

CRS Report for Congress

The Federal Minimum Wage: The Issue of Indexation

Updated January 22, 2007

Gerald Mayer
Economic Analyst
Domestic Social Policy Division



Prepared for Members and
Committees of Congress

The Federal Minimum Wage: The Issue of Indexation

Summary

Periodically, Congress has considered proposals to index the federal minimum wage. Indexation would result in regular, automatic adjustments in the minimum wage, using changes in an economic measure such as consumer prices, the cost of living, hourly labor costs, or hourly wages.

If indexation were implemented, the approach adopted could well depend on Congress' view of the rationale for having a statutory minimum wage. Several arguments have been made in support of a minimum wage. These arguments include providing a living wage and ensuring that a fair wage is paid in labor markets that do not fit the model of perfect competition. These reasons do not prescribe the level at which the minimum wage should be set, but they do suggest what kind of economic measure could be used for indexation.

A living wage can be defined in either *real* or *relative* terms. Maintaining the real value of the minimum wage would maintain its constant purchasing power. To maintain a real value of the minimum wage, the wage could be indexed to changes in the cost of living or, alternatively, to changes in the price of consumption goods. Maintaining a relative value of the minimum wage would maintain its value compared to other wages. To maintain a relative value of the minimum wage, the wage could be indexed to a measure of hourly labor costs or hourly earnings. The standard of living tends to rise over time because of improvements in labor productivity and advances in technology that result in new or improved products. Therefore, maintaining the relative value of the minimum wage would likely increase its real value over time.

Both the real and relative values of the minimum wage have varied noticeably over time. Therefore, the future value of the minimum wage, if indexed, would depend importantly on the initial value, or base period, selected. The initial value could be the real or relative value of the minimum wage at the time indexation is adopted or, as Congress has done with other federal programs, some future or past value could be used.

Using six different economic measures, calculations show that, if the minimum wage were indexed using its *highest* or *median* past real or relative value as the base period, the minimum wage in September 2006 (or the end of 2005, depending on the measure) would have been higher than \$5.15. For four of the six measures, the minimum wage reached its peak real value in February 1968. (The other two measures were not available in 1968.) Depending on the measure used, if the \$1.60 minimum wage of February 1968 had been indexed, the minimum wage in September 2006 would have been between \$7.76 and \$9.46 an hour. On the other hand, three of the six measures show that if indexation were to use the base period when the minimum wage was at its lowest real value, the minimum wage in September 2006 would have been less than \$5.15.

This report will only be updated occasionally.

Contents

Introduction	1
Background	2
Reasons for a Minimum Wage	3
A Living Wage	4
Economic Efficiency	4
Increase Aggregate Demand	6
Indexing the Minimum Wage	6
Selecting an Economic Measure	7
Maintaining the Real Value of the Minimum Wage	7
Maintaining the Relative Value of the Minimum Wage	9
Improving the Efficiency of Labor Markets	11
Economic Measures Used for Illustrations	11
The Initial Value of the Minimum Wage	13
Base Periods Used for Illustrations	15
Illustrations	15
Summary of Illustrations	17
Are There Other Policy Options?	19
Appendix A. Method Used for Selecting the Base Periods to Illustrate the Effects of Indexing the Minimum Wage	20
Appendix B. Comparison of Economic Measures	21

List of Figures

Figure 1. Value of the Federal Minimum Wage	3
Figure 2. Comparison of Annual Percent Changes in the CPI-W, CPI-U-RS, and PCE	21
Figure 3. Comparison of Annual Percent Changes in the AHE-Prod., AHE-Mfg., and Employment Cost Index (ECI)	21

List of Tables

Table 1. Annual Percentage Rate of Change in Economic Measures	13
Table 2. Real Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W)	17
Table 3. Real Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Consumer Price Index for All Urban Consumers, Research Series (CPI-U-RS)	17

Table 4. Real Value of the Minimum Wage in the Third Quarter of 2006 if it Had Been Indexed to the Chain-Type Price Index for Personal Consumption Expenditures (PCE)	18
Table 5. Relative Value of the Minimum Wage in the Fourth Quarter of 2005 if it Had Been Indexed to the Employment Cost Index (ECI) for Wages and Salaries of Civilian Workers	18
Table 6. Relative Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Average Hourly Earnings of Production Workers in Manufacturing (AHE-Mfg.), Excluding Overtime Pay	18
Table 7. Relative Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Average Hourly Earnings of Production or Nonsupervisory Workers in the Private Nonfarm Sector (AHE-Prod.)	19

The Federal Minimum Wage: The Issue of Indexation

Introduction

The 110th Congress is considering legislation to raise the federal minimum wage from \$5.15 to \$7.25 an hour.¹ Periodically, Congress has also considered the issue of indexation, which would result in regular, automatic adjustments in the minimum wage, using changes in an economic measure such as consumer prices, the cost of living, labor costs, or hourly wages.²

This report examines several aspects of the issue of indexing the basic federal minimum wage. If indexation were implemented, the approach adopted could well depend on Congress' view of the rationale for having a minimum wage. Therefore, the report discusses the major arguments that have been made in support of a minimum wage. Some economic measures that could be used for indexation appear to be more consistent than others with the major arguments for a minimum wage. Therefore, the report also examines several economic measures that could be used for indexation. Finally, if indexation were adopted, the future value of the minimum wage would depend not only on the economic measure used but also on the base period selected (i.e., initial value of the minimum wage). Using different economic measures and base periods, the report illustrates what the minimum wage would have been in September 2006 (or the end of 2005, depending on the measure) if it had been indexed.

The report does not discuss the employment, income, training, or other effects of the minimum wage.³ Additionally, the paper does not examine how an increase in the minimum wage compares to other policy options for achieving the same objectives.

¹ For a description of minimum wage legislation in the 110th Congress, see CRS Report RL33754, *Minimum Wage in the 110th Congress*, by William G. Whittaker. (Hereafter cited as CRS Report RL33754, *Minimum Wage in the 110th Congress*.)

² For an account of Congressional debates on indexation, see CRS Report RL33791, *Possible Indexation of the Federal Minimum Wage: Evolution of Legislative Activity*, by William G. Whittaker. Several states currently index their minimum wage.

³ For a discussion of certain economic effects of indexation, see Minimum Wage Study Commission, "The Economic Consequence of Minimum Wage Indexation," in *Report of the Minimum Wage Study Commission*, vol. 1, chap. 4 (Washington: GPO, 1981), pp. 71-84.

Background

The Fair Labor Standards Act of 1938 (FLSA, P.L. 75-718) fixed in law a basic federal minimum wage of \$0.25 an hour for covered workers. Since it was enacted in 1938, the minimum wage has been raised 19 times. Currently (January 2007), the basic minimum wage is \$5.15 an hour, with a lower wage for tipped employees, certain new hires under the age of 20, handicapped workers, and full-time students who work part-time.⁴

Since 1938, Congress has also expanded coverage of the minimum wage.⁵ But the FLSA also includes a number of exceptions and exemptions to the minimum wage. An estimated two-thirds of wage and salary workers are covered and subject to the minimum wage. The largest group of workers exempt from the minimum wage are executive, administrative, and professional employees.⁶

Most workers subject to the minimum wage earn more than the basic rate. In 2005, an estimated 1.9 million workers were paid the federal minimum wage of \$5.15 or less. This represented 2.5% of workers who were paid on an hourly basis. Among workers paid the minimum wage or less, 26% were between the ages of 16 and 19, 27% were between 20 and 24, and 47% were 25 or older. A majority (66%) of minimum wage workers were women. Most (82%) were white, while 11% were black, and 15% were of Hispanic origin. A majority of minimum wage earners worked part-time (60%).⁷

Between legislated increases, the minimum wage has tended to erode in real value and decline relative to average hourly wages. The minimum wage erodes in real value because of inflation (i.e., economy-wide increases in prices). It declines relative to average hourly wages because of inflation and wage increases due to

⁴ The minimum wage represents cash wages. Total compensation may also include fringe benefits, such as paid holidays or vacation, employer-provided health insurance, or employer contributions to a retirement plan.

For a discussion of the minimum wage for tipped employees and youth, see CRS Report RL33754, *Minimum Wage in the 110th Congress*.

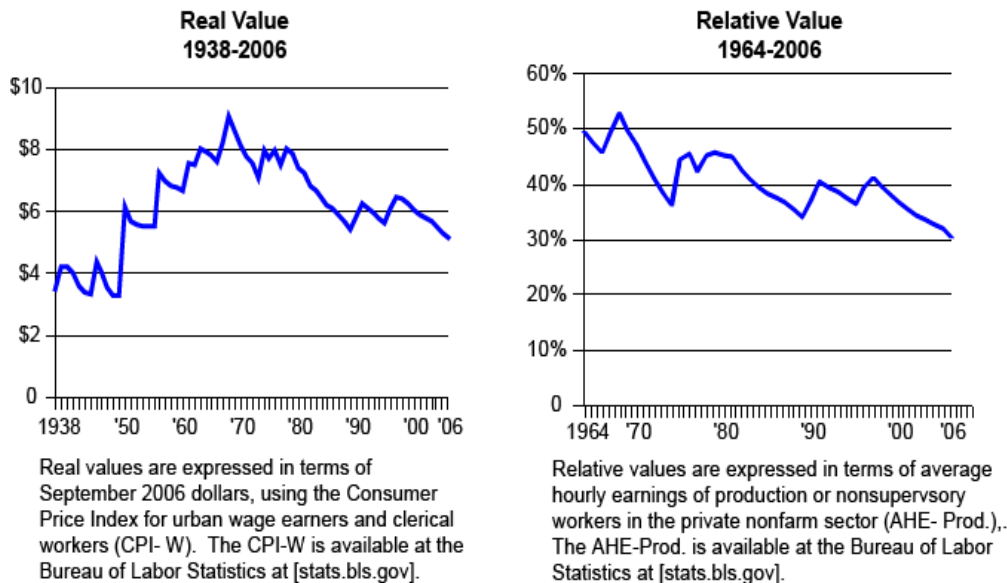
⁵ U.S. Department of Labor, Employment and Standards Administration, *History of Changes to the Minimum Wage Law*, available at [<http://www.dol.gov/esa/minwage/coverage.htm>].

⁶ Some workers *covered* by the minimum wage law are *exempt* from coverage and, therefore, are not *subject* to the law. U.S. Department of Labor, Employment Standards Administration, *Minimum Wage and Overtime Hours Under the Fair Labor Standards Act: 1998 Report to the Congress Required by Section 4(d)(1) of the Fair Labor Standards Act*, Washington: Employment Standards Administration, June 1998, pp. 16-17.

⁷ The data for 2005 are monthly averages. The percentages for persons by race and Hispanic origin do not total to 100% because persons of Hispanic origin may be of any race. U.S. Department of Labor, Bureau of Labor Statistics, *Characteristics of Minimum Wage Workers: 2005*, available at [<http://www.bls.gov/cps/minwage2005.pdf>], May 2006, Tables 1 and 7. For more information on the characteristics of low-wage workers, see CRS Report RL33784, *Minimum Wage: Characteristics of Low-Wage Workers and Their Families*, by Gerald Mayer and Linda Levine.

improvements in labor productivity (i.e., increases in the quantity of output per hour of work). **Figure 1** shows the variation in the real value of the minimum wage from 1938 through September 2006, and it shows the minimum wage as a percentage of the average hourly earnings of production or nonsupervisory workers from 1964 through September of 2006.⁸ The peaks in each graph coincide with years when the minimum wage was raised.

Figure 1. Value of the Federal Minimum Wage



Reasons for a Minimum Wage

If indexation were implemented, the approach adopted would likely depend on Congress' view of the reasons for having a minimum wage. Several reasons have been offered to justify a statutory minimum wage. These reasons include to provide a *living wage*, to improve the likelihood that a *fair wage* will be paid in labor markets that do not fit the model of perfect competition, and to increase aggregate demand.⁹ These reasons do not prescribe the level at which the minimum wage should be set, but they do suggest what kind of economic measures could be used for indexation.

⁸ Production or nonsupervisory workers include production workers in goods-producing industries (e.g. manufacturing, construction, and mining) and nonsupervisory workers in service-producing industries (e.g., education, health, and social services; food services; hotels and motels; financial services; and professional and business services).

⁹ A discussion of the different economic arguments made by Members of Congress to justify a federal minimum wage can be found in CRS Report 89-568 E, *The Fair Labor Standards Act: Analysis of Economic Issues in the Debates of 1937-1938*, by William G. Whittaker. This report is not active but is available from the author upon request.

A Living Wage

A common argument made in support of a statutory minimum wage is that no worker should be paid less than a living wage. A living wage can be defined in either *real* terms or *relative* to the wages of other workers. Whether defined in real or relative terms, a living wage could be adjusted periodically through separate legislative acts. Alternatively, the real or relative value of a living wage could be adjusted regularly through indexation.

In real terms, a living wage can be defined as a wage that provides a given standard of living. This standard of living can be represented by a basket of consumer goods consisting of food, shelter, clothing, and other goods and services. The size of the basket of goods could provide a subsistence, or higher, standard of living. Indexing the minimum wage to maintain its real or constant value would maintain the ability of minimum wage earners, working a given number of hours, to purchase this basket of goods.¹⁰

A living wage can also be defined relative to the wages of other workers (or, more specifically, relative to the wages of a given category of workers). Indexing the minimum wage to preserve its relative value would maintain the position of minimum wage workers relative to other workers. Real wages tend to rise as productivity increases. Therefore, maintaining the relative value of the minimum wage would likely raise the standard of living of minimum wage workers. As productivity increased, the minimum wage would purchase an expanding basket of goods.

Economic Efficiency

A second argument made in support of a statutory minimum wage is that the opportunities for employment are not the same for all individuals and that a minimum wage is one way to ensure a fair wage for all workers employed in jobs that require limited skills. The economic argument for a fair wage is that the labor markets for low-wage work may not fit the economic model of perfect competition and that a minimum wage is one way to improve economic efficiency.

A fair wage is defined here as the wage paid in labor markets that fit the model of perfect competition. The following are the main features of a perfectly competitive labor market: (1) There are many employers (buyers) and many workers (sellers). Therefore, no individual employer or employee is able to influence wages or employment (i.e., no employer or employee has *market power*). (2) An employer does not prefer one worker over another equally qualified worker (i.e., equally qualified workers are *perfect substitutes*).¹¹ Likewise, a worker does not prefer one employer over another employer who pays the same wage for the same kind of work. (3) Employers and employees (including potential employees) have equal access to

¹⁰ In this report, the term “goods” refers to both goods and services.

¹¹ Under perfect competition, economists say that sellers (in this case, individuals who are selling their labor services) are selling a relatively homogeneous good.

labor market information (e.g., about job vacancies and wage rates), which is available at little or no cost (i.e., there is *perfect information*). (4) Investors, in order to maximize profits, are free to invest where they will earn the greatest return. Individuals, in order to maximize their total satisfaction (or *utility*), are free to move in and out of the labor force and from one job to another.¹²

According to standard economic analysis, perfect competition results in the most efficient allocation of resources (i.e., capital, labor, and natural resources). In turn, an efficient allocation of resources provides the greatest amount of output and consumer satisfaction from a given supply of inputs.¹³ If labor markets for low-wage jobs do not fit the model of perfect competition, standard economic analysis indicates that governments could, if they choose, intervene to improve economic efficiency.

It is sometimes argued that labor markets for low-wage jobs may not fit the model of perfect competition.¹⁴ For instance, employers and workers in low-wage labor markets may have unequal market power. Employers and workers may have unequal access to labor market information. Or some employers may not treat equally qualified workers as perfect substitutes.

An example of where an employer is able to influence wages is a labor market characterized by a single large employer (called a “monopsonist”). In this kind of labor market, an employer is able to pay lower wages than would exist in a competitive labor market.¹⁵ An example of where employers and workers may have unequal access to information is a labor market where some workers lack the means or ability to communicate effectively with employers or employment agencies (e.g., because of language differences) or where a lack of adequate transportation limits the ability of workers to find and compare job vacancies. An example of where an employer may not treat equally qualified workers as perfect substitutes is where an employer or employees, for whatever reason, discriminate against a certain group (or groups) of persons.

If it is believed that workers in low-wage labor markets are at a disadvantage in obtaining information about jobs or in bargaining over wages with employers, *one* of the ways that governments can attempt to improve economic efficiency is to enact a statutory minimum wage (see “Are There Other Policy Options?” below).

¹² Lloyd G. Reynolds, Stanley H. Masters, and Colletta H. Moser, *Labor Economics and Labor Relations*, 10th ed., Englewood Cliffs, N.J.: Prentice-Hall, 1991, pp. 16-31. (Hereafter cited as Reynolds et al., *Labor Economics and Labor Relations*.)

¹³ An efficient allocation of resources may, nevertheless, result in a socially unacceptable distribution of income, leading many citizens to favor public policies that result in a more equal distribution of income.

¹⁴ For a discussion of departures from the model of perfect competition (sometimes called market failures), see Joseph E. Stiglitz, *Economics of the Public Sector*, 2nd ed., New York: W.W. Norton & Co., 1988, pp. 71-81.

¹⁵ A monopsonist also tends to hire fewer workers than would an otherwise identical firm in a competitive labor market. Walter Nicholson, *Microeconomic Theory*, 4th ed. Chicago: Dryden Press, 1989, pp. 630-33, 639.

Increase Aggregate Demand

One of the reasons given to justify a minimum wage when it was first enacted in 1938 was that it would increase the purchasing power of low-wage workers and, therefore, increase aggregate demand and reduce unemployment. (In the 1930s the United States was in a period of prolonged high unemployment.) Indexation would probably be inconsistent, however, with a policy of using the minimum wage to manage short-term aggregate demand. First, when economic growth is slowing or the economy is contracting, fiscal and monetary policy can put more money in the hands of consumers (e.g., through tax cuts, increased government spending, or lower interest rates). Using the minimum wage for this purpose would imply that the minimum wage should be raised only when unemployment is rising or, at least, that increases should be greater when unemployment is rising than when it is falling. Indexation, on the other hand, would result in regular adjustments in the minimum wage, whether unemployment is rising or falling. Second, indexation could raise the minimum wage less (or even reduce it) when unemployment is rising than when it is falling. Wages and prices often rise more rapidly when the economy is expanding and unemployment is falling. Conversely, wages and prices often rise more slowly, and may even fall, when the economy is contracting and unemployment is rising. Thus, although the effect may not be large, indexation could result in larger increases in the minimum wage during an economic expansion when unemployment is falling than during an economic slowdown or contraction when unemployment is rising. Legislation to index the minimum wage could, however, include a mechanism to accelerate the increase in the wage rate when unemployment is rising and slow the increase when unemployment is falling.¹⁶

Indexing the Minimum Wage

Developing legislation to index the minimum wage would involve two basic decisions: (1) choosing an economic measure to be used for indexation and (2) selecting the initial value of the minimum wage. Implementation would involve additional decisions such as how often to adjust the minimum wage and how actually to calculate the adjustment in the minimum wage from the economic measure chosen (e.g., whether to use annual changes in the index, September-to-September changes, or some other approach).

¹⁶ An overall consensus has not been reached on the employment effects of raising the minimum wage. If the minimum wage is raised more when unemployment is rising than when it is falling, the effect on job loss may be greater when the short-term objective is to reduce unemployment. From this perspective, indexation may be less harmful to employment than a policy of enacting larger increases in the minimum wage when unemployment is rising. (The effect of an increase in the minimum wage on the aggregate earnings of minimum wage workers depends on the elasticity of demand for minimum wage labor. Aggregate earnings will increase if the percentage decrease in minimum wage employment is less than the percentage increase in the minimum wage; i.e., if demand for minimum wage workers is inelastic. Most studies have found that the demand for low-wage workers is inelastic. Paul A. Samuelson and William D. Nordhaus, *Microeconomics*, 16th ed., New York: McGraw-Hill, 1998, p. 76).

This section discusses the choice of an economic measure for indexation and the selection of a base period. Using different economic measures and initial values of the minimum wage, the section concludes with illustrations of what the minimum wage would have been in September 2006 (or the end of 2005, depending on the measure) if it had been indexed at some point in the past.

Selecting an Economic Measure

Although the reasons commonly given for having a minimum wage do not prescribe the level at which the minimum wage should be set, they do suggest what kind of economic measures could be used for indexation. This section discusses several such measures. Some of the measures have been produced for decades, while others are relatively new. Some are produced monthly, while others are produced quarterly.

Maintaining the Real Value of the Minimum Wage. If the main reason for a minimum wage is to maintain the real standard of living of minimum wage workers, the wage could be indexed to changes in the cost of living or changes in the price of consumption goods.

A Consumer Price Index. In its simplest form, a price index measures the change in the cost of a given basket of goods between two time periods (e.g., from one month to the next or from one year to the next). The Consumer Price Index (CPI) is probably the most widely known price index. The CPI is published by the Bureau of Labor Statistics (BLS) of the U.S. Department of Labor. Prices are collected in urban areas across the United States from various retail establishments, including grocery stores, department stores, gas stations, hospitals, and others.¹⁷ BLS measures consumer price changes for two population groups: (1) urban wage earners and clerical workers and (2) all urban consumers. The CPI for urban wage earners and clerical workers (the CPI-W) is based on the buying patterns of households that earn over half of their income from wage or clerical occupations. This group represents about 32% of the U.S. population. The CPI for all urban consumers (the CPI-U) is based on the spending patterns of all urban households and covers approximately 87% of the population.¹⁸

The CPI is used in the administration of several federal programs. The CPI-W is used to adjust Social Security benefits and to convert into constant dollars the average hourly earnings data that BLS collects from a survey of employers. The CPI-U is used to adjust benefits under the Food Stamp program and to adjust the

¹⁷ For more information on the CPS, see CRS Report RL30074, *The Consumer Price Index: A Brief Overview*, by Brian W. Cashell. (Hereafter cited as CRS Report RL30074, *The Consumer Price Index: A Brief Overview*.)

¹⁸ The major expenditure categories included in the CPI are food and beverages, housing (including fuels, utilities, and furnishings), apparel, transportation, medical care, recreation, education, and other goods and services. CRS Report RL30074, *The Consumer Price Index: A Brief Overview*. U.S. Department of Labor, Bureau of Labor Statistics, "The Consumer Price Index," *BLS Handbook of Methods*, at [<http://www.bls.gov/opub/hom/pdf/homch17.pdf>], pp. 1-2. (Hereafter cited as BLS, *The Consumer Price Index*.)

individual income tax brackets.¹⁹ One advantage of using the CPI for indexation is that, unlike most other economic measures, the published index is rarely revised. (The method for producing the index is revised, however.)²⁰

A Cost of Living Index. Strictly speaking, the CPI is not a cost of living index. A cost of living index measures changes in the price of a basket of goods that maintains a constant standard of living or well-being.²¹ The composition of this basket of goods is *not fixed*, but changes over time. For example, the relative prices of goods may change, causing consumers to spend more on goods whose prices have fallen relative to the prices of other goods. Similarly, consumer tastes may change or new or improved products may be introduced. The CPI may not immediately capture changes in consumer spending patterns. Thus, when consumers switch to goods that have fallen in price relative to the prices of other goods, the CPI does not automatically take into account the increased consumption of the lower-priced goods. Accordingly, whether the CPI rises or falls, many believe that changes in the index may overstate changes in the cost of living.²²

The Bureau of Economic Analysis (BEA) of the U.S. Department of Commerce produces price indexes that are closer to a cost of living index than a price index that does not take into account changes in consumer spending habits. These indexes are called *chain-type* price indexes. The chain-type price index for personal consumption expenditures (PCE) combines a price index for consumption expenditures based on spending patterns for a previous time period with a price index based on spending patterns for a current time period.²³ This index allows for changes in consumer spending habits over time.²⁴

¹⁹ CRS Report 98-59, *Food Stamps: Background and Funding*, by Joe Richardson. CRS Report RL30007, *Individual Income Tax Rates: 1989 through 2007*, by Gregg A. Esenwein. (Hereafter cited as CRS Report RL30007, *Individual Income Tax Rates: 1989 through 2007*.)

²⁰ CRS Report RL30074, *The Consumer Price Index: A Brief Overview*.

²¹ Jack E. Triplett, "Economic Theory and BEA's Alternative Quantity and Price Indexes," *Survey of Current Business*, vol. 72, Apr. 1992, pp. 49-50. (Hereafter cited as Triplett, *Economic Theory and BEA's Alternative Quantity and Price Indexes*.)

²² A 1996 report prepared for the Senate Finance Committee concluded that the CPI overstates changes in the cost of living by 1.1 percentage points a year. The report argued that the cost of living is overstated because the CPI does not adequately take into account the substitution of one good for another when relative prices change, improvements in the quality of goods, the introduction of new products, and changes in where consumers shop (e.g., when consumers switch from small stores to large retail outlets). Advisory Commission to Study the Consumer Price Index, *Toward a More Accurate Measure of the Cost of Living* (Washington: GPO, Dec., 1996), pp. 2-3, 69. Michael Boskin; Ellen R. Dulberger; Robert J. Gordon; Zvi Griliches; and Dale W. Jorgenson, "Consumer Prices, the Consumer Price Index, and the Cost of Living," *Journal of Economic Perspectives*, vol. 12, winter 1998, pp. 3-15.

²³ Eugene P. Siskin and Robert P. Parker, "A Guide to the NIPAs," *Survey of Current Business*, vol. 78, Mar. 1998, p. 38.

²⁴ The federal government produces many price indexes, several of which would be (continued...)

Maintaining the Relative Value of the Minimum Wage. If the main reason for a minimum wage is to maintain the value of the minimum wage relative to the wages of other workers, the wage could be indexed to a measure of hourly labor costs or of hourly earnings.

Indexing the minimum wage to a price or cost of living index would maintain the *constant* value of the minimum wage. However, the overall standard of living tends to improve over time because of increases in labor productivity and because of advances in technology that result in new or improved products.²⁵ Therefore, maintaining the relative value of the minimum wage would likely *increase* its real value over time. An index of labor costs or a measure of hourly wages may reflect increases in labor productivity (perhaps not completely). Accordingly, indexing the minimum wage to such measure would tend to raise the real purchasing power of minimum wage workers.²⁶

During some periods, maintaining the relative value of the minimum wage could lower the standard of living of minimum wage workers.²⁷ This could happen if wages or labor costs increase more slowly than inflation. However, legislation to index the minimum wage could prohibit a reduction in the real value of the wage. In addition, the real value of the minimum wage would differ if it is indexed to a

²⁴ (...continued)

inconsistent with the commonly stated purposes of the minimum wage. For example, BEA prepares two indexes that are based on economy-wide changes in prices. These indexes are the gross national product (GNP) deflator and the gross domestic product (GDP) deflator. GNP includes the sum of personal consumption, private investment, government spending, and net exports. GDP is the sum of domestic expenditures for consumption, investment, and government goods. Thus, while both these indexes capture changes in the prices of consumption goods, they also capture changes in prices of investment goods (e.g., buildings and machinery) and government spending (e.g., military equipment).

To maintain its real, or constant, value, the minimum wage could be indexed to changes in a measure of a constant poverty level of income. The federal government publishes official poverty thresholds for families of different size and composition. These poverty thresholds are used in estimating the number of poor in the United States. The poverty income guidelines used to administer several federal programs are developed from the official poverty thresholds. The thresholds are adjusted each year using changes in the CPI-U. Thus, indexing the minimum wage to changes in the official poverty thresholds would yield the same results as indexing the minimum wage to the CPI-U.

²⁵ In the long term, labor productivity may increase because of increases in physical capital (e.g., equipment) per worker and human capital (e.g., education and training) per worker as well as advances in technology. Shorter term changes in labor productivity may occur because of changes in the utilization of resources over the business cycle or because of changes in the composition of the workforce (e.g., labor productivity may change if the average age of the workforce increases or decreases).

²⁶ Reynolds et al, *Labor Economics and Labor Relations*, p. 256.

²⁷ From about the mid-1970s to the mid-1990s, real average hourly wages fell for production workers in manufacturing and for production workers in the private nonfarm sector. The timing and magnitude of changes depend on which price index and which measure of hourly wages are used.

measure of cash wages or a measure of total compensation (i.e., wages plus fringe benefits).

Labor Cost Index. Perhaps the government's broadest measure of hourly labor costs is the Employment Cost Index (ECI). The ECI is produced by BLS and is a measure of the change in the hourly cost of labor to employers. The ECI provides data for the private nonfarm economy (excluding private households) and the public sector (excluding the federal government). Data are collected quarterly from approximately 11,000 establishments in the private nonfarm economy and 800 establishments in state and local government. The ECI is produced in several different forms, including separate series for wages and salaries (excluding overtime pay), total compensation (i.e., wages and salaries plus overtime pay and fringe benefits), civilian workers (nonfarm private industry plus state and local government), and nonfarm private industry workers.²⁸

The ECI is used to adjust the pay of Members of Congress and of federal white-collar employees. The Ethics Reform Act of 1989 (P.L. 101-194) called for annual adjustments in the pay of Members of Congress using changes in the ECI for wage and salary workers in nonfarm private industry, less one-half a percentage point. However, Congress denied the annual increases for 1994 through 1997 and for 1999. Annual adjustments were accepted for 1998 and 2000 through 2006.²⁹ The Federal Employees Pay Comparability Act (P.L. 101-509) called for the same adjustments in the base pay of federal white-collar employees, but the provision has not been implemented as enacted.³⁰

Average Hourly Earnings. BLS publishes data on average hourly earnings for several categories of workers. The data are collected each month from a sample of approximately 400,000 nonfarm establishments.³¹ The largest category of workers for which average hourly earnings data are available consists of production or nonsupervisory workers in the private nonfarm sector. Production or nonsupervisory workers are a subset of total private nonfarm employees. Therefore, compared with the ECI, which covers most private nonfarm workers, a measure of the average hourly earnings of production or nonsupervisory workers covers a smaller portion of the workforce.

According to preliminary estimates, in 2006, production or nonsupervisory workers on private nonfarm payrolls accounted for an estimated 68.6% of total

²⁸ U.S. Department of Labor, Bureau of Labor Statistics, *Employment Cost Index, September 2006*, available at [<http://www.bls.gov/news.release/pdf/eci.pdf>], pp. 1-2, 23.

²⁹ Under the annual adjustment procedure, Members of Congress are scheduled to receive a 2.0% increase in January 2007. Their annual salary would rise from \$165,200 to \$168,500. CRS Report RL30014, *Salaries of Members of Congress: Current Procedures and Recent Adjustments*, by Paul E. Dwyer.

³⁰ CRS Report RL33158, *Federal White-Collar Pay: FY2006 and FY2007 Salary Adjustments*, by Barbara L. Schwemle.

³¹ U.S. Department of Labor, Bureau of Labor Statistics, *The Employment Situation: December 2006*, available at [<http://stats.bls.gov/news.release/pdf/empst.pdf>], p. 7.

employees on nonfarm payrolls. However, the measure of average hourly earnings for production or nonsupervisory workers on private nonfarm payrolls includes overtime pay. A measure of average hourly earnings, excluding overtime pay, is available for production workers in manufacturing. Production workers in manufacturing account for only a portion of all production or nonsupervisory workers on private nonfarm payrolls. In 2006, production workers in manufacturing represented approximately 11.0% of all production or nonsupervisory workers.³²

Improving the Efficiency of Labor Markets. If the main reason for a minimum wage is to improve the efficiency of low-wage labor markets, the wage could be indexed to a measure of hourly labor costs, hourly earnings, or a combination of price changes and labor productivity. On the other hand, indexation may not address inefficiencies due to incomplete labor market information or other factors.

Economic Measures Used for Illustrations. The “Illustrations” section (below) shows what the value of the basic federal minimum wage would have been in September 2006 (or the end of 2005) if it had been indexed using the six economic measures listed below. The measures were selected because they are consistent with the reasons commonly given for having a minimum wage. In general, the first three indexes would maintain the real value of the minimum wage, while the last three would maintain the relative value of the minimum wage.

1. The *Consumer Price Index for Urban Wage Earners and Clerical Workers* (CPI-W).³³ The CPI-W is available on a monthly basis since before 1938, when the federal minimum wage was first adopted. Compared with the CPI-U, the CPI-W may be a better reflection of the spending habits of wage earners. On the other hand, the CPI-W may exclude many part-time workers, who represent a significant share of low-wage workers.³⁴
2. The *Consumer Price Index for all Urban Consumers Research Series*.³⁵ Over the years, BLS has introduced a number of changes in the way it measures changes in prices. Each improvement is intended to make the CPI-U more accurate. But the historical CPI-U is not adjusted to take the improvements into account. The CPI-U-RS adjusts the historical CPI-U (beginning with December 1977) to take into

³² Based on preliminary estimates, in 2006, there were an estimated 135.4 million total employees on nonfarm payrolls, an estimated 92.8 million production or nonsupervisory workers on private nonfarm payrolls, and an estimated 10.2 million production workers in manufacturing. U.S. Department of Labor, Bureau of Labor Statistics, *Employment, Hours, and Earnings from the Current Employment Statistics Survey*, at [<http://stats.bls.gov/ces/>].

³³ U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Price Indexes*, available at [<http://stats.bls.gov/cpi/home.htm>].

³⁴ The CPI-W population consists of households with service workers, clerical workers, sales workers, laborers, craftworkers, and operatives. At least one member of the household must be employed for at least 37 weeks in a wage or clerical occupation. BLS, *The Consumer Price Index*, pp. 1-2.

³⁵ U.S. Department of Labor, Bureau of Labor Statistics, *Consumer Price Indexes*, available at [<http://stats.bls.gov/cpiurstx.htm>].

account most of the improvements made in measuring price changes. The CPI-U-RS shows what the CPI-U would have been if current methods had been used to measure inflation. Compared with the CPI-U, the CPI-U-RS provides a more consistent measure of inflation.³⁶

3. The chain-type price index for *Personal Consumption Expenditures* (PCE).³⁷ This index is available on an annual basis since before 1938 and on a quarterly basis beginning in 1947. Because it allows for changes in consumer spending patterns, this index is closer than the CPI-W to a cost of living index.
4. The *Employment Cost Index* (ECI) for wages and salaries of workers in the civilian nonfarm sector of the economy.³⁸ The minimum wage provisions of the FLSA apply to some, but not all, farm workers. The ECI, however, does not include agricultural workers. This index is available on a quarterly basis beginning with the second quarter of 1981.
5. *Average Hourly Earnings* of production workers in manufacturing (AHE-Mfg.), excluding overtime pay.³⁹ The basic minimum wage is the statutory wage for regular, or straight-time pay. Employers may be required to pay minimum wage workers time and a half for overtime hours.⁴⁰ This wage measure is available on a monthly basis since January 1956.⁴¹
6. *Average Hourly Earnings* of production or nonsupervisory workers in the private nonfarm sector (AHE-Prod.).⁴² Although this measure includes overtime pay, it includes a larger share of the workforce than production workers in manufacturing. The measure does not include farm workers. This wage measure

³⁶ Kenneth J. Stewart and Stephen B. Reed, "Consumer Price Index Research Series Using Current Methods, 1978-98," *Monthly Labor Review*, vol. 122, June 1999, p. 29.

³⁷ U.S. Department of Commerce, Bureau of Economic Analysis, *Price Indexes for Personal Consumption Expenditures by Major Type of Product*, Table 2.3.4, available at [<http://bea.gov/bea/dn/nipaweb/index.asp>].

³⁸ U.S. Department of Labor, Bureau of Labor Statistics, *Compensation Cost Trends*, available at [<http://stats.bls.gov/ncs/ect/home.htm>].

³⁹ U.S. Department of Labor, Bureau of Labor Statistics, *Employment, Hours, and Earnings from the Current Employment Statistics Survey*, at [<http://stats.bls.gov/ces/home.htm>].

⁴⁰ Covered workers paid by the hour must be paid no less than the minimum wage for each hour worked. Workers covered by the overtime provisions of the FLSA must be paid at least time and a half for hours worked in excess of 40 hours during a workweek.

⁴¹ In 2003, the Current Employment Statistics Survey (CES) switched from the Standard Industrial Classification (SIC) system to the North American Industry Classification System (NAICS). On an SIC basis, data on average hourly earnings in manufacturing, excluding overtime, are available on a monthly basis from January 1941 through April 2003.

⁴² U.S. Department of Labor, Bureau of Labor Statistics, *Employment, Hours, and Earnings from the Current Employment Statistics Survey*, at [<http://stats.bls.gov/ces/home.htm>].

is available on an annual basis since 1947 and on a monthly basis since January 1964.⁴³

Figures 2 and 3 in Appendix B show the annual *percentage changes* in the economic measures used in this report. As can be seen, the pattern in the year-to-year changes is similar for each of the economic measures. However, depending on the time period examined, there may or may not be significant differences in the annual *rates of change* in these six indexes. **Table 1** compares the annual rates of change in the above economic measures over two different time periods: the 25-year period from 1981 to 2006 and the 15-year period from 1991 to 2006. A comparison of columns 2 and 3 shows that prices and wages increased more in the 1980s than in the following years. Also, the ECI and the two measures of hourly earnings generally increased more than the PCE or either CPI index. The ECI and the measures of hourly earnings likely reflect increases in wages due to increased labor productivity. Although differences in the indexes in the annual rates of change are not large, small differences can mean a large difference in annual earnings for persons working at the minimum wage.

Table 1. Annual Percentage Rate of Change in Economic Measures

Economic Measure (1)	1981-2006 (2)	1991-2006 (3)
CPI-W	3.1%	1.5%
CPI-U-RS ^a	2.9%	1.3%
PCE	2.8%	1.3%
ECI ^a	3.5%	1.8%
AHE-Mfg.	2.9%	1.6%
AHE-Prod.	3.3%	1.9%

Source: Calculations by CRS.

Note: Unless noted otherwise, calculations of annual percentage changes are through September 2006.

a. Calculations of annual percentage changes are through 2005.

The Initial Value of the Minimum Wage

If the minimum wage were indexed, its future value would depend not only on the economic measure used for indexation but also on the initial value, or base period, selected. The main reasons given to justify a minimum wage do not prescribe the initial real or relative value that should be used for indexation (i.e., they do not prescribe the size of the initial basket of goods). For instance, a single, nationwide minimum wage may not provide the same real or relative standard of living in all circumstances. Families differ in size, the number of workers and their hourly wage rates, the total number of hours worked, and the amount of nonwage income. Therefore, a living wage for a single parent of a teenage son or daughter may not be

⁴³ On an SIC basis, data on average hourly earnings of production workers are available on an annual basis only from 1947 to 1963 and on a monthly basis from January 1964 through April 2003.

the same as a living wage for a dependent teenager. In addition, the cost of living varies from one city or state to another. However, for the federal government, a single nationwide minimum wage may be easier to administer than several subnational minimum wage rates. States and cities can also adopt minimum wage rates that are higher than the federal minimum wage.⁴⁴

If labor markets are not perfectly competitive, a minimum wage could improve economic efficiency. For instance, in the case of a monopsony, a minimum wage could raise wages and increase employment.⁴⁵ However, determining the appropriate wage may be difficult. If the wage is set at too high a level, a monopsonist may hire fewer, rather than more, workers.⁴⁶ Similarly, if labor markets do not meet the model of perfect competition because of imperfect information or discrimination, the federal government can enact a minimum wage for workers who are at a disadvantaged in obtaining information about jobs or in negotiating a fair wage. But, again, it may be difficult to determine what the appropriate minimum wage rate should be. Here, too, a single nationwide minimum wage may not be the wage that corrects instances of imperfect competition in all labor markets.

Although the main reasons given to justify a minimum wage do not prescribe the value at which the minimum wage should be set, with indexation the future value of the minimum wage would depend importantly on the initial value selected. The initial value of the minimum wage used for indexation could be the current (January 2007) value of \$5.15 an hour. Alternatively, as Congress has done occasionally with other federal programs, the base period could be some future or past value of the wage. Indexation could begin in the year that legislation is enacted or in some future year. The minimum wage could be raised and indexation could begin at some time in the future. A past value of the minimum wage could also be used as the base period.

⁴⁴ At the beginning of 2007, over half the states and the District of Columbia have minimum wage rates that are higher than the basic federal minimum wage. (CRS Report RL33754, *Minimum Wage in the 110th Congress*.) Several cities and counties have also adopted “living wage” laws. These laws typically apply to employers that receive city contracts or tax benefits and, sometimes, to the city itself. The laws generally require a wage that would provide an employee working full time with at least a poverty-level of income. The poverty level is based on either local or federal standards and is often defined according to the poverty level for a family of four. A living wage is often defined to include health insurance.

⁴⁵ In economic terms, a firm will hire an additional worker if the extra revenue is greater than or equal to the worker’s wage (i.e., marginal revenue is greater than or equal to marginal cost). Unlike a firm in a competitive labor market, however, a monopsonist is able to influence wages. For a monopsonist, the cost of hiring an additional worker is equal to that worker’s wage plus the higher wage that must be paid to current workers (i.e., marginal cost is greater than average cost). A mandated minimum wage can raise the average wage paid by a monopsonist if the minimum wage is higher than the average wage that a monopsonist would otherwise pay. A minimum wage can result in an increase in employment because it can lower the additional cost of hiring an extra worker (i.e., marginal cost may equal average cost). It is the lower marginal cost that induces a monopsonist to hire more workers. Ronald G. Ehrenberg and Robert S. Smith, *Modern Labor Economics: Theory and Public Policy*, New York: Addison-Wesley, 2000, pp. 79-84.

⁴⁶ *Ibid.*, p. 85.

Two components of the individual income tax system illustrate how Congress has chosen different years for indexation. The personal exemptions and the individual income tax brackets are indexed for inflation. The Tax Reform Act of 1986 (P.L. 99-514) used the value of the personal exemption in a future year as the base year for indexation. The act raised the personal exemptions in three steps from \$1,080 for 1986 to \$2,000 for 1989. Under the 1986 act, indexation began in 1990, using 1989 as the base year.⁴⁷ The Omnibus Budget Reconciliation Act of 1993 (P.L. 103-66) added two new marginal income tax rates, effective for 1993. Indexation of these two tax brackets began in 1995, using 1993 as the base year.⁴⁸

Base Periods Used for Illustrations. Using different economic measures, it is not possible to project what the minimum wage would be in the future without projecting what the economic measures themselves would be. For instance, if the minimum wage were increased it would not be possible to project what the minimum wage would be in five or ten years without projecting what the economic measure used for indexation would be. However, it is possible to calculate what the minimum wage would be today if it had been indexed at some point in the past. The illustrations below use three historical values for the minimum wage: when the minimum wage was at its highest real or relative level, when it was at its lowest real or relative level, and when it was at its median historical value.⁴⁹ Depending on the price index or wage measure, in the illustrations below the base period that defines when the minimum wage reached its highest or lowest levels may be a month, calendar quarter, or calendar year. Also, only two of the measures have been available since 1938. Therefore, the base periods selected are affected not only by differences in the economic measures but also by the availability of data. The method used to select the base periods is explained in more detail in **Appendix A**.

Illustrations

Tables 2 through 7 show what the federal minimum wage would have been in September 2006 if it had been indexed using the six economic measures and the three base periods described above. The illustrations use economic measures that are consistent with the reasons for having a minimum wage. However, because of differences in the initial values of the minimum wage and in the availability of data, the illustrations should not be used to compare how the different economic measures would affect the minimum wage rate under indexation.

The results shown in **Table 2** are based on calculations using the CPI-W. The first row shows that if the minimum wage were indexed from the point when it reached its highest real value (February 1968), the minimum wage in September

⁴⁷ CRS Issue Brief IB86133, *Tax Reform Act of 1986 (P.L. 99-514)*, by Stacey M. Kean and David L. Brumbaugh. This issue brief is not active but is available from the authors upon request.

⁴⁸ CRS Report RL30007, *Individual Income Tax Rates: 1989 through 2007*.

⁴⁹ When the real minimum wage is ranked from its lowest to highest historical values, the median real wage is the wage where half the values are larger and half the values are smaller.

2006 would have been \$9.25, instead of \$5.15. On the other hand, if the base period was the point when the minimum wage was at its lowest real value, the minimum wage in September 2006 would have been \$3.23. If the minimum wage were indexed from the point when it was at its median historical value, the minimum wage in September 2006 would have been \$6.14.

The results shown in **Table 3** are based on calculations using the CPI-U-RS. This measure is available for the years 1977 through 2005. The first row shows that if the minimum wage were indexed from the point when it reached its highest real value, the minimum wage at the end of 2005 would have been \$7.65. If the base period was the point when the minimum wage was at its lowest real value, the minimum wage at the end of 2005 would have been \$4.96. If the minimum wage were indexed from the point when it was at its median historical value, the minimum wage at the end of 2005 would have been \$5.78.

The price index used in the calculations in **Table 4** is the chain-type price index for personal consumption expenditures. The first row shows that if the minimum wage were indexed at the point when it was at its highest real value (the first quarter of 1968), the minimum wage in September 2006 would have been \$7.76. If indexation began from the point when the minimum wage was at its lowest real value, the minimum wage in September 2006 would have been \$2.71. If the base period was the point when the minimum wage was at its median historical value, the minimum wage in September 2006 would have been \$5.80.

Tables 5 through 7 use economic measures that would maintain the relative value of the minimum wage. Each of these measures was developed after 1938, when the federal minimum wage was first enacted. For these measures, selecting the highest and lowest values of the minimum wage depends on the availability of data. Each of the measures shows that the real minimum wage in September 2006 (or the end of 2005, for the ECI) was at its lowest value. In September 2006, the minimum wage of \$5.15 was equal to 32.1% of average hourly earnings of production workers in manufacturing and 30.5% of average hourly earnings of production or nonsupervisory workers.

Both measures of average hourly earnings show that the minimum wage reached its peak real value in February 1968. In that month, the \$1.60 minimum wage was equal to 59.0% of the average hourly earnings of production workers in manufacturing and 54.2% of average hourly earnings of production or nonsupervisory workers. If the February 1968 minimum wage had been indexed to average hourly earnings in manufacturing, it would have been \$9.46 in September 2006. If it had been indexed to the average hourly earnings of production or nonsupervisory workers, the minimum wage in September 2006 would have been \$9.16.

Summary of Illustrations. In short, for each of the economic measures used in **Tables 2 through 7**, if the base period used for indexation was the point when the minimum wage was at its highest historical value, the minimum wage in September 2006 (or the end of 2005) would have been more than \$5.15. Four of the six measures show that the minimum wage reached its peak real value in February 1968 (or the first quarter of 1968, for the PCE). If the \$1.60 minimum wage of February 1968 had been indexed to the average hourly earnings of production workers in manufacturing, the minimum wage in September 2006 would have been \$9.46. For three of the six measures, if the minimum wage had been indexed from the historical point where it reached its lowest real value, it would have been less than \$5.15 in September 2006. Finally, all six measures show that if the minimum wage had been indexed from the point where it was at its median historical value, it would have been between \$5.78 and \$6.63 in September 2006.

Table 2. Real Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Consumer Price Index for Urban Wage Earners and Clerical Workers (CPI-W)

Past values (1)	Base period (2)	Real value if indexed (3)
Highest	February 1968	\$9.25
Median	Different times. Most recent February 2000	\$6.14
Lowest	August and September 1948	\$3.23

Notes: The CPI-W is available on a monthly basis starting before 1938.

Table 3. Real Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Consumer Price Index for All Urban Consumers, Research Series (CPI-U-RS)

Past values (1)	Base period (2)	Real value if indexed (3)
Highest	January 1979	\$7.65
Median	Different times. Most recent December 1992	\$5.78
Lowest	March 1990	\$4.96

Notes: The CPI-U-RS is available beginning December 1977.

Table 4. Real Value of the Minimum Wage in the Third Quarter of 2006 if it Had Been Indexed to the Chain-Type Price Index for Personal Consumption Expenditures (PCE)

Past values (1)	Base period (2)	Real value if indexed (3)
Highest	First quarter of 1968	\$7.76
Median	Different times. Most recent third quarter of 2001	\$5.80
Lowest	Calendar year 1944	\$2.71

Notes: The chain-type price index for PCE is available on an annual basis only starting before 1938 and on a quarterly basis beginning with the first quarter of 1947.

Table 5. Relative Value of the Minimum Wage in the Fourth Quarter of 2005 if it Had Been Indexed to the Employment Cost Index (ECI) for Wages and Salaries of Civilian Workers

Past values (1)	Base period (2)	Relative value if indexed (3)
Highest	Second quarter of 1981	\$8.25
Median	Different times. Most recent fourth quarter of 1993	\$6.19
Lowest	Fourth quarter of 2005	\$5.15

Note: The ECI for wages and salaries of civilian workers is available on a quarterly basis beginning with the second quarter of 1981.

Table 6. Relative Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Average Hourly Earnings of Production Workers in Manufacturing (AHE-Mfg.), Excluding Overtime Pay

Past values (1)	Base period (2)	Relative value if indexed (3)
Highest (59.0%)	February 1968	\$9.46
Median (41.3%)	Different times. Most recent October 1997	\$6.62
Lowest (32.1%)	September 2006	\$5.15

Notes: The AHE-Mfg. is available on a monthly basis beginning with January 1941. In September 2006 the average hourly wage of production workers in manufacturing was \$16.03.

Table 7. Relative Value of the Minimum Wage in September 2006 if it Had Been Indexed to the Average Hourly Earnings of Production or Nonsupervisory Workers in the Private Nonfarm Sector (AHE-Prod.)

Past values (1)	Base period (2)	Relative value if indexed (3)
Highest (54.2%)	February 1968	\$9.16
Median (39.3%)	Different times. Most recent September 1998	\$6.63
Lowest (30.5%)	September 2006	\$5.15

Notes: The AGE-Prod. is available on an annual basis since 1947 and on a monthly basis since January 1964. In September 2006, the average hourly wage of production or nonsupervisory workers was \$16.88.

Are There Other Policy Options?

This paper does not examine how the minimum wage or an increase in the minimum wage compares to alternative policy options for achieving the same objectives. However, some policymakers argue that a minimum wage is not the only, or best, way to address the issues of a living wage or of labor market efficiency. Other ways of providing a family with a living wage include policies to increase worker productivity. Examples of these kinds of policies include investment in income-producing human capital (e.g., education and training), increased saving for investment in plant and equipment (to increase the amount of physical capital and output per worker), and advances in technology (to improve productivity, workers skills, or both).

For most families, wages are not the only source of income. Other ways of providing a family with a minimum level of income include income redistribution policies. Examples of income redistribution policies include transfer payments such as those made under the Temporary Assistance to Needy Families (TANF) program and refundable tax credits like the Earned Income Tax Credit (EITC) and Child Tax Credit (CTC).

The wages of less-skilled workers could also be raised with policies that increase their bargaining power. Examples of these kinds of policies include legislation to expand unionization or to improve employment opportunities for minority workers.

Appendix A.

Method Used for Selecting the Base Periods to Illustrate the Effects of Indexing the Minimum Wage

Given a statutory minimum wage, this report does not address the issue of the level at which the minimum wage is set. Instead, for each of the six economic measures considered, the illustrations of what the minimum wage would have been in September 2006 (or the end of 2005, depending on the measure) if it had been indexed use three different base periods, or initial values of the minimum wage: (1) when the minimum wage was at its highest real or relative level, (2) when the minimum wage was at its lowest real or relative level, and (3) when the minimum wage was at its median real or relative value.

To explain the method used in selecting the three base periods, consider **Table 2**. To select the months when the minimum wage was at its highest and lowest real values, the actual minimum wage for *each* month from October 1938 through August 2006 was inflated to September 2006 dollars using the monthly CPI-W. In other words, the October 1938 minimum wage of \$0.25 was inflated to September 2006 dollars using the increase in the CPI-W from October 1938 to September 2006. Likewise, the November 1938 minimum wage of \$0.25 was inflated to September 2006 dollars using the change in the CPI-W from November 1938 to September 2006. Following this approach, the actual minimum wage for each month from October 1938 through August 2006 was inflated to September 2006 dollars. The highest and lowest real values of the minimum wage, along with the median value, were selected from these results. In September 2006 dollars, the highest real value of the minimum wage was the \$1.60 wage that was in effect in February 1968. In September 2006 dollars, the February 1968 wage of \$1.60 was equal to \$9.25.

The procedure used to identify the highest and lowest values of the minimum wage for **Table 2** was repeated for **Tables 3 through 7**. The base periods are affected, however, by the availability of data. Of the six economic measures used, only the CPI-W is available on a monthly basis from October 1938 through September 2006. The other measures are either produced on a quarterly basis, available on an annual basis for earlier years, or were not developed until after 1938.

If Congress were to index the minimum wage, the actual implementation would likely follow a different procedure than that used here to identify the highest, lowest, and median historical values of the minimum wage. For example, if the minimum wage were adjusted each January, the adjustment might be based on the annual changes in an economic measure where each 12-month period ends with the prior September.

Appendix B. Comparison of Economic Measures

Figures 2 and 3 show the annual percentage changes in the price indexes used in the illustrations in this report

Figure 2. Comparison of Annual Percent Changes in the CPI-W, CPI-U-RS, and PCE

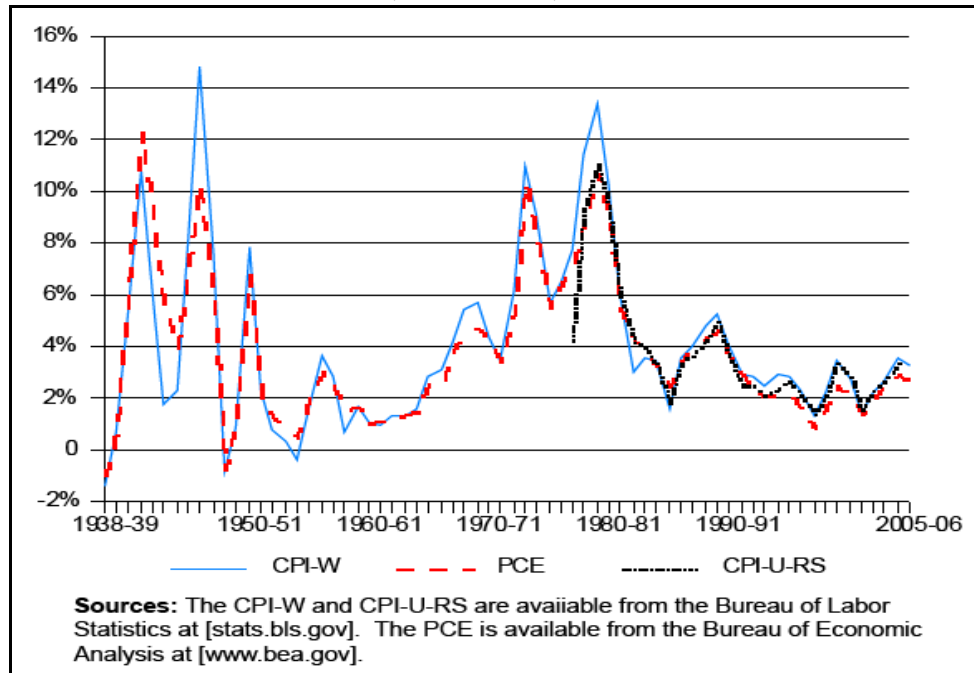


Figure 3. Comparison of Annual Percent Changes in the AHE-Prod., AHE-Mfg., and Employment Cost Index (ECI)

