Working paper series

**What's the right minimum wage?
Reframing the debate from 'no job loss'
to a 'minimum living wage'**

David R. Howell
Kea Fiedler
Stephanie Luce

June 2016
Revised: July 2016

http://equitablegrowth.org/working-papers/whats-right-minimum-wage-reframing-debate-no-job-loss-minimum-living-wage/

June 7, 2016

What's the Right Minimum Wage?
Reframing the Debate from 'No Job Loss' to a 'Minimum Living Wage'[1]

David R. Howell, Kea Fiedler and Stephanie Luce[2]

No society can surely be flourishing and happy, of which the far greater part of the members are poor and miserable. It is but equity, besides, that those who feed, cloath and lodge the whole body of people, should have such a share of the produce of their own labour as to be themselves tolerably well fed, cloathed and lodged…. The wages of labour are the encouragement of industry, which like every other human quality, improves in proportion to the encouragement it receives.

Adam Smith, 1776[3]

It is a national evil that any class of Her Majesty's subjects should receive less than a living wage in return for their utmost exertions… where you have what we call sweated trades, you have no organisation, no parity of bargaining, the good employer is undercut by the bad… where these conditions prevail you have not a condition of progress, but a condition of progressive degeneration.

Winston Churchill, 1906[4]

"It seems to me to be equally plain that no business which depends for existence on paying less than living wages to its workers has any right to continue in this country…. By living wages, I mean more than a bare subsistence level — I mean the wages of a decent living."

Franklin D. Roosevelt, 1933[5]

[2] David Howell is Professor of Economics and Public Policy at The New School. Kea Fiedler is a doctoral candidate in the Public and Urban Policy Program at The New School. Stephanie Luce is Professor of Labor Studies at the Murphy Institute, City University of New York.

[3] Adam Smith (1937), pp. 68, 79, 81.

[4] Quoted by Anthony B. Atkinson (2015), p. 148.

[5] Statement on the National Recovery Act. http://docs.fdrlibrary.marist.edu/odnirast.html

Abstract

The American debate over the proper level of the statutory minimum wage has always reflected the tension between the twin goals of ensuring decent living-wage jobs with maximum job opportunity. The moral and efficiency arguments for a wage floor that can keep a worker above mere subsistence have a long history, dating back at least to Adam Smith. The U.S. federal minimum wage was established by the 1938 Fair Labor Standards Act to ensure a "minimum standard of living necessary for health, efficiency, and general well being of workers" and to do so "without substantially curtailing employment." In recent years, the best evidence has shown that moderate increases from very low wage floors have no discernible effects on employment, which has strengthened the case for substantial increases in the minimum wage.

But the very strength of this new evidence—research designs that effectively identify employment effects at the level of individual establishments—has contributed to the adoption of a narrow No-Job-Loss (NJL) criterion: that the "right" wage floor is the one that *previous research has demonstrated will pose little or no risk of future job loss, anywhere.* The economist's Pareto Criterion—a good policy is one that does no immediate harm to anyone—has replaced the earlier much broader concern with aggregate employment effects, and more generally, with overall net benefits to working families. The explicit moral and efficiency framing of the case for a living wage by earlier generations of economists, advocates, and policy makers has taken a back seat to statistical jousting over which wage floor will pose no risk of job loss (or harm) to anyone.

We think the debate over the proper level of the statutory minimum wage should be reframed from a NJL to a Minimum Living Wage (MLW) standard: *the lowest wage a full-time worker needs for a minimally decent standard of living*. This paper illustrates and critiques the recent NJL framing, as well as the usefulness of one metric that has been heavily relied upon for identifying the NJL threshold—the ratio of the wage floor to the average wage (the Kaitz index). We argue that the proper framing of the debate is not over the statistical risk of the loss of some poverty-wage, high-turnover jobs, but rather over the wage floor that establishes a minimally decent standard of living from full-time work for all workers, along with complementary policies that would ensure that any costs of job loss would be more than fully remedied.

My own view is that explicit goals are important, and that changing
the discourse is a step on the road to achieving the ambition.
Anthony B. Atkinson, 2015[6]

1. Introduction

The debate over low pay and its lower boundary has long rested on moral and economic efficiency arguments. At the root of the debate is the historical experience that unregulated labor markets invariably fail to generate wages sufficient to maintain a productive workforce, to ensure the reproduction of that workforce (adequate child rearing), and to provide a minimally decent quality of life according to prevailing standards. Individually bargained wages for less-skilled workers are set, as Adam Smith put it, by the "demand for labour, and the price of the necessaries and conveniences of life" (Smith 1937, p. 85). But the normal condition in low-skill labor markets is a surplus pool of workers (today as in 1776) which, in the absence of regulation, drives the wage down below efficient and morally acceptable levels. In light of this "hunger-discipline," even the American neoclassical economist J. B. Clark called for minimum wage legislation as early as 1913 (Clark 1913). Labor market failure also explains the opening words of the 1938 Fair Labor Standards Act (FLSA 1938), which calls for pay that ensures a "minimum standard of living necessary for health, efficiency, and general well being of workers"(FLSA 1938, article 202).[7.] And finally, it helps explain the rise of the living wage movement in the post-1980 United States and United Kingdom, along with the current "Fight for $15."

After experiencing substantial wage gains during the shared-growth decades of the post-war Golden Age (1947-73), American workers have increasingly confronted labor markets characterized by precarious jobs that pay too little to provide a full-time worker with a minimally decent standard of living. It is well-established that America's productivity growth since the late 1970s has been almost entirely unshared with the vast majority of workers. In 2014, the average hourly wages at the 10th, 20th and 30th percentiles were just $8.62, $10.08 and $12.09 respectively, which is nearly exactly what they earned in inflation-adjusted terms almost four decades ago in 1979. Even the median wage (the 50th percentile) increased by just

---

[6] Atkinson (2015), p. 140.

[7] The FLSA then goes on to state that the standards should be implemented ""without substantially curtailing employment or earning power." (Article 202(b)). Most of the NJL position argues for no jobs lost anywhere, for anyone, whereas the FLSA text can be interpreted to refer to net employment effects.

85 cents between 1979 and 1999 ($16.02 to $16.87), and just 3 cents more since 1999, reaching $16.90 in 2014 (EPI 2015).[8]

One of the most effective tools for ensuring that employers pay a wage sufficient to keep all their full-time workers above poverty-level incomes is the statutory minimum wage. An appropriately designed legal wage floor not only can lift households with a full-time worker out of poverty but also increase the incentive to work, reduces wage and income inequality, and lessen the need for means-tested social assistance for working poor families. But this has not been the path of the U.S. federal minimum wage, which has collapsed in value from $9.54 in 1968 to $8.00 in 1979 to a mere $7.25 today (Cooper et al. 2015, Table 1).

In response to Congressional inaction, many states and localities have legislated increases in the statutory minimum wage. California and New York passed large increases in their statewide minimum wage rates in early 2016. California's wage will be raised in increments from the current $10 per hour until it reaches $15 by 2022.[9] The New York rate will reach $15 by the end of 2018 for employers in New York City with 11 or more employees (Wofford and Tobia 2016).[10] Even "red" (strongly Republican) states have recently passed large minimum wage increases.[11] Eight cities, including Seattle, San Francisco, and Los Angeles, are scheduled to raise the municipal minimum wage to around $15 over the next several years.[12] Furthermore, in a recent poll, two-thirds of the mayors surveyed said they would endorse a $15 minimum wage (ibid.).

The only real controversy in today's minimum wage debate, even among economists, is over how big the increase should be. This paper argues that there is a need to reframe the debate over the appropriate target for the federal statutory minimum wage. A review of the historical debate suggests two contending perspectives. Asking "How much is too much?", one side supports a higher wage

[8] EPI (2015) shows similar stagnation.
[9] Small companies (25 or fewer employees) will have until 2023 to reach the $15 threshold.
[10] An additional 25 cities and counties have set or raised their municipal minimum wage since 2002, but not all of them have set a $15-per-hour wage. For example, Chicago set a minimum wage that will reach $13 per hour by 2019. http://laborcenter.berkeley.edu/minimum-wage-living-wage-resources/inventory-of-us-city-and-county-minimum-wage-ordinances/
[11] As David Card and Alan Krueger (2015, p. xiii) note, "Furthermore, the fact that citizens in four "red" states—Alaska, Arkansas, Nebraska and South Dakota—voted overwhelmingly in 2014 to raise their states' minimum wages to as high as $9.75 an hour is testament to the widespread bipartisan appeal of the minimum wage among voters."
[12] An additional 25 cities and counties have set or raised their municipal minimum wage since 2002, but not all have set a $15-per-hour wage. For example, Chicago set a minimum wage that will reach $13 per hour by 2019. http://laborcenter.berkeley.edu/minimum-wage-living-wage-resources/inventory-of-us-city-and-county-minimum-wage-ordinances/

floor as long as the 'cause no harm' constraint is met. In this view, the proper wage is set by the No Job Loss (NJL) criterion: the _highest wage that widely accepted research has already demonstrated will pose little or no job loss._ On the other side, the question is "How little is too little?" The wage floor is not set on the negative grounds of avoiding risk of the unintended consequences of job loss, but rather on the positive grounds of ensuring that full-time work can support a minimally acceptable standard of living. In this view, the proper standard is the Minimum Living Wage (MLW): _the lowest wage a full-time worker needs to provide a minimally decent standard of living_. This divide can be vividly seen in the current presidential election, with Hillary Clinton unwilling to support a federal wage floor above $12 on a quite explicit "No-Job-Loss" standard, while Bernie Sanders has advocated a $15 wage on standard-of-living grounds.

In addition to this description of the fundamental tension in the debate, this paper argues that because recent state-of-the-art empirical evidence has convinced most economists that substantial hikes in the wage floor are possible without discernible employment effects, the terms of the debate have converged, with living-wage advocates often making their case on NJL grounds: a much higher wage floor can be achieved without any job loss and the technical debate is now over where the NJL threshold is. Indeed, given the growing acceptance among economists that there are many channels through which wage increases can be accommodated beyond the employment cuts required by the simple, downward-sloping-demand model of economics 101, advocates have made the case for substantial hikes in the wage floor on the conventional Pareto criterion of no harm to anyone, on the grounds that the higher wage costs that follow from the adoption of a much higher minimum wage can be entirely accommodated by higher productivity, lower turnover costs, and higher sales from increased consumer spending.

This paper offers a critical perspective on this convergence in the minimum wage discourse to an NJL framing. The next section provides a historical account of the changes in the relative value of the U.S. federal minimum wage, with comparisons to the poverty line, a basic needs-based budget, the median wage, and national productivity growth. In Section 3, we illustrate the importance of the NJL criterion in the debate, and critique it. Our critique distinguishes between two NJL approaches: the _backward-looking_ NJL approach, in which we are constrained to navigate in the "charted waters" of statistical evidence of employment effects from wage floors set in other locations at some earlier point in time; and the _forward-looking_ (or "in near-real-time") NJL approach, in which increases in the minimum wage are implemented in the relevant location and immediately monitored for employment effects, which

is broadly speaking the taken by the United Kingdom in the first years of their National Minimum Wage (1999-2005).

In Section 4, we contend that the heavily relied upon "Kaitz index"—the ratio of the minimum wage to an average or median wage—is a poor guide for identifying the NJL wage threshold. While a good measure of the relative value of the minimum wage, there is no theoretical or empirical reason to believe a particular Kaitz ratio can be a reliable indicator of job loss. Neither the factors that steer employer decisions on the hiring and retention of workers at very low wages nor the labor supply decisions of minimum wage workers have much to do with the median wage of a particular geographically defined labor market (the nation, state or metropolitan area). Other countries, such as Australia, the United Kingdom, and France, could push up the wage floor because they were unconstrained by a backward-looking NJL rule, whether fixed to a particular wage (e.g., $10.10) or by a particular percentage of the median wage (e.g., 50 percent). Evidence for France is presented that suggests convergence with the United States over the past two decades in employment performance for low-skill workers, despite a very high and rising French minimum wage and an extremely low and falling U.S. federal minimum wage.

In Section 5, we suggest that the U.S. federal wage floor should be set by reference to a standard of living rule—the lowest wage that a full-time worker needs for a minimally decent living standard, based on basic-needs budgets. Beyond this, we make no specific proposal, which would be far beyond the scope of this paper. But we do suggest that one possible model would be to set the federal MLW for a single individual in a low-modest cost-of-living region and complement it with universal per-child allowances. A quasi-governmental body, like the Low Pay Commission in the United Kingdom, could be charged with statistical analysis, setting the MLW, monitoring employment effects, and recommending compensatory responses for any job losses that occur. More generally, a good rule on matters of social policy is to return to the task outlined by Franklin D. Roosevelt.

> Our problem is to work out in practice those labor standards which will permit the maximum but prudent employment of our human resources to bring within the reach of the average man and woman a maximum of goods and of services conducive to the fulfillment of the promise of American life (President Roosevelt, 1937).

2. The Historical Context: From Lofty Goals to a Poverty Wage

While the question of the proper levels of support for the poor spans many centuries,[13] the modern debate over setting a legal wage floor appears in both the United Kingdom and the United States in the late 19th and early 20th century, justified on moral and efficiency grounds in the face of appalling labor exploitation (Webb, 1912; Clark, 1913; Douglas, 1925). The same moral conviction motivated the enactment of the Fair Labor Standards Act (FSLA) of 1938, which established the U.S. federal minimum wage. Advocating for passage of the FLSA, President Roosevelt (1937) stressed the importance of fairness in the labor market: "Our nation so richly endowed with natural resources and with a capable and industrial population, should be able to devise ways and means of insuring to all our able-boded working men and women a fair day's pay for a fair day's work." Roosevelt's "fair day's pay" was defined as the lowest wage "necessary for health, efficiency, and general well-being of workers," which today is what is usually meant by a "living wage."

The debate over what became the Fair Labor Standards Act (1938) focused on the constitutional right of the federal government to intervene in private voluntary contracts and local state economic affairs, on the consequences for regional competitiveness in the American south, as well as over about job loss. After a long political struggle, the compromise was a nationwide minimum wage set at just 25 cents (Roosevelt and Perkins' goal was 40 cents). This amount was equivalent to about $4.24 in 2016 inflation-adjusted dollars and covered only about one-fifth of the workforce (Grossman 1978). The final minimum wage policy contained no formula to set the future wage floors and no mechanism to index it to inflation. Accordingly, any future increases would require an Act of Congress.

The subsequent history is one of fluctuations around a very low wage floor. At the same time, the share of the workforce covered by the federal minimum did increase dramatically in 1961 and afterwards when the law was amended to cover new categories of workers, including those employed primarily in retail, local construction, transit, and gas stations.[14] The federal minimum wage peaked at $9.54

---

[13] On the experience in the Western world, see for example, Karl Polanyi ([1944] 2001) and Peter Lindert (2004).

[14] A number of groups of workers are exempted from the federal minimum wage. First, persons under the age of 20 may be paid an hourly wage of $4.25 for the first 90 calendar days of employment. Second, employers may pay tipped workers a minimum of $2.13 an hour as long as the hourly wage plus tip equals at least the minimum wage. This $2.13 tipped minimum wage has not been increased since 1991. (Some states have increased the tipped wage level, and 7 states have eliminated the tip credit altogether.) If the weekly total of tips plus the base wage is less then a

in 1968 (in 2014 inflation-adjusted dollars). Under President Reagan's leadership, the U.S. Congress failed to increase the nominal minimum wage to offset inflation, and the real value of the minimum wage fell to a meager $6.18 in 1989 (Cooper 2016).

Figure 1 shows real annual earnings for a full-time full-year worker (40 hours, 52 weeks) earning the minimum wage from 1964 to 2014 along with poverty lines for one-, two-, and three-person families. While the federal minimum wage provided a family with a full-time worker a wage between the poverty lines of a two- and three-person family until around 1982, it has since fallen to levels between the single- and two-person poverty lines. Full-time, full-year work in 2014 would generate gross pay of only $15,080, putting a family of two below the poverty line.[15]

Figure 2 offers another perspective on the relative value of the federal wage floor. There have been a number of efforts in recent years to estimate a basic subsistence wage for workers in different family types (e.g. single adult, single adult with one child, two adults with two children).[16] Most find that the wage needed to pay the basic costs of living—housing, food, transportation, utilities, taxes, health care, savings, clothing, and personal items—requires a full-time job at a wage that is, as Figure 2 suggests, at least $14 for a single person, and substantially more for a single adult with one dependent child in low cost-of-living areas. We show the current minimum wage on this figure, which is about half of the necessary wage to support a single person in seven of the nine cities, 43 percent of what is necessary in Baltimore and just one-third of the necessary wage in Washington DC.

The adequacy of the minimum wage can also be compared to the typical pay of all workers using the *Kaitz index*, defined as the ratio of the minimum wage to an average (mean or median) wage. As **Figure 3** shows, by this measure, the minimum wage peaked at 55 percent in 1968 and has dropped precipitously since, ranging from 31-to-39 percent since the mid-1980s.

---

week's salary at the minimum wage, employers are legally obligated to make up the difference, but there has been little enforcement. Investigating 9,000 restaurants, the U.S. Department of Labor found that in 85 percent of the cases, restaurants did not adequately compensate their employees for tip incomes that fell short of the required $7.25 (Cooper 2016).

[15] For eligible workers (mainly women with young children), as much as about $2,500 could also be received from the Earned Income Tax Credit. Our concern here is not with total family income, but with the adequacy of earnings from work.

[16] This includes the Economic Policy Institute's Family Budget Calculator, the Self-Sufficiency Standard developed by Diana Pearce, and the MIT Living Wage Calculator developed by Amy Glasmeier. All of these provide estimates of the income needed to cover basic living costs, by family size and type as well as city and state. Also see Fredericksen (2015).

Still another standard by which to judge the relative value of the minimum wage is to set it against productivity growth. **Figure 4** shows that after more than two decades of tracking the nation's labor productivity, a yawning gap began to appear between the growth in the economy and the change in the minimum wage. In short, rising national wealth has not been shared with low-wage workers via the minimum wage since the late 1960s.

These figures demonstrate that by any conventional standard, the federal minimum wage has fallen to extremely low levels. In response to this dismal performance, throughout the 1990s and into the 2000s, labor-community coalitions pressured their city councils to adopt "living wage" ordinances. These ordinances varied, but most of them applied to firms receiving city service contracts and their subcontractors. Some also applied to firms receiving economic development assistance, and a few covered direct city or county employees. Most ordinances defined a "living wage" as the hourly wage needed to bring a worker with a family of four to the federal poverty line. Most of these ordinances were indexed to rise every year with the cost of living, and included additional provisions for health care coverage and days off work. Living wage ordinances passed in over 125 cities and counties nationwide between 1994 and 2015 (Luce 2014).

Figure 1: Full-Time Earnings at the Minimum Wage and Poverty Thresholds by Family Type, 1962—2014
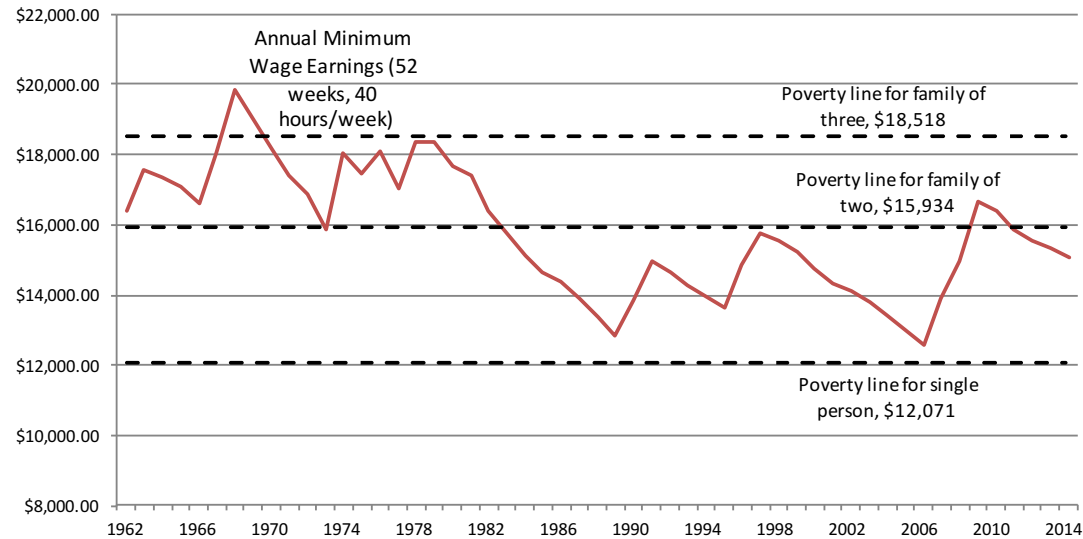
Source: Author's analysis of Economic Policy Institute (real minimum wage), and U.S. Census Bureau (2014 poverty thresholds) data.

Figure 2: The Minimum Wage and the Full-time Hourly Wage Required for Basic-Needs Budget by Family Type for Selected Cities in 2016
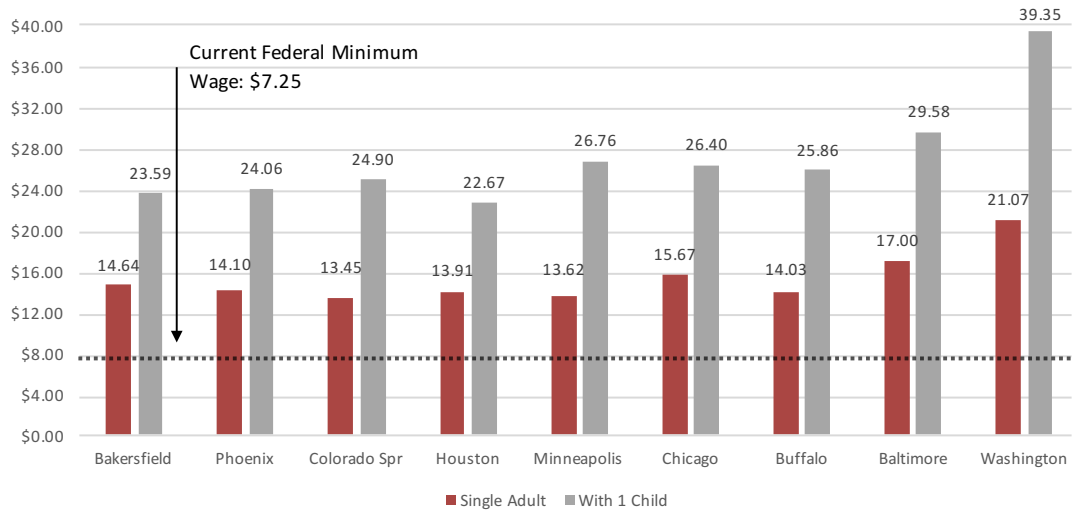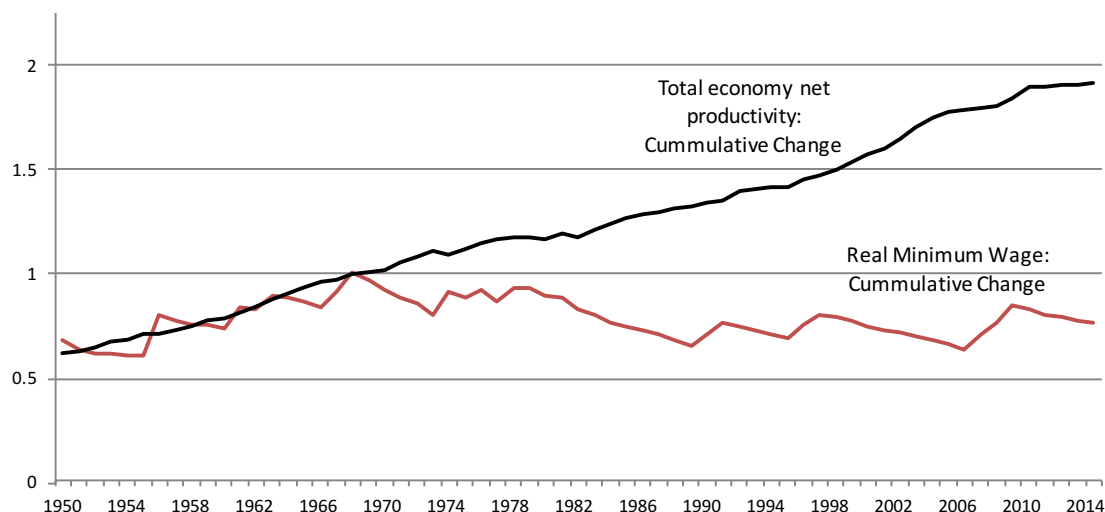

Source: Tung et al. (2015); own figure.

Figure 3: Ratio of the Minimum Wage to the Median Wage (Kaitz index), 1960-2014
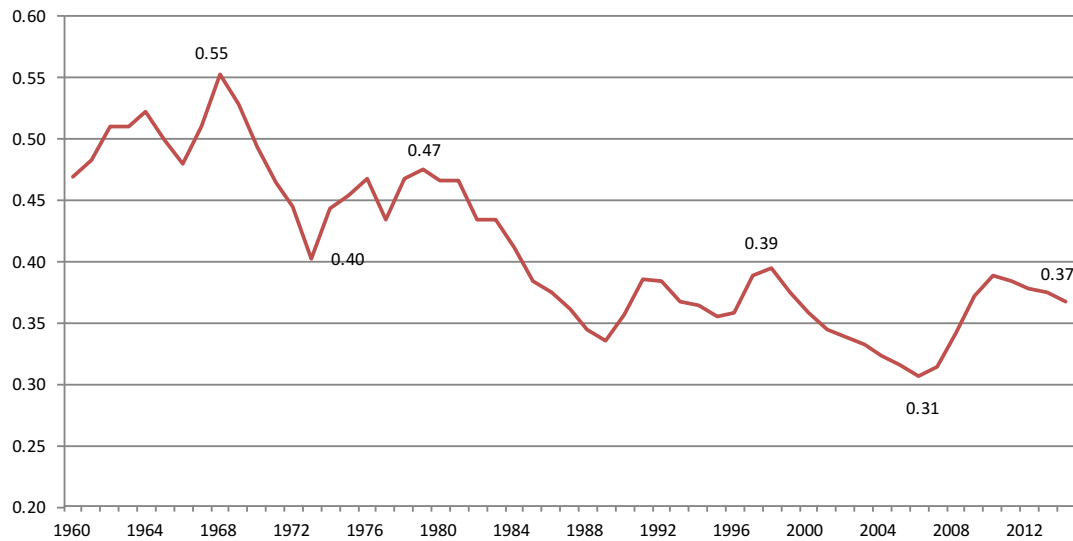
Source: OECD.stat (data extracted January 2016).

Figure 4: The Minimum Wage and Productivity Growth, 1950-2014 (1968=1)

Source: Author's analysis of Economic Policy Institute's real minimum wage (in 2014 dollars) and total economy net productivity data (real net domestic product per hour worked in 2014 chained dollars).

3. Wage-setting and Employment Effects

Risk of job loss from increases in the minimum wage is a classic example of what Hirschman (1991) called the "perversity thesis"—at least some of the intended beneficiaries are actually harmed by the intervention. But at least since the work of Card and Krueger (1994), it has become increasingly clear that there are few if any employment effects that can be attributed to moderate increases in the statutory wage floor. After briefly reviewing this evidence, this section considers how firms set wages and make employment decisions, which both helps explain the failure of simple orthodox predictions of job loss and sets the stage for our critique of the way a common indicator of the relative value of the minimum wage (its "bite") has been employed for setting the No-Job-Loss (NJL) wage floor.

a) Wage-employment tradeoffs?

The debate over the proper level of the minimum wage has pitted the Minimum Living Wage (MLW) goal against the economic interests of employers, the libertarian concern over the reach of the federal government and the rights of the states, and, most importantly, the risk of job loss. Mainstream economists, especially those trained in the United States, have played a central role in this debate, bringing to it another set of interests—the defense of the basic tenets of orthodox economic doctrine, which is seen as challenged by the failure of find evidence of discernible

employment effects.[17] It is hard to otherwise explain the massive outpouring of empirical research on the minimum wage, the publication bias (toward showing negative employment effects) that has characterized the professional literature until recently,[18] and the emotional hostility expressed toward findings that challenge orthodox predictions.[19]

Initial evidence on the employment effects of increases in the minimum wage should be found in the changes in aggregate employment for at-risk workers around the time of sudden, large increases in the federal minimum wage. While crude, such evidence would confirm orthodox predictions of employment effects if the "perversity effect" is consequential. Indeed, the French minimum wage is frequently blamed for high French youth unemployment (but see below). So should we expect to observe large short-run responses of very large increases in the U.S. minimum wage on, at least, teenage employment and unemployment rates?

The 1950s offers evidence that large increases do not necessarily lead to decreases in teen employment. The FLSA failed to peg the minimum wage to a cost of living indicator, so after extended periods of inflation, Congress has sometimes responded with large hikes in the wage floor. Although this may have had the effect of only returning the wage to its former inflation-adjusted value, it nevertheless confronted

---

[17] The case against the minimum wage on employment effects is grounded in simple textbook models of the labor demand and theory-driven efforts to confirm these predictions have generated a massive empirical literature. At least until very recently, for a large share of mainstream economists, the theoretical stakes could hardly be more significant. As the Nobel prize winning economist James Buchanan has said, an inverse relationship between employer demand for labor and the wage is "a core proposition of economics" and its rejection would be "equivalent to a denial that there is even minimal scientific content in economics" (quoted by Card and Krueger 2015, Preface to the 20th Anniversary Edition of *Myth and Measurement*).

[18] Doucouliagos and Stanley (2009, p. 406) find that "The minimum wage effects literature is contaminated by publication selection bias, which we estimate to be slightly larger than the average reported minimum wage effect. Once this publication selection is corrected, little or no evidence of a negative association between minimum wages and employment remains."

[19] The response to Card and Krueger's papers and book demonstrating no employment effects was greeted with professional and personal hostility. In the symposium on the Myth and Measurement in a 1995 *Industrial and Labor Relations Review* symposium (ILRR, July 1995, vol. 48 no. 4), Finis Welch (1995, p. 848) dismissed Card and Krueger's research that was published in arguably the world's top economics journal, *The American Economic Review*, as "testimony to the vagaries of the review process." Indeed, he dismissed the entire research project: "I question David Card and Alan Krueger's models and how they do empirical research. Although the notoriety surrounding *Myth* suggests important conclusions that challenge economists' fundamental assumptions, I am convinced that the book's long-run impact will instead be to spur, by negative example, a much-needed consideration of standards we should institute for the collection, analysis, and release of primary data" (ibid., p. 842). It seems evident that the past two decades of research have confirmed the validity of Card and Krueger's methods and results. Princeton University Press has re-issued a 20th anniversary edition of the book, and it remains the classic reference—by positive example—in the minimum wage literature.

low-wage firms with a sudden nominal wage shock. The 1950s offer two examples. On January 25, 1950, the wage floor was increased by 87.5 percent, from 40 cents to 75 cents. This represented not just a huge increase in wage costs for low-wage employers, but also a similarly huge increase in the *relative value* of the minimum wage. The ratio of the minimum wage to the average hourly earnings of non-farm private sector workers increased from 31.4 percent in late 1949 to 56.2 percent in early 1950 (BLS 1970, tables 1.5 and 1.6). What were the low-wage employment effects? Teenage unemployment rates actually fell from 15.8 percent in October 1949 (three months earlier) to 15.2 percent in February 1950 (one month later); these rates fell further to just 12 percent in April (three months later); a year later, in April 1951, the teenage unemployment rate was down to 7.9 percent.[20] Much the same story can be told for the 33.3 percent increase in the minimum wage that took place on March 1, 1956.[21] These episodes suggest that, at least in a strong economy, very large increases in the real and relative wage floor can take place without observed effects on job opportunities for the most vulnerable workers.

One of the first large scale econometric studies of employment effects was reported in a 1970 report by the U.S. Bureau of Labor Statistics (BLS 1970), led by Hyman Kaitz (for whom the Kaitz index is named). Although there have been dramatic improvements in the quality of the data and minimum wage-employment research designs, the lessons of current state-of-the-art evidence (see below) remain about the same as what Kaitz reported back in 1970.

> When all variables that have a legitimate claim to consideration are included, the measures of minimum wage not infrequently have the wrong sign and/or are not statistically significant at conventional levels…. In general, the most important factor explaining changes in teenage employment and unemployment has been general business conditions as measured by the adult unemployment rate…. Although hints of adverse effects of minimum wages show up in available data, no

---

[20] Monthly teen unemployment rates come from Labor Force Statistics from the Current Population Survey (series LNS14000012). The induction of young men for service in the Korean War is likely to explain some of these declines, although the numbers were small until mid-1950. By the end of 1950, 220,000 men were drafted, and another 552,000 were drafted in 1951 (https://www.sss.gov/About/History-And-Records/Induction-Statistics).

[21] See Hyman B. Kaitz, "Experience of the Past: The National Minimum," Chapter II of "Youth Unemployment and Minimum Wages," U.S. Department of Labor, "Youth Unemployment and Minimum Wages," Bulletin 1657, 1970 (p. 11). The wage floor increased from 75 cents to $1.00 in March 1956, which increased the ratio of the minimum wage to the average hourly wage from 43.4 percent to 53.2 percent. Official monthly teen unemployment rates fluctuated substantially at this time, but there is no obvious upward trend: the March rate was 11.5 percent, about what it was the month before (11.4 percent), and it was 10.9 perent in April. While it hit 12.2 percent in June, teen unemployment was down to 9.8 percent in September.

firm statement can be made about the magnitude of such effects. (ibid., p. 11)

While research published throughout the 1980s reported some negative employment effects for young workers[22] more recent and much more methodologically sophisticated studies have shown that minimum wages do not necessarily cause job loss.[23] Even scholars who conclude that the minimum wage has negative employment effects generally agree that these are detectable only for disadvantaged teenagers (Neumark et al. 2014).[24] This failure to find robust evidence of negative employment effects of wage floors at the national level has been dominated by studies of the United States, but it has also been unambiguously confirmed by studies of the experience in the United Kingdom, which established a national minimum wage in 1999 and increased it sharply in real and relative value over the next decade (D'arcy and Corlett 2015).

Most studies on living wage ordinances find similar results.[25] The benefits of the higher wage are significant for workers but the costs are relatively small for the employer. Surveys report that employers are able to recoup some of the cost in the form of lower turnover and absenteeism and increased productivity. For example, studies of the Los Angeles airport estimate that the living wage reduced turnover of between 4 percent and 16 percent (Fairris et al. 2005; Fairris 2005). A study of homecare workers covered by a living wage increase in California found that turnover decreased 57 percent after the wage was implemented (Howes 2005).

Studies for citywide minimum wage laws find similar results. Allegretto and Reich examined the effects of a 25 percent hike in the minimum wage on restaurant prices in San Jose, California and found no negative employment effects. They conclude, "these results imply that citywide minimum wage policies need not result in negative employment effects or shifts of economic activity to nearby areas" (Allegretto and Reich 2015).

Prospective studies of larger wage increases at the statewide or national industry level suggest similar results. Reich et al. (2016) estimate the employment effects of the New York State wage of $15. Their model predicts that by substituting some workers with automation, and eliminating some jobs due to productivity increases,

---

[22] For a review see Brown et al. (1981).
[23] David Card and Alan B. Krueger (1995); Reich et al. (2005); Dube, et al. (2010)
; Allegretto et al. (2011). For an alternative view see Neumark and Wascher (2008).
[24] Prominent meta-analyses of the literature have found, on balance, little or no negative effects on employment (OECD 2006; Doucouliagos and Stanley 2009; Belman and Wolfson 2014).
[25] For a review of living wage economic impact research, see Chapman and Thompson (2006).

employers would cut approximately 41,600 jobs. In addition, as employers pass on some of the wage increase in the form of higher prices, consumer demand would drop somewhat, resulting in another 36,764 jobs lost. Altogether, this would be a loss of 78,364 jobs. At the same time, the wage increase would have indirect positive employment effects through wage-induced increases in consumer demand. That is expected to generate 81,532 jobs—leaving a net gain of 3,168 jobs.

Relying on "simple illustrative exercises of the phase-in of a $15 wage, Pollin and Wicks-Lim (2015, p. 1) conclude that cost increases "could be absorbed by the fast-food industry not only without causing employment losses, but, crucially, without business firms within the fast-food industry having to reduce their average rate of profitability."

   b)   *How Firms Set Wages and Employment*

How can employers be mandated to pay a higher hourly wage without responding with job cuts? There are two answers. First, employers can cut or maintain their wage bill by cutting hours instead of workers. But the general answer is that employers rarely face anything close to perfect product and labor markets—the foundational assumption of basic labor market theory that has dominated textbooks for generations. Under these imperfect conditions there is usually substantial room for improving the design and management of the workplace. As John Schmitt (2015) has explained,

> Some employers may cut hours; others, fringe benefits; still others, the wages of highly paid workers. Some employers may raise prices (particularly if their competitors are experiencing similar cost increases in response to the minimum wage). Some employers may see their profits fall (along with those of their competitors), while others may reorganize the work process in order to lower costs. Some of the strongest evidence suggests that many employers may experience declines in costly turnover. And workers may respond to the higher wage by working harder. Any of these channels might be sufficient to eliminate the need for employment cuts or reduce the size of employment cuts (Schmitt 2015, pp. 547-581).

We would add that employment effects also depend on whether costs are shifted to higher paid employees and whether increased consumer spending by more highly paid minimum wage workers affects profit margins. The Resolution Foundation (2014) comes to a similar conclusion for the experience of the United Kingdom with

a national wage floor since 1999—despite its rapid increase to levels substantially higher than the U.S. federal minimum wage (see figures 5 and 6).[26]

The ambiguous evidence on the employment effects of the minimum wage is consistent with what theory and evidence suggest about wage setting in real world workplaces. Whether an employer will cut hours or workers in response to a mandated wage increase depends on the ability and willingness of the firm to absorb cost increases through productivity gains, lower turnover costs, adjustments in the internal firm wage/salary structure, or lower profit margins. These proximate determinants of the wage-employment relationship are in turn a reflection of the low-wage share of overall operating costs, the responsiveness of product market demand to cost increases, and the business models relied upon for competing in imperfect labor markets.[27]

These proximate and underlying determinants of the wage-employment relationship will vary substantially by establishment, firm, region, and sector. One has only to compare, for example, the wage-setting practices at Wal-Mart and Costco.[28] Both are large discount stores providing a similar service, but Costco pays its employees much higher wages, provides benefits, and offers more hours per workweek than does Wal-Mart. To take another example, collective bargaining has led to large wage increases for doormen and cleaners in luxury apartment buildings in the New York metropolitan area in recent years, which, because of the very low labor share of operating costs and high inelasticity of housing demand, has led to no negative employment effects.

4. The Current Debate: What's Wrong with 'No Job Loss' Framing

With little or no empirical support for the orthodox prediction of employment effects from previous modest increases in the wage floor from, and a better understanding of alternative channels of adjustment to higher wage costs, the discourse has increasingly focused on speculation about how big the hike in the wage floor can be without posing a high risk of at least some job loss. It is speculative because we don't know for sure, and won't know until the federal wage is actually pushed to much higher levels than the current $7.25 and we carefully monitor the actual employment effects. The limited evidence from cities, states and

---

[26] "Research into why those of job losses were not borne out suggests that employers adapt in a variety of ways, including raising prices, giving smaller pay rises to higher-paid workers, reducing profits, and boosting the productivity of their staff" (D'arcy and Corlett 2015, p. 1).

[27] These underlying determinants have been well-known since Alfred Marshall spelled them out over a century ago.

[28] Another can be found in Clark (2014).

other countries can do no more than give us hints about what the effects of a large federal minimum wage increase would be. All agree that once we have reached this NJL minimum wage threshold, the job loss that would occur above it is a concern. But in the current debate, it often appears as if this is the *only* concern. This section begins by describing the current overwhelming dominance of this NJL framing of the minimum wage discourse and then turns to our critique.

a) The NJL Criterion in the Current Debate and Practice

A good example of the reliance on the NJL criterion in making the case for a large increase in the federal minimum wage is the EPI Briefing Paper titled "We Can Afford a $12 Minimum Wage in 2020." Cooper et al. (2015) make the case that America can "afford" a $12 wage in 2020 (worth $10.58 in 2014 dollars according to the authors, or $10.92 in 2016 dollars[29]) on the grounds that this value in real terms was achieved back in the late 1960s. The authors support their case by noting that the country is far better positioned to afford a substantially higher wage floor because low-wage worker education levels and the economy's productivity levels are both much higher than four decades ago. For these reasons, $12 is a reasonable "benchmark for the economy's ability to sustain a particular wage floor."

> This report reviews a much wider range of benchmarks in order to evaluate how high the federal minimum wage can go and still fall within our historical experience. An extensive body of research since the early 1990s has investigated the employment impacts of federal, state, and local minimum wages in a range that falls roughly between $6 and $10 per hour. That research suggests that minimum wages in this range have little or no negative effect on employment (Cooper et al. 2015, p. 2).

This passage contains all the elements of the NJL criterion as defined above: the goal is the highest wage floor already established (within historical experience) for which there is reliable evidence of little or no negative employment effects.[30] Confirming the NJL rule later in the paper, Cooper et al. write that evidence of wage convergence at the state level "should help to allay concerns that a higher federal minimum wage would hurt employment in low-wage states" (Cooper et al. 2015, p. 10). Cooper et al. do not address the question of whether a higher wage, say $15 an hour, could also be sustained by the U.S. economy.

[29] Cooper (2016), Table 1.
[30] In fact, the current value of a 2020 $12 wage floor, at $10.92, is above the "charted waters" of $6-to-$10. On the other hand, it might be viewed to be within historical experience if the criteria were the Kaitz index (critiqued below) or the level of productivity (the channel through which national productivity growth would affect the wage-employment relationship for low-wage firms is far from evident).

Other examples of exclusive reliance on the NJL standard include leading labor economists and minimum wage researchers who have strongly supported raising the legal wage floor substantially, among them Alan Krueger, Alan Manning, and Arin Dube. Krueger (2015) recently wrote that while a national $12 wage floor probably risks "little or no job loss," a $15 wage would take us into "uncharted waters" and that doing so would be "a risk not worth taking." [31] As he put it, "Although some high-wage cities and states could probably absorb a $15-an-hour minimum wage with little or no job loss, it is far from clear that the same could be said for *every state, city and town in the United States*" (italics added).[32] Krueger did not contend that at levels above $12 there *will* be discernible job loss, much less "too much" job loss, but only that since we don't have the evidence (uncharted waters), it is not worth the risk. Krueger's argument is a clear example of the backward-looking NJL standard for setting the appropriate level of the minimum wage: an increase in the federal wage floor is not "too much" if well-established evidence from tests on selected jurisdictions (cities, counties, states or foreign countries) confirms that there is little or no risk of job loss across U.S. states, cities and towns—an extremely stringent, and arguably impossible, hurdle. As we note below, this approach requires that the locations that provided the crucial evidence on employment effects could not have used a backward-looking NJL criterion for establishing their wage floors—if all jurisdictions were to rely on an NJL rule, the higher wage floors necessary for tests of employment effects would be ruled out for lack of evidence ("uncharted waters"). Another criterion for setting the wage floor is necessary.

In a recent discussion paper, Manning makes a compelling case that negative employment effects of moderate minimum wage hikes are "elusive," based on both a review of the recent state-of-the-art evidence and his own evidence for U.S. teenagers across states between 1979 and 2014 (Manning 2016). "Even for groups where one can estimate a sizeable, robust wage effect, the employment effect is hard to find" (p. 7). The implication Manning draws from this evidence is that "it is perhaps time for the literature to move on to try to address the question of how high

---

[31] In a debate with Bernie Sanders, Hillary Clinton said, "I do take what Alan Krueger said seriously. He is the foremost expert in our country on the minimum wage, and what its effects are. That is why I support a $12 national federal minimum wage." http://www.ontheissues.org/2016/Hillary_Clinton_Jobs.htm

[32] "Research suggests that a minimum wage set as high as $12 an hour will do more good than harm for low-wage workers, but a $15-an-hour national minimum wage would put us in uncharted waters, and risk undesirable and unintended consequences" (Krueger 2015, p. 5). Similarly, Jared Bernstein, the former economic advisor to Vice President Biden expressed his reservations by referring to the $15 wage as "out-of-sample": "There could be quite large shares of workers affected (by a $15 wage), and research doesn't have a lot to say about that" (Noam Scheiber 2015, p. A1).

the minimum wage can be raised without significant employment effects appearing" (p. 3).

This is clearly an example of NJL framing, but it is one that is consistent with the possibility of using *aggregate employment effects* as the test (as suggested by the research design he used for identifying wage and employment effects for teens), and not *any job loss anywhere*—an important distinction. It also opens up the possibility of relying on forward-looking (or near-real-time) evidence on employment effects as the wage floor is pushed up. This has been the approach of the U.K.'s Low Pay Commission, which was charged by the government with an NJL standard.[33]

> Since 1999 the Low Pay Commission has commissioned over 130 research projects that have covered various aspects of the impact of the National Minimum Wage on the economy. In that period the low paid have received higher than average wage increases but the research has, in general, found little adverse effect on aggregate employment; the relative employment shares of the low-paying sectors; individual employment or unemployment probabilities; or regional employment or unemployment differences (Low Pay Commission 2014, p. 12).

The Resolution Foundation similarly recommends that the national minimum wage in the United Kingdom should be set by a forward-looking NJL standard: "the LPC should continue to make the empirical judgment of the value at which the minimum wage can be set without employment effects year to year" (Resolution Foundation 2014, p. 44). The Foundation calls for the target wage floor to be set by the value of the minimum wage relative to the overall median wage of 60 percent. The goal is expressly *not* to achieve a living wage or to eliminate low pay, but rather to reduce "the United Kingdom's high incidence of low pay from 21 percent to 17 percent, a reasonable goal against international benchmarks" (p. 9) with little or no threat of job loss. This 17 percent target is chosen because it is the OECD average (p. 36).[34] "Our view, based on U.K. and international evidence, is that a wage-floor worth 60 percent of the median wage is a reasonable lodestar, indicating the most that a

---

[33] "Our annual remit has typically asked the LPC to reach a judgment on the level that will help as many low-paid workers as possible, without any significant negative effect on employment or the economy" (Low Pay Commission 2016, p. vii).

[34] This "lodestar" seems a strange basis for setting the U.K. wage floor. The average Kaitz ratio across OECD countries has no obvious connection to the NJL threshold, an appropriate level of bottom-end wage compression (inequality), or minimally acceptable standard of living for the U.K. working families. Three of the five OECD countries with the lowest (best) incidence of low pay on the Foundation's figure, "Low Pay in the OECD" (page 37) are Portugal (7 percent), Chile (9 percent), and Greece (12 percent), all far below the OECD average of 17 percent; five countries with higher low-wage-incidence rates than the average are Poland, Ireland, Israel, South Korea, and the United States.

minimum wage could contribute to the goal of reducing low pay over the medium to long term (p. 10).[35] No reason is given for why a wage floor set at 60 percent of the median wage is the NJL threshold, or why the LPC shouldn't gradually increase the wage floor until signs of intolerable levels of job loss appear.

Another leading minimum wage scholar, Arin Dube (2014), has also recommended that the wage floor for U.S. states and cities should be set relative to the median wage—the Kaitz ratio—but unlike the LPC and the Resolution Foundation, Dube appears to rely on a backward-looking NJL standard. His preferred ratio is 50 percent of the local median wage, which would bring the legal minimum up to what he calls its "natural" and "appropriate" level. Dube (2014) estimates that if legislated at the state level, this 50 percent formula would increase legal wage floors by 26 percent on average, reaching levels ranging from $12.45 for Massachusetts to $7.97 for Mississippi (in 2014 dollars).

The 50 percent Kaitz rule would generate substantially higher wages than the flat $12 phased-in 2020 wage ($10.92 in 2016 dollars) for states with high median wages, although it should be noted that most already have high state minimum wages (e.g., the Massachusetts state wage floor is now $10.00). In contrast, Dube's proposal would lock in a low minimum wage and do little to push the lower part of wage distribution up toward the national average in states with low median wages (such as Mississippi), which for many minimum wage advocates is one of the main goals of a higher federal statutory wage floor.

A minimum wage set at 50 percent of the median wage is natural and appropriate, according to Dube, because it would increase the wage floor but pose little or no risk of job loss. "Overall, I believe the best evidence concludes that the net impact of the proposed increase in the real statutory minimum wage would be likely small, and likely too small to be meaningfully different from zero"(ibid. p. 8). Dube's strongest empirical evidence for this claim is that a few states that have recently introduced wage floors that are just under the 50 percent mark have shown no negative employment effects: "U.S. evidence that suggests small employment effects is based on a number of states (e.g., Nevada, Oregon, Vermont) that have all raised their state minimum wages to levels that surpass 46 percent of their median full-time wage" (p. 9). The experience of the United Kingdom since 1999 is also cited in support of the 50 percent rule, with a Kaitz Index of around 45 percent.

---

[35] According to the Resolution Foundation, "The minimum wage cannot simply be raised to 66 per cent of the median wage in order to eradicate low pay—even in the long term this is not (sic) kind of gtarget is relative to the overall median, not the full-time median, which would be a much more ambitious target (and one that, for example, France, has already achieved (see Figure 5 below).

Like Krueger (2015) and Cooper et al. (2015), Dube (2014) offers no evidence—and indeed does not contend—that the proposed NJL wage (in this case, set by the 50 percent ratio) marks the threshold above which there is consequential and escalating job loss. If that threshold actually turns out to be 55 percent, 65 percent or 75 percent, there would be huge foregone wage benefits for low-wage workers and their communities, and for the economy as a whole—at no cost in jobs. The same, of course, goes for setting the target at $12, without evidence that $13.50, $15, or $17 is the NJL threshold. In sum, the backward-looking NJL rule is therefore a necessarily conservative criterion by construction—one that must be lower than the NJL threshold but by how much is unknown—potentially leaving a great deal of "wages on the table."

b) What's Wrong with the 'No Job Loss' Criterion

We briefly outline six problems posed by relying on the NJL criterion for setting the appropriate wage floor.

1) The Statistical Problem: the Limits of a Purely Statistical Criterion

Identifying the NJL wage floor from econometric evidence is both extremely challenging and inherently controversial. Given the many parties with big stakes in the outcome, relying on a statistically derived No-Job-Loss threshold all but guarantees endless debates over empirical research design.[36] For example, Cooper et al. (2015) point out that the evidence we have on employment effects is based on increases in the minimum wage within the $6-to-$10 range (although most of those tests were in fact conducted with reference to wage floors below $9.00). Although Schmitt (2013), Manning (2016), and many others have convincingly (to us) concluded that the balance of evidence is that discernible employment effects of modest increases in legal wage floors remain elusive, many researchers continue to argue, with credible statistical support, that sizable increases, even just to levels at the top of this $6-to-$10 range, will cause at least some job loss in some establishments somewhere. Requiring that there is evidence of NJL to the satisfaction of most researchers and interested parties leaves the setting of the minimum wage subject to the outcome of a statistical contest over whose data and research designs are most credible—a debate in which hardly anyone can

---

[36] This may be particularly true given the nature of some of the low-wage sectors, where there is usually very high turnover among employees, and a high failure rate in some industries. For example, one study found that almost 60 percent of all restaurants close or change ownership within their first three years (Parsa et al. 2005).

meaningfully participate except the researchers themselves—seems a poor basis for making policy that matters.

2) *The Methodological Problem: How are Higher Wage Floors Set in the First Place?*

As the highest wage floor possible that poses little or no risk of job loss, the NJL threshold requires real-world evidence that can identify the wage floor above which discernible job loss is likely. But since it is evidence-based, within any given jurisdiction (say, at the level of the United States), this criterion rules out the possibility of setting the wage floors in the first place. Wage floors must precede the empirical tests of their effects.

In short, the backward-looking NJL rule requires that there are places that do not set the wage floor with this criterion to get the evidence for setting a wage floor that satisfies the NJL criterion—like Seattle, or California and New York State, or France, Australia, and the United Kingdom. But that means that the evidence must come from locations that use other grounds for setting the wage floor, like standard-of-living criteria. This, in turn, means NJL jurisdictions are condemned to "following the leader," or always being years behind other countries (or local jurisdictions) while waiting for evidence that raising the wage floor generates little or no job loss.

Extrapolating from the experiences of other jurisdictions some years previously raises other problems. We must assume that the statistical effects of a wage floor in labor markets in which, for example, there is support for a Minimum Living Wage (MLW) criterion (say Australia or France or Seattle) apply to a location whose social norms call only for an NJL rule. An evidence-based approach would need statistical support for this expectation. More generally, there may be many other reasons for doubting whether older evidence from MLW jurisdictions can be expected to predict effects of a federal minimum wage across the nation's states, counties, cities, and towns. It should be clear that the NJL criterion, especially one that is "backward looking," cannot stand on its own as a coherent and meaningful standard for setting the legal wage floor.

3) *The "Money Left on the Table" Problem*

Closely related, it is telling that neither Cooper et al. (2015), Krueger (2015), Dube (2014), or Manning (2016), the Resolution Foundation (2014), nor the Low Pay Commission (2014, 2016) cite evidence that credibly identifies the NJL threshold—the wage *below which* it is <u>known</u> that there is little or no risk of job loss anywhere,

and *above which* there is <u>known</u> to be a risk of job loss high enough to be "not worth taking," as Krueger put it. Adherence to a backward-looking NJL criterion precludes setting a wage floor high enough to discover this threshold by definition—there is no evidence unless a higher than existing wage floor is set, and this requires some other criterion. As a result, the NJL approach to setting the minimum wage must leave "money on the table," meaning the wage floor must be below the NJL threshold.[37]

4) The Net Monetary Benefits Problem: Why is Job Loss the Only Consideration?

The NJL criterion is concerned only with the cost side of an increase in the minimum wage. Framing the question this way ensures that the *possibility* of costs related to job loss necessarily trumps the *certainty* of the benefits of wage gains, both directly for the workers receiving wage increases and indirectly by reducing the need for social spending in support of working poor families. It is well-established that if there are negative employment effects, they are small, reflecting a steep (highly inelastic) labor demand curve even for disadvantaged teens (Card and Krueger 2015; Manning 2016), which means that a wage hike increases the total wages to workers. The NJL standard for setting the appropriate wage floor entirely ignores the main traditional justification for the minimum wage—the moral, social, economic and political benefits of a much higher standard of living from work for low income workers and their families.

5) The Equity and Efficiency Problems: Why Shouldn't Fairness and System-Wide Welfare Gains Count?

The NJL criterion fails to take into account the fundamental ethical and efficiency justifications that have motivated living wage advocates since at least the 19th century. These justifications can be usefully expressed in the form of three arguments: sustainability, capability, and externality (Stabile 2008; Werner and Lim 2015).

On both human dignity and economic efficiency grounds, workers should be able to *sustain* themselves and to have the opportunity to do so from employment rather than from either tax-based redistribution or private charity. The *capability* argument extends that of sustainability. As Ryan (1912, p. 73) argued, the wage

---

[37] A forward-looking NJL rule, by allowing a regular increase in the real and relative wage floor until there is actual evidence of job loss, could produce this threshold, and by knowing it, we could then calculate the the foregone wages attributable to backward-looking NJL framing.

should be high enough to meet the "minimum conditions of right and reasonable living," which is necessary to a "life worthy of a human being" (Werner and Lim 2015, p. 5). The affront to human dignity dimension is best expressed in the words of workers themselves. The following is anonymous, from 1935.

> The most surprising day ever seen in this place was yesterday when the boss was ordered to pay us the code rate… You can guess the money is handy. But there is something more than the money. There is knowing that the working man don't stand alone against the bosses and their smart lawyers and all their tricks. There is a government now that cares whether things is fair for us. I tell you that is more than money. It gives you a good feeling instead of all the time burning up because nothing is fair (Waltman 2004, p. 183).

Following Sen (1999) and Stabile (2008), Werner and Lim (2015) add a more instrumental argument, one that ties morality to efficiency: a decent wage is necessary for "people's capabilities in regard to the functions they have as members of society and as workers, and to their ability to enhance capabilities in their children."

Although often neglected in the current debate (but was common in the living wage discussion a century ago), there is also a powerful efficiency case for a Minimum Living Wage (MLW) on *externality* grounds. A wage that fails to meet minimal thresholds for sustainability and capability means that employers are imposing social costs on the nation, which is why Sidney Webb referred to payment of below subsistence wages as a "vicious form of parasitism" (Webb, 1912; see also the quote by Roosevelt on the title page). Using language like Sidney and Beatrice Webb, the U.S. Supreme Court stated the following in their majority opinion in *West Coast Hotel v. Parrish* (1937) that:

> Denial of a living wage is not only detrimental to their health and well being, but casts a direct burden for their support on the community. What these workers lose in wages the taxpayers are called upon to pay. The bare cost of living must be met. …. The community is not bound to provide what is in effect a subsidy for unconscionable employers (Quoted in Anker 2011, p. 78).

In addition to a drain on government resources, employers paying low wages could drive down wages in other industries. A Congressional Research Service report on the FLSA notes:

At the time of the act's passage, Congress found that a few employers who paid substandard wages caused a decrease in wages within their respective industries, because other employers sought to compete in the marketplace with lower priced goods. Congress also found that these decreased wages caused one-third of the U.S. population to be "ill-nourished, ill-clad, and ill-housed (Congressional Research Service 2013, p. 1).

The case for reliance on a NJL criterion would have to rest on the belief that the costs of job loss would more than offset the ethical and efficiency benefits of a higher wage floor. This is the debate that is needed.

6) The Public Policy Straitjacket Problem: A Special Hurdle for Low-Wage Workers?

The final problem concerns the implications of the NJL criterion for policy making. Requiring that a new policy must pass this hurdle as established by the agreement among "experts" regarding the statistical evidence would effectively rule out many new policies and regulations. From a historical perspective, strict adherence to such a criterion for policymaking would have made it impossible to pass a host of regulations and policies that have employment effects, such as child labor laws, occupational health and safety regulations, and environmental regulations.

In sum, much of the policy debate over the appropriate level of the minimum wage has been conducted as if the only real question is over the wage floor that poses little or no risk of job loss. But as a matter of statistical practice, this is nearly impossible to establish; it fails methodologically as a general criterion for setting wage floors because generating the required evidence requires that higher than existing wage floors must be set, which in turn requires some other criterion; it is by construction conservative, likely to leave much "money on the table"; it entirely ignores the net benefits of a wage that *may* cause some job loss but is *certain* to produce far larger benefits in the form of higher wage incomes; it ignores important equity and efficiency considerations; and it represents an extraordinarily conservative rule for policymaking that if taken seriously over the course of the last century would rule out much of the social regulation that currently governs U.S. society.

5. Identifying the NJL Threshold: What Role for the Median Wage?

While a forward-looking NJL rule would not generate a wage floor that maximizes net monetary benefits to low-wage workers, much less overall benefits (accounting

ethical and efficiency considerations), it would at least offer the prospect of identifying the NJL threshold. For this purpose, it would be useful to have a simple metric that could be used to predict job loss in response to a minimum wage increase. Many have pointed to the Kaitz Index—the ratio of the minimum wage to the median (or some other average)—as just such a metric. It is a useful measure of the relative generosity and "bite" of the minimum wage: the closer the wage floor is to the median, the more compressed the bottom of the wage distribution, and the larger will be the number (and share) of workers affected. In the debate over the minimum wage, it has been a short step from the use of this ratio to measure the relative "bite" of the minimum wage, to its use as a *reliable guide* to the risk of job loss. The heavy reliance on the Kaitz index in the Cooper et al. and Dube papers, and by the Resolution Foundation and Low Pay Commission in the United Kingdom, illustrate the great appeal of this simple metric. But is it a meaningful guide for setting the NJL wage floor?

We think not. As noted above, the determinants of wage-setting, and consequently the dynamics of the wage-employment relationship, are complex and vary across establishments, firms, industry sectors, and regions. It is not just the change in the labor share of operating costs that matters (which will be determined not just by the wage increases but also by related changes in productivity and turnover costs), but the ability to accommodate these changes, which will depend on the elasticity of product demand, changes in consumer demand and employer profitability (and what is viewed by employers to be an "acceptable" level of profitability), and all these factors will all be impacted by prevailing social norms. The median wage, defined by some geographic area, not only fails to capture these critical dimensions of wage and employment setting, but is also inherently problematic as a useful guide because it will vary with the jurisdictional level (reflecting the relevant geographic area's median wage), which is likely to be largely independent of the factors that determine the employment effects of a mandated wage for very low-wage workers.

A helpful theoretical justification for the median wage as a guide to the (presumed) tradeoff between wages and employment would need to explain which reference wage (overall median or mean? for all workers or just full-time workers? for hourly wage workers? for teenage workers?) and which jurisdictional level (nation, state, county, city, town, neighborhood?) would be the right ones for identifying both the NJL threshold and the likely employment effects of wage floors above the threshold.

a) *The Kaitz Index and the Low-Wage Employment Decision*

We know of no such a theoretical justification in the literature, but Dube's "Proposal 13: Designing Thoughtful Minimum Wage Policy at the State and Local Levels" (Dube 2014) offers some arguments. He gives the following explanation for the usefulness of the Kaitz index as a guide for setting the statutory wage floor and for why a 50-percent ratio is the most appropriate.

> There are three reasons to pay attention to this measure, especially using the median as the reference wage. First, a comparison of the minimum wage to the median offers a guide for how binding a particular minimum wage increase is likely to be, and what type of wage the labor market can bear… a high ratio—say around .8—indicates a highly interventionist policy where the minimum wage is dramatically compressing differences in wages for nearly half the workforce. Second, this comparison also provides us with a natural benchmark for judging how high or low a minimum wage is across time periods or across countries that vary in terms of their labor markets and wage distributions. Third, the median wage also provides a natural reference point for judging what is a reasonable minimum wage levels: no one expects that the minimum wage should be set equal to the median wage, but fairness may become a factor when the minimum wage falls below, say, one-fourth or one-fifth of the median wage (Dube 2011, p. 2).

Reason #1 is presumably the most important, and it is certainly true that the ratio "offers a guide for how binding a particular minimum wage is likely to be." But this is (almost) true by definition—a higher minimum wage will tend to affect more workers—and short of a good theory or compelling empirical evidence, this alone tells us little about "what type of wage the labor market can bear." Dube refers to two extreme examples, but no reason is given for why we should be confident that a 20-percent Kaitz ratio will not cause discernible job loss, while an 80-percent ratio will surely generate unacceptably large job losses, or for that matter, why 50 percent is the right ratio.

Reason #2 is the claim that the Kaitz index is a useful metric for comparisons of the relative value of the wage floor across jurisdictions and over time. This is certainly true, but it is not a reason for relying on this indicator as a good guide to the risk of job loss, much less as the means for identifying a particular NJL wage threshold.

Reason #3 appeals to what is "natural," "reasonable," and "fair," but does not tell us what makes a particular rate natural, reasonable and fair. Is the preferred 50-percent ratio natural and reasonable because it reflects a fair (equitable) degree of wage compression (bottom-end wage inequality) or because it is the ratio at which

there will be no job loss, or both? How do we know that what is viewed to be fair and what turns out to be the NJL threshold will be the same across jurisdictions as different as the United States and France, Mississippi and Massachusetts, or metropolitan Miami and San Francisco?

To demonstrate what his 50-percent proposal would mean at the local level, Dube presents tables that show the "target minimum wage" generated by a 50-percent Kaitz ratio for states and selected metropolitan areas. To take just one example, according to Dube's Table 13.1, the wage floor should be $12.25 for the New York-Newark-Jersey City metropolitan area. But if the median is a good benchmark on equity and job loss grounds, then Newark's target wage floor should be far lower than Manhattan's: because Newark's median wage is much lower than Manhattan's, a 50-percent Kaitz ratio would require a much lower legal wage floor for Newark. In short, implementing the 50-percent Kaitz rule at the level of the New York metropolitan area must will lead to job loss in New Jersey if this ratio is a good approximation for the NJL threshold. On this same assumption, using a uniform Kaitz ratio to set wage floors at the state level would likely pose even greater threats of local job loss.

At a minimum, this example suggests that the Kaitz ratio would be expected to do a better job as a predictor of job loss the smaller the jurisdictional unit. But if that's right then what makes Newark the right geographic unit? To extend the example, we can be sure that Newark's median wage will be affected by changes in the composition of Newark's employment base. Let's say that a big increase takes place in the share of big heathcare facilities, nonprofit organizations, and government agencies that have relatively high wages. With this growth, the city's city's median wage will increase, causing the ratio of the minimum wage to the median wage to fall and consequently so will its Kaitz ratio—let's say from the original 50 percent to the 37 percent, the 2014 figure for the entire country. To maintain the 50-percent rule, Newark's wage floor would have to be increased. But there is no obvious reason why these citywide shifts in employment composition should make it possible for inner city retail shops and fast food restaurants that cater to neighborhood customers can easily adjust to the new, higher minimum wage. In this scenario, the 50-percent Kaitz ratio should be applied to subsections of Newark, leading to different wage floors within the city's boundaries. This illustrates the potential impracticality of using a particular Kaitz ratio to achieve an NJL wage floor.[38]

---

[38] If the Kaitz index proves to be better performing as a guide to job loss at smaller jurisdictional levels then the challenge then becomes the feasibility of updating the local Kaitz ratio and therefore the local minimum wage as the reference median wage changes. There is also the obvious inefficiency

In short, the median wage seems a poor guide to setting an appropriate legal wage floor—one that is high enough to make a difference but not one that risks job loss. A thought-experiment that extends this discussion on the difficulties posed by a geographically defined Kaitz index for setting the wage floor appears in the Appendix.

   b) Implications of the Cross-Country Evidence

Without theory, or even strong intuition, for why a particular Kaitz ratio would do a good job of identifying an NJL wage floor, its usefulness is an empirical question. We will focus on the cross-country evidence from the OECD, which illustrates how widely varying the Kaitz ratio is, both over time and across countries. Focusing mainly on a comparison of the United States, France, and Australia, we show that there is little evidence of a link between the Kaitz index and employment performance. That is, countries that have chosen to set the legal wage floor at a high level relative to the median wage (France and Australia) do not show systematically higher unemployment rates, or lower employment rates, than the United States. Nor do we observe the predicted divergence over time: as the Kaitz ratio has risen to over 60 percent for France and Australia while falling to around 37 percent for the United States, the predicted widening gap in employment performance does not appear in the data.

We also compare the incidence of low pay and employment performance across countries. As the legal wage floor increases relative to the median—a higher Kaitz index—the bottom of the wage distribution is compressed, leading to lower bottom-end inequality (wage dispersion) as well as a lower incidence of low pay. The conventional definition of the low pay threshold is 2/3 of the median wage—the conventional definition of low pay. A higher Kaitz ratio will reduce the incidence of low pay as the minimum wage converges to the low-pay threshold. We also find no correspondence between the incidence of low pay and the employment rate of young less educated workers.

Figure 5 shows the same series along with Kaitz ratios for the United States (Figure 3) and four other rich countries. Since the mid-1980s the United States has held the lowest position. By 2014, the U.S. ratio of the wage floor to the median wage was only 37 percent compared to 61 percent for France, 53 percent for Australia, 48 percent for the United Kingdom, and 45 percent for Canada. This figure shows that

and unfairness of statutory wage floors that vary across neighborhoods, from city to city, and across states that share the same metropolitan area, as in the case of metropolitan New York.

while France maintained its commitment to a high and rising wage floor, the United States took the opposite path.

Figure 5: The Ratio of the Minimum Wage to the Median Wage ("Kaitz Ratio") for Five Countries, 1960-2014
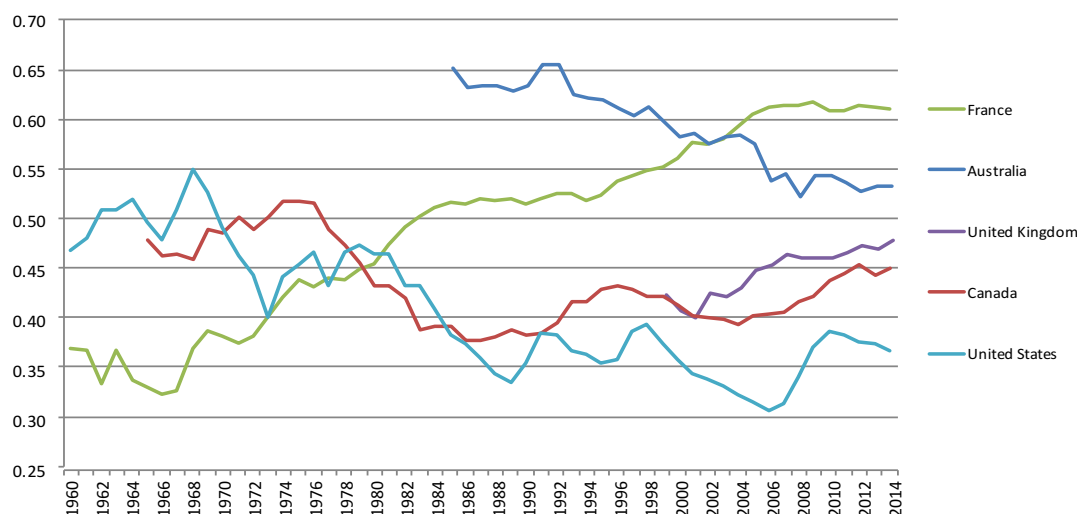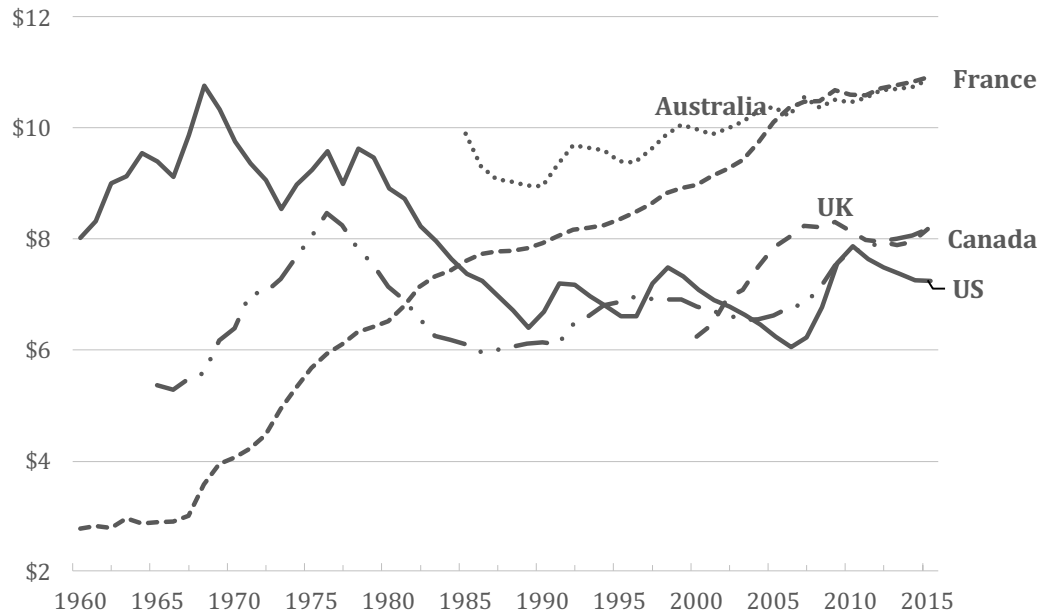

Source: OECD.stat (data extracted January 2016)

A similar pattern is shown in **Figure 6** for the minimum wage in terms of the absolute value of the minimum wage, with Figure 6a reporting purchasing power (using the OECD's index of purchasing power parity) and Figure 6b showing the value in terms of exchange rates. Both methods of valuing the minimum wage put Australia and France far above the other countries, with the United States at the bottom.

The performance of Australia is particularly notable, in that it illustrates the sensitivity of the Kaitz index to changes in the value of not just the minimum wage (the numerator) but the median wage (the denominator). Figure 5 reports a fairly strong decline in the Australian Kaitz ratio, from well above to well below that of France. But as Figures 6a and 6b show, the buying power of Australia's minimum wage (however measured) has continued to increase; the reason for the decline in the Kaitz index shown in Figure 5 is not because the government failed to raise the value of the wage floor (perhaps for fear of job loss?), but because the median wage increased even faster. This underscores the potential difficulty of relying on a fixed Kaitz ratio as the NJL target, as proposed by Dube (2014), the U.K. government (Low Pay Council 2016) and the Resolution Foundation (2014).

Figure 6: The Value of the National Minimum Wages for Five Countries in Constant US Dollars (2014), 1960-2014

a. Measured in 2014 constant prices using US Dollar Purchasing Power Parities (OECD)

b. Measured in 2014 constant prices using 2014 USD exchange rates (OECD)
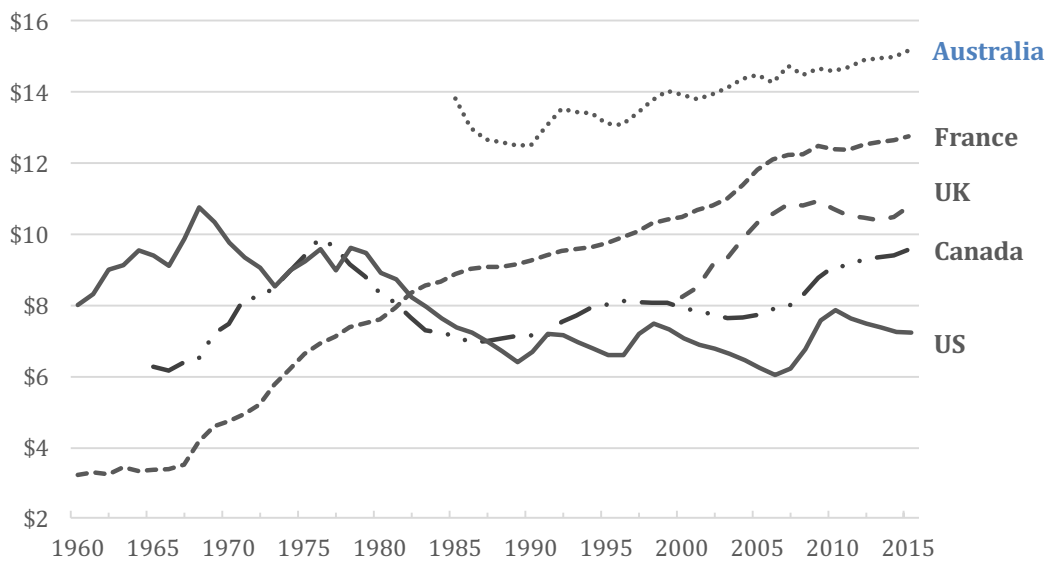
France and Australia offer a good examples of national commitment to a Minimum Living Wage. In the case of France, the minimum wage was established and designed to promote social inclusion through employment. As Caroli and Gautie (2008, p. 18) explain, the French minimum wage reflects "a political and social consensus according to which a decent wage should be defined not only in absolute but also in relative terms and thus low wages should benefit from growth and be indexed to the average wage increase." Likewise, according to the Workplace Relations Act of 1996, the goal of the Australian minimum wage is to ensure a "fair" wage, judged according to living standards "generally prevailing in the Australian community" (Healy 2011, p. 633).

According to the conventional wisdom, France has paid a heavy price for this commitment to eradicating extreme low pay, in the form of a long-run worsening of employment outcomes for young, less-educated workers, especially relative to countries with a commitment to flexible, less regulated labor markets such as the United States. But the data suggest otherwise. To recap, while both countries had a Kaitz index of around 45 percent to 47 percent in the late 1970s, by the mid-2000s, the French ratio had risen above 60 percent and the U.S. ratio had fallen to 31 percent. The U.S.-France gap was equally massive in real purchasing values: as the U.S. minimum wage fell from around $9.50 to $7.25, the French minimum wage rose from $7.00 to $11.00 (in 2014 dollars - Figure 6a). Has the opening of a 25 percentage point gap in the Kaitz index for France and the United States—one that is reinforced by a buying power gap that has reached $3.75—led to a divergence in employment and unemployment rates for the most vulnerable workers in these two countries?

Figure 7a shows that the conventionally defined unemployment rate for young workers (ages 15 to 24) was much higher in France than in the United States in the mid-1980s and mid-1990s (the height of the European recession). However, this gap narrowed dramatically in the 2000s, and especially during the 2008-10 financial crisis, while the relative values of the French and U.S. minimum wages continued to sharply diverge. With the exception of 2011 to 2013 (in part a reflection of the commitment to European economic austerity policies) there is no evidence of a secular widening gap, as would be expected if the Kaitz index was a good predictor of employment performance for the most vulnerable workers.

Figure 7: Alternative Unemployment Rates (U/LF and U/POP) for Ages 15-24, 1983-2014*

a. The US and France
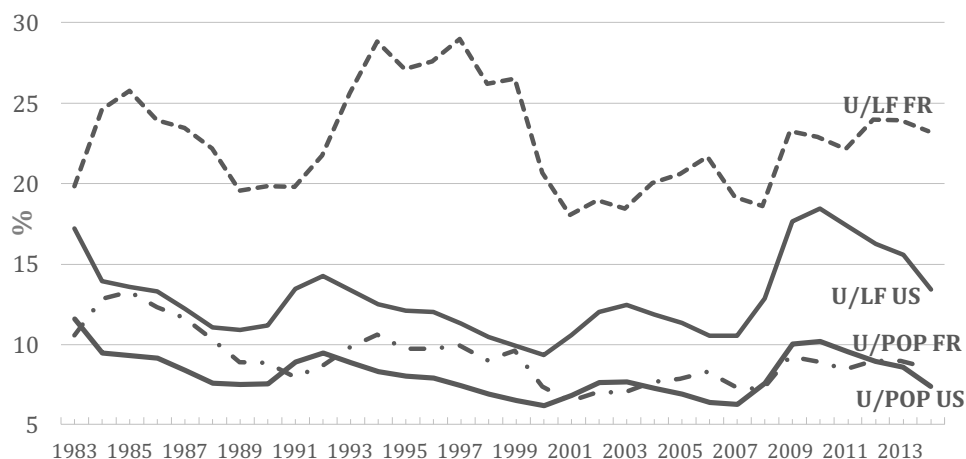
b. The US and Australia
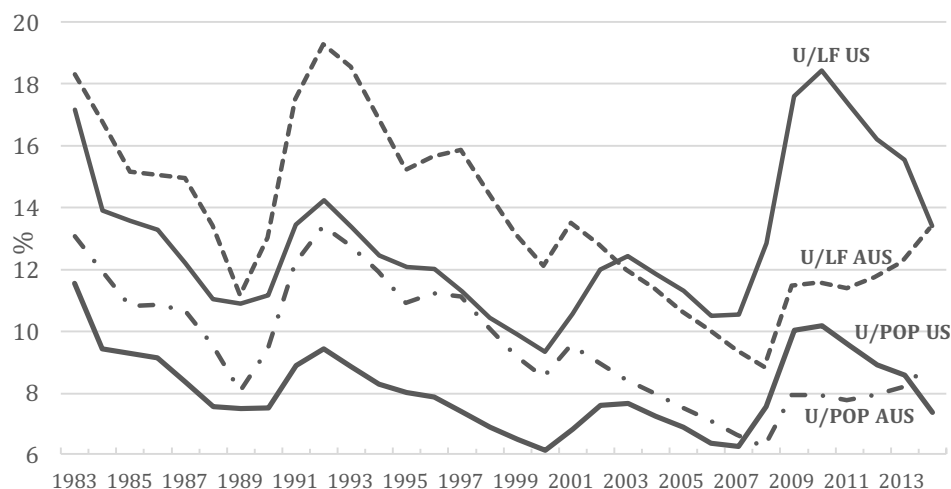
*U/LF is the standard unemployment rate and is the ratio of the unemployed to the labor force for 15-24 year olds; U/POP is the ratio of the unemployed to the population for these ages. Source: OECD.stat (data extracted January 2016).

Figure 7a also shows that the orthodox prediction of diverging U.S. and French employment performance fares even worse if a better measure of youth unemployment is used. The conventional measure is defined as the unemployed share of the labor force (the unemployed plus the employed). But unlike U.S. students, most students in France do not work, and this is not simply a reflection of

the absence of job opportunities. The same was true in the 1960s, when the French economy was at near-full employment (Howell and Okatenko, 2010). With lower employment, the same number of unemployed will translate into a higher unemployment rate, by construction. A much better measure of unemployment for young people is the unemployment-to-population rate, which is shown for French and American 15 to 24 year olds at the bottom of Figure 7. These French and U.S. unemployment rates have tracked each other closely since the 1980s, both fluctuating between 6 percent to 10 percent. There is clearly no evidence of the predicted divergence in French-U.S. employment performance.

Figure 7b presents the same unemployment data for 15-24 year olds in the United States and compares them to Australia. Like France, Figures 5, 6a and 6b show high, and in the case of Figures 6a and 6b, strongly rising inflation adjusted values of the Australian minimum wage. This should have led to higher and diverging unemployment rates for Australia relative to the United States. But Figure 7b offers no support for this conventional prediction: The Australian conventional unemployment rate (U/LF) fell sharply between the early 1990s and the global 2008 economic crisis, to levels below the United States. A similar pattern can be seen using unemployment-to-population rates. The most recent data show nearly identical youth unemployment rates on both metrics (despite the effects of a collapse in commodity prices on the Australian economy since 2012).

Figure 8: The Incidence of Low Pay and 2015 Employment Rates for Young (25-34) Less-Educated Workers for 17 Countries
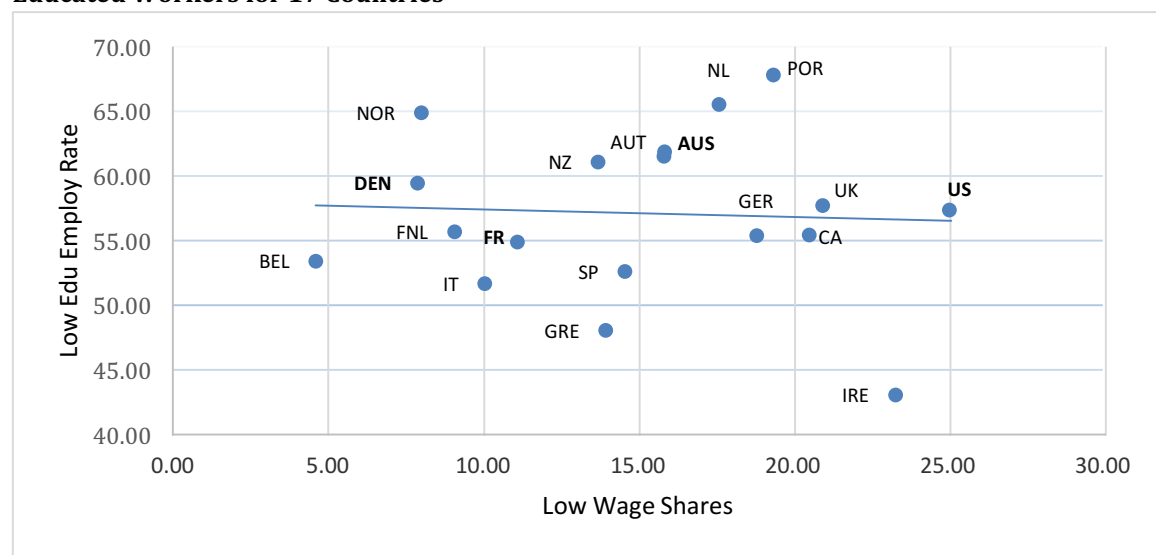
Sources: OECD "Low Pay Incidence" data extracted from OECD.Stat, June 1, 2016, and are for 2013 except the Netherlands (2006), France (2005), and Norway (2009), which are from Schmitt (2012);

the low education employment rate is for 25-34 year olds with less than upper secondary schooling, (EO-OECD 2015, table E).

Another perspective on French, Australian and U.S. employment performance is provided by **Figure 8**, which shows a scatterplot of the low-wage share of employment against the low-education employment rate. A higher minimum wage, together with higher rates of collective bargaining (among other factors) explain cross-country differences in the incidence of low pay. If these "labor market rigidities" price workers out of the labor market, then reducing the low-wage share should also reduce the low education employment rate, as young less educated workers have a harder time finding and keeping jobs.

But Figure 8 shows no cross-country relationship between the incidence of low pay and the low-education employment rate. Indeed, while there is a 14 percentage point gap in the low-wage share of employment between France (11 percent) and the United States (25 percent), the employment rates for young less educated workers is nearly the same. Similarly, Australia's incidence of low pay is 9 percentage points below the U.S. level, but with low-education employment rates about 7 points higher. We have also highlighted Denmark, which shows the strongest challenge to the orthodox prediction—a low-wage share of employment of just 8 percent, 17 points below the 25 percent rate of the United States, but Denmark still shows a superior low-education employment rate for young workers.

Relying on a broader measure of how the French and U.S. economies perform for young workers, **Figure 9** compares the NEET rate (Not in Employment, Education or Training) for 20-to-24 year olds. If young people not attending school are "priced out" of the labor market by a high minimum wage then we should expect a very high and rising NEET rate for France compared to the United States. Figure 8 shows that France has only slightly higher NEET rates than the United States, and the gap has closed significantly since 2000, from 3.2 points in 2000 (17.6 percent for France and 14.4 percent for the United States) to just 0.6 points (19.4 percent compared to 18.8 percent). While the French NEET rate increased by 1.8 points over these 13 years, the U.S. rate increased by 4.4 points. Again, based on the levels and change in the relative value of the minimum wage, from a conventional textbook perspective we should be seeing divergence, not convergence.

In sum, this cross-country evidence offers no support for the conventional view that a high relative value of the legal wage floor (the Kaitz index) offers a good guide to the ability of an economy to "afford" a much higher wage floor (whether set buy a

statutory minimum wage or by collective bargaining). If the Kaitz ratio turns out to be a good benchmark, it would have to be in the region well above 60 percent.[39]

Figure 9: The Share of French and American 20-24 Year Olds Not Employed, Enrolled in School, or in Training (the "NEET Rate"), 2000 and 2013
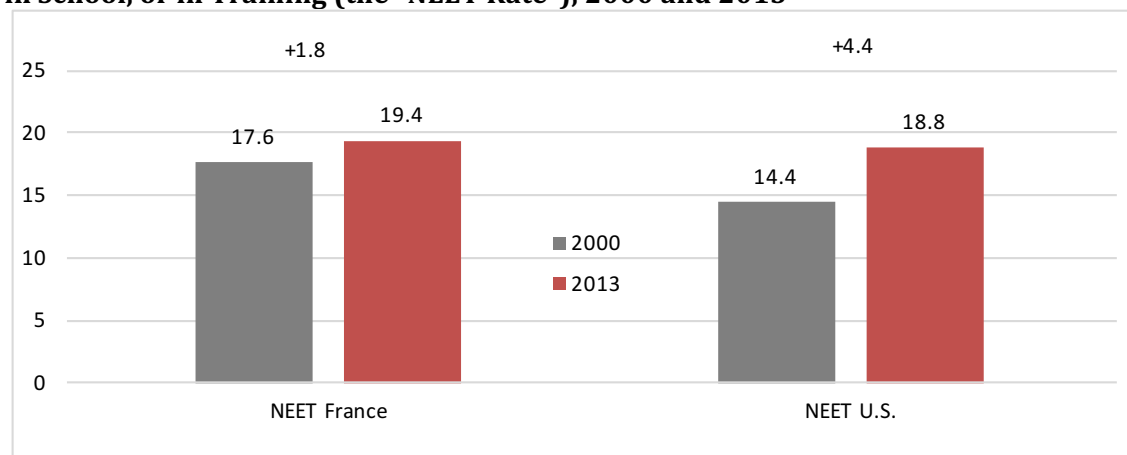
Source: OECD (2015), Table 3.4.

c) The Sector-Level Kaitz Index: A Better NJL Metric?

While the median wage for a geographic area seems a poor guide to setting an NJL wage floor, a better job might be done by using the median wage for a narrowly defined low-wage sector (such as retail trade or food services), because the conditions facing employers that matter for the wage-employment relationship may be fairly similar. The experience of the United Kingdom speaks directly to the question of how high the Kaitz ratio can be in the low-wage sectors where most minimum wage workers are employed.

Table 1 shows that the country's National Minimum Wage (NMW)-to-median ratio in all low-paying sectors increased from 67.5 percent in 1999 to 80.2 percent in 2015 (second to last row). For specific sectors, over these 16 years the NMW-to-median ratio rose from 81.9 percent to 92.5 percent in cleaning, from 78.6 percent to 88.1 percent in hospitality, and from 69.5 percent to 79.5 percent in retail. This

---

[39] It should be noted that we are referring to the OECD's Kaitz ratios, which are measured by the full-time median, a more stringent standard than the targets proposed by the UK government and the UK's Resolution Foundation for a wage floor that is 60 percent of the overall median.

very substantial wage compression occurred without evidence of negative employment effects (Low Pay Commission, 2014, p. 12).

This evidence indicates that the NJL Kaitz ratio for low-paying sectors in the United Kingdom is above 80 percent, the 2015 value. How much above? Had the Low Wage Commission adopted the backward-looking "uncharted waters" NJL criterion, evidence would have been required to confirm that each of these increases since 1999 would not trigger job loss. In the absence of such evidence, we would not know that these increases in the NMW-to-median ratio of 10-to-15 percentage points could take place without any job loss, much less large-scale job loss (as was predicted in the 1990s)—and many U.K. workers would be much worse off as a consequence.[40]

Table 1: The UK's Kaitz Ratio for Low-Wage Sectors, 1999-2013

Sector	1999	2008	2012	2013	2014	2015	Highest bite	
Cleaning	81.9	90.1	**93.5**	92.5	92.7	92.5	93.5	2012
Hospitality	78.6	85.3	86.9	**88.1**	87.7	87.7	88.1	2013
Hairdressing	83.5	80.4	85.8	84.4	85.1	**86.7**	86.7	**2015**
Childcare	-	69.6	82.8	84.2	83.7	**84.8**	84.8	**2015**
Retail	69.5	76.7	**79.5**	78.1	79.4	79.1	79.5	2012
Social care	60.8	72.2	76.8	78.4	78.7	**79.5**	79.5	**2015**
Agriculture	67.5	71.7	**75.1**	71.8	72.1	73.2	75.1	2012
Textiles	62.1	69.9	71.7	71.0	71.0	**73.0**	73.0	**2015**
Leisure	59.3	66.8	69.5	70.8	71.1	**72.1**	72.1	**2015**
Employment agencies	-	67.7	68.0	68.1	**71.5**	70.4	71.5	2014
Food processing	55.6	65.2	70.4	68.4	70.0	**72.2**	72.2	**2015**
Low-paying sectors	67.5	75.5	79.4	78.9	79.6	**80.2**	80.2	**2015**
Non low-paying sectors	42.2	45.6	46.0	45.9	46.2	**47.0**	47.0	**2015**
All	47.1	51.2	52.8	52.5	53.2	54.1	54.1	2015

---

[40] According to the UK's Low Pay Commission (2014), it is possible that there may still be room for higher increases in the low-pay sector Kaitz ratios without risk of job loss if the national minimum wage is increased gradually. "The bite (Kaitz ratio) is at or near its highest ever level in these sectors. Against that background our view is that in these conditions an increase in the NMW such as to cause a large rise in the bite would run a high risk of adverse employment effects. That risk would be more acute if an increase were to take place very quickly: the evidence from past increases in the NMW is that time to adjust business practice in order to manage additional wage costs has been important in enabling employers to cope. We continue to receive advice from employers that a very big rise that takes place in one go would be the hardest for them to absorb" (Low Pay Commission 2014, pp. 31-2).

Source: Low Pay Commission (2016).

The Resolution Foundation estimates that the increase in the bite from the NMW in 2014 to the National Living Wage (NLW) in 2020 would be from 83 percent to 98 percent in the retail trade sector, from 93 percent to 110 percent in accommodations and food services, and from 85 percent to 101 percent in cleaning services.[41] The increase in the wage bill of these three sectors is estimated to be 2 percent, 3.4 percent, and 3 percent respectively. Even in these labor-intensive sectors (because the wage bill is only a part of total operating costs) only a fraction of this 2-to-3.4 percent wage increase range needs to be accommodated, and as both the Low Pay Commission and the Resolution Foundation have indicated, U.K. employers have shown that they can respond not necessarily or only by cutting hours and jobs, but also via price increases, reduced turnover costs, higher productivity, and lower profits (D'Arcy and Corlett 2015, Table 1).

In sum, the expected change in the wage bill after likely adjustments to cope with a mandatory increase in the wage floor is a much better guide to expected job loss than the relative median wage. But if the Kaitz index is to be used as the guide, it is probably best calculated at the sector level in appropriate localities. The U.K. evidence suggests that very high sector-level Kaitz ratios are consistent with little or no job loss.

6. The Federal Wage Floor: A Minimum Living Wage

> Every worker should be ensured a minimum wage which will enable him or her to maintain a becoming standard of life for himself and his family. Apart altogether from considerations of humanity it is on the highest interest to the State that children should be brought up under conditions that will make them fit and efficient citizens.
> *British Prime Minister Lloyd George, 1919[42]*

---

[41] The estimated ratios of the NLW to the sector median can be over 100 percent because the Foundation did not estimate the future median; the objective was only to show the change from the NMW bite in 2014 to what it would be in 2016 and 2020 under the NLW without changing the median. But clearly the NLW would continue the convergence of the of the Kaitz ratio towards 1 in very low-wage sectors.

[42] Quoted by Waldman (The Incidence of Low Pay and 2015 Employment Rates for Young (25-34) Less-Educated Workers for 17 Countries 2004, p. 196).

The concern over job loss has always played a central role in the minimum wage debate, but until recently the underlying motivation was that expressed in 1919 by Lloyd George (above) and in the opening sentences of the 1938 Fair Labor Standards Act as noted above. And in the older rhetoric, patrician national political leaders could speak of the "national evil" of the payment of poverty-level wages (Churchill) and that firms that did so had "no right to continue in this country" (Roosevelt).[43] It is notable that this earlier framing took place in a period with virtually no social safety net and no job protection in extremely competitive labor markets. Any mandated wage floor could be expected to result in job loss in U.S. and U.K economies that were struggling with a surplus pool of labor that that produced what the U.S. economist John Bates Clark called "hunger discipline." This early 20th century debate was framed in terms of a living wage.

By contrast, in today's debate, in a context of much lower unemployment and substantially greater social protection (however inadequate), the discourse is dominated by what the statistical evidence says about the effects of increases in the statutory wage floor on job loss. With the best evidence now showing no discernible employment effects, many of the strongest advocates for substantial hikes in the U.S. federal minimum wage have made the case on No Job Loss (NJL) grounds. Indeed, the argument is that not only will workers not lose jobs, but there will be little or no harm done to anyone—a perfect example of the economist's (near) Pareto-improvement: many gain a lot and no one loses. Setting aside the merits of this view, what is striking about this framing is that the ultimate progressive goal (a living wage) and the strong Rooseveltian rhetoric in support of it has all but disappeared. This leaves the case for minimum wage that can meaningfully improve the living standards of working families subject to the vagaries of the statistical analysis over the risk that some poverty-wage high-turnover jobs will disappear, with no place in the policy debate for the ethical and efficiency payoffs that used to be front and center.

In this section, we suggest that ethical and efficiency considerations should be reintroduced to the debate. The progressive case for a substantial increase in the minimum wage should be reoriented from a "no-harm" (NJL) framing to a benefit-based one that explicitly calls for a Minimum Living Wage on broadly defined net-benefit grounds, which include not just the net monetary benefits of a higher wage for the standard of living of working families, but also the many positive spillover effects of a "high-road" employment model. Decent pay helps working families avoid dependence on public spending that is stigmatizing and politically divisive, and

---

[43] See the title page for the full quotes.

would help end the current practice of subsidizing low-wage, "race-to-the-bottom" employment models that have increasingly characterized the human resource practices of for-profit, non-profit, and government employers alike. Although we do not attempt to identify a particular MLW level or the date at which it should be fully phased in, we offer some evidence of the kind that might be used to do so.

a) The Problem: A Low-Wage Social Model

The responsibility that a the statutory wage floor must bear to bring the income of working families to levels sufficient to provide a decent standard of living depends on the larger institutional context. This includes the nature of social protection policy (e.g., targeted tax benefits like the Earned Income Tax Credit, and child, housing, education, and health benefits), the extent and effectiveness of collective bargaining, and the security and bargaining power that comes with the strength of labor market institutions such as employment protection laws and unemployment benefits (Grimshaw et al. 2016; Marchal and Marx 2015). In addition, corporate governance and wage-setting norms in the private sector can play a big role in the setting of wages for less-skilled workers. On all of these institutional dimensions, U.S. workers face the skimpiest social safety net and the most competitive and precarious job market. To date, the federal minimum wage has been set to align with this "low-road" labor market model, with a real and relative wage floor that is the lowest in the affluent world (see Section 2).

The failure of the U.S. labor market—and the federal minimum wage—to set a decent lower boundary for hourly pay can be seen in the data, which shows steadily worsening performance since 1979, particularly for young workers. Defining "lousy jobs" as those in which workers were paid less than 2/3 of the median wage for full-time workers ages 18 to 64 ($12.50 in 2014) or were working involuntarily part-time, the incidence of lousy jobs for young workers ages 18 to 34 without a college degree has increased astronomically since 1979. For females, the lousy-job rate for this group increased from 53.1 percent in 1979 to 70.1 percent in 2014; for similar young men, the increase was even larger: from 28 percent in 1979 to 57.1 percent in 2014. This compares to lousy-job rates for young men without a college degree of 44.9 percent in the United Kingdom and just 18.1 percent for France (2012). Compared to the U.S. young female rate of 70.1 percent, the young U.K. and French female rate were 59.9 percent and 29.2 percent.[44]

---

[44] Author's calculations (Howell's Equitable Growth Decent Jobs Project). Canada's lousy-job rate for these workers was almost as bad: 68.6 percent for females and 47.5 percent for males.

b) From 'No Job Loss' to a 'Total Earnings' and Minimum Living Wage Standard

We suggest that the primary consideration for setting the federal wage floor is the standard of living that can be attained from paid employment. We do not propose a specific detailed plan for setting the federal wage floor, much less a particular Minimum Living Wage (MLW). But we do argue that the primary consideration in the setting of the MLW is a socially acceptable target hourly wage on standard of living grounds, and that employment effects ought to be an important but secondary consideration.

In asking "Can the minimum wage be 'too high?'", the dominant minimum wage researchers of the last generation, David Card and Alan Krueger, imply a conventional No-Job-Loss (NJL) criterion.

> Ultimately, however, a minimum wage that is set too high would be expected to cause employment declines, even when firms have market power and set wages monopsonistically. Our view is that the political process usually prevents the minimum wage from exceeding the point where it adversely affects total employment, but it is important for research to establish where such effects would occur... Even if the minimum wage does exceed this level, however, it will still increase total earnings for low-wage workers if the elasticity of demand is less than one in absolute value (Card and Krueger 2015, p. xx).

"Too high" is defined in this passage as a level that causes employment declines—a level above what we have called the NJL threshold. But they also appear to envision another yardstick, a narrowly defined measure of net benefits: the change in total earnings for low-wage workers. This would go far beyond the strict NJL criterion, in which the wage floor should be set to preclude the risk of any job loss taking place anywhere. Since it is well-known that the elasticity of labor demand is far below one—Manning (2016) has argued that it may be essentially zero even for U.S. teenagers—there would be a great deal of room under this 'total earnings' standard for wage floors to be set well above the NJL threshold.

The case for this more ambitious wage floor target would be even stronger if we heeded the recommendations made by John Bates Clark in 2013 and closely monitored employment effects in near-real-time, with "emergency relief" legislated along with the minimum wage increases to support workers who were harmed.

> Emergency relief needs to accompany the minimum-wage law, and effective measures for it must be ready to act the moment the law is

passed. It will not do to discharge the workers and then debate the question as to how best to give them work. Moreover, such employment as we furnish should be such as self-respecting persons may properly accept (quoted by Prasch, 2000, pp. 257-8).

Adopting the "total earnings" criterion, the MLW should be set with the goal of eliminating extreme low pay, as Belgium, France, and the Scandinavian countries (through collective bargaining) have already accomplished, and if this should lead to some job loss, there is no question that the net benefits (even if measured only in terms of earnings effects) would vastly outweigh the costs of generous "emergency relief." Instead of invoking the narrow Pareto Criterion of no harm to anyone, this would mean the adoption of what economists refer to as the Compensation Criterion, in which net benefits can be used to fully compensate those harmed by a policy.

The Low Pay Commission in the United Kingdom offers a model of an institutional setup that could operationalize an MLW, one that is inextricably linked to a compensation scheme that effectively ensures full employment.[45] This commission would be responsible for (1) deciding the appropriate MLW; (2) regular monitoring and adjustments of these mandates based on evidence of the effects on both living standards and employment; and (3) planning effective responses to any job losses that cannot be avoided.[46]

c)The MLW: How Little is Too Little?

Although only a handful of countries had established minimum wages at the time of the Treaty of Versailles (1919), the treaty called for "the payment to the employed of a wage adequate to maintain a reasonable standard of life as this is understood in their time and country" (Anker 2011, p. 16). Similarly, the opening sentences of the Fair Labor Standards Act of 1938 make clear that the principal motivation for legislating a minimum wage was to eradicate those "labor conditions detrimental to the maintenance of the minimum standard of living necessary for health, efficiency, and general well-being of workers." The minimum wage was also included in the general principles of the International Labour Organization (ILO); a resolution adopted in 1945 recommended "the establishment of appropriate minimum wage standards, adequate for satisfying reasonable human needs" in order to "assist the progressive raising of the standard of living of all workers" (ILO 2014, p. 3).

---

[45] As the Resolution Foundation (2014) has pointed out, the Low Pay Commission should have been called the "Minimum Wage Commission" because it's charge was not to reduce the incidence of low pay.
[46] As the American economist John Bates Clark wrote over a century ago in 1913 (Prasch 2000).

There is no consensus—nationally or internationally—about how to define a specific and realistic living wage. Most approaches agree that at a minimum, the living wage should be high enough to allow a worker with a family to cover the basic subsistence costs of shelter, food, transportation, clothing, and utilities. Items such as health care and education are free in some countries and not in others, so that impacts the necessary wage. The ILO's Richard Anker (2011) has developed a methodology for determining a living wage in an international context.

Perhaps the living wage calculations from abroad that are most directly relevant for thinking about an appropriate MLW for the United States comes from the Living Wage Foundation in the United Kingdom, which relies on research from the Centre for Research in Social Policy (CRISP) at Loughborough University. Their living-wage estimates are intended to "show how much households need in a weekly budget and how much they need to earn in order to achieve this disposable income" for a variety of household types.[47] The Foundation puts the 2016 living wage at £8.25 outside London and £9.4 in London.[48] These figures would translate into a 2016 U.S. living wage of between $11.77 and $13.41.[49]

In the United States, there are several methodologies commonly used to estimate a basic-needs budget for workers with different family types (e.g. single adult, single adult with one child, two adults with two children).[50] Most find that the wage needed to pay the basic costs of living—housing, food, transportation, utilities, taxes, health care, savings, clothing, and personal items—requires a full-time job at a wage that is, as **Figure 10** suggests, at nearly $14 per hour for a single person, and at least $22 for a single adult with one child in low cost-of-living areas. For example, among the nine cities shown in the figure, Minneapolis has the lowest basic-needs budget for a single person ($13.62) and Houston has the lowest for a single adult with one dependent child ($22.67). This compares to the proposed 2020 federal minimum

---

[47] http://www.lboro.ac.uk/research/crsp/mis/whatismis/
[48] For the Living Wage Foundation, see http://www.livingwage.org.uk/; For CRISP, see http://www.lboro.ac.uk/research/crsp/
[49] These are rough estimates, calculated by using the OECD's Purchasing Power Parity (PPP) multiplier (1.426) for 2014 to the Living Wage Foundation's estimate of the London and outside London 2016 living wage. The 1.426 factor was calculated by taking the ratio of the U.K. PPP adjusted 2014 national minimum wage from the OECD ($9) to the United Kingdom's 2014 national minimum wage in pounds.
[50] This includes the Economic Policy Institute's Family Budget Calculator, the Self-Sufficiency Standard developed by Diana Pearce, and the MIT Living Wage Calculator developed by Amy Glasmeier. All of these provide estimates of the income needed to cover basic living costs, by family size and type as well as city and state. Also see Fredericksen (2015).

wage of $12, which is the equivalent of $10.92 in 2016 (based on CBO inflation projections), and the proposed $15 in 2021—about $13.34 in today's dollars.

Figure 10: The Full-Time Hourly Wage Required for Basic-Needs Budget by Family Type for Selected Cities for 2016 (with lines showing proposed 2020 and 2021 minimum wages in 2016 dollars)
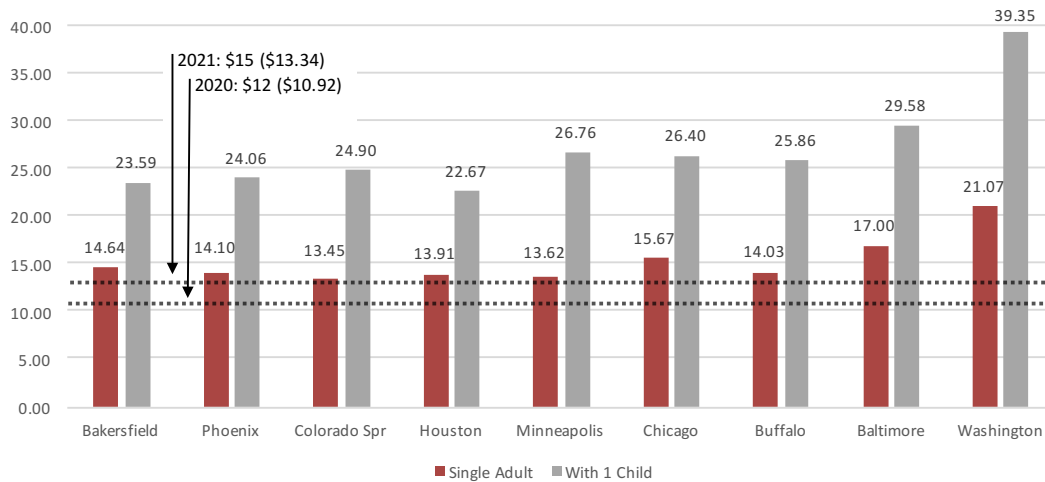
Source: Tung et al. (2015), table 3.1; derived from EPI's Family Budget Calculator).

Figure 11: The Full-Time Hourly Wage Necessary to Rent a Modest 2-Bedroom Apartment: ten selected states, statewide average and the nonmetropolitan average in 2015 (with lines showing proposed 2020 and 2021 minimum wages in 2016 dollars)
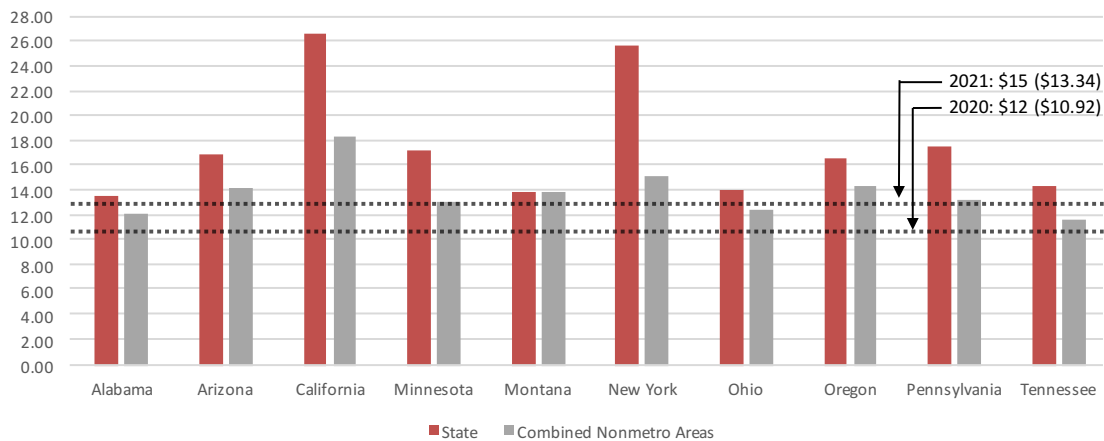
Source: National Low Income Housing Coalition (NLIHC 2015). NLIHC calculates these estimates based on HUD's published Fair Market Rent and assumes that housing costs are 30 percent of income.

A second source for benchmarking the Minimum Living Wage is the evidence from the National Low Income Housing Coalition. To rent a modest, two-bedroom apartment, the average wage required for a full-time worker (40 hours and 52

weeks) was $19.35 per hour, or $15.50 for a one-bedroom unit (assuming rents are 30 percent of household income).

As **Figure 11** shows, even for rural Alabama, the rent required for a minimally decent two-bedroom apartment in non-metropolitan Alabama is estimated to require a $12.18 hourly wage for a full-time worker, which is about $1.20 more than the proposed $12 wage for 2020 would provide ($10.90 in 2016). The average rural Alabama worker could afford this apartment with a wage equivalent to today's value of the proposed 2021 $15 wage, but with only $1 left over per hour ($13.34 vs $12.18). However, even the $15 proposal ($13.34 today) would be too little to cover the rental of a modest two-bedroom apartment in the five most expensive cities in Alabama, which would require a full-time hourly wage ranging from $15.15 to $15.63 (NLIHC 2015, p. 16). These cost-of-living estimates suggest that a 2020 wage floor of $12 would not come close to satisfying a reasonable MLW standard—even for rural Alabama. Indeed, they suggest that the MLW would need to be at least $14 in 2016 dollars, and perhaps in the range of $16.00 to $17.00 by 2021.

Additional evidence on basic-needs budgets can be found in the "Making Work Pay" reports by the National Center for Children in Poverty (NCCP), which provide estimates of the income families require for basic needs in cities of selected states. This is a particularly valuable source for what is needed from a wage after taking into account the availability of city, county, state, and federal means-tested social support. For example, the most recent findings for Montana (for 2010) suggest:

> Across the seven localities examined in Montana, families need incomes of over twice the federal poverty level to cover their basic expenses of housing, food, transportation, health insurance, child care, and other necessities…. (the figure) shows that a single parent with two children, one preschool-aged and one school-aged, needs an annual income ranging from $39,000 in Havre to $46,000 in Kalispell to cover these expenses. This is equivalent to a wage of $19 to $22 per hour—two to three times the value of the minimum hourly wage of $7.35 and one and a half times the value of Montana's median wage of $13.65 (Chau 2011, p. 4).

The NCCP's study of Iowa (for 2008) produced similar results. In both Iowa and Montana, the combination of local, state and federal "work-support" programs can *potentially* make up for most, or even all, of the gap between these basic expenses and net earnings *if the "take-up rate" is 100 percent in areas with the most comprehensive set of supportive services*. But eligibility for these public subsidies varies over time and by jurisdiction, and requires substantial time and energy to know what is available, to show eligibility, and to apply and collect. As a result,

according to NCCP," many families do not access all of the programs for which they are eligible."[51]

d) Net Impacts for Workers

If the minimum wage is raised, workers may lose eligibility for some programs, such as the Earned Income Tax Credit (EITC), the Supplemental Nutrition Assistance Program (SNAP), or food stamps,[52] childcare and housing assistance, and medical care. At the same time, policy can be used to offset higher labor costs for employers (such as tax policy or subsidies). In order to determine the "right" federal minimum wage, it is critical to take into account the *net outcomes* for both workers and employers.

This point is highlighted when comparing minimum wages in the international arena. According to OECD estimates, the average net U.S. minimum wage was just $6.26 in 2013, about $1.00 less than the gross $7.25 wage.[53] This compares to a net wage of $7.06 for the United Kingdom, $7.18 for Canada, $8.24 for France, and $9.54 for Australia (OECD 2015a). The OECD estimates that the net gain—the share of the minimum wage increase that a worker takes home after taxes and benefit reductions—to a U.S. minimum wage worker was barely over 40 percent (40 cents for each dollar increase in the minimum wage) in 2013, which was more than in Australia (32 percent) but slightly less than France (45 percent) and far less than Canada (over 60 percent) and the Netherlands (over 80 percent) (OECD 2015b).

Good illustrations of the potential for these offsetting effects can be found in the NCCP's "Making Work Pay" reports for Iowa and Montana (discussed above). Both show a substantial "cliff effect" where working family incomes actually fall as the worker's hourly pay increases. In the case of Iowa, as **Figure 12** shows, income would drop for a family of three (a single parent and two children, ages 2 and 6) in Des Moines by nearly $8,000 due to the loss of food stamps and a childcare subsidy

---

[51] According to the Chau's NCCP Montana report (2011, p. 6), "A recent paper from the Urban Institute shows that nationally one in five eligible children do not participate in Medicaid or Children's Health Insurance Programs (CHIP), nearly four in 10 eligible working households with children do not receive SNAP, and seven in 10 families eligible for child care subsidies are not served.5 These findings echo those of a previous study, which found that only five percent of low-income working families received a broad work support package of public health insurance, SNAP and a child care subsidy."

[52] Supplemental Nutritional Assistance Program.

[53] The OECD estimates the taxes that workers must pay, including mandatory contributions to retirement pensions, income taxes, unemployment insurance, and other social programs. The net minimum wage is the estimated take-home pay for a full-time minimum wage worker. Wages are adjusted using Purchasing Power Parities for private consumption (OECD 2015a).

as the worker's pay increased from $10.50 to $12 (2008) (Fass et al. 2008, figure 1). A similar family in Billings, Montana would have seen a drop of about $7,000 in 2010 from a wage increase from $13 to $13.50 due to the loss of the childcare subsidy. In addition, an increase in pay from $15 to $18 would increase annual income by just $1,000 because of the loss of food stamps)and other benefits (Chau 2011, figure 4). These examples highlight the need for a careful assessment of the correct minimum wage based on locality, and available policies. It also shows how it is crucial that the minimum wage be understood as part of a package of policies in addition to the wage.

The NCCP report profiles potential impacts for hypothetical families, but we also have some research on the actual impact of increased wages on benefit eligibility and net overall earnings from research on municipal living wage ordinances. Researchers conducted interviews with workers covered by the living wage ordinance to compare their before-and-after income, including reliance on social programs.

Figure 12: Net Family Resources as Earnings Increase: Des Moines, IA (Single Parent with two Children, Ages 2 and 6)
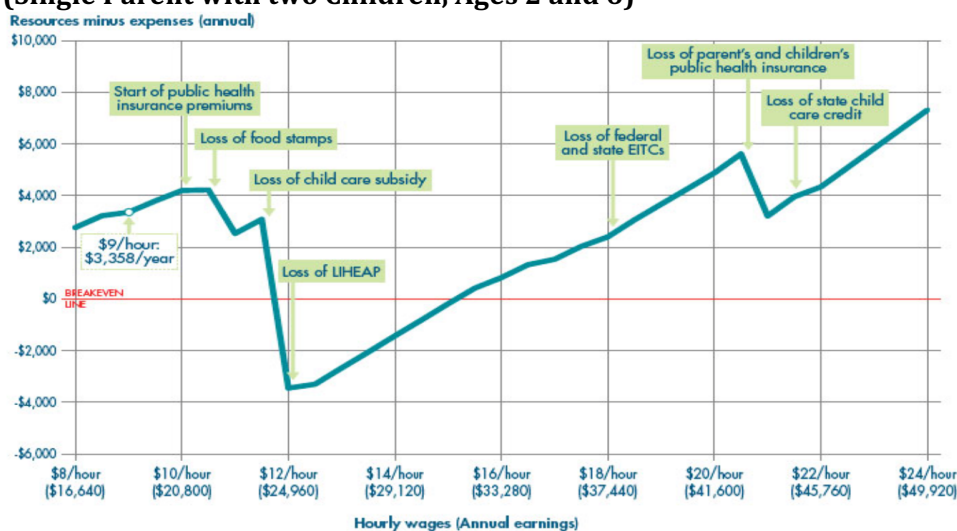
Source: National Center for Children in Poverty (2008).

For example, Fairris et al. (2005) studied the impact of the Los Angeles living wage ordinance, which required firms covered by the ordinance to raise wages from a minimum of $4.25 to $7.25 per hour (plus health insurance) in 1996.[54] They found that after the living wage was implemented in Los Angeles, a majority of workers

---

[54] The living wage is adjusted each year with the cost of living. By 2015 the L.A. living wage rate was $11.17 plus health benefits (http://www.lawa.org/welcome_LAWA.aspx?id=596).

reported less income from social programs but a net increase in annual income (Fairris et al. 2005). The gains were greatest for single or married workers without children, as they were eligible for fewer programs to begin with. Single parents with children were, on average, the most dependent on government programs, and therefore experienced the biggest drop in eligibility. Still, workers interviewed reported a net gain in income. The net gain was not enough to lift many workers out of poverty, given that the living wage rate was set just at the federal poverty line, which suggests the need for a higher wage level.

To ensure that minimum-wage workers get the most of any increase, appropriate adjustments to the benefit schedules of programs such as the EITC and SNAP should be central to the debate over the appropriate level of the federal minimum wage.[55]

7. Conclusion

The United States is just emerging from a global financial crisis that had devastating consequences for many U.S. workers, most visibly in joblessness and the collapse of housing values. Some seven years after the trough, the employment rate is only slowly recovering, but the conventional unemployment rate is now around 5 percent, half what it was in 2009-10. As the employment crisis recedes, what remains is the much longer term crisis in low pay, one that shows a steady worsening since the late 1970s. According to the Bureau of Labor Statistics, there are more than 35 million people who are "working poor." The share of working poor went from 5.1 percent of the labor force in 2007 to 7.2 percent in 2010, and has changed little since then, despite the tepid economic recovery. Families with children under 18 years old were three times more likely to be among the working poor. These rates of working poverty are the highest they have been since the 1980s, when the BLS starting collecting data (BLS 2015).[56]

The problem of in-work poverty will not be solved by small-scale tinkering with our current labor market policies and institutions. Workers require a massive infusion of bargaining power. In the absence of effective collective bargaining on a northern European scale, the intervention that can be most effective in the near term is a substantial hike in the national wage floor, one that requires employers—for-profit, non-profit and government alike—to pay a decent living wage.

---

[55] On how to best combine these policies, see, for example, Wicks-Lim and Pollin (2012).

[56] The working poor are defined as defined as people who spent at least 27 weeks in the labor force but whose household incomes still fell below the federal poverty level. Given the inadequacy of the federal poverty line measures, the actual rate of working poor is likely much higher.

While the living wage movement has made giant strides in cities and states across the country, the federal minimum wage remains at just $7.25, a level far below that of most other affluent countries with statutory wage floors, in both buying power and relative (to the median wage) terms. Yet, even among many advocates for a higher federal minimum wage, the goals seem barely adequate, with targets of $10.10, $12, or even $15 that are not to be fully phased in until 2020-23, depending on the proposal. After all, Australia and France have already come close to effectively outlawing low pay, defined by wages that are less than two-thirds of the median full-time wage. But crucially, these other affluent countries also provide a much higher "social wage" than the United States in the form of universal (not means-tested) support for health, education, and especially child support. In the current context, the legal wage floor must carry a much higher burden for maintaining minimally decent family incomes in the United States than in other affluent countries.

At the same time, it is unrealistic to expect a national statutory minimum wage to carry this entire burden. One approach would be to complement a Minimum Living Wage (MLW), set perhaps with reference to a basic-needs budget for a single adult worker, complemented by a federal universal taxable child-cash-benefit program along the lines modeled by Garfinkel et al. (2016). This would be similar to allowance systems already in place in countries including Canada, the United Kingdom, and France. Garfinkel et al. show that unconditional cash allowances like these can be more effective at reducing poverty than other kinds of policies such as a child tax credit. As the prominent U.K. economist Anthony Atkinson has argued, "A Child Benefit that is substantial but taxable, combined with a progressive (income) rate structure... is an effective way of ensuring that all families receive some recognition of their family responsibilities but that more is given per child to those on lower incomes" (Atkinson, 2015, p. 2014).

Still, the root of the problem of in-work poverty is inadequate pay, and that is where the main solution must be found. As the University of Chicago economist Paul H. Douglas (1925, p. 16) wrote in remarkably strong language for an academic journal:

> It is the most cruel form of unconscious hypocrisy for businessmen to pay insufficient wages to those of their employees who are fathers of families and then by contributing to child welfare agencies to feel that they have discharged their duty... employers and social workers alike need to beware of thinking that social work, for all its valuable contributions, is an adequate substitute for a decent wage.

Part of the explanation for our persistent failure to establish a minimally decent wage floor at the federal level has been the way the discourse has been framed— even by many of the strongest advocates for substantially higher minimum wage. The rhetoric has been dominated by economics 101 thinking, in which increases in the minimum wage are constrained by the economist's Pareto Criterion of "no harm to anyone." Its manifestation in the current American minimum wage debate is what we have called the No-Job-Loss (NJL) standard for setting the legal wage floor. This rhetoric is the mirror-opposite of the moral outrage at the payment of less than subsistence wages voiced in by intellectual and political leaders of earlier generations, from leading economists such as Adam Smith and Paul Douglas, to the patrician politicians Winston Churchill and Franklin Roosevelt.

As Tony Atkinson has argued, to effectively combat poverty and inequality, we often need a change in the discourse. Concerning the debate over the minimum wage, the criterion for setting the appropriate level of the national legal wage floor should not be driven by statistical contests over what particular wage threshold poses "little or no risk of job loss," but rather by what wage will ensure a minimally decent standard of living from full-time work, and what policies can complement a Minimum Living Wage that will ensure that any costs of job loss are adequately compensated.

If we really care about maximizing employment opportunities then we would put a much higher priority on full-employment fiscal and monetary macroeconomic policy, minor variations of which would have massively greater employment effects than even the highest statutory wage floors that have been proposed. But it is also well within our capabilities to counter any job loss that can be linked to the adoption of what J. B. Clark in 1913 called "emergency relief" such as extended unemployment benefits, education and training subsidies, and public jobs programs. A Minimum Living Wage combined with meaningful child-cash allowances would put the United States back among other affluent nations by promoting work incentives while all but eliminating both in-work poverty and child poverty. It would put the country into waters that most other affluent nations have charted and are already navigating.

References

Allegretto, Sylvia and Michael Reich. 2015. Are Local Minimum Wages Absorbed by Price Increases? Estimates from Internet-based Restaurant Menus. *IRLE Working Paper* #124-15. Berkeley, CA: Institute for Research on Labor Employment, University of California, Berkeley.

Allegretto, Sylvia, Arindrajit Dube, and Michael Reich. 2011. Do Minimum Wages Really Reduce Teen Employment? Accounting for Heterogeneity and Selectivity in State Panel Data. *Industrial Relations* 50 (2): 205-240.

Anker, Richard. 2011. Estimating a Living Wage: A Methodological Review. *Conditions of Work and Employment Series No.29*. Geneva: International Labour Office.

Atkinson, Anthony. 2015. Inequality What Can Be Done? Cambridge, MA: Harvard University Press.

Belman, Dale, and Paul J. Wolfson. 2014. The New Minimum Wage Research. *Employment Research* 21 (2): 4-5.

Brown, Charles, Curtis Gilroy, and Andrew Kohen. 1981. The Effect of the Minimum Wage on Employment and Unemployment. *Journal of Economic Literature* 20 (2): 487-528.

Bureau of Labor Statistics. 2015. A Profile of the Working Poor 2013. BLS Report 1055.

Bureau of Labor Statistics. 1970. Youth Unemployment and Minimum Wages. *Bulletin 1657.* Washington, DC: U.S. Department of Labor, Bureau of Labor Statistics.

Card, David, Alan B. Krieger. 1995. Minimum Wages and Employment: A Case Study of the Fast-Food Industry in New Jersey and Pennsylvania. *The American Economic Review* 84 (4): 772-793.

Card, David, Alan B. Krueger. 2015. *Myth and Measurement. The New Economics of the Minimum Wage. Twentieth-Anniversary Edition.* Princeton: Princeton Press.

Chapman, Jeff and Jeff Thompson. 2006. The Economic Impact of Local Living Wage. *EPI Briefing Paper #170*. Washington, DC: Economic Policy Institute.

Chau, Michelle. 2011. Making Work Pay in Montana. New York, NY: National Center for Children in Poverty. Clark, John Bates. 1913. "The Minimum Wage." *The Atlantic Monthly* 112: 289-97.

Clark, Krissy. 2014. Meet the Woman behind Ikea's Living Wage Calculator. *Marketplace,* August 6, 2014. URL:

http://www.marketplace.org/2014/08/06/business/meet-woman-behind-ikeas-living-wage-calculator.

Congressional Research Service. 2013. The Fair Labor Standards Act (FLSA): An Overview. CRS Report for Congress.

Cooper, David, John Schmitt, and Lawrence Mishel. 2015. We Can Afford a $12.00 Federal Minimum Wage in 2020. *EPI Briefing Paper #398*. Washington, DC: Economic Policy Institute.

Cooper, David. 2016. Inflation makes Proposed Minimum Wage Increases More Modest than they Appear. EPI Working Economics Blog, February 26, 2016. URL: http://www.epi.org/blog/inflation-makes-proposed-minimum-wage-increases-more-modest-than-they-appear/

D'Arcy, Conor and Adam Corlett. 2015. Taking up the Floor: Exploring the Impact of the National Living Wage on Employers. London, UK: Resolution Foundation.

Doucouliagos, Hristos, and Stanley, T. D. 2009. Publication Selection Bias in Minimum-Wage Research. A Meta-Regression Analysis. *British Journal of Industrial Relations* 47 (2): 406-428.

Douglas, Paul H. 1925. The Family Allowance System as a Protector of Children. *The Annals of the American Academy of Political and Social Science* 121: 16-24.

Dube, Arindrajit, William T. Lester, and Michael Reich. 2010. Minimum Wage Effects Across State Borders: Estimates Using Contiguous Counties. *Review of Economics and Statistics* 92 (1): 945-964.

Dube, Arindrajit. 2014. Proposal 13: Designing Thoughtful Minimum Wage Policy at the State and Local Levels. The Hamilton Project (The Brookings Institution).

EPI – Economic Policy Institute. 2015. Wage Deciles (personal communication, Nov. 23, 2015).

Fairris, David, David Runsten, Carolina Briones, and Jessica Goodheart. 2005. The Los Angeles Living Wage Ordinance: Effects on Workers and Employers. Los Angeles, CA: Los Angeles Alliance for a New Economy.

Fairris, David. 2005. The Impact of Living Wages on Employers: A Control Group Analysis of the Los Angeles Ordinance. *Industrial Relations* 44 (1): 84-105.

Fass, Sarah, Kinsey Alden Dinan, Nancy K. Cauthen, and Jessica Purmort. 2008. Making Work Pay for Iowa's Families. New York, NY: National Center for Children in Poverty.

FLSA – Fair Labor Standards Act of 1938, as amended (Revised May 2011). WH Publication 1318. URL:
http://www.dol.gov/whd/regs/statutes/FairLaborStandAct.pdf

Fredericksen, Allyson. 2015. Pay Up: Long Hours and Low Pay Leave Workers at a Loss. Seattle, WA: Alliance for a Just Society.

Garfinkel, Irwin, David Harris, Jane Waldfogel and Christopher Wimer. 2016. Doing More for Our Children: Modeling a Universal Child Allowance or More Generous Child Tax Credit. The Century Foundation, March 16, 2016.

Grimshaw, Damian, Jill Rubery, and Mat Johnson. 2016. "Raising the UK national minimum wage: a case of activating or arresting social dialogue?," unpublished manuscript.

Grossman, Jonathan. 1978. Fair Labor Standards Act of 1938: maximum struggle for a minimum wage. *Monthly Labor Review* 101 (6): 22.

Hirshman, Albert O. 1991. *The Rhetoric of Reaction*. Cambridge, MA: Belknap Press of Harvard University Press.

Howell, David and Anna Okatenko. 2010. By what measure? A comparison of French and US labor market performance with new indicators of employment adequacy. *International Review of Applied Economics* 24(3): 333-357.

Howes, Candace. 2005. Living Wages and Retention of Homecare Workers in San Francisco. *Industrial Relations* 44 (1): 139-63.

ILO – International Labour Office. 2014. Minimum Wage Systems. International Labour Conference, 103rd Session, 2014. Geneva: International Labour Office.

Jerold Waltman. 2004. *The Case for the Living Wage*. New York: Algora Publishing.

Krueger, Alan B. 2015. How Much is Too Much? *New York Times*. October 11, 2015.

Lindert, Peter. 2004. *Growing Public.* Cambridge, UK: Cambridge University Press.

Low Pay Commission. 2014. The Future Path of the National Minimum Wage.

Low Pay Commission. 2016. National Minimum Wage: Low Pay Commission Report, Spring 2016.

Luce, Stephanie. 2014. *Fighting for a Living Wage*. Ithaca, NY: Cornell University Press.

Manning, Alan. 2016. The Elusive Employment Effect of the Minimum Wage. *CEP Discussion Paper No. 1428*.Marchal, Sarah and Ive Marx. 2015. "Stemming the Tide: What Have EU Countries Done to Support Low-Wage Workers in an Era of Downward Wage Pressures?" IZA DP No. 9390 (September).

National Center for Children in Poverty. 2008. Making Work Pay for Iowa's Families.

NLIHC – National Low Income Housing Coalition. 2015. Out of Reach 2015. Washington, DC: NLIHC.

Neumark, David and William Wascher. 2008. *Minimum Wages.* Cambridge, MA: MIT Press.

Neumark, David, J.M. Ian Salas, and William Wascher. 2014. More on Recent Evidence on the Effects of Minimum Wages in the United States. *NBER Working Paper* No. 20619.

OECD. 2006. Boosting jobs and Incomes: Policy lessons from reassessing the OECD jobs strategy. Paris: OECD Publishing.

OECD. 2015. Education at a Glance 2015. Paris: OECD Publishing.

OECD. 2015a. Minimum Wages After the Crisis: Making Them Pay.

OECD. 2015b. Employment Outlook 2015. Paris: OECD Publishing.

Parsa, H.G. , John T. Self, David Njite and Tiffany King, 2005. Why Restaurants Fail. *Cornell Hospitality Quarterly* 46(3): 304-324.

Polanyi, Karl. 2001 [1944]. *The Great Transformation.* Boston, MA: Beacon Press.

Prasch, Robert E. 2000. John Bates Clark's Defense of Mandatory Arbitration and Minimum Wage Legislation. *Journal of the History of Economic Thought* 22 (2): 251-263.

Reich, Michael, Peter Hall and Ken Jacobs. 2005. Living Wage Policies at the San Francisco Airport: Impacts on Workers and Businesses. *Industrial Relations* 44 (1): 106-138.

Reich, Michael, Peter Hall, and Ken Jacobs. 2005. Living Wage Policies at the San Francisco Airport: Impacts on Workers and Businesses. *Industrial Relations* 44 (1): 106-138.

Reich, Michael, Sylvia Allegretto, Ken Jacobs and Claire Montialoux, 2016. The Effects of a $15 Minimum Wage in New York State. Berkeley, CA: Center on Wage and Employment Dynamics, Institute for Research on Labor and Employment University of California, Berkeley.

Resolution Foundation. 2014. More than a Minimum. The Resolution Foundation Review of the Future of the National Minimum Wage: The Final Report.

Roosevelt. Franklin D. 1937. Message to Congress on Establishing Minimum Wages and Maximum Hours (May 24, 1937). Online by Gerhard Peters and John T.

Woolley, *The American Presidency Project*. http://www.presidency.ucsb.edu/ws/?pid=15405.

Ryan, J. (1912*). A living wage: Its ethical and economic aspects*. London: MacMillan.

Scheiber, Noam. 2015. Raising Floor for Wages Pushes Economy into the Unknown. *New York Times*. July 27, 2015.

Schmitt, John. 2013. Why Does the Minimum Wage Have No Discernible Effect on Employment? CEPR Report. Washington, DC: Center for Economic and Policy Research.

Schmitt, John. 2015. Explaining the Small Employment Effects of the Minimum Wage in the United States. *Industrial Relations* 54 (4): 547-581.

Smith, Adam. [1776] 1937. The Wealth of Nations. New York, NY: The Modern Library.

Stabile, Donald. 2008. *The Living Wage: Lessons from the history of economic thought*. Cheltenham: Edward Elgar Publishing.

Tung, Irene, Yannet Lathrop, and Paul Sonn. 2015. The Growing Movement for $15. NELP Report.

U.S. Department of Labor, Bureau of Labor Statistics. Labor Force Statistics from the Current Population Survey: Monthly teen unemployment (series LNS14000012).

Webb, Sidney. 1912. The Minimum Wage. *Journal of Political Economy* 20 (10): 973-998.

Welch, Finis R. 1995. Comments by the Reviewers. *Industrial and Labor Relations Review* 48 (4): 828-849.

Werner, Andrea and Ming Lim. 2015. The ethics of the living wage: a review and research agenda. *Journal of Business Ethics.* Published online: February 12, 2015.

Wicks-Lim, Jeannette and Robert Pollin. 2012 Making Work Pay: Combining the Benefits of the Earned Income Tax Credit and Minimum Wage. Amherst, MA: Political Economy Research Institute.

Wofford, Ben, and Manuela Tobia. 2016. A Surprising Number of America's Mayors Support $15 Minimum Wage. *Politico*. January 25, 2016.

Appendix: A Kaitz Index Thought Experiment

Arin Dube (2014) has proposed that the criterion for setting the statutory minimum wage should be the Kaitz index—the ratio of the minimum to the average or median wage—and further proposes that the "natural" and "appropriate" Kaitz ratio should be 50 percent. This would raise the minimum wage everywhere in the United States, but based on his assessment of the evidence, employment effects would "likely (be) too small to be meaningfully different from zero" (p. 8). This is a good example of the application of the backward-looking No-Job-Loss (NJL) criterion: the minimum wage should be set at the highest wage that evidence shows will pose little or no risk of job loss. As he puts it,

> … a comparison of the minimum wage to the median offers a guide
> for how binding a particular minimum wage increase is likely to be,
> and what type of wage the labor market can bear. When this ratio is
> low—say around 0.2—minimum wage policy is not raising the wages
> of many workers. In contrast, a high ratio—say around .08—
> indicates a highly interventionist policy where the minimum wage is
> dramatically compressing differences in wages for nearly half the
> workforce…. No one expects that the minimum wage should be set
> equal to the median wage…. (p. 2).

That conclusion may be a fair depiction of the mainstream U.S. minimum wage discourse, but many countries have chosen policies that severely compress the bottom of the wage distribution and have done so explicitly on ethical criteria of what is a minimally decent income from work. The 10-50 (or 50-10) ratio is a standard measure of inequality at the bottom of the wage distribution. The most recent data (2013-15) show that the ratio of gross earnings of the 10th percentile worker to the median worker was 45.5 percent for the United States (not much above the U.S. Kaitz ratio of 37 percent). This compares to 55.5 percent and 57.5 percent for the United Kingdom and Australia, respectively, just over 68 percent for Denmark and Finland, and 72 percent for Belgium and Sweden. A highly compressed low-end wage distribution is clearly compatible with a high-employment labor market in the affluent world.

The fundamental problem with the Kaitz index as a guide to the risk of job loss is that the level and change of a location's median wage—the denominator of the ratio—may have little or nothing to do with the dynamics of wage and employment setting at the level of the firm. Dube's proposal focuses on two levels at which the Kaitz can be operative, states and metropolitan areas. If the Kaitz index defined for

geographic jurisdictions is at all useful as a guide to the likelihood of consequential job loss, it should perform best at the local level.

The following thought-experiment (with fairly realistic numbers) shows that the Kaitz ratio will be wildly different for the same workers employed in the same fast food franchises depending on the jurisdiction for which the Kaitz ratio is calculated, ranging from the two extremes (.8 and .2) in the Dube passage quoted above.

We begin with an extremely local labor market: let's call it a big rest stop on the New York Thruway that is the dominant employer in the area, which is rural. Let's say there are 300 employed workers, ranging from managers to entry-level cashiers, cleaners, and maintenance staff. Assume that the New York state minimum wage has recently risen to $9, pushing up the wages of many of the workers and severely compressing the bottom half of the wage distribution. As a consequence, half (150) are now paid less than $11, so the median wage in this labor market is $11, and the Kaitz index is 82 percent ($9/$11).

Since this rest stop is located in upstate New York (above the northern New York City suburbs) which is scheduled for a slower phase-in of a higher wage floor (perhaps to $15), this is another relevant jurisdiction for which the Kaitz index can be calculated. If the relevant labor market is this upstate region and the median wage is $18, then the Kaitz index will be 50 percent ($9/$18). But if the entire state is the relevant jurisdiction and the median is $27, the operative Kaitz ratio is 33 percent ($9/$27).

This example illustrates how differences in median wages across different political jurisdictions can cause the $9 state-wide wage floor to generate Kaitz index values ranging from 33 to 82 percent, depending on whether the reference median wage is defined at the level of the rest stop, upstate New York, or the entire state. But for each Kaitz value, the workers are the same, the likelihood that the worker quits (turnover) is the same, the ability to pay for past and future minimum wage increases by reducing pay raises for the top earning 150 workers is the same, and the ability to pass along labor cost increases in prices or reduced profits is the same. What makes the 50 percent Kaitz ratio the right one?

What would the Kaitz index calculated for each of these jurisdictions tell us about the likely employment effects of another minimum wage hike, say to $10 (as the phase-in to the $15 wage begins)? If this increase in the state wage floor pushed the median wage at the rest stop to $12 but had no effect on the upstate or state-wide medians (to keep the example simple), then the changes in the Kaitz ratios would

be: from 82 percent ($9/$11) to 83 percent ($10/$12) for the rest stop labor market; from 50 percent ($9/$18) to 56 percent ($10/$18) for the upstate labor market; and 33 percent ($9/$27)to 44 percent ($10/$27) for the state-wide labor market. Which of these changes should be used as the best guide to "what type of wage the labor market can bear"?

Turning this thought experiment around, we can ask about the implications for the "natural" wage floor for each jurisdiction, should a 50-percent rule be used to set the minimum wage after the statutory wage floor is increased from $9 to $10. If the labor market was held to be the local area—overwhelmingly dominated by the 300 worker rest stop—then the the appropriate wage would be just $6 (50 percent of $12). If many upstate New York State legislators are right that the upstate area is the most appropriate labor market for the purposes of determining minimum wage effects, then the 50 percent Kaitz rule would generate a wage floor of $9 (50 percent of $18). But if those who argue that the minimum wage should be set for the entire state, the proper wage floor would be $13.50 (50 percent of $27). Does a formula that generates outcomes that range from $6 to $13.50 offer a useful guide to setting the appropriate minimum wage for our New York Thruway rest stop workers and their employers?