a society.

I have worked, throughout, using minimum wages as a specific example. The obvious question is whether the discussion in this paper implies any changes in either our outlook on minimum wages as a policy tool or decisions on emphasis in the research agenda in empirical economics and, especially, empirical labour economics. In terms of the research agenda, the existing large body of work on the employment effects of minimum wages is valuable in justice based deliberations since the question of whether sufficient resources are obtained by the least well off is central to several theories of justice. However, I have also argued that other channels through which minimum wages can affect efficiency - in particular, through affecting education and training decisions of workers and firms - deserve more attention. Further, the interesting question of whether minimum wages serve to shift the labour market equilibrium toward better jobs is one where there is scope for more work.

More broadly, the question of how wages are assigned arose repeatedly in the discussion. This seems natural since the justness of intervening in the wage setting of the market will depend on whether wages reflect a worker's productivity or, at the other extreme, reflect relative power in dividing up rents. There is certainly work on the question of how wages are assigned in empirical labour economics (the literatures on efficiency wages and implicit contracts come to mind) but it seems to me that this central question has received less emphasis than in earlier generations of the labour economics literature. Shifting our focus more toward taking part in discussions on justice, I believe, implies a need to pay more attention to this most central of questions in labour economics.

Even less studied in the current or even previous generations is the link between wages and social respect. While there is some experimental work in this area, it has some potential to contribute to our understanding of the relationship between the labour market and deliberations on justice.

In terms of the question of how the minimum wage, in particular, is set, I think the discussion has raised a few new points. One is that theories of justice often have high informational requirements for assessing the justness of an institution. To the extent that is true, minimum wages may circumvent associated problems. There is no need to know a person's effort or ability or personal circumstances that may affect their capabilities when implementing a minimum wage. A corollary to that statement, though, may be that it only holds as long as the minimum wage is sufficiently low. Once it becomes high relative to the overall wage distribution then issues of whether a minimum wage employee really deserves that wage will arise and, with it, all the complications of what we mean by "deserves". This

may be part of the reason minimum wages tend to be set low relative to, for example, poverty line standards - because that is a level at which governments can get very wide agreement.

The other main argument I have made is that minimum wages are ultimately about notions of fairness in wage setting. That is, they are attempts to ban what are viewed as unfairly low wages. This is different from setting them to insure that workers do not fall into poverty and, I have argued, relates to questions about paying even low skilled workers appropriate respect relative to other workers. To the extent this is true, it suggests that voters and governments view wages as set not simply as a reflection of a worker's productivity (since there is no reason to see a very low wage as unfair if the person really contributes that little to production). Instead, it suggests a view that wages are at least partly set according to social constraints or bargaining and that it is therefore legitimate for the government to intervene on behalf of workers. But setting wages according to standards of fairness is not an unmitigated good outcome for workers. If unskilled wages, in general, fall then what is viewed as a fair wage for the lowest skilled workers will fall with them, and real minimum wages will be allowed to decline. This is what appeared to happen in Canada in the 1980s when even NDP governments were allowing real minimum wages to fall, and it meant that minimum wages did not act to reduce the increase in wage inequality. Thus, this is an explicit example of how examining the way a policy relates to theories of justice can alter the way we think about that policy. In this case, considering the minimum wage in relation to theories of justice - as a policy that is determined by notions of fairness - implies a new perspective on how minimum wage setting interacts with movements in inequality.

8 References

Acemoglu, Daron(2001). "Good Jobs versus Bad Jobs," Journal of Labor Economics, Vol. 19, no. 1, pp. 1 - 21.

Acemoglu, Daron and Jorn-Steffen Pischke (1999). "Minimum Wages and On-the-Job Training" National Bureau of Economic Research, Working Paper 7184.

Anderson, Elizabeth S.. "What is the Point of Equality?" Ethics, Vol. 109, No. 2, pp. 287-337.

Baker, Michael(2005). "Minimum Wages and Human Capital Investments of Young Workers: Work Related Training and School Enrolment," Human Resources and Skills Development Canada, Working Paper 2005 B-04.

Baker, Michael, Dwayne Benjamin and S. Stanger (1999). "The Highs and Lows of the Minimum Wage Effect: A Time-series Cross-section Study of Canadian Law," Journal of Labor Economics, vol 17, No. 2, pp. 318-50.

BC(2011). "Premier Announces Increase to Minimum Wage" Office of the Premier of British Columbia News Release, March 16, 2011.

Beaudry, Paul, David A. Green, and Benjamin M. Sand (2012). Does Industrial Composition Matter? An empirical evaluation based on Search

- and Bargaining theory, Econometrica, vol. 80, no. 3, pp. 1063-1104
- Beaudry, Paul, David A. Green, and Benjamin M. Sand (2010). How Much is Employment Increased by Cutting Labor Costs? Estimating the Elasticity of Job Creation." NBER Working Paper no. 15790.
- Bertrand, M., E. Duflo and S. Mullainathan (2004). "How Much Should We Trust Differences-in-Differences Estimates?" Quarterly Journal of Economics, Vol. 119, No. 1, pp. 249-75.
- Bewley, Truman(2005). "Fairness, Reciprocity and Wage Rigidity," in Moral Sentiments and Material Interests, Herbert Gintis, Samuel Bowles, Robert Boyd, and Ernst Fehr, eds.. Cambridge: The MIT Press, pp. 303-338.
- Blackorby, Charles (1990). "Economic Policy in a Second Best Environment," Canadian Journal of Economics, Vol. 23, No. 4, pp. 748-71.
- Blais, A., J-M Cousineau and K. McRoberts(1989). The Determinants of Minimum Wage Rates, Public Choice, vol. 62. Pp. 15-24.
- Boadway, Robin and Katherine Cuff(2001). "A Minimum Wage Can be Welfare-Improving and Employment-Enhancing," European Economic Review, vol. 45, pp. 553-576.
- Brochu, Pierre and David A. Green(2013). The Impact of Minimum Wages on Labour Market Transitions," The Economic Journal, vol. 123, pp. 1203-35.
- Brown, Charles (1988). "Minimum Wage Laws: Are They Over-rated?" Journal of Economic Perspectives, Vol. 2, No. 3, pp. 133-145.
- Campolieti, Michele, Tony Fang and Morley Gunderson(2005). "Minimum Wage Impacts on Youth Employment Transitions, 1993-99," Canadian Journal of Economics, Vol. 44, no. 4, pp. 1331-49.
- Campolieti, Michele, Morley K. Gunderson, and Chris Riddell(2006). "Minimum Wage Impacts from a Pre-Specified Research Design: Canada 1981-97", Industrial Relations Vol. 45, No. 2, pp. 195-216.
- Campolieti, Michele, Morley Gunderson and Byron Lee(2012). "The (Non) Impact of Minimum Wages on Poverty: Regression and Simulation Evidence for Canada," Journal of Labor Research, Vol. 33, pp. 287-302.
- Card, David and Alan B. Krueger (1995). Myth and Measurement: The New Economics of the Minimum Wage. Princeton: Princeton University Press.
- Charness, G. and M. Rabin (2002). Understanding Social Preferences with Simple Tests, Quarterly Journal of Economics, vol. 117, No. 3, pp. 817-69.
- Corak, Miles (2013). "Income Inequality, Equality of Opportunity, and Intergenerational Mobility." Journal of Economic Perspectives, vol. 27, No. 3, pp. 79-102.
- Dickson, V. and T. Myatt (2002). The Determinants of Provincial Minimum Wages in Canada, Journal of Labor Research, Vol. 23, no. 1, pp. 57-67.
- DiNardo, John, Nicole M. Fortin, and Thomas Lemieux(1996). "Labor Market Institutions and the Distribution of Wages, 1973-1992: A Semi-parametric Approach," Econometrica, Vol. 64, No. 5, pp. 1001-1044.
- Dinkelman, Taryn, and Vimal Ranchod(2012). "Evidence on the impact of minimum wage laws in an informal sector: Domestic workers in South Africa," Journal of Development Economics, vol. 99, pp. 27-45.

- Dube, Arindrajit, Lester T. Williams, and Michael Reich(2010a). "Minimum Wage Shocks, Employment Flows and Labor Market Frictions," Institute for Research on Labor and Employment, Working Paper Series.
- Dube, Arindrajit, Lester T. Williams, and Michael Reich(2010b). "Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties," The Review of Economics and Statistics, vol. 92, no. 4, pp. 945-964.
- Dworkin, Ronald(1981a). "What is Equality? Part 1: Equality of Welfare," Philosophy & Public Affairs, vol. 10, pp. 185-246.
- Dworkin, Ronald(1981b). "What is Equality? Part 2: Equality of Resources," Philosophy & Public Affairs, vol. 10, pp. 283-345.
- Emery, J.C. Herbert (2010). "'UnAmerican' or Unnecessary? America's Rejection of Compulsory Government Health Insurance in the Progressive Era," Explorations in Economic History, Vol. 27, pp. 68-81.
- Falk, Armin, Ernst Fehr, and Christian Zehnder (2006). "Fairness Perceptions and Minimum Wages: The Behavioral Effects of Minimum Wage Laws," The Quarterly Journal of Economics, Vol. 121, No. 4, pp. 1347-81.
- Fehr, E. and U. Fischbacher (2004). Third Party Punishment and Social Norms, Evolution and Human Behavior, Vol. 25, pp. 63-87.
- Fehr, E. And K.M. Schmidt (2006). The Economics of Fairness, Reciprocity and Altruism - Experimental Evidence and New Theories, in Handbook of Giving Altruism and Reciprocity, Vol. I, S-C Kolm and J.M. Ythier, eds.. Chapter 8.
- Fortin, Nicole M. and Thomas Lemieux(2014). "Changes in Wage Inequality in Canada: An Interprovincial Perspective." Vancouver School of Economics, UBC.
- Goldberg, Michael and David A. Green(1999). "Raising the Floor: The Social and Economic Benefits of Minimum Wages in Canada," Canadian Centre for Policy Alternatives.
- Green, David A. and Kathryn Harrison (2006). Races to the Bottom Versus Races to the Middle: Minimum Wage Setting in Canada, in Racing to the Bottom? Provincial Interdependence in the Canadian Federation, Kathryn Harrison, ed.. Vancouver: University of British Columbia Press, pp. 193-228.
- Green, David A. and Kathryn Harrison (2013). "Minimum Wage Setting and Standards of Fairness," Vancouver School of Economics at UBC.
- Guest, Dennis (1997). The Emergence of Social Security in Canada. Vancouver: UBC Press.
- Jales, Hugo (2014). "Estimating the Effects of Minimum Wages in a Developing Country: A Density Discontinuity Design Approach," Vancouver School of Economics, UBC.
- Kahneman, D., J.L. Knetsch, and R. Thaler(1986). Fairness as a Constraint on Profit Seeking: Entitlements in the Market, The American Economic Review, Vol. 76(4), pp. 728-41.
- Lee, David S. (1999). "Wage Inequality in the United States During the 1980s: Rising Dispersion or Falling Minimum Wage?" Quarterly Journal of Economics, Vol. 114, no. 3, pp. 922-1023.
- MaCurdy, Thomas and Frank McIntyre(2001). "Winners and Losers of Federal and State Minimum Wages," Employment Policies Institute Paper,

June.

Mascella, Allison, Shahzia Teja, and Brennan S. Thompson(2009). "Minimum Wages as an Anti-Poverty Policy in Ontario," Canadian Public Policy, Vol. 35, No. 3, pp. 373-9.

McCallum, Margaret E. (1986). "Keeping Women in Their Place: The Minimum Wage in Canada, 1910-25," Labour/Le Travail, Vol. 17, pp. 29-56.

Neumark, David and William Wascher(2001). "Minimum Wages and Training Revisited," Journal of Labor Economics, Vol. 19, pp. 563-595.

Neumark, David and William Wascher(2011). "Does a Higher Minimum Wage Enhance the Effectiveness of the Earned Income Tax Credit?" Industrial and Labor Relations Review, Vol. 64, No. 4, pp. 712-746.

Nozick, Robert(1973). "Distributive Justice". Philosophy and Public Affairs, Vol. 3, no.1, pp. 45-126.

Nozick, Robert(1974). Anarchy, State, and Utopia. New York: Basic Books.

Nussbaum, M.C. (2006). Frontiers of Justice: Disability, Nationality, Species Membership. Cambridge: Belknap Press.

Nussbaum, Martha (2011). Creating Capabilities, Cambridge: The Belknap Press of Harvard University Press.

Ontario (2014). "Ontario Increasing Minimum Wage: New Legislation Would Tie Minimum Wage to Consumer Price Index," Press Release, Office of the Premier, January 30, 2014, 10:15 am.

Rawls, John(1982). "Social Unity and Primary Goods," in Utilitarianism and Beyond, A. Sen and B. Williams, eds.. Cambridge: Cambridge University Press.

Rawls, John (1993). Political Liberalism. New York: Columbia University Press.

Rawls, John (1999). A Theory of Justice. Cambridge: Harvard University Press.

Roemer, John E.(1996). Theories of Distributive Justice, Cambridge: Harvard University Press.

Sen, Amartya (1999). Development as Freedom. New York: Anchor Books.

Sen, Amartya (2009). The Idea of Justice, Cambridge: The Belknap Press of the Harvard University Press.

Sen, Anindya, Kathleen Rybczynski, and Corey Van De Waal (2011). "Teen Employment, Poverty, and the Minimum Wage: Evidence from Canada," Labour Economics, Vol. 19, pp. 36-47.

Shannon, Michael T. and Charles M. Beach(1995). "Distributional Employment Effects of Ontario Minimum Wage Proposals: A Microdata Approach," Canadian Public Policy, Vol. 21, No. 3, pp. 284-303.

Smith, Adam(1790). The Theory of Moral Sentiments. Cambridge: Cambridge University Press (reprint, 2002).

Sobel, R.S. (1999). Theory and Evidence on the Political Economy of the Minimum Wage, Journal of Political Economy, Vol 107, No. 4, pp. 761-785.

Thies, Clifford F.(1991). "The First Minimum Wage Laws," Cato Journal, Vol. 10, No. 3.

Tschopp, Jeanne (2014). "Wage Formation. Toward Isolating Search and Bargaining Effects from the Marginal Product." Vancouver School of

Economics at UBC.

Varian, Hal. R. (1974). "Distributive Justice, Welfare Economics, and the Theory of Fairness," *Philosophy & Public Affairs*, Vol 4, pp. 223-47.

Wolff, Jonathan(1998). "Fairness, Respect, and the Egalitarian Ethos," *Philosophy & Public Affairs*, vol. 27, no. 2, pp. 97-122.

Yeo, Michael, J.C. Herbert Emery, and Daniel Kary(2009). "The Private Insurance Debate in Canadian Health Policy: Making the Values Explicit," *University of Calgary School of Public Policy Research Papers*, Vol. 2, No. 3.