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Price V. Fishback
University of Arizona

Andrew J. Seltzer
Royal Holloway University and IZA

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IZA – Institute of Labor Economics

Schaumburg-Lippe-Straße 5–9
53113 Bonn, Germany

Phone: +49-228-3894-0
Email: publications@iza.org

www.iza.org

ABSTRACT

The Rise of American Minimum Wages, 1912-1968*

Minimum wages have been among the most controversial government interventions in labor markets. There have been several waves of minimum wage activity over the past century, beginning with a 1912 Massachusetts law. Since 1938 minimum wages in the United States have been set by a complex array of federal and state laws, with state laws sometimes exceeding the national law and closing important coverage gaps. Between 1938 and 1968, the real value of the federal minimum wage was generally increasing. Coverage gaps continued to be closed by amendments to federal legislation into the 1970s. In the 1980s, the real minimum rate declined sharply, and has since this time never again reached the level of 1955-1980. In this paper we examine the political economy of early minimum wage laws, focussing on the role of interest groups, politicians, courts, economists, and the general public.

JEL Classification: N32, N42, J88
Keywords: minimum wages, political economy

Corresponding author:
Andrew Seltzer
Department of Economics
Royal Holloway, University of London
Egham, Surrey TW20 0EX
United Kingdom
E-mail: a.seltzer@rhul.ac.uk

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The Rise of American Minimum Wages, 1912 to 1968

Minimum wages have been among the most controversial government interventions in labor markets. There have been several waves of minimum wage activity over the past century. The stances of the interest groups have been consistent over time, and largely centered around prevailing wage levels. In several waves of debates economists developed similar themes while repackaging them with more technical language while improving the quality of the statistical analysis.

The American experience with minimum wages began when 15 states passed minimum wage laws for women and youths between 1912 and 1922. In political debates, advocates viewed minimum wages as an essential protection for less-skilled workers to provide them with a "living wage", defined by the amount necessary to keep the worker, and perhaps their family, at a modest level of comfort. Low-wage employers worried about the effect on their costs and were staunchly opposed. High-wage employers have supported minimum wages as a means to restrict "unfair" competition in periods when they were paying well above the minimum. Institutional and neoclassical economists in the 1910s disagreed about the theoretical impact of minimum wages using reasoning similar to the later debates in the 1940s and 1950s and again in the modern era. Between 1923 and 1936 the U. S. Supreme Court in a series of close decisions found minimum wage laws to be unconstitutional violations of the "freedom to contract." Despite the rulings, the federal and state governments continued to propose new laws, and the Supreme Court reversed course in 1937.

After intense debates the Fair Labor Standards Act (FSLA) of 1938 established a national minimum wage for workers in interstate commerce, while roughly half the states set minimum rates for workers in some sectors left uncovered by the FLSA. The federal law set nominal minimum wages and future rate increases required new legislation that was often delayed by disputes between interest groups. In consequence, the purchasing power of the national minimum wage has followed the sawtooth path in Figure 1 with a jump when each new nominal minimum wage was set and then a decline as inflation eroded its purchasing power. While the national minimum wage remained constant in the 1940s, verbal theoretical disputes between institutional and neoclassical economists heated up.

After increases in the nominal and real national minimum rates in 1950 and 1956, economists' disagreements centered on empirical debates that foreshadowed the modern debates of the 1990s through the present time. Amendments to the FLSA in 1961 and 1966 raised the real minimum wage in several steps until it reached an all-time peak in 1968. Between 1960 and 1990, academic studies exploited longer data series since the initial passage of the FLSA and used increasingly sophisticated econometric techniques. During this period, the neoclassical view became increasingly accepted and most studies confirmed their prediction of negative employment effects, particularly for the young and unskilled. By the late 1960s, legislators had begun directly referring to these studies in the *Congressional Record*. In 1980 Ronald Reagan became the first President to actively oppose minimum wages, and a new minimum was not set until 1989. Despite a new empirical debate over the minimum wage that started in the mid-1990s, the long delays between FLSA amendments have continued, and the 2019 national minimum wage has less purchasing power than the 1950 minimum. In consequence, as many as 32 states have passed minimum wages that exceeded the national minimum during the 2000s (Neumark 2019).

Our focus in this paper is on the economic history of the rise of the American minimum wage between 1910 and 1968. Each new FLSA amendment led to a new peak in the real purchasing power of the national minimum. Exemptions to the FLSA were progressively closed and the share of workers covered finally increased from about 50 percent of the private sector workforce in 1937, to 77 percent of the private sector and 40 percent of the public sector workforce in 1966. By the late 1970s coverage was nearly complete, with only the smallest employers exempted. We describe the political economic history of the minimum wage laws, as well as the debates among economists. Another key feature is a renewed emphasis on the roles played by the states in passing the original minimum wage laws for women. The states filled some of the gaps in coverage left by the FLSA after 1938 and set higher minimum rates for women in some sectors in the 1940s and 1950s than the FLSA set for men and women in interstate commerce. Since 1981 a rising number of states have set general minimum wages that substantially exceed the national minimum.

A History of American Minimum Wage Legislation

In the early 1900s, labor law was the responsibility of state and local governments. Massachusetts enacted the first law for women and minors in 1912. Washington, DC and 14 more states listed in Table 1 followed (Phelps 1939 and United States Women's Bureau 1928). A few set flat minimum wages, while most copied earlier laws in Australia, New Zealand, and the United Kingdom and created commissions to issue wage orders by sector.

The primary argument given by supporters of the early state laws covering women and children was the ending of "sweated" labor – hard work for very low pay under poor conditions (Webb 1912, Commons 1935). Reformers considered this to be a health and safety issue. The Supreme Court had upheld men's hours laws in dangerous industries and women's hours law in all industries (Fishback 2018). Reformers thought a natural extension was to prevent unhealthy conditions for women and their children by preventing wages from falling below a "living wage", and used the argument to win support for the laws in state supreme courts in Arkansas, Massachusetts, Minnesota, and Oregon, and Washington (Clark 1921, p. 33).

After a 4-4 tie in the Supreme Court's *Stettler v. O'Hara* and *Simpson v. O'Hara* cases left the Oregon minimum wage in place, the Court in 1923 declared the District of Colombia law unconstitutional by a 5-3 vote in *Adkins v. Children's Hospital* and *Adkins v. Willie A. Lyons*.[1] The majority affirmed the doctrine of "freedom of contract," and stated that "wages, unlike hours affected health only 'indirectly or remotely.'" Oliver Wendell Holmes dissented, arguing the law's correct goal was to remove conditions causing "ill health, immorality, and the deterioration of the race."[2]

Despite a series of court rulings striking down minimum wage laws, the votes were often close, and several states continued to set advisory wages (US Bureau of Labor Statistics 1933b, pp. 1344-54). As happened with most state labor laws, enforcement relied on the employer's willingness to abide by the law, pressure from workers, and public opinion. Wage declines during the Depression led seven states in 1933 to pass new laws, often based on a standard bill sponsored by the National Consumers' League (US Bureau of Labor Statistics, 1933, p. 1259). The Bureau of Labor Statistics (1933b, p. 1346) supported the laws on grounds that Depression had made it "apparent that unfair wage standards not only undermine the health and well-being of the workers but threaten the stability of industry itself." The laws protected "the public health, morals and welfare."

Worries about industry stability and declining wages led President Hoover to "jawbone" leading manufacturers to set up work-sharing arrangements with reduced weekly hours, more

[1] Justice Brandeis recused himself because he had been an advocate for the laws in the lower courts in these cases.
[2] Both quotes are from Cushman (1996, pp. 67, 69).

employment, and no reductions in hourly earnings (Rose 2010; Neumann, Taylor and Fishback 2013). The New Dealers followed in 1933 with the National Industrial Recovery Act (NIRA) of 1933, which called for employers, workers, and consumers in each sector to limit excessive competition by negotiating codes that included minimum wages. While waiting for the codes, President Roosevelt convinced thousands of firms to sign President's Reemployment Agreements (PRAs) that set maximum hours and minimum wages with the stated goal to "raise wages, create employment, and thus increase purchasing power and restore business."[3] Hundreds of sectors then developed codes, although violations largely went unpunished. In *L. A. Schechter Poultry Corp. v. United States* (295 U. S. 495, 1935), the Supreme Court unanimously struck down the codes because they had become the equivalent of regulations created by market participants and such delegation of power was unconstitutional (Taylor 2011).

In 1936 the court also struck down a 1933 New York minimum wage law with a 5-4 vote in *Morehead v. New York ex. Rel. Tipaldo* (298 US 587, 1936) despite New York's attempts to differentiate it from the D. C. law declared unconstitutional in 1923. Chief Justice Hughes dissented: "I can find nothing in the Federal Constitution which denies to the state the power to protect women from being exploited by overreaching employers." (p. 619). In a separate dissent Justices Stone, Brandeis and Cardozo declared that in the prior decade society had learned that a wage is not always the outcome of free bargaining; that it may be "forced upon employees by their economic necessities and upon employers by the most ruthless of their competitors." Insufficient wages burdened society as a whole, and the problem should be solved by the legislative branch (pp. 635-6).

[3] The PRAs required minimum weekly earnings of $15, $14.50, $14, and $12 in areas of descending size. The hourly minimum was 40 cents unless the 1929 wage was less. Signing the PRAs was attractive to employers because the government developed a massive ad campaign asking consumers to buy from the firms (Taylor 2011).

The minimum wage was ruled constitutional when Justice Owen Roberts switched sides and voted to uphold the 1913 Washington state minimum wage law for women in *West Coast Hotel v. Parrish* (300 US 379, 1937). Roberts joined the court after the 1923 *Adkins* decision and later claimed that he had voted against the New York minimum because it was similar to the D. C. law and New York's lawyers failed to challenge the *Adkins* ruling. In 1937 Washington state lawyers directly challenged the *Adkins* decision, and he chose to support their law because women were "especially liable to be overreached and exploited by unscrupulous employers," which was "not only detrimental to the health and wellbeing of the women affected, but casts a direct burden for their support upon the community."[4]

The decision opened the door for a minimum wage, but a federal minimum was controversial.[5] Northern Democrats and some Republicans viewed minimum wages as a moral imperative needed to end sweated labor.[6] President Roosevelt spoke of the need to end "starvation wages." Senator William Borah (R, ID) proclaimed people worthy of hire are "entitled to sufficient compensation to maintain a decent standard of living" (*Congressional Record*, 1938, p. 7793). High-wage producers of shoes and textiles in New England and lumber in the Northwest supported minimum wages in order to eliminate "excessive," "unfair" competition from the low-wage South.[7] The opposition was led by Congressmen from low-wage states and some northern

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[4] Some claim that Roberts switched to prevent Roosevelt's court packing scheme. Cushman (1998) and Frankfurter (1955) disagree, arguing that the vote was in December well before the scheme was announced.

[5] Seltzer (1995 and 1997) describes the FLSA controversy in depth and is the source for this three-paragraph discussion.

[6] Another argument raised in 1937/38 was that minimum wages would promote national recovery by increasing aggregate demand, a view which was also central to President Roosevelt's New deal wage policies. However, by the 1950s, the Depression was long over and this argument had all but vanished from Congressional debates.

[7] See testimony of Representatives Arthur Jenks (R, NH), Allen Treadway (R, MA), and Martin Smith (D, WA) in *Congressional Record* (1937, pp. 439, 505-6, 517).

Republicans, who saw minimum wages as an unwarranted federal government intrusion into private contracts. Nearly half of all southern manufacturing workers, and higher shares in textiles and lumber, earned less than 40 cents per hour in 1937.

Secretary of Labor Frances Perkins wrote the original bill. It specified a 40-cent minimum but appointed *Industry Committees*, comprising industry insiders and members of the public, were allowed to raise the rate to 80 cents, well above estimates of a living wage and prevailing wage rates (*Congressional Record*, 1937, p. 439). The Senate passed the bill in July 1937. When it reached the House, southern Democrats raised strong objections to the Industry Committees. They expected high-wage northern interests to capture the committees and set minimum wages near 80 cents and disallow regional differentials. Union leaders also objected because they believed that wage bargaining was their exclusive domain.

After months of political wrangling, the bill looked set to die in committee because southern Democrats held out-sized representation and more seniority on the key committees. The tide turned in May when ardent minimum wage supporters Senator Claude Pepper and Representative Lister Hill overwhelmingly beat bill opponents in Democratic primaries in Florida and Alabama. The entire House then petitioned for and passed the bill in late May 1938. The Act phased in the minimum wage at 25 cents in October 1938, rising to 30 cents in October 1939, and then gave Industry Committees the discretion to raise it to 40 cents between October 1940 and October 1945. It was confined to employees who were "engaged in interstate commerce or the production of goods for interstate commerce." Further, the entire public sector, agriculture, retail establishments, local services, domestic service, and small businesses were excluded from coverage. The constitutionality of the FLSA was upheld in 1941 by a 9-0 Supreme Court vote in *United States v. Darby*.

Between 1945 and 1967 Presidents Truman, Eisenhower, Kennedy, and Johnson all supported increases in the minimum wage and expansions of coverage. The term “minimum wage” appeared in 16 presidential State of the Union addresses between 1937 and 1967 (*Complete State of the Union Addresses*). Yet, only the four FLSA amendments listed in Table 2 were enacted. The minimum was raised six times and coverage was expanded twice. Congress was the site of the continued struggle between liberal Democrats, including Senator Paul Douglas (1972, 374-80), a former University of Chicago professor and president of the American Economic Association, and an opposition composed largely southern Democrats and some but not all Republicans.

The primary argument for the minimum wage in the *Congressional Record* became the moral imperative to protect the most vulnerable workers. In 1960 John F. Kennedy (1960) called for expanded coverage: “To pass them by … shocks the conscience of those who care.” The emphasis on a living wage continued, as well. In 1946/1947 Congress asked the Bureau of Labor Statistics to calculate “the dollar amount required to maintain the family at a level of adequate living” for families of four throughout the country (Lamale and Stotz, 1959, p.1). After 1954, the budgets began appearing in the *Congressional Record* (1955, p. 7871; 1961, pp. 5987-89; 1974, p. 7313) as did the much lower standard of the official poverty level in the 1970s (1974, pp. 7312-13; 1977, p. 32715). The argument that the minimum wage reduced “unfair competition” never vanished completely but receded in importance because regional wage differences narrowed and extensions to coverage mainly affecting the untraded sector.

Widespread popular support for minimum wages was expressed in Gallup polls. Gallup pollsters carefully defined the minimum wage and highlighted the group most likely to be affected in asking the following question (with updated numbers each time). “At the present time the minimum wage that can be paid to workers in every state in most businesses and industries is 40 cents an hour. This means that all persons working in such businesses, in every state, including young people who have never worked before, cannot be paid less than 40 cents an hour. Would you approve or disapprove of raising this minimum to 60 cents an hour?" The polls showed that between 61 and 78 percent supported increases from 40 to 65 or 75 cents before the 1950 change, from 75 cents to $1 in 1953 or to $1.25 in 1954 and from $1 to $1.25 in 1957. The only poll without majority support called for a raise from 40 cents to $1 in 1948.[8]

Congressional opponents therefore were careful to state that their support for the overall objective of helping the working poor and reducing poverty but regarded minimum wages as the wrong way to achieve it. From 1937 through 1966, the most frequently raised objections to amendments to the FLSA concerned 1) the direct cost to employers and 2) the indirect costs created by the administrative requirements of complying with the FLSA. Some opponents argued that raising business's costs would reduce employment of less skilled workers, but this argument was not central to their case until the late 1960s and early 1970s, when a growing number of academic studies found minimum wages had employment effects.

Faced with popular and presidential support for minimum wages, opponents were able to delay raising the minimum but eventually had to accede. They were more successful in delaying the expansion of coverage of the Act. Senator Douglas (1972, pp.377-78) reported disappointment that the compromises in 1949 and 1955 traded away expansions of coverage for a higher minimum. The 1961 amendment in Table 2 finally raised the coverage of private sector employees from 55 to 63 percent by including employees in large retail and service enterprises, local transit,

[8] Gallup poll results from Roper Organization (2020). Gallup Poll ID numbers that start with USGALLUP: 081945. QK06B, 45-356. QT06B, 040746. RT08B, 061447. RK12B, 021448. RK05B, 48-422. QK11B, 48-422. QT11B, .011249. R08B, 433T. QT08B, 062949. R08, 442T. QT08, 49-446. QKT09A, 53-520. Q18, 54-540. QK13A, and 57-577. Q025.

construction, and gasoline service. To overcome opposition, the minimum for newly covered workers was set below the minimum for previously covered workers until 1965. Coverage with lower minimum rates was expanded to 77 percent of private workers and 40 percent of government workers with the 1966 amendments that included government employees in hospitals, nursing homes, and schools; and also to agriculture, laundries, dry cleaners, large hotels, motels, and restaurants (Willis 1972). The minimum rates were not equalized for all covered workers until 1978, when roughly 87 percent of private employees were covered in Table 2.

State Minimum Wages

The FLSA left large gaps in coverage. Roughly half of the states partially filled these gaps by setting minimum wages, mostly for women, in industries such as retail stores, laundries, offices, hospitals, beauty shops, hotels, recreation, and in some cases manufacturing. Most of the laws established boards that set minimums that varied by occupation, hours of work, age, gender and experience. Over time many of the states added men and covered more occupations. (Women's Bureau 1950, 1958). However, domestic work, agriculture, non-profit work, and most government occupations were left uncovered in the FLSA and many state laws until the 1960s.

Many of the states set higher minimum rates than the FLSA for at least some workers during several periods. In 1939, 18 states set at least one minimum higher than the 30-cent federal minimum (Women's Bureau, 1939). In 1949, 19 states had at least one minimum wage above the 40-cent federal minimum.[9] After the federal minimum rose to 75 cents in 1950, 9 states reached it by 1955. After the FLSA minimum rose to $1 in 1956, 14 states had at least one $1 minimum by

[9] Between 1942 and 1950 when the FLSA minimum was 40 cents state boards issued 77 orders; there were 3 above 70 cents, 29 between 60 to 69, 25 from 50 to 59, and 11 from 40-49. Only 9 were below 40. Womens' Bureau (1951, p.2).

1959, two years before the 1961 amendment to the FLSA established a $1 minimum for newly covered workers.[10] However, by the late 1960s and throughout the 1970s, when the federal minimum was at its highest and the exemptions to coverage were being successively closed, the importance of state laws declined.

Even during the unconstitutional period from 1923-1936, the state laws were not just "dead letters." Case studies of minimum wages in the 1910s and 1930s showed increased earnings and declines in hours of employment, although there was an intense debate about *ceteris paribus* conditions (Peterson 1958, 1960; Lester 1959). Benewitz and Weintraub (1964) found employment effects from the 1962 New York City increase in the minimum wage to $1.50. Campbell and Campbell (1969) found higher unemployment in cities with state minimum wage rates. More recently, Marchingiglio and Poyker (2019) find significant effects on female employment of women in a triple-difference analysis of state minimum wage laws using the full censuses from 1880 through 1930.

Comparing the Minimum Wages to Living Standards

In the January 1938 *Monthly Labor Review* (Stilt and Smith 1938, p. 201), the Department of Labor described the criteria for a minimum wage. "Certain basic standards of adequacy are generally recognized as inherent in the concept of a minimum wage based on the cost of living." The purpose of minimum-wage legislation has been variously expressed in the laws as the establishment of wage levels "necessary for health and welfare," or sufficient for "decent maintenances" and "adequate living." These fairly vague standards have been benchmarked against budgets estimated by American observers and government agencies since as early as 1870

[10] Counts from Women's Bureau (1958).

(Barrington and Fisher 2006, pp.2-629 to 2-647). These budgets are based on estimated needs in categories including food, housing, clothing, medical care, transportation, and other goods and services (see for example, Lamale and Stotz 1960, p. 789).

A low standard for comparison is the official poverty line, which was originally based on budget estimates by Molly Orshansky (1965) in the 1960s. We interpolated the line back to 1940 using estimates constructed by Oscar Ornati (1966) in a manner similar to Orshansky's. Figure 2 shows that the national minimum wage covered more than the poverty line cost of living in a household with one or two people in most years and in some years for 3 people. Except for 1943 and the late 1940s, the annualized minimum wage has always been above the poverty line for an individual under age 65. From 1939 through 1941, in 1950, and from 1956 through 1984 it was at or above the 2-person poverty line. It exceeded the 3-person poverty line in only 15 years between 1961 and 1979, and has never exceeded the 4-person poverty line.

All involved in the process of setting the national minimum wage realized that the cost of living varied substantially across the country. In the original FLSA debates this led to demands from low cost areas to allow for regional variation in the minimum rates. In June 1938 the Gallup Organization asked "If Congress passes a minimum wage law do you think the minimum wage per hour should be the same all over the country, or should it be different for different sections?" and 62 percent responded that it should be different. Support for a national law rose thereafter, but did not reach a majority in a Gallup poll in September 1948 when 46 percent replied national, 31 percent state, and 13 percent replied no law at all.[11]

[11] Gallup poll results from Roper Organization (2020). Gallup Poll ID numbers that start with USGALLUP:060138. RA05A and 48070F. R25A.

Between 1939 and 1981, the BLS intermittently created a consumption bundle and priced it for at least 30 different cities in the same year for a 4-person family with a working father, a nonworking mother, an 8-year old girl and a 13-year old boy. The versions prior to 1946 were based on a Works Progress Administration bundle developed for an "unskilled manual worker" and did not reach the level "the skilled worker hoped to attain, but [afford] more than a 'minimum subsistence' living" (Margaret Loomis Stecker WPA 1937, xiii, xiv). After a request from Congress in 1946/47 the BLS developed its own bundle to price the budgets. The new budget covered "the dollar amount required to maintain the family at a level of adequate living, according to prevailing standards of what is needed for health, efficiency, the nurture of children, and for participation in social and community activities - a level of living described as 'modest but adequate'" (Lamale and Stotz, 1959, p.1).

Table 3 shows in each city the national minimum wage (assuming a work week 40 hours and 52 weeks worked per year) as a percentage of the adequate budget for a four-person family that could have been purchased in 1940, 1950, 1959, and 1967. As in Figure 2, the minimum wage fell well short of covering an adequate budget for a 4-person family. The percentages at the median for different size families at the bottom of the table again shows that the minimum comes closer to covering a single individual under 65. The minimum wage ranged from 82.7 to 92.7 percent of the median for that group.

There was substantial variation in the budgets. In 1940 in Mobile, Alabama, the lowest cost city, had 28.5 percent more purchasing power than New York City, the highest cost city. The distribution of purchasing power appears to have been reduced during the 1940s war decade to a 13.9 percent gap between the lowest cost and highest cost cities. Then it rose to 21.3 percent in 1959 and 38.7 percent in 1967 (25.7 percent without Honolulu). Generally, the minimum wage covered more of the budget in southern and midwestern cities and less in northeastern cities in most years. The rankings, however, did not hold steady throughout. The positions of New York and Atlanta, for example, shift substantially across the years in Table 3.

Economists and the Minimum Wage.

American economists have debated the impact of minimum wages throughout the past 120 years. There have been multiple waves of debates that address many of the same themes, although with different language and increasingly sophisticated empirical methods. Institutional economists associated with the American Association of Labor Legislation (AALL) played significant roles in arguing for the women's minimum wage during the Progressive Era. Notables John Andrews, John R. Commons, Richard Ely, Henry Seager, and Leo Wolman drew lessons from minimum wages set in Australia, New Zealand, and the United Kingdom, where Sydney Webb (1912) and Mathew Hammond (1915) claimed minimum wages had yielded wage increases with at worst weak negative consequences.

Robert Prasch (2000, 2007) identifies several themes in their arguments. The most important were 1) Women had limited opportunities and weak bargaining power, and John Bates Clark (1913, p. 292) suggested that they might be hired for less than their "worth as measured by the productivity test." 2) Minimum wages would prevent women from receiving less than a living wage that provided the "necessary comforts of life." Better health and improved attitudes would lead to increases in productivity and avoid strikes. 3) Sidney Webb (1912) argued that the low wage firms in "sweated trades" were "parasitic" and created conditions in which employers had to compete against each other by driving down wages. Minimum wages would force employers to compete by increasing productivity with new machinery and more efficient organization of labor. This was a common theme that led large, unionized, and more productive employers to join reformers in supporting other progressive labor legislation as well (Fishback and Kantor 1998; Seltzer 1995).

Economists in the marginalist tradition, including John Bates Clark (1913), Frank Taussig (1916), A. C. Pigou (1913), and Frank Fetter (1917) warned of the negative consequences for employment. Bates Clark (1913, p.294) summarized their reasoning:

> "What is probable, even as the result of a more modest legal increase of pay, is as follows: Of the lowest grade of workers some would be promoted to a higher rank and some would be discharged. The output of the business would be reduced."

Taussig (1916) argued against views that "parasitic" industries were a cause of low wages, instead laying the blame for low wages more on a large supply of low-skilled women that was made larger by immigration. Clark and Fetter seemed willing to experiment with minimum wages, but Clark (1913, pp. 296-7) argued that it should be accompanied by emergency relief for those left unemployed. Fetter and Taussig suggested that poverty might better be prevented through improved education, training, and housing, and immigration restrictions.

After the passage of the FLSA, minimum wages became the source of renewed debate. After a decade of Depression, the discussions often assumed less than full employment and imperfections in commodity and input markets. The arguments for the minimum wage echoed the Progressive Era arguments with updated, more technical language: 1) Setting minimum wages in monopsonistic labor markets would move wages closer to the marginal revenue product, raising both wages and employment. 2) The minimum wage would improve workers' health and productivity enough that the consequent increase in labor demand could more than offset the negative employment effect of the higher wage. 3) Higher wages would induce inventions and improvements in managerial efficiency that would raise labor productivity and increase the demand for labor (Bronfenbrenner (1943). Weir Brown (1940) developed a new argument that an economy-wide minimum wage could shift income from entrepreneurs with lower propensities to consume to low-income workers who would spend their full incomes, leading to demand increases for consumer goods and services that promoted more output and employment.

Martin Bronfenbrenner (1943) and George Stigler (1946) argued against all four arguments. Stigler (1946, p. 358) shifted the focus of the debate, claiming that everybody agreed on the goal to eliminate extreme poverty. The important questions were 1) do minimum wages diminish poverty? (2) Are there better alternatives?" Stigler said no to the first because the likely result of a minimum wage would be the discharge of "workers whose services are worth less than the minimum wage." After conceding that employment, wages, and output could be increased when employers have wage setting power with "a skillfully set minimum wage," he was skeptical that policy makers possessed a "tolerably accurate method" of determining the optimum wages over time for each occupation, firm, and quality of worker. Hours worked and many other factors made the connection between the hourly wage and family income "remote and fuzzy." Like the earlier marginalists, Stigler believed that alternative policies would be more affective at helping the poor and added a negative income tax like the modern EITC to the list offered by Fetter, Taussig, and Bates Clark.

Richard Lester (1946, 1947) castigated Stigler and other marginalist thinkers for their inadequate understanding of the operation of labor markets and how employers made decisions. His surveys of southern entrepreneurs showed that they focused primarily on demand changes when choosing employment, did not think in terms of marginal analysis, and did not adjust their capital-labor ratios in response to North-South wage differentials. They responded to the minimum wage shock by improving management practices and increasing sales efforts. Fewer than 10 percent mentioned reducing output. His own studies of wage determination had not found the single wage predicted by marginalists. Instead, he found diversity in pay for equally productive workers.

Seeing these marked differences in predictions from economists at major universities, the ultimate guide for policy makers would have been empirical work. At various times between 1910 and 1951 state labor departments and the U. S. Department of Labor collected data on earnings and employment just prior to and after the adoption of a minimum wage. Most of the studies performed by the departments reported weak or no effects of the minimum wage on employment. John Peterson (1957) argued that many of these reports had failed to dig very deeply into the data. In re-examining the data in a more disaggregated fashion he found support for the "hypothesis that employment changes will be inversely related to wage increase imposed by a minimum (p.430)."[12]

This led to a debate between Richard Lester and Peterson in the 1960 *Industrial and Labor Relations Review* in which they criticized each other nearly line by line as they discussed several minimum wage episodes involving low-paid workers. The debate centered on empirical issues that are familiar to modern empirical economists. They both discussed "causal inference" and both focused heavily on issues related to *ceteris paribus* conditions. As in the modern debates, they used difference-in-difference comparisons and sometimes difference-in-difference-in-difference comparisons to compare outcomes pre- and post- minimum wage in treatment and control areas. Their debate over *ceteris paribus* conditions examined simultaneous events and prior trends. In a

[12] In a similar fashion the initial Department of Labor reports on the increase in the minimum wage to $1 showed small employment effects, while later academic studies found larger effects (Macesich and Stewart Jr. (1960) and Douty (1960)).

study of the 70-cent minimum wage, Peterson mimicked a regression discontinuity design by showing cross-tabulations before and after the minimum wage for firms in several wage categories ascending from well below the minimum to well above prior to the increase. He also compared covered and uncovered firms within the same town and the same industry. The problem these studies faced was that the available data was heavily aggregated and there were not enough observations for them to effectively control for multiple confounds with regression analysis. The results showed negative effects on hours or employment in more than half of the comparisons. Peterson argued that given the rough nature of the comparisons that this was enough to suggest negative consequences for employment from the minimum wage in low wage industries, while Lester remained unconvinced.

Epilogue

As shown in Figure 1, the purchasing power of the national minimum wage remained near 1968 levels through the 1970s. Since 1980 it has fallen sharply. Five FLSA amendments have raised the minimum 14 times, but the last three amendments only managed to raise the real minimum wage back to its level in 1950 or slightly higher. The national minimum has also receded in terms of political importance. Between 1968 and 1990, the term “minimum wage” appeared only once in a presidential State of the Union address (by Jimmy Carter in 1981). Except for 1997, increases in the national minimum were all passed when Democrats controlled both houses of Congress.

One source for the change in political outcomes was a shift in the consensus of academic economists. After the Peterson-Lester debates, the neoclassical (Chicago) view gained the upper hand. Most papers in the late 1960s and especially into the 1970s found negative employment effects, particularly for the less-skilled, teens, and the disadvantaged. [13] Milton Friedman became the public face of opposition to minimum wages. In an oft-quoted 1966 Newsweek editorial, Friedman (1966) noted that Congress had just raised the minimum wage, which would "add to the ranks of the unemployed." He added, "I am convinced that the minimum-wage law is the most anti-Negro law on our statute books—in its effect not its intent" (Friedman 1966). Prominent Keynesians agreed that minimum wages had negative consequences. For example, James Tobin wrote: "People who lack the capacity to earn a decent living need to be helped, but they will not be helped by minimum-wage laws. … The more likely outcome of such regulations is that the intended beneficiaries are not employed at all." (*Congressional Record*, 1966, p. 11270). By the late 1960s the view that high minimum wages reduced employment of low skilled workers featured widely in Congressional debates.[14] In 1973 President Nixon vetoed a FLSA amendment with no youth subminimum rate, because he believed the new minimum would harm teenage employment (*Congressional Record*, 1974, p. 4706). While supporting the 1974 amendment, he cautioned against raising it too high (Congressional record 1974 p. 4706). By the mid-1970s, minimum wage opponents were entering the negative findings from academic studies by Adie (1973), Mincer (1976), Gramlich et al (1976), Welch (1974), Ragan (1977), and Cotterill and Wadycki (1976) into the *Congressional Record.*

The newer studies had access to more data (e. g. longer time series since the implementation of minimum wages) and increasingly sophisticated econometric methodology. Researchers increasingly adopted time series techniques that used the real minimum wage or the

[13] By the 1960s, the number of studies had increased dramatically, and in the interest of space, we will not list them. individually. See Brown, Gilroy, and Kohen (1982) and Neumark and Wascher (2008) for a summary of the literature up to 1980.
[14] See, among others, the testimony of Rep. Charles Gubser (R, CA), Sen. Peter Dominick (R, CO), Rep. Robert Michel (R, IL) in *Congressional Record* (1966, p. 11301; 1974, p. 5719; and 1977, p. 29186).

Kaitz Index (the ratio of the minimum wage to average hourly earnings, multiplied by the rate of coverage) as the measure of the minimum.[15] A survey by Brown, Gilroy, and Kohen (1982) reported a widely cited consensus that "time series studies typically find that a 10 per cent increase in the minimum wage reduces teenage employment by one to three percent." They also concluded that cross sectional studies produce smaller and less precise estimates, with "estimates from 0 to .75 percentage points [being] most plausible". The increasing academic consensus influenced Ronald Reagan to become the first President in office to actively oppose minimum wage increases and no increases were enacted during his administration.

By the 1980s and into the 1990s, these studies led to consensus among academic economists. A 1992 survey of economists found that 57 percent agreed and 21 percent disagreed with the statement that "a minimum wage increases unemployment among young and unskilled workers" (reported in Whaples 1996). A survey by Robert Whaples (1996, p. 729) found that 87 percent of labor economists agreed that minimum wages increased unemployment for teens and the unskilled. Their median estimate of the impact of a 10-percent rise in the minimum was 2 percent, similar to the earlier consensus.[16] In the 1990s, the debate was reignited when David Card and Alan Krueger (1994, 1995, 2000) published a series of studies using firm-level panel data techniques and found weak to zero employment effects of the minimum wage and David Neumark and William Wascher (2000, 2008) challenged their findings with alternative data sources. More recent polls show much less certainty. A 2015 poll asked leading academic economists whether increasing the minimum wage to $15 (from the current level

[15] Kennan (1995) noted that most of the primary variation in the Kaitz index did not come from the wage minimum or coverage; therefore, using it to estimate the effect of minimum wages was akin to "looking for a needle in a haystack".

[16] Despite these sentiments, 57 percent felt that the current minimum wage should be increased, particularly those who estimated teen employment losses of 3 percent or more.

of \$7.25) by 2020 would substantially reduce employment of low-skilled workers (IGM Forum, 2015). Only 26% agreed or strongly agreed, 24% disagreed, 38% were uncertain, and the remainder did not answer. The majority who answered indicated low confidence in their answer.

Following the sharp decline in the real value of the national minimum, the states have returned to the fore. When a new FLSA amendment was passed in 1989, 15 states had minimum wages above the national level. The number fell back to 4 after the national increases in 1990 and 1991 and then rose to 32 in 2007. In 2018, 31 states had higher rates. These rates average \$2.28 above the federal minimum of \$7.25, a historic high. A further 46 cities and counties have set their own minimum rates of up to \$15.00.

Table 1: State Minimum Wage Laws, 1911-37

State	Date(s)	Coverage	Exceptions (1938)
AZ	1917-25, 1937	W, C21	A, B
AR	1915-27, 1937	W	B, C, D
CA	1913	W, C18	NONE
CT	1933	W, C18	A, B
CO	1913	W, C18	NONE
DC	1918-23, 1938	W, C18	A
IL	1933	W, C18	A, B
KS	1915-27, 1938	W, C21	NONE
KY	1938	W, C21	A, B, E
LA	1938	W	A, B, I
MA	1912-34, 1934	W, C21	A, B
MN	1913-25, 1937	W	NONE
NE	1913-19	W	
NV	1937	W, C21	A
NH	1933	W, C21	A, B
NJ	1933	W, C21	A, B, F
NY	1933-36, 1937	W, C18	A, B
ND	1919	W, C21	A, B
OH	1933	W, C21	A, B
OK	1937	All	B
OR	1913	W, C18	NONE
PA	1937	W, C21	A, B, G, H
RI	1936	W, C21	A, B
SD	1923	W	A, B
TX	1919-21	W, C15	
UT	1913-29, 1933	W, C18	NONE
WA	1913	W, C18	NONE
WI	1913-24, 1937	W, C21	NONE

Notes: W – women, C21 (C18) – children 21 (18) years of age or less, A – domestic service, B – agricultural labor, C – cotton factories, D – railroads covered by federal laws, E – firms regulated by the state Public Service Commission, F – hotels, G – religious or charitable organizations, H – sale and delivery of newspapers and magazines, I – municipalities with a population under 10,000.

Sources: Phelps (1939), p. 60 and Anonymous (1939).

Table 2
The Fair Labor Standards Act and Amendments

Year	Minimum Wage	Coverage	Notes
1938	\$0.25 (1938) \$0.30 (1939) \$0.40 (1945)	≈50% of private sector employees (1938)	Establishes minimum wage. Exemptions for small firms, firms outside interstate commerce, retail and service establishments, restaurants, government employees, agricultural workers, domestic service.
1939-1943	\$0.40 for all by July 1944.		Under FLSA 1938 Act 71 Industry Committees, with economics professors composing about half of the members, set industry-specific minimum wages for industries with approximately 21 million workers. The goal was to establish a minimum wage that would not lead to "substantial curtailment of employment." By July 1944 all 71 had minimum rates at 40 cents.
1947			Portal to Portal Act: limits claims to back pay to 2 years, restricts definition of working time, no liquidated damages if employers made a good faith effort to comply with FSLA.
1949	\$0.75	55% of private sector employees (1950)	Coverage extended to employees if they are "directly essential" to production of goods for interstate commerce, extends coverage to air transport industry, eliminates Industry Committees.
1955	\$1.00	55% of private sector employees (1956)	
1961	\$1.15 (1961) \$1.25 (1963)	63% of private sector employees	Coverage extended to retail and service establishments, with sales exceeding \$1 million annually. Students could be employed at these establishments at 15% less than the minimum wage.
1966	\$1.40, \$1.00 (1967) \$1.60, \$1.15 (1968) \$1.60, \$1.30 (1969) \$1.60, \$1.45 (1970)	77% of private sector employees, 40% of government employees	Coverage extended to most farm workers (with a lower minimum wage). Coverage extended to enterprises with revenue greater than \$500,000 per year (1966) then \$250,000 per year (1969). Automatic coverage for construction workers and employees of schools, hospitals, nursing homes, or other residential care facilities.
1974	\$2.00 (1974) \$2.10 (1975) \$2.30 (1976)	83% of private sector employees. After 1974 coverage varies between 83% and 87%.	Coverage extended to domestic workers and state and local government employees that were not previously covered. Minimum wage for farm workers raised to \$1.60 in 1974.
1977	\$2.65 (1978) \$2.90 (1979) \$3.10 (1980) \$3.35 (1981)		Sub-minimum wage for agricultural workers eliminated. Restrictions on subminimum wage for students relaxed. Coverage test for retail trade and service enterprises increased in stages to \$362,500.

1983		100% of public sector employees in 1974. Supreme Court decisions reduce public sector coverage reduced to 28% in 1976 and restore it to 100% in 1990.	Migrant and Seasonal Agricultural Worker Protection Act – increases coverage for some farm workers.
1986			Allows sub-minimum wages for employees whose earning or productive capacity is impaired by age, physical or mental deficiency, or injury.
1989	\$3.80 (1990) \$4.25 (1991)		Enterprise coverage limit for retail and non-retail businesses increased to \$500,000.
1996	\$4.75 (1996) \$5.15 (1997)		Established a youth sub minimum wage of \$4.25 an hour for newly hired employees under age 20 during their first 90 consecutive calendar days after being hired by their employer; revised the tip credit provisions to allow employers to pay qualifying tipped employees no less than \$2.13 per hour if they received the remainder of the statutory minimum wage in tips.
2007	\$ 5.85 (2007) \$ 6.55 (2008) \$ 7.25 (2009)		

Sources: U. S. Department of Labor (2020), Anonymous (1948), Neumark and Wascher (2008).

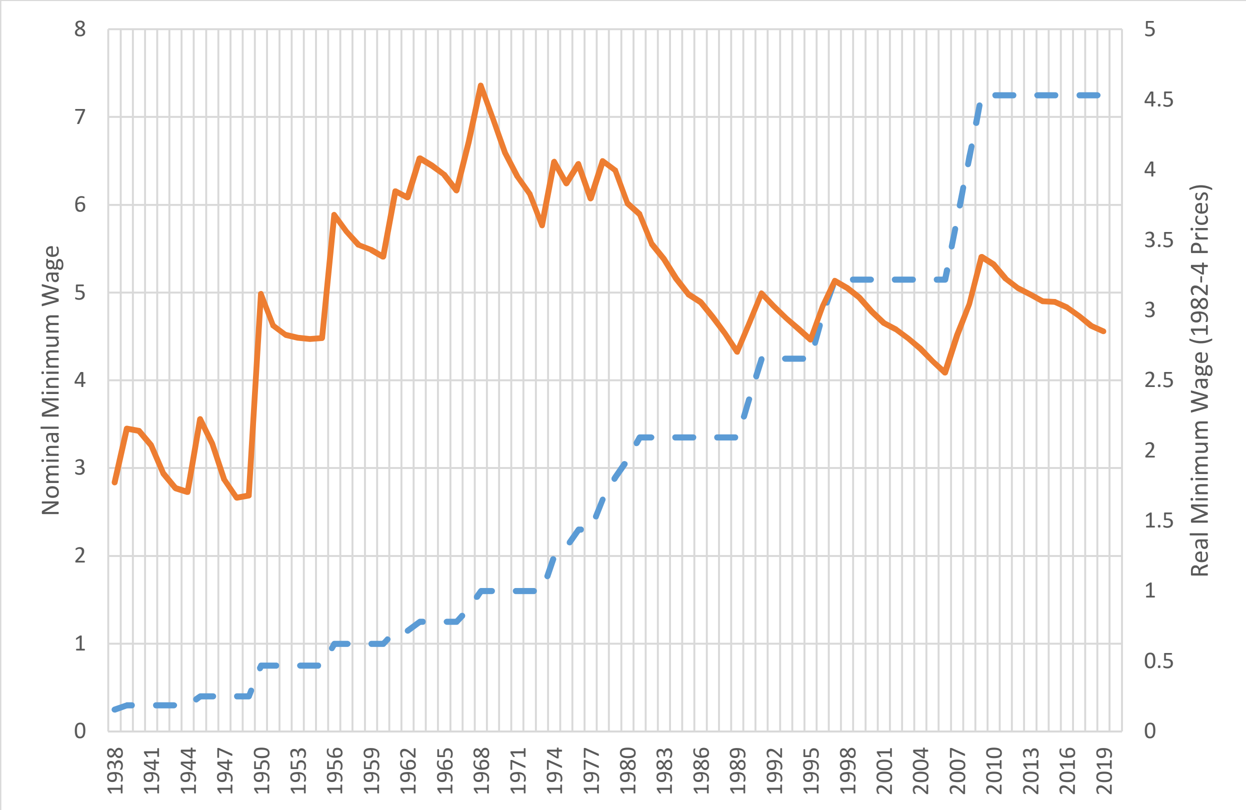
Table 3
Full-Time Earnings on the National Minimum Wage as a Percentage of the BLS Adequate Cost of Living Budget: 4-Person Family by Year and Location

Area	1940	Area	1950	Area	1959	Area	1967
						South urban nonmetro	55.7
						Austin	55.6
						Baton Rouge	53.9
						Orlando	53.7
		New Orleans	45.2			Nashville	52.8
Mobile	53.2	Mobile	44.5			Houston	52.5
Kansas City, MO	49.8	Kansas City, MO	44.3			Durham	52.3
New Orleans	49.3	Savannah	43.9			Atlanta	52.0
Birmingham	48.7	Scranton	43.4			Dallas	51.9
Indianapolis	48.4	Indianapolis	43.3			Cincinnati	51.1
Memphis	48.2	Portland, ME	43.1			Green Bay	50.6
Denver	48.1	Cleveland	43.0	Houston	51.7	Bakersfield	50.4
Houston	48.1	St. Louis	42.9	Scranton	49.5	Dayton	50.2
Jacksonville	48.0	New York City	42.8	Atlanta	49.4	Baltimore	50.0
Buffalo	47.7	Manchester, NH	42.6	Baltimore	49.3	Lancaster	50.0
Portland, OR	47.5	Buffalo	42.5	Philadelphia	48.1	Midwest urban nonmetro	50.0
Los Angeles	47.4	Portland, OR	42.3	New York City	47.4	Pittsburgh	49.9
Baltimore	47.2	Philadelphia	42.2	Kansas City, MO	47.0	Detroit	49.6
Atlanta	47.1	Norfolk.	42.0	Cincinnati	46.3	Philadelphia	49.4
Cincinnati	47.1	Minneapolis	42.0	Minneapolis	46.3	Denver	49.3
Norfolk.	47.0	Birmingham	41.9	Portland, OR	46.1	Cleveland	49.2
Richmond	46.9	Cincinnati	41.8	Washington, DC	46.0	Portland, Maine	48.9
Philadelphia	46.7	Denver	41.7	Detroit	46.0	Kansas City, MO	48.9
Portland, Maine	46.0	Chicago	41.7	Pittsburgh	45.4	Wichita	48.7
Scranton	45.6	Detroit	41.6	St. Louis	45.4	St. Louis	48.5
Pittsburgh	45.4	Baltimore	41.3	Cleveland	45.1	San Diego	48.5
Seattle	45.4	Jacksonville, Fla	41.3	Los Angeles	44.9	New York City	48.4
St. Louis	45.1	Pittsburgh	41.3	Boston	44.8	Minneapolis	48.1
Cleveland	44.9	Memphis	41.2	San Francisco	44.8	Buffalo	47.9

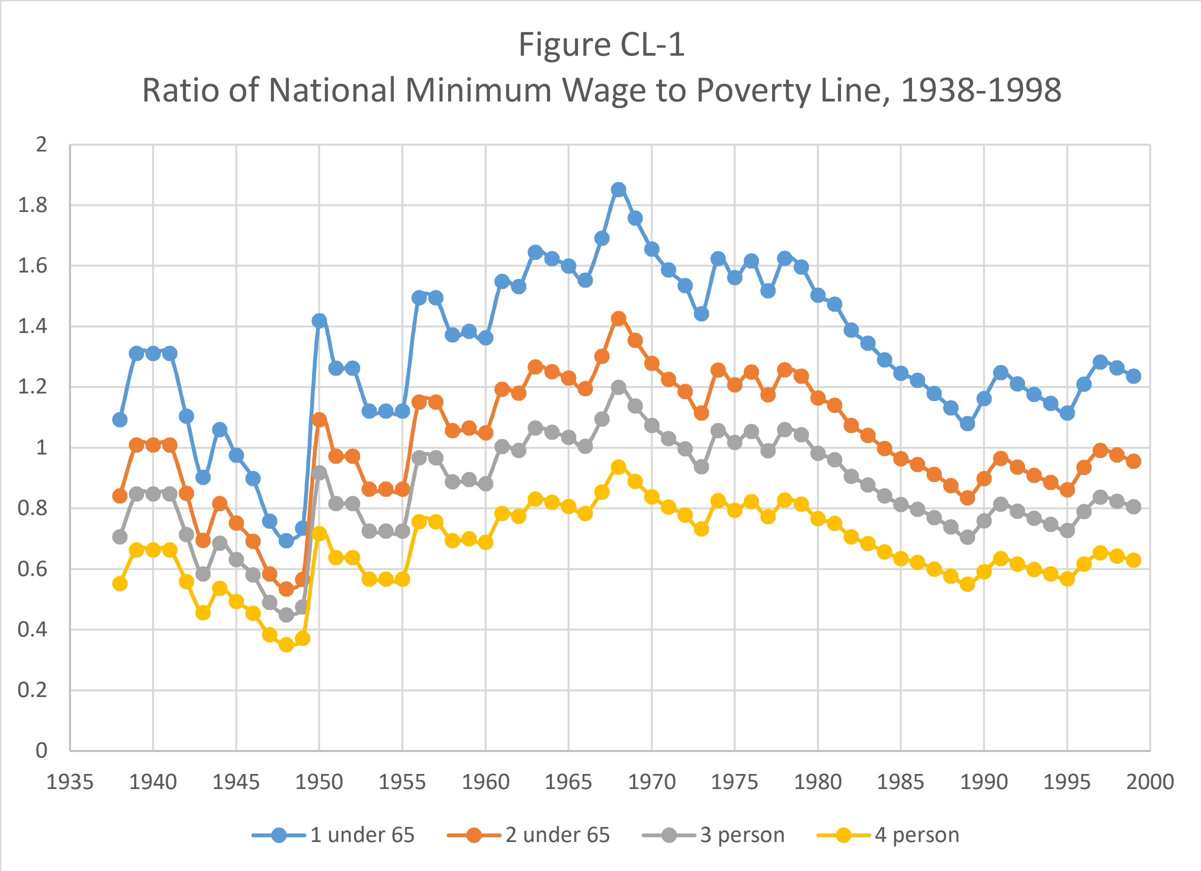
Minneapolis	44.3	Los Angeles	41.2	Seattle	42.7	West urban nonmetro	47.9
Detroit	43.7	Boston	41.0	Chicago	42.6	Chicago	47.7
Boston	43.5	Seattle	41.0			Milwaukee	47.7
San Francisco	43.1	San Francisco	41.0			Indianapolis	47.6
Chicago	42.9	Atlanta	40.7			Washington, DC	47.5
Washington, DC	41.9	Houston	40.3			Cedar Rapids	46.8
New York City	41.4	Richmond	40.1			Boston	46.6
		Washington, DC	39.7			Champaign-Urbana	46.5
		Milwaukee	39.7			Los Angeles	46.2
						Hartford	45.3
						Seattle	44.7
						San Francisco	44.3
						Honolulu	40.2
Summary Statistics							
Median	47.0		41.9		46.1		49.1
Maximum	53.2		45.2		51.7		55.7
Minimum	41.4		39.7		42.6		40.2
Max/Min Ratio	1.285		1.139		1.213		1.387
Percentage of Family Budget in Median City Covered by the National Minimum Wage.							
Median 1-person	92.9		82.7		91.1		97.0
Median 2-person	71.6		63.8		70.2		74.8
Median 3-person	60.1		53.6		58.9		62.8

Sources and Notes. The minimum wage comes from series Ba4422 in Carter, et. al (2006, p. 2-284). Budget figures are from Anonymous (1940, p. 1041), U. S. Bureau of Labor Statistics (1951, p. 2), Lamale and Stotz (1960, p. 4), and Bracket (1969, p. 8). The budgets included costs of goods, rents and services, payment of personal taxes, Social Security deductions and nominal allowances for occupational expenses and life insurance. (BLS 1959, 1).

Figure 1
Nominal and Real Federal Minimum Wage, 1938-2019



Source: Minimum wage is from Carter, et. al (2006, series Ba4422, p. 2-284). The real minimum wage is in 1982-1984 prices, using the Consumer Price from Federal Reserve Bank of St. Louis (2019, series CUUR0000SA0), downloaded in August 2019.



Sources and Notes:

All data are from Carter, et. al. (2006). The Minimum wage series is Ba4422 on p. 2-284, after adjusting the minimum to 0.40 for 1944 through 1949. The poverty series is the official series from 1959 to 1999 (series Be96, Be99, Be101, and Be103 on p. 2-665). For period 1938 to 1958 we interpolated the national poverty series using the average of the ratio between the U. S. poverty series above and Oscar Ornati's estimates (Be85) estimates for a 4-person minimum subsistence budget, which is 1.126. To get different family sizes for the period we used the 1959 poverty series to develop ratios to the 4-person family size of 0.506 for one under 65, 0.657 for two under 65, and 0.782 for the three-person family.

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