Adequacy of the Weekly Benefit Amount

Christopher J. O'Leary
W.E. Upjohn Institute

Murray Rubin
U.S. Dept. of Labor

UNEMPLOYMENT
INSURANCE
IN THE
UNITED
STATES

Analysis
of
Policy
Issues

Christopher J. O'Leary
and
Stephen A. Wandner, Editors

CHAPTER 5

Adequacy of the Weekly Benefit Amount

Christopher J. O'Leary
W.E. Upjohn Institute for Employment Research
Murray A. Rubin
Consultant

Overview

The unemployment insurance (UI) system was established to allevi-
ate the distress and hardship caused by involuntary unemployment.
Through weekly benefit payments to eligible claimants, the system
helps maintain living standards during active job search. The adequacy
of the weekly benefit amount in performing the income maintenance
function can be gauged by the percentage of lost income that benefits
replace. More directly, adequacy depends on how the weekly benefit
contributes to maintaining usual levels of household expenditure.

When the federal-state UI system was established in the depths of
the Great Depression, benefit levels were set at amounts widely
regarded as adequate in terms of income replacement. Due to rapidly
rising wage levels, by the end of World War II, UI benefit levels came
to be viewed as inadequate. Since that time there has been continuing
controversy over what the level of benefits should be and how the sys-
tem should operate to provide these benefits.

Criticisms—that benefits are either inadequate or excessive—regu-
larly surface during legislative considerations of benefit changes at
both federal and state levels. Advocates of more generous benefits as
well as proponents of benefit cutbacks can usually find support for

their cause from research studies conducted over the years. During the 1950s and 1970s, benefit adequacy studies indicated that benefit ceilings were too low to allow many unemployed workers, particularly those with dependents, to meet basic expenses. On the other hand, studies of claimant job search behavior done over the past twenty years have focused on how the mere availability of unemployment benefits tends to cause substantial numbers of claimants to delay their return to work. Much of the history of the program, at both federal and state levels, reflects efforts to resolve in one way or another the inherent conflict in the UI program's main objective of providing adequate income replacement.

Over the years, a widely held view has formed that the weekly benefit amount should be high enough to sustain a worker and family without their having to resort to public welfare assistance, but that benefits should not be so high as to undermine the incentive to return to work. There has been little agreement on the specifics of how this principle should be implemented. For example, there is concurrence that the benefit should be wage related, but states differ widely in how they measure past wages, the amount of wages to be replaced by the benefits, and the highest amount of benefits that should be payable. There is disagreement also on such issues as to whether the benefit should represent a higher percentage of the wages of lower-paid workers and whether benefits should be increased for claimants who have dependents. These issues are the subject of this chapter.

The Right to Unemployment Benefits

The UI system was designed to be completely separate from depression-era relief programs, with eligibility determined by labor force attachment and benefit levels based on prior earnings experience. No stigma is related to the receipt of UI, which provides "compensation for wage loss as a matter of right, with dignity and dispatch . . . during periods of involuntary unemployment due to lack of work" (Blaustein 1993, p. 47).

UI presumes need due to the economic loss resulting from unemployment, while general relief programs require demonstration of need often to include the shedding of personal assets. The idea of basing benefits on demonstrated need was rejected at the outset so as to pre-

serve the dignity of workers who find themselves in financial distress due to involuntary job loss, and to maintain the insurance nature of the program.

It may be that UI would generate less controversy if the objectives of the benefit amount were to relieve instead of to prevent poverty; if benefits were payable only to those unemployed who were clearly in need; and if the benefit amount were based on a calculated minimum budget somewhat above the poverty level for specific family sizes. On the other hand, one of the strengths of the UI system, which has generated widespread support, is the potential availability of benefits to virtually all workers who face the risk of layoff.

Federal law has been regularly interpreted as prohibiting states from establishing an income or means test as a condition for benefits.[1] Numerous state proposals to base benefits on factors other than unemployment and claimants' past work and wage experience have been successfully challenged as violative of the federal prohibition against using unemployment funds for purposes other than to pay "compensation," defined in federal law as cash payments (solely) with respect to unemployment (Dahm and Fineshriber 1980, pp. 84-87).

For example, proposals to require a longer waiting period for claimants with base-period earnings in excess of a specified amount have been rejected as introducing an element of need even though no means test was involved. A similar reaction awaited a variety of other proposals to introduce elements other than work experience as a basis for benefits: to establish stiffer qualifying requirements for claimants with working spouses; to reduce the severity of disqualifications for claimants with dependents; to increase benefits for individuals who are their family's principal support; to establish a schedule of lower benefits payable to higher-wage claimants.

A change from a program of wage-related benefits, payable as a matter of right without a means or income test, to a needs-based program would sacrifice a principle that is still vital to many. It would also alter a basic UI objective—from preventing poverty to alleviating poverty.

Wage-Related Benefits

Ideally, unemployment benefits should be sufficient to provide for a worker and family during a period of temporary unemployment without requiring drastic cuts in their standard of living. Since income and living standards vary widely among workers, an identical benefit amount for everyone would be too high in relation to some claimants' living standards and wholly inadequate for others. Nor is it a practical alternative simply to key each worker's benefit directly to the level of those expenditures that constitute the individual's living standard.

Ordinarily, living standards are established by income levels, which depend in most cases on earnings from employment. Therefore, a benefit amount directly related to wages will usually be related also to living standards. Moreover, a wage-related benefit reinforces the concept that UI is an earned right, based on contributions required by law to be paid by the worker's employer as "insurance premiums" against the risk of unemployment. A wage-related benefit will not improve a low standard of living caused by low income. The benefits merely support whatever standard of living was established by the claimant's wages. The benefits will also not support a sumptuous living standard created by a high income. Since UI is a *social insurance* program with the fundamental social aim of preventing widespread poverty, UI maximum benefit rates are imposed in all states to conserve funds so as to spread resources as widely as is practical.

There has never been much controversy in the United States over tying benefits to prior earnings. This practice is at odds with the eighty-year British custom of paying a *flat rate* benefit to all eligible claimants. This distinction is particularly surprising since so much else was borrowed from the British system. A flat rate for all has certain advantages. It can be keyed to an objectively established subsistence level— or accommodate any other objective desired; it is relatively simple to administer, easily adjustable, predictable, and easy to understand. It requires no means test, and it ensures an income floor for all unemployed who qualify.

The United States, and most other countries with UI systems, chose a different route. In every state in the nation, the amount of the weekly unemployment benefit is related to the unemployed worker's former wage. A uniform flat benefit for all recipients, regardless of the level at

which it was set, was never considered feasible for the United States. This was partly because wage-related benefit precedents had been established, particularly in Wisconsin, but also because substantial regional, interstate, and area wage variations precluded the establishment of a flat sum that would be adequate, by any measure, for even a majority of beneficiaries. The flat benefit is also inappropriate where wage levels vary greatly within the same locality.

Replacing One-Half of Lost Wages

Since the beginning of the federal-state UI program in the United States, there has been general acceptance of the idea that the weekly benefit should replace one-half of the worker's lost weekly wages. There is little historical evidence concerning the 50 percent concept, but it appears that the idea initially became established primarily through the influence of the first UI law in Wisconsin.[2] Preliminary versions of the Wisconsin statute called for a flat-rate benefit, but, in the early 1930s, the idea of a wage-related benefit evolved. The only antecedent offering guidance about the rate of wage replacement was the workers' compensation program, wherein two-thirds of former earnings were usually replaced. While this seemed reasonable for workers who had lost the physical capacity to work, it was viewed as excessive for those required to be able and available for work. Furthermore, it was feared that two-thirds wage replacement would substantially diminish the incentive to actively seek work. One-half wage replacement was chosen as the natural alternative; the ratio was also selected because it was easy to understand and administer.[3] The Committee on Economic Security (1935) and the Social Security Board (1936) both recommended that benefits replace one-half of full-time weekly earnings. By 1938, all states had benefit rules that applied this principle.

The ratio suggested by the Social Security Board (1938) for consideration by the states was 50 percent of the unemployed worker's *full-time* weekly earnings. Reports on full-time wages were difficult to obtain from employers, particularly for workers with variable work and pay patterns. For this and other reasons, states increasingly began to approximate weekly wages on the basis of quarterly wage data. A few states have implemented an annual wage formula, which makes the

weekly benefit a percentage of annual wages and thus departs entirely from a weekly wage-based benefit.

Most states now set the weekly benefit as a fraction of the claimant's earnings in the high quarter or two highest quarters of the base period in which the claimant earned the most. Most high-quarter formulas apply the 50 percent wage replacement concept by establishing the weekly benefit amount as half of 1/13 of the earnings of that quarter (or 1/26 of the high-quarter wages) on the assumption that the high quarter reflects full-time employment for all 13 weeks of the quarter.

While the principle of replacing 50 percent of lost wages has been widely accepted, many states now approximate a slightly different replacement rate. Currently, several states provide a basic weekly benefit amount equal to over 54 percent (1/24 or more of high-quarter wages), and a few states provide under 50 percent—not counting the states using the annual wage formula.

Some benefit formulas are weighted in favor of lower-paid workers. These workers' weekly benefits represent a higher percentage of their normal wages than do benefits payable to higher-wage workers. This is based on the idea that lower-paid workers generally spend a greater proportion of their income for necessaries than do others. Other states pay allowances for claimants' dependents, thereby also deviating from the 50 percent rule. The ceiling all states put on the weekly benefit amount is another exception to the 50 percent rule.

One-Half for Four-Fifths

The percentage of the beneficiary population eligible for one-half wage replacement depends on the level of the benefit maximum. In his January 1954 Economic Report to Congress, President Eisenhower recommended

> that the states raise the dollar maximums so that the payments to
> the *great majority* of the beneficiaries may equal at least half their
> regular earnings (Haber and Murray 1966, p. 180).

Soon thereafter, the goal was stated more clearly by the Federal Advisory Council on Employment Security which recommended that the maximum should be from 60 percent to 67 percent of the statewide average weekly wage. This was based on an estimate by Professor Richard Lester of Princeton University that the maximums in the origi-

nal state laws would have been the equivalent of from three-fifths to two-thirds of average weekly wages in manufacturing in 1939. In that year, only 25.8 percent of claimants received the maximum benefit amount, indicating that the great majority of beneficiaries received 50 percent wage replacement.

The Kennedy and Johnson administrations recommended a benefit standard in their legislative proposals for UI, including a maximum weekly benefit equal to at least two-thirds of the statewide average weekly wage in covered employment. The same two-thirds recommendation was included in the Nixon administration's 1973 UI proposals, on the grounds that this would meet the goal of providing "at least four-fifths of the Nation's insured workforce half-pay or better when unemployed" (Becker 1980, p. 4).

Evidence on Wage Replacement Standards

From the earliest days of UI in the United States, there has been a presumption that if half of lost wages were replaced there would be the right balance between compensation for lost income and the incentive for return to work. This section begins with a review of the fraction of lost wages that has actually been replaced by the UI system on average over the years. This is followed by a review of constructive studies of benefit adequacy that have been done to estimate the appropriate level of wage replacement. The research is divided into five groups: household expenditure studies that estimate the spending habits of families at risk of unemployment, optimal UI studies that mathematically model ideal UI systems, consumption smoothing studies that examine the degree to which household spending patterns change due to unemployment, compensating wage differentials studies that analyze how wages differ depending on the risk of unemployment, and finally studies of what full unemployment compensation would be based on the economic theory of choice by the consumer-worker.

Aggregate Wage Replacement Ratios

    While most states have benefit formulas intended to replace approximately one-half of lost wages, the maximum on payments guarantees that many high-wage workers will receive less than half their average lost earnings, and the minimum means that some low-wage workers may receive more than half their average earnings. The data in table 5.1 summarize the national historical experience on benefit adequacy using a very aggregate measure—the average wage replacement ratio (WRR). The national average WRR is defined by

$$WRR = \frac{\sum_{i=1}^{n} WBA_i / n}{\sum_{j=1}^{m} WE_j / m}$$

where WBA_i = the weekly benefit amount received by the ith UI recipient, n = the number of UI recipients, WE_j = the weekly earnings of the jth covered worker, and m = the number of workers covered by UI.

    In the first few years of UI, earnings of covered workers were quite low, the WRR was quite high, and there was little controversy about the adequacy of the weekly benefit amount. Leading up to U.S. involvement in World War II, average weekly wages of UI covered workers gradually rose, causing the WRR to fall. This continued until 1945 when the WRR spiked up to reach 0.416 when first UI payments jumped from only half a million the previous year to over 2.8 million. In 1945, as the first postwar transition layoffs occurred among the average base-period earnings of claimants was dramatically higher for displaced workers with recent histories of high wages and long hours. Following this, as figure 5.1 shows, the WRR trended downward through the early 1950s. Since that time, the WRR has ranged between 32 and 37 percent, being approximately 36 percent in recent years.

**Table 5.1 Average UI Weekly Benefit Amount (WBA) in Dollars
and Wage Replacement Ratio (WRR) in the United States,
1938-1995**

Year	WBA	WRR	Year	WBA	WRR
1938	10.94	0.431	1967	41.25	0.347
1939	10.66	0.408	1968	43.43	0.343
1940	10.56	0.391	1969	46.17	0.344
1941	11.06	0.366	1970	50.31	0.357
1942	12.66	0.353	1971	54.35	0.365
1943	13.84	0.336	1972	55.82	0.361
1944	15.90	0.359	1973	59.00	0.361
1945	18.77	0.416	1974	64.25	0.365
1946	18.50	0.396	1975	70.23	0.371
1947	17.38	0.346	1976	75.16	0.371
1948	19.03	0.341	1977	78.71	0.364
1949	20.48	0.360	1978	83.67	0.364
1950	20.76	0.344	1979	89.68	0.361
1951	21.09	0.322	1980	98.95	0.364
1952	22.79	0.330	1981	106.61	0.359
1953	23.58	0.323	1982	119.34	0.371
1954	24.93	0.335	1983	123.59	0.368
1955	25.04	0.321	1984	123.47	0.353
1956	27.02	0.333	1985	128.23	0.351
1957	28.17	0.335	1986	135.72	0.357
1958	30.54	0.353	1987	139.74	0.352
1959	30.41	0.334	1988	144.91	0.348
1960	32.87	0.352	1989	151.76	0.355
1961	33.80	0.354	1990	161.56	0.361
1962	34.56	0.349	1991	169.88	0.364
1963	35.28	0.346	1992	173.64	0.354
1964	35.96	0.338	1993	179.69	0.369
1965	37.19	0.338	1994	181.53	0.361
1966	39.76	0.347	1995	187.30	0.363

SOURCE. U.S Department of Labor (1992). Figures for 1993 and 1994 averaged from the four quarterly issues of *UI Data Summary*, U.S Department of Labor.

Figure 5.1 also shows a general upward trend in the WRR since about 1950. Controlling for the changing occupational mix of UI claimants, Hight (1980) arrived at lower bound estimates of a 0.10 to 0.29 percent increase in the WRR per year over the 1950-1977 period. He concluded that there have been some real gains in adequacy over these years. Table 5.2 lists the WRR for each state in 1994. While the national WRR was 36.05 percent in 1995, WRRs across the states ranged from a low of 26.1 percent in California to a high of 52.8 percent in Hawaii. A total of fifteen states had WRRs greater than 40 percent in 1995.

Presumably, the WRR is used as a rough gauge of benefit adequacy because the data needed to compute it are readily available. It is the main measure of benefit adequacy regularly reported by the U.S. Department of Labor.[4] However, the WRR as computed by the preceding formula is a bit misleading. The denominator in the WRR considers wages for the entire population of covered workers, while the numerator considers only payments to beneficiaries. Properly, we should examine benefit payments relative to lost earnings of beneficiaries.

Vroman (1980), who provided a comprehensive review of possible wage replacement rate computations, called the series presented in figure 5.1 and tables 5.1 and 5.2 a "gross narrow wage replacement ratio." Vroman (1980, p. 170) also cited criticism that the measure underestimates the "true" replacement ratio because "unemployed workers receive lower wages than the average worker covered by the program." Using unpublished micro data on the actual pre-unemployment earnings of beneficiaries from Illinois, Michigan, Pennsylvania, Texas, Washington, and Wisconsin for various periods during the 1980s, the Advisory Council on Unemployment Compensation (1995, p. 138) estimated that the gross narrow wage replacement ratio understates the actual replacement rates by 25 to 30 percentage points.

The dramatic difference in wage replacement ratio estimates computed by the rather misleading gross narrow WRR formula and those produced using micro data on actual benefits and prior earnings convinced the Advisory Council on Unemployment Compensation (1995, p. 21) to recommend the following:

> The U.S. Department of Labor should calculate and report the actual replacement rate for individuals who receive Unemploy-

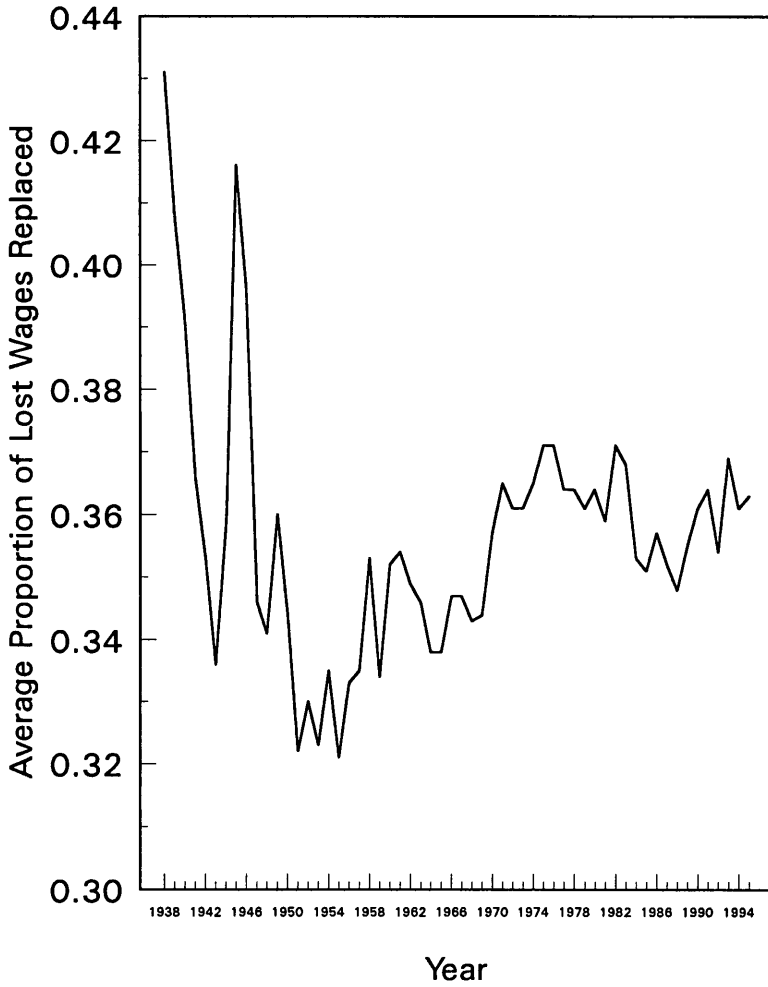**Figure 5.1 Aggregate Average Wage Replacement Ratio (WRR) in the United States, 1938-1995**

Table 5.2 State Wage Replacement Ratio (WRR), 1995
State Maximum Weekly Benefit Amount (MaxWBA) in dollars,
January 1996
Max WBA as a Fraction of State Average Weekly Wage
(AWW), 1996
and Any Statutory Rule for MaxWBA as a Percentage of AWW

State	WRR	MaxWBA	MaxWBA/ AWW	Statutory rule (%)
Alabama	0.303	180	0.393	
Alaska	0.279	212	0.342	
Arizona	0.310	185	0 386	
Arkansas	0.410	264	0.645	66 2/3
California	0.261	230	0.392	
Colorado	0.393	272	0.528	55
Connecticut	0.318	350	0.519	60
Delaware	0.350	300	0.537	
District of Columbia	0.316	359	0.490	50
Florida	0.366	250	0.532	
Georgia	0.323	205	0.409	
Hawaii	0.528	347	0.678	70
Idaho	0.404	248	0.573	60
Illinois	0.361	251	0.436	49.5
Indiana	0.366	217	0.445	
Iowa	0.445	224	0.513	53
Kansas	0.435	260	0.578	60
Kentucky	0.374	238	0.532	55
Louisiana	0.267	181	0.398	66 2/3
Maine	0.380	202	0.463	52
Maryland	0.342	250	0.460	
Massachusetts	0.395	347	0.560	57.5
Michigan	0.377	293	0.500	58
Minnesota	0.436	303	0.579	60-66 2/3
Mississippi	0.336	180	0.451	
Missouri	0.312	175	0.358	
Montana	0.415	228	0.594	60
Nebraska	0.368	184	0.432	
Nevada	0.374	237	0.467	50

State	WRR	MaxWBA	MaxWBA/ AWW	Statutory rule (%)
New Hampshire	0.291	216	0.426	
New Jersey	0.382	362	0.547	56 2/3
New Mexico	0.358	212	0.496	50
New York	0.310	300	0.448	
North Carolina	0.407	297	0.638	66 2/3
North Dakota	0.429	243	0.628	60
Ohio	0.384	253	0.493	
Oklahoma	0.405	247	0.580	50-60
Oregon	0.374	301	0.612	64
Pennsylvania	0.412	352	0.661	66 2/3
Puerto Rico	0.312	133	0.452	50
Rhode Island	0.449	324	0.644	67
South Carolina	0.364	213	0.480	66 2/3
South Dakota	0.387	180	0.480	50
Tennessee	0.316	200	0.421	
Texas	0.365	252	0.492	
Utah	0.430	263	0.590	60
Vermont	0.369	212	0.472	
Virginia	0.338	208	0.414	
Virgin Islands	0.365	214	0.480	50
Washington	0.392	350	0.671	70
West Virginia	0.387	290	0.652	66 2/3
Wisconsin	0.414	274	0.570	
Wyoming	0.425	233	0.552	55

SOURCE· U S. Department of Labor (1995a and 1995b)

ment Insurance. This replacement rate should be calculated by dividing the weekly benefits paid to individuals by the average weekly earnings paid to those individuals prior to unemployment (1995, p. 21).[5]

Vroman (1980, pp. 170-172) reported that some researchers using micro data have arrived at very high net WRR figures. Feldstein (1974), who was concerned with the adverse incentive effects of UI, estimated that the net wage replacement ratio is often more than 70 percent. Munts and Garfinkel (1974) found replacement rates in Ohio in 1971-1972 to range from 0.38 to 0.89 for several distinct types of family units. Corson et al. (1977) determined the average ratio of benefits to lost wages in 1977 to be 0.66.

However, when broader measures of macro wage replacement that consider uncovered workers and noncompensated weeks are computed, replacement rates are much lower. For example, Gramlich (1974) found that during the 1970-1971 recession, UI replaced only 6 to 8 percent of lost earnings for families headed by men, and 14 to 18 percent for families headed by women. While the gross narrow WRR for 1971 was 0.363, Edgell and Wandner (1974) estimated the macro replacement rate for UI in the U.S. economy to be as low as 20 percent.

The wage replacement ratio estimates produced in the 1970s also varied because of differential treatment of taxes in the computations. This was a very important issue prior to the 1986 federal income tax changes that placed income received as unemployment compensation benefits in the same tax category as income from labor earnings.

Household Expenditure Studies

The adequacy of a wage-related benefit is difficult to measure. The unemployment benefit does not guarantee anyone an adequate minimum standard of living: it provides partial wage replacement. The unemployed low-wage worker whose income was insufficient to maintain any but the barest living standard can count on only a minimum benefit (if he or she manages to qualify at all) providing an even leaner existence. For the unemployed wage earner whose income is high but whose family responsibilities are heavy, the maximum weekly benefit amount may often cover only a small portion of expenses. However, the same benefit amount may adequately cover not only necessities but

also many incidentals for a single wage earner with a paid-off mort-gage and few financial obligations.

In the early 1950s, when most claimants were unable to receive a 50 percent wage replacement because of low maximums, the pressure to raise maximums was often resisted by allegations that many claimants did receive a benefit equal to about half their take-home pay. No firm evidence was available to indicate how claimants were actually manag-ing on their benefits while unemployed. As a result, the U.S. Depart-ment of Labor financed a series of UI benefit adequacy studies.

The results of these studies have been summarized by Becker (1961), Lester (1962), and Haber and Murray (1966). Becker (1980), while discussing the principles that should underlie any proposal for a federal benefit standard, reviewed the evidence from research in Tampa, Florida (1956), Anderson, South Carolina (1957), Albany, New York (1957), Portland, Oregon (1958), St. Louis, Missouri (1958), and Utica, New York (1958). These six similar studies were based on retro-spective data on the income and expenditures of respondents during the period just prior to the survey date. Expenditures were divided into deferrable and nondeferrable categories. Spending on food, clothing, medical care, and housing constituted the nondeferrable group. Infor-mation was gathered on four household types. After examining these studies, Becker concluded that

> [n]one of the states came close to the proposed goal of paying 80 percent of the beneficiaries half or more of their gross wage . . . [and i]t is one of the weaknesses of the system that claimants without dependents' are treated much better than claimants with dependents (1980, p. 26).

He suggested that benefit adequacy could be generally improved if benefit maximums were raised and programs for dependents' allow-ances were expanded.

Becker (1961) found that benefits amounted to two-thirds or more of the income of unemployed single beneficiaries, more than 50 percent of family income for families with one wage earner, and about 40 per-cent for families with two wage earners. The 1950s studies demon-strated the usefulness of the one-half wage norm for assessing benefit adequacy. On average, benefits that were half or more of the wage were

sufficient to cover nondeferrable expenses for all claimant household types (Becker 1980, p. 13).

The deferrable/nondeferrable distinction used in the 1950s studies was expanded by Blaustein and Mackin (1977). They added expenditures made on a regular basis to repay outstanding debt to outlays for food, clothing, medical care, and housing, and labeled this total as "recurring" expenses. Using this concept as a basis for evaluating UI benefit adequacy, they found that over two-thirds of the beneficiary households in South Carolina had adequate income in 1977. Nonetheless, they recommended increasing benefit maximums to improve adequacy.

Burgess, Kingston, and Walters (1978a, 1978b), who conducted a detailed benefit adequacy study in Arizona, expanded the Blaustein-Mackin definition of recurring expenses to include expenditures on transportation, insurance, regular services, and regular support payments. They labeled this concept "necessary and obligated" expenses and used it to assess benefit adequacy for seven recipient household types.

Burgess, Kingston, and Walters showed a wide disparity in how closely benefits came to meeting the ten groups of necessary and obligated expenses for different categories of beneficiaries. As in the previous studies, the two most important factors, in addition to the weekly benefit amount, in determining the economic condition of the family during unemployment were the number of members to be supported and the number who were contributing to the support. Benefits were most adequate for recipients who had no other household members and who lived with relatives: 44 percent received a benefit equal to 100 percent or more of their share of the ten categories of necessary and obligated expenses. The next most adequate category consisted of husband and wife units in which both members worked. For 23.4 percent, the benefit amount represented 100 percent or more of expenses.

Benefits were least adequate in situations where the recipient was the only earner in a household with three or more persons. For only 2.3 percent did the weekly benefit amount cover 100 percent or more of their expenses. For a majority of this category (56.1 percent), the benefit was half or less of the expenditures.

The low maximum weekly benefit amount was the principal reason for the disparity in the benefit-expense ratios among the different cate-

gories of Arizona beneficiaries studied. Sole wage earners, in households with two or more members including a spouse, generally had the highest wages and, consequently, were most often cut off by the maximum. For those individuals, the weekly benefit amount—usually the $85 maximum—was less adequate than for any other category of beneficiary.

The expenditure studies essentially consider benefit adequacy in terms of the extent to which gross wages or take-home pay are replaced for claimants at different income levels. A 1988 Congressional Research Service benefit adequacy study established three hypothetical claimants (each married with two children) at three preunemployment wage levels: low wage (102 percent of the 1986 poverty threshold for a four-person family); average wage (state 1986 average weekly wage for workers in covered employment); high wage (four times the 1986 poverty threshold for a four-person family). Benefits were calculated according to each state's provisions as of January 1, 1988. States were ranked from that with the highest replacement rate to the lowest (Congressional Research Service 1988, pp. 210-248).

Optimal Unemployment Insurance

Baily (1978) and Flemming (1978) originated theoretical, optimal UI models. The models are similar in that both attempt to solve for characteristics of the UI system that would maximize the expected lifetime utility of a representative worker. The UI program choice parameters for this problem are the wage replacement rate and the potential duration of benefits. Both Baily and Flemming assume an infinite potential duration of benefits, and each determines that optimal replacement rates are in the range of those provided by the states. Baily finds that

> [if the] degree of relative risk aversion by workers [is] unity, and if workers do not prolong their duration of unemployment very much as a result of UI payments [i.e., if the elasticity of a spell of unemployment with respect to a change in the benefit amount is about 0.15] then if the benefit-wage ratio is 50% it is about right (1978, p. 393).

The elasticity of unemployment with respect to the benefit amount assumed by Baily (1978) is in line with estimates summarized in chap-

ter 7. Flemming qualifies his statements with capital market considerations concluding that, under perfect capital markets, a replacement rate of 50 percent is too high, and "[i]f there is no lending or borrowing the optimal rates rise to about 75 percent (1978, p. 403)."

Davidson and Woodbury examine optimal UI with "an equilibrium search and matching model calibrated using data from the reemployment bonus experiments and secondary sources" (1996, p. BB-4). As did Baily and Flemming, they find that, if potential UI duration were infinite, replacement rates should optimally be 50 percent. However, Davidson and Woodbury also estimate that, if potential duration is limited to the standard 26 weeks, then the UI system should optimally replace all of lost earnings.

Consumption Smoothing

An indirect way of assessing the adequacy of existing UI benefit replacement is to investigate how workers' customary consumption patterns change when they become unemployed. That is, would consumption decline appreciably during periods of unemployment in the absence of UI benefits? Alternatively, is personal saving the real foundation for consumption smoothing, with UI simply acting to reduce the dissaving that would naturally occur during periods of unemployment?

Grossman (1973), using data from the six state studies of UI benefit adequacy done in the 1950s under the sponsorship of the U.S. Department of Labor, addressed the expenditure response to unemployment for different categories of household members. Applying an allocation of time model of consumer-worker behavior, he predicted that, in an effort to maintain real income, people who become unemployed would increase consumption of goods that involve relatively more home-based production activity. Grossman found that the unemployed do substitute leisure for market goods in an attempt to maintain customary consumption levels, but that the response to unemployment of *secondary market workers* is much greater than for the primary earner in a household.[6] He suggested that, as the labor force changes to include a greater share of secondary workers, the transitory component of aggregate consumer expenditure would increase.

Hamermesh also studied how UI affects the pattern of consumption. He concluded that UI benefits only partly help to smooth consumption

during periods of lost earnings due to unemployment, and that as much as half of the benefits received are spent as if "individuals were fully able to borrow or had sufficient savings to meet transitory losses of income without any disruption in their consumption spending." From this he argues that a "large part of UI benefits does little to stabilize the economy, because people consume them as if they were fully expected" (1982, pp. 110-111).

More recently, Gruber estimated that, in the absence of UI, average consumption expenditure by unemployed persons would fall by 22 percent (1994, p. 30). This is more than three times the decline estimated in the presence of UI. He suggested that the observed levels of wage replacement are appropriate only at fairly high rates of relative risk aversion.[7] Gruber also finds that UI helps to smooth consumption during the period of job loss but that it has no permanent effect.

Burgess, Kingston, and Walters (1978b) showed that Arizona recipients unemployed for 13 weeks reduced their spending on necessary and obligated expenses by at least 20 percent from pre-unemployment levels. Spending patterns were governed by the availability of other income as well as benefits: sources included savings, borrowing, sales of assets, and income from working members of the family. The amount of retrenchment was determined also by such intangible factors as claimants' prior anticipations of layoffs and expectations of reemployment.

For the 1950s studies, Becker (1961) found that, in states experiencing periods of prosperity, beneficiaries maintained their expenditures at almost normal levels. The cut in spending was much greater in states having recessions. Given these variables, perhaps all that can be concluded is that without UI, retrenchment would have come earlier and been more drastic—particularly for those families without much other income.

In an extension of the consumption smoothing studies, Hamermesh and Slesnick (1995) approached the question of UI benefit adequacy from the perspective of applied welfare theory and estimated household equivalence scales. Using quarterly household panel data for 1980-1993 from the Consumer Expenditure Survey published by the U.S. Bureau of Labor Statistics, they investigated the question: How well do UI benefits insure consumption streams against spells of unemployment? Their essential finding was that current levels of benefits

adequately compensate households that receive UI benefits. However, they tempered their conclusion by noting that UI benefit recipiency is not universal among unemployed American workers.

While replacing lost income is the prime aim of UI, an explicit corollary goal of the system is to stabilize aggregate spending by maintaining purchasing power during economic down turns. Blaustein reviewed the aggregate adequacy of benefit payments in performing the countercyclical function of stabilizing aggregate spending in the economy (1993, pp. 59-60). Citing research summarized by Hamermesh (1977, pp. 62-64) and the econometric studies by Oaxaca and Taylor (1986), he concludes that UI has a small but significant influence in maintaining purchasing power so that "economic stabilization can legitimately be considered as one of the objectives of unemployment insurance." This is consistent with studies of consumption smoothing based on household survey data.

Compensating Wage Differentials

If labor markets are efficient, wages will adjust to compensate workers in jobs with a relatively high risk of unemployment. Efficient labor markets take into account the fact that UI provides direct compensation to beneficiaries involuntarily out of work. As a result, wage differentials across UI-covered jobs with varying layoff risks are smaller than they would be in the absence of UI.

Using data from the first nine waves of the Panel Study of Income Dynamics, corresponding to calendar years 1967-1975, Abowd and Ashenfelter (1981) estimated that compensating wage differentials range from about 1 percent in industries where workers experience little anticipated unemployment to over 14 percent in industries with substantial anticipated unemployment and unemployment risk. By one method they also estimate that the implicit price of UI, in terms of wage reductions, is about equal to the expected UI benefits. Abowd and Ashenfelter performed their computations based on sample average UI wage replacement rates by industry.

Anderson (1994), who has studied compensating wage differentials in a model of optimal UI, used replacement rates simulated for each individual from the statutory provisions of the states. He asserts that UI benefit levels prior to the 1970s were inadequate, but that past deficien-

cies have been corrected. Based on empirical analysis of data from the 1986 Current Population Survey, Anderson concludes that the prospect of UI induces workers "to accept a somewhat *lower* wage in industries that involve higher unemployment risk" (1994, p. 653). He also says that actual "UI benefits approximate the level that would exist if an efficient UI market were available...and that...the average wage offset for UI benefits is approximately equal to the cost of their provision."

The studies of compensating wage differentials find that markets do adjust wages to account for the risk of unemployment and for the presence of UI. The research also suggests that if the UI market were fully private, given wage rates currently prevailing in the economy, agents would voluntarily choose the level of income protection afforded by the present federal-state system of UI.

Consumer Choice Theory and Unemployment Compensation

Consumer expenditure surveys of the type done in the 1950s and 1970s, while extremely valuable, have proven to be quite expensive. Becker noted that for the benefit adequacy studies done in the 1950s, "[t]he time spent per interview averaged about three hours, with a range from one to fourteen hours, exclusive of the time spent in re-interviews of the more difficult cases" (1961, p. 23). The high cost of gathering data has resulted in small sample sizes, but a more fundamental problem exists with the traditional approach. These studies presume that the analyst may determine which categories of expenditure are "necessary" or which items a household may need most.

The problems of sample size and expenditure category selection have been addressed by using readily available large data sets and an agnostic approach to measuring unemployment compensation based on the economic theory of consumer-worker behavior. The methodology relies on a natural, theoretical approach to estimating the upper limit on unemployment compensation: solve for the lump sum payment, which, when given to unemployed individuals, makes them indifferent between their current lot and their pre-unemployment one. This lump sum payment might be termed "full unemployment compensation." It should be noted that this full compensation will be less than lost earnings, because there is a positive economic value to leisure.

The labor-leisure choice model of economic consumer theory can be used to examine compensation required for a worker who experiences involuntary unemployment. The ideas embodied in this approach may be understood by referring to the indifference curve analysis of figure 5.2. An unconstrained individual, with preferences as represented by the map of indifference curves labeled U^1 and U^0 in the figure, would reach an unconstrained optimum equilibrium on U^0 at point E enjoying L^0 units of leisure and Y^0 unites of income to purchase goods in the market. With T representing total hours available for leisure, L, and hours of work H, if market opportunities allow sales of fewer than the desired hours of labor services, say $\underline{H} = T - L^1$, a lower level of utility is reached on the indifference curve U^1 where L^1 units of leisure and Y^1 units of income are consumed. While there is a hardship experienced as a result of the associated earnings loss $(Y^0 - Y^1)$, the utility loss is partly compensated by an increase in leisure, and the income required to fully compensate the constrained individual $(\underline{Y} - Y^1)$ is less than the earnings loss.

Figure 5.2 An Indifference Curve Analysis of Full Unemployment Compensation
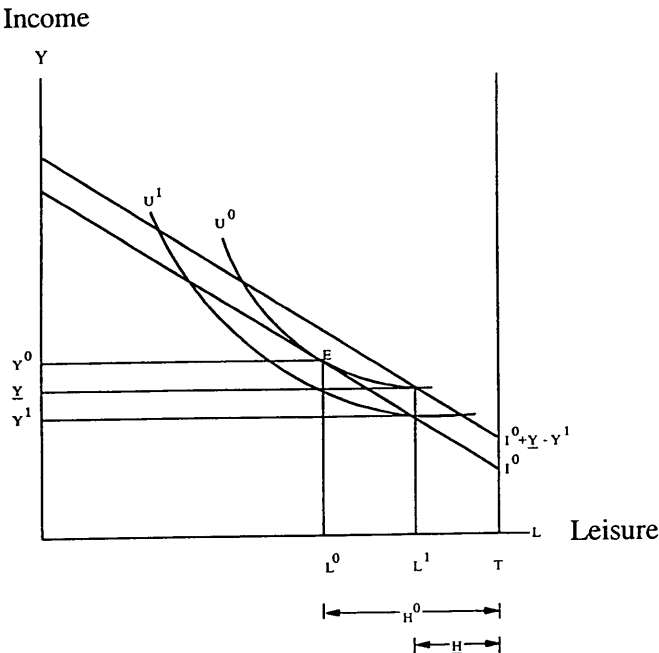
Alternatively, full compensation for hours of work at $\underline{H}$ which is less than the desired hours H^0 can be represented by the crosshatched area in figure 5.3. The compensated labor supply curve is constructed around the equilibrium (H^0, w^0) so that utility is constant. It is more wage elastic than the ordinary money income constant labor supply curve. The consumer-worker is indifferent between working H^0 at the wage rate w^0 and working $\underline{H}$ at w^0 if given the lump sum income represented by the crosshatched area in figure 5.3.[8]

Kingston et al. (1981) investigated the possibility of evaluating benefit adequacy on the basis of readily available survey (Continuous Wage and Benefit History (CWBH) and claims data. The authors concluded, however, "that information on income and household composition must be supplemented with actual or estimated data on household expenditure patterns to predict individual benefit adequacy values with a reasonable degree of accuracy" (Kingston et al. 1981, p. 43). Other writers have presented results that suggest a greater potential for applied theoretical methods to yield reasonable estimates of adequate UI compensation.

Figure 5.3 A Triangle Approximation to Full Unemployment Compensation
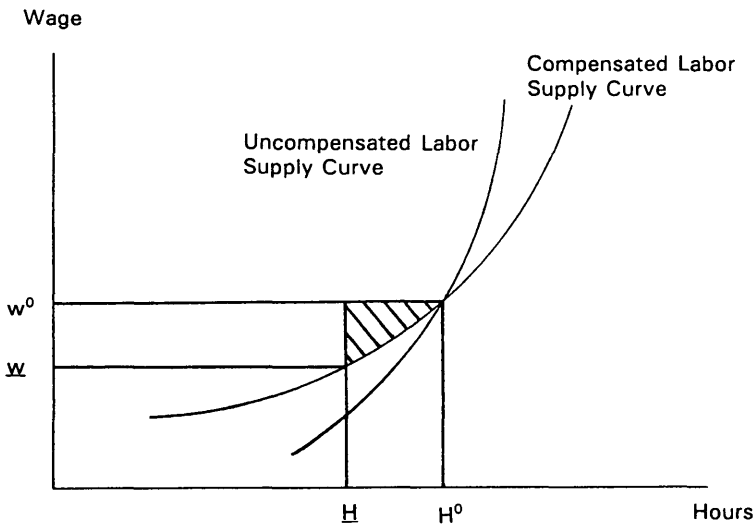
Ashenfelter (1980), in the context of a household model where unemployment is treated as a rationing constraint, estimated an approximation to a quantity that he refers to as the "lump-sum compensation required to restore the unemployed [rationed] worker's family to the welfare level of the fully employed family" (p. 552).[9] Hurd (1980) examined the cost of unemployment to the unemployed using an approximation similar to that of Ashenfelter, to study the experience of respondents to the 1967 Survey of Economic Opportunity. He estimated the required lump sum compensation to unemployed individuals by evaluating the area under this locus between the actual (constrained) and fully employed levels of labor supply.[10]

O'Leary (1990) estimated the lump sum compensation required to restore a single unemployed person with no dependents to the welfare level of a fully employed worker using both approximation and direct closed form solution methods. He also compared these results to the compensation forthcoming under various state UI programs. O'Leary (1996) then expanded the application of directly computing estimates of full compensation from closed form solutions, applying the method to six different types of household members working in the labor market, with and without dependents.

Empirical results based on theoretical models of consumer-worker behavior presented by Ashenfelter, Hurd, and O'Leary all suggest that the current UI practice of replacing one-half of lost wages tends to overcompensate for short spells of unemployment and undercompensate for long spells. O'Leary (1996) found that the presence of dependents affects full compensation to men and women in opposite ways. For the specification yielding the most plausible set of empirical results, O'Leary found that the presence of dependents significantly increases the full compensation required for unemployed women but slightly decreases the compensation due men.[11] Since UI is not intended to fully compensate the loss an individual experiences as a result of being unemployed, a financial inducement should remain for returning to work. Full compensation estimates suggest an upper bound on the share of lost income that benefits might replace.

Policy Issues

While there is a broad consensus on both the 50 percent wage replacement criterion and the concept of tying benefit amounts to previous wages, there remains controversy over how to accomplish these aims in practice. In addition to these matters, this section discusses practical aspects of allowances for dependents.

Benefit Formula

As summarized in table 5.3, four different kinds of basic weekly benefit amount formulas are used. Various applications of these four types result in a great variety of wage replacement rates (U.S. Department of Labor 1995a, table 304). Blaustein (1980), who studied thirteen states, showed that for claimants with 26 weeks of work at the U.S average weekly wage (then $233.30), the weekly benefit amount would range from 28 percent to 53 percent of wages across the states. At the extremes, claimants with identical wage and base-period employment experience could draw a weekly benefit almost twice as large in one state as in another. The actual weekly amounts for these claimants ranged from $65 to $123.

Table 5.3 Distribution of States by Weekly Benefit Amount Formula Type for the Years 1948, 1971, 1990, and 1995

Type of formula	Number of states by year			
	1948	1971	1990	1995
High-quarter wages	41	37	28	29
Multi-quarter wages			14	13
Average weekly wage	2	10	6	6
Annual wages	8	5	5	5
Total number of programs	51	52	53	53

SOURCE: Blaustein (1993, p. 293) and U.S. Department of Labor (1995a, pp. 3-35 to 3-38).

The major reason for the great diversity is that the states alone determine the weekly benefit amounts. State autonomy over basic program elements is a fundamental principle of the American UI system. The diversity itself has sometimes been an issue. Extreme differences

across states in treatment of similar claimants provide support for those who urge greater uniformity through minimum federal benefit standards.

The four general types of formulas used by the states to compute benefits are as listed in table 5.3: high-quarter wage, multi-quarter wage, average weekly wage, and annual wage. Brief discussions of each type follow.

High-Quarter Formula

In more than half of the 53 UI programs in the United States, the weekly benefit amount is computed as a percentage of the claimant's wages in the calendar quarter of his or her base period in which earnings were the highest. In the majority of these "high-quarter states," weekly benefits are computed as 1/26 of high-quarter wages, on the assumption that the high-quarter wage represents income for full employment for all 13 weeks of the quarter. However, many claimants do not have 13 weeks of steady employment, even in their highest earning quarter. For them, the 1/26 fraction produces less than a 50 percent wage replacement. Accordingly, some states provide a fraction larger than 1/26 of high-quarter earnings. A 1/20 fraction would provide a 50 percent wage replacement for a claimant who had only 10 weeks of work in the high quarter and a 65 percent wage replacement for one who worked all 13 weeks. A 1/24 fraction represents a 50 percent wage replacement for an individual who missed one week, 46 percent for one who missed two, and 54 percent for a claimant with 13 full weeks of employment in the high quarter.

Some states specify more than one fraction (e.g., 1/20-1/25) for computing benefits. These "weighted" formulas provide benefits representing a greater percentage of pay to relatively low-wage claimants than to high-wage claimants. They thus offer wage-related benefits, but the benefit-wage ratios vary according to income. For this reason, these formulas have been opposed by some as introducing an element of need into the program. Others contest the premise that since low-wage workers spend a larger percentage of their income on essentials, their benefits should replace a higher share of their income. In this case, the argument is that many low-wage workers are members of high-income families.

Another problem of the high-quarter formula is that there may be a substantial gap between the time the claimant's earnings are measured for benefit purposes and the time they were actually earned. This is due more to the definition of the base period than to any inherent defect in the high-quarter formula. For example, most states define the base period as the first four of the last five completed calendar quarters immediately preceding the filing of a new claim. This is to allow a quarter interval for obtaining and recording wage data.

Accordingly, the base period for a claim filed April 1 would be the previous calendar year. The "lag period" would be three months. However, if the claim were filed March 31, for example, the first four of the last five completed calendar quarters would be the four quarters ending September 30 of the previous year. There would thus be a gap between the base period and the claim of almost six months. If the high quarter were the first quarter of the base period, high-quarter wages could be almost 15 months old. For this reason, some high-quarter states have narrowed the gap by defining the base period as the most recent four quarters under certain conditions.[12]

Multi-Quarter Formula

While some states with a high-quarter benefit formula have boosted the fraction applied to earnings somewhat above 1/26 to compensate for possible unemployment during the high quarter, the quarter with the highest earnings in the year certainly has either the least unemployment or the most overtime earnings and perhaps both. In recent years, several states have switched from computing benefits as a percentage of the claimant's high-quarter earnings to setting the weekly benefit amount as a percentage of the average quarterly income in more than one quarter, usually in the two highest income quarters in the base year. Washington State in 1977 was the first to use a multi-quarter formula. As shown in table 5.3, since that time fourteen states have tried this approach.

The multi-quarter alternative reflects a desire to balance the competing factors that influence fluctuations in average weekly earnings: time out of work due to unemployment and earnings in excess of the norm due to overtime hours. A multi-quarter formula is more likely to reflect usual full-time wages than is the high-quarter formula since, by consid-

ering a greater fraction of a calendar year, a better estimate of customary earnings will be provided.

Average Weekly Wage Formula

Only a half-dozen states compute the weekly benefit as a percentage of the claimant's average weekly wages in the base period, or in a part of the base period. In the calculation of the benefit, these states disregard weeks with no earnings or weeks in which earnings were below a stated amount. How a week of work or the average weekly wage are defined is crucial to whether or not the formula will yield a realistic benefit.

The average weekly wage formula has the advantage of making it possible to incorporate a base period immediately prior to the beginning of unemployment, thus permitting the use of recent wages as the basis for benefits. The wage data are usually obtained on a request basis from employers, as needed. In the late 1980s, several states with average weekly wage formulas switched to quarterly formulas, dropped request wage reporting, and forfeited the contiguous base period-benefit year. In large part, this was due to a 1984 federal law amendment that all states require employers to make quarterly reports of wages to a state agency.[13] The goal was to facilitate another requirement for a wider range of cross-checking among benefit and other programs for purposes of income and eligibility verification.

Annual Wage Formula

As of 1995, only five states compute the weekly benefit as a percentage of annual wages. The rationale for these formulas is the notion that a worker's annual earnings, rather than the weekly paycheck, determine the individual's standard of living. The first proposal for an annual wage formula was made by Frank B. Cliffe of the General Electric Company (Haber and Murray 1966, p. 176). He recommended that 1 percent of annual earnings be set as the weekly benefit amount. This would yield a 50 percent replacement of full-time wages only for workers who had 50 weeks of full-time work in the base period. Currently, the fractions range from 0.8 percent to 4.4 percent of annual wages.[14] Two states weight the schedules by providing claimants with lower annual earnings a higher percentage of annual wages.

Under the annual wage formula, it is not possible to ensure that the weekly benefit will be a fixed proportion of normal weekly wages. For example, a worker who earned $12,000 in the base period would qualify for a weekly benefit amount of $240 if the benefit is set at 2 percent of wages. The $240 benefit would represent 50 percent of the claimant's weekly wages only if the $12,000 represented 25 weeks of work. If the individual had worked more than 25 weeks to earn the $12,000, the $240 would be more than 50 percent of the weekly wage. If the claimant earned the $12,000 in fewer weeks, the benefit would be a percentage smaller than 50 percent of the weekly wage.

Annual wage formulas generally have the highest qualifying requirements of all states, but they also regularly provide the smallest weekly wage replacement ratio, particularly for workers with some unemployment or underemployment during the base period. Blaustein (1980, p. 194) showed that for half of the annual wage states examined, unless claimants had from 40 to 47 weeks of employment at a constant wage, individuals could not draw a weekly benefit amount representing half their weekly wages.

The Maximum Weekly Benefit Amount

On an individual level, the wage replacement ratio is a useful measure of benefit adequacy. For a given benefit formula, the maximum weekly benefit amount determines what proportion of claimants will receive the wage replacement ratio prescribed by the formula. There is little agreement on where the maximum should be set. Too high a maximum invites public criticism. Too low a maximum will prevent an excessive number of claimants from receiving a reasonable wage replacement. This is because, with a low maximum, the majority of claimants will receive the maximum rather than a benefit equal to half their lost wages (or whatever wage replacement ratio is intended by the benefit formula).

Benefit Maximums

Setting a maximum level on the weekly benefit amount is necessary to conserve the fund and to prevent inordinately high benefits being paid to any individual claimant. The Social Security Board (1938) suggested a maximum of $15 per week, which was in accord with the level

**Table 5.4 Percentage of UI Beneficiaries Eligible for the Maximum
Weekly Benefit Amount by State, Various Years 1975-1995**

State	1975	1980	1985	1990	1995
Alabama	35	55	50	44	39
Alaska	54	42	38	40	36
Arizona	50	63	66	50	57
Arkansas	14	20	17	13	16
California	30	26	26	20	25
Colorado	22	55	59	34	18
Connecticut	32	34	58	38	23
Delaware	49	43	34	--	37
District of Columbia	37	24	31	29	23
Florida	41	32	26	24	22
Georgia	41	52	44	37	38
Hawaii	35	36	29	35	40
Idaho	37	42	44	29	28
Illinois	41	50	40	81	48
Indiana	68	78	80	86	56
Iowa	56	53	54	54	50
Kansas	44	51	41	37	36
Kentucky	58	51	43	38	34
Louisiana	43	34	32	21	25
Maine	44	48	--	45	36
Maryland	50	51	39	49	48
Massachusetts	31	57	29	26	22
Michigan	62	75	42	38	36
Minnesota	38	33	32	34	35
Mississippi	44	41	41	35	37
Missouri	55	56	61	55	37
Montana	49	50	40	28	--
Nebraska	42	53	49	59	48
Nevada	42	48	41	45	--
New Hampshire	29	26	9	19	11
New Jersey	56	45	35	35	29
New Mexico	40	42	56	34	34
New York	38	35	41	32	30

State	1975	1980	1985	1990	1995
North Carolina	18	17	19	11	14
North Dakota	48	44	33	28	24
Ohio	59	54	65	53	22
Oklahoma	29	29	27	35	26
Oregon	43	45	31	31	22
Pennsylvania	32	30	20	23	22
Puerto Rico	33	27	31	28	27
Rhode Island	25	32	21	33	26
South Carolina	23	34	47	--	33
South Dakota	55	56	62	65	61
Tennessee	33	26	29	20	32
Texas	52	43	35	31	31
Utah	32	35	36	29	31
Vermont	29	30	38	44	37
Virginia	33	34	33	37	34
Virgin Islands	--	37	40	38	40
Washington	50	45	37	30	22
West Virginia	15	27	21	21	22
Wisconsin	31	27	33	38	35
Wyoming	55	35	38	41	59

SOURCE. Unpublished data provided by the Division of Actuarial Services, Unemployment Insurance Service, U.S. Department of Labor

fixed by most states at the time. Some states adopted higher maximums: the maximum in Michigan was $16; in Wyoming, $18. The first UI check, issued August 17, 1936 by the Wisconsin agency to Neils B. Ruud, was for the $15 maximum.

Benefit maximums limit the extent to which the 50 percent concept, or other wage replacement rates intended by a benefit formula, can apply. With a 50 percent wage replacement rule, only those claimants with wage levels not more than twice the maximum will receive a 50 percent wage replacement. In most states, payments below the maximum are made at the rate of approximately 50 percent of lost wages; therefore, the proportion of beneficiaries receiving less than the maximum is a proxy for the proportion "adequately" compensated. Becker (1980, p. 13) found that roughly 34 percent of payments have been at the maximum, so that in broad terms the popular norm of adequacy—*one-half for four-fifths*—has not been met.

Table 5.4 lists the percentage of UI beneficiaries eligible for the maximum weekly benefit amount, by state, for various years since 1975. This table indicates that, over the past twenty years, there has been general improvement in the fraction of claimants receiving one-half wage replacement. It is interesting to note, by reference also to table 5.2 where statutory rules for setting state maximum weekly benefit amounts are listed, that the gain in the extent of benefit adequacy has been steadiest in states that currently adjust their maximum by statutory rule. Over the past twenty years the share of beneficiaries at the maximum weekly benefit amount has steadily declined in two states, Florida and Texas, which adjust their maximum by legislative discretion, as well as in three other states, Kentucky, North Dakota, and Washington, where the maximum is adjusted by statutory rule. Over the past ten years, among the sixteen states showing steady progress in this measure of adequacy, eleven adjust the maximum by rule and five adjust by discretion.[15]

The Level of the Maximum

The major issue is the level at which the maximum should be set. In this evaluation, one criterion of adequacy has been the percentage of claimants who are prevented from receiving at least a 50 percent wage replacement because of the maximum. Generally, the level is considered too low if a majority of claimants are eligible for the maximum.

With a maximum that equals 50 percent of the statewide average weekly wage, only claimants who earned the average wage in the state or less will receive half their lost wages. In most states, this will probably be fewer than half the number of claimants. Accordingly, if the majority of claimants are to receive half their lost wages rather than the maximum, the maximum will need to be set at *more* than 50 percent of the statewide average weekly wage. Table 5.2 provides a listing of the weekly benefit amount maximums by state and of the weekly benefit amount maximums as percentages of state average weekly wages.

A federal standard requiring the maximum weekly benefit amount to equal or exceed two-thirds of the statewide average weekly wage would allow a majority of covered workers to receive at least 50 percent wage replacement and would eliminate the wide variation among states in the proportion of workers eligible to receive such a percentage of lost wages. It would not, however, necessarily provide a 50 percent wage replacement to the "great" majority. Crosslin and Ross (1980) showed that a maximum equal to two-thirds of the statewide average weekly wage would not, with few exceptions, provide 80 percent of beneficiaries with a 50 percent wage replacement, regardless of whether the target group was covered workers, insured workers, claimants, or beneficiaries. The researchers found that the maximum weekly benefit amount would have to be set at 75 percent of average state wages if covered workers were the target group, 80 percent if insured workers were selected, and 85 percent for either claimants or beneficiaries (Crosslin and Ross 1980, p. 73).

The proportion of workers able to receive a 50 percent wage replacement is governed primarily by the level of the maximum, but it is also influenced by the benefit formula. The percentage of workers eligible for a 50 percent wage replacement *below* the maximum influences the effectiveness of the maximum. A state with a 1/20 high-quarter fraction, for example, will require a lower maximum to reach an overall wage replacement goal than would a state with a less generous fraction.

Another factor influencing the proportion of workers able to receive a 50 percent wage replacement is the distribution of income levels within a state. For example, although the 1980 maximums for Rhode Island and South Carolina were both set at 55 percent of the statewide average weekly wage, Crosslin and Ross (1980) showed that this

would allow 70 percent of claimants in South Carolina to qualify for a 50 percent wage replacement, but only 63 percent of those in Rhode Island.

It has been recommended that the maximum weekly benefit amount equal two-thirds of the average wage in covered employment to meet the one-half for four-fifths standard. Presently, legislation in nine states specifies that the maximum weekly benefit amount shall be 2/3 or more of the average weekly wage in the state. Table 5.2 lists percentages of state average weekly wages at which the maximum weekly benefit must be set by statute, along with the actual maximum weekly benefit amount as of January 1996 and the ratio of that maximum to state average weekly wages in the prior year.[16] According to Papier the maximum weekly benefit amount should be tied to average base period earnings of beneficiaries (1974, p. 390). Papier estimated that to achieve one-half for four-fifths wage replacement, maximums would have to be set at 70 percent of average base-period earnings for beneficiaries without dependents and at 80 percent for beneficiaries with dependents.

Flexible Maximum

During the 1940s and into the 1950s, benefit maximums generally declined in relation to state average wage levels. Although wage levels rose rapidly, most states increased their maximums infrequently and by small amounts. Each increase required legislative action. Most legislatures convened only once every two years. Failure to increase the maximum at least every legislative year meant that the maximum lost ground in relation to wages.

As wages rise, proportionately more claimants qualify for the maximum, instead of a benefit related directly to their wages, unless the maximum also increases. To avoid the need for periodic legislative adjustments, by the mid-1950s several states turned to the "flexible maximum" concept, which sets the maximum as a specified percentage of the state average weekly wage in covered employment. Without further legislative action, the maximum amount is adjusted periodically, usually once a year, to maintain a constant relationship with wage levels.

As shown in table 5.2, thirty-three states specify that the maximum weekly benefit amount shall be adjusted annually to equal a fixed frac-

tion of the state average weekly wage. It should be noted that this list does not include some large states such as New York, California, and Florida. Moreover, because of state trust fund conditions, the maximum has been "frozen" in several states either indefinitely or for specified periods (U.S. Department of Labor 1995a, table 305). Still other states have provisions that limit the statutory increase in the maximum weekly benefit amount if the state UI benefit trust is poorly funded.

Other Considerations in Setting the Maximum

Not all states accept the concept of the flexible maximum. Some states are reluctant to relinquish legislative control over the maximum, preferring to retain increases as legislative options. Others may fear the inflationary potential of indexing benefits to wage levels.

States are not uniformly willing to establish a maximum high enough to ensure that a majority of workers receive 50 percent wage replacement if they become unemployed. For some, cost is a barrier. For example, the National Commission on Unemployment Compensation estimated that the increase in costs in 1980 of setting all benefit maximums to at least 55 percent of statewide average weekly wages would have been about 15 percent in total. The cost impact would have ranged from no increase in several states that already provided a maximum that high, to an increase of more than 100 percent in Alaska. A rise in maximums to 60 percent would have meant an increment in national costs of about 19 percent, and, if the maximum had been set at two-thirds, national costs would have increased by about 25 percent over 1979 levels. The commission estimates were based on the assumption of a 7.5 percent unemployment rate (National Commission on Unemployment Compensation 1980, pp. 40-41).

Some state legislative provisions reflect the belief that claimants should share with employers the obligation for fund solvency, or at least for restoring depleted funds. A few states tie the maximum to a specific fund level, or condition any rise in the maximum on a solvency criterion. Opponents of these practices argue that unemployed claimants should not have to share the additional burden of ensuring that sufficient funds are available to maintain adequate benefits. Other states may simply oppose dollar figures that appear too high in relation to the wage levels of many workers. Some may prefer to focus on improve-

ments in such priorities as benefit formulas or benefit duration, or they may opt for a program of minimum benefits.

Other Policy Issues

Minimum Weekly Benefit Amount

The original laws of almost all the states included a minimum weekly benefit of $5. Ignoring dependents' allowances, in 1995 the minimum ranged from $5 in Hawaii to $75 in New Jersey. A few states provide flexible minimums, established as either a percentage (10 percent or 15 percent) of the statewide average weekly wage, a percentage of the maximum weekly benefit amount (19 percent or 25 percent), or a percentage (4 percent) of the qualifying wages in the high quarter.

One simple objective explanation for why minimums on weekly benefits are set by states is to relieve the administrative burden of processing weekly payments smaller than some reasonable amount. A normative rationale for setting a minimum is based on benefit adequacy concerns. A 1962 Department of Labor recommendation urged that the minimum "be related to the weekly wages of the lowest wage group in the state for which the unemployment insurance program is considered appropriate" (U.S. Department of Labor 1962). In general, it is the minimum qualifying requirement that is set in relation to the lowest income group for whom the program is considered appropriate, and the minimum benefit is a by-product of that requirement.

The minimum weekly benefit and the state's minimum qualifying requirement are usually interrelated, and a change in one will often automatically provide a change in the other. For example, in a state with a high-quarter formula, where the minimum weekly benefit amount is set at 1/25 of the minimum qualifying income of $1,000 in high-quarter wages, a $200 increase in the high-quarter requirement will automatically result in increasing the $40 minimum benefit to $48. Conversely, a change in the minimum weekly benefit amount can result in an automatic change in the qualifying requirement. If Connecticut, for example, were to raise its $15 minimum to $25, its qualifying requirement of 40 times the weekly benefit amount would automatically increase its current $600 base-period minimum qualifying requirement to $1,000.

If the object is to key the minimum qualifying requirement (or the minimum benefit) to the needs of the lowest appropriate wage group, the goal may be defeated by the flexible minimums that have been described, which are tied directly or indirectly to changes in the state's average weekly wage. Increases in the state average wage may not be representative of the wage status of the lowest-wage group for whom the program is considered relevant.

Dependents' Allowances

The principal argument for dependents' allowances is simple: workers with dependents generally have less short-term flexibility for reducing expenditures than do other workers. While household heads have higher average wages than either single or married secondary workers, beneficiary studies also indicate that family heads devote a greater percentage of their earnings to meeting nondeferrable expenses (Haber and Murray 1966, p. 180).

The principal objection to dependents' allowances has been that they introduce an element of need into UI. Opponents argue that, although neither income nor means tests are involved, the payment of allowances and the required proof of dependents depart from the concept that benefits should be based solely on wages and payable to those who meet qualifying requirements as a matter of right.

Advocates, however, argue that allowances reflect only the general presumption, from a benefit adequacy perspective, that workers with dependents need more than do other workers:

> The vital difference that still exists between unemployment insurance and relief is that no individual inquiry and determination is made as to whether the claimant actually needs the dependents' benefit in order to house, feed, and clothe the dependent. The claimant merely has to establish that he has legal dependents; his personal affairs are not investigated (Haber and Murray 1966, p. 193).

Opponents have also contended that dependents' allowances have too often been used as substitutes for adequate basic benefits. Their position is that, since workers with dependents tend to have higher wages than those without, the "presumptive greater needs" of these workers can be met by higher benefit maximums, without the complex-

ities and inequities of the allowances (Dahm and Fineshriber 1980, pp. 78-81).

Dependents' allowances tend to favor men over women claimants. Women are usually required to give more information and to answer more questions than men in claiming allowances. Generally, allowances are payable only to claimants who provide more than half of the support for a dependent. Working wives often earn lower wages than their husbands do and, consequently, qualify less frequently. Data for 10 states with dependents' allowances showed that, over a ten-year period (1968-1977), a far higher percentage of male claimants received such allowances. Except in two states where no allowances were payable to claimants at the maximum, about 17 percent of the women beneficiaries received allowances in 1977, in contrast to 48 percent of the men (Dahm and Fineshriber 1980, p. 89).

Originally, only the District of Columbia provided for dependents' allowances. In 1995, thirteen states paid higher weekly benefits to claimants with dependents. This compares with fourteen states in 1990, ten states in 1971, and five in 1948. The weekly benefit provisions of half of the ten largest states took account of dependents in 1995. The states vary in the definition of compensable dependent and in the amount of the allowance granted (U.S. Department of Labor 1995a, tables 307 and 308). All include children, usually under 18, typically encompassing stepchildren and adopted children. All but one include older children unable to work because of physical or mental disability. Most include a nonworking spouse. Three states include parents unable to work because of disability or infirmity. Three include a brother or sister under 18 orphaned or whose living parents are dependents.

Children and a nonworking spouse usually can be counted as dependents if the claimant provided more than half of their support and they are unemployed or have limited earnings. In almost all states, only one parent may draw allowances if both are receiving benefits simultaneously.

In seven states, the allowance for each dependent is a fixed amount. Two states make the allowance a percentage of the individual's weekly benefit amount. A few states base the allowance not only on the number of dependents but also on the amount of the claimant's earnings. In these states, the maximum weekly benefit amount and the earnings

required to qualify for the maximum weekly benefit amount vary according to the number of dependents. The higher the number of dependents, generally, the higher the maximum weekly benefit amount and the higher the wage requirement for the maximum. All states have a limit on the total amount of dependents' allowances payable in any week, in terms of dollars, number of dependents, or the percentage of basic benefits, of high-quarter wages, or of average weekly wage. The dependents' allowance affects the maximum benefits payable on a claim in Alaska and Rhode Island where the fixed dependents' allowance is paid in any compensable week whether the claimant is fully or partially unemployed.

Recommendations of Federal Advisory Councils

In 1939, the scope of the Federal Advisory Council on Employment Security was broadened to include UI. As mentioned earlier, regarding pronouncements on benefit policy, Haber and Murray say that as early as 1955 the "Advisory Council recommended that the maximum should be equal to from three-fifths to two-thirds of the state-wide average weekly wage" (Haber and Murray 1966, p. 183). Few other recommendations of this council are noted elsewhere. In concluding their book, Haber and Murray recommend the following:

> A high level commission should be periodically appointed by the President, possibly in cooperation with congressional leaders, of persons of the highest standing in the ranks of management, labor, and the general public, to give a comprehensive view of the major . policy issues regarding unemployment insurance (1966, p. 504).

Since that time, two such bodies have been created. Both have made clear proposals for benefit levels. The proposals are virtually identical.

The National Commission on Unemployment Compensation was established by Congress as part of Unemployment Compensation Amendments of 1976 (Public Law 94-566, Section 411, approved October 20, 1976). It was the first comprehensive review mandated by Congress. When making recommendations concerning the weekly benefit amount for federal guidelines to be specified in Federal Unem-

ployment Tax Act (FUTA) amendments, the National Commission on Unemployment Compensation proposed the following two rules:

> (1) Each state must have a maximum weekly benefit amount which is not less than two-thirds of the average total weekly wages in covered employment in the state in the preceding year.

> (2) Each state must provide a weekly benefit amount between the minimum and maximum weekly benefit which averages at least 50 percent of the individual's average weekly wages (1980, p. 42).

Amendments to Section 908 of the Social Security Act, as contained in the Emergency Unemployment Compensation Act of 1991, provided for establishment of the Advisory Council on Unemployment Compensation. In its second annual report, presented in February 1995, the Advisory Council on Unemployment Compensation proposed the following:

> For eligible workers, each state should replace at least 50 percent of lost earnings over a six-month period, with a maximum weekly benefit amount equal to two-thirds of the state's average weekly wages (1995, p. 20).

Both the National Commission on Unemployment Compensation and the Advisory Council on Unemployment Compensation sought to ensure one-half wage replacement for at least 80 percent of beneficiaries. The popular standard of UI benefit adequacy first stated in the 1950s as one-half for four-fifths, continues to be the preferred norm.

Summary and Conclusion

A broad consensus has evolved that weekly UI benefits should replace about half of lost weekly earnings. This level of adequacy has been shown in numerous studies to satisfy the short-term spending needs of households. The states have chosen to determine weekly benefit amounts using various formulas; the most popular ones are based on earnings in the quarter of the base year when earnings are highest. If the unemployment compensation paid to beneficiaries were compared to the individuals' prior earnings, most states would be seen to meet the one-half wage replacement criterion of adequacy.

In all of the consumer expenditure studies of benefit adequacy, the level of the maximum appears to be the most important single factor in determining the average benefit-wage ratio and, consequently, the benefit-expense ratio. The level of the maximum also directly affects the proportion of claimants eligible for one-half wage replacement. Since the 1950s the publicly stated federal goal has been one-half for four-fifths, or 50 percent wage replacement for at least 80 percent of claimants. The most popular benefit maximum rule to help achieve this goal is to set the state maximum weekly benefit amount at two-thirds of the average weekly wage in UI-covered employment.

The issues of dependents' allowances and minimum weekly benefit amounts raise questions about whether aspects of need should be addressed by UI. Some argue that neither wage levels nor household composition should influence benefit rules. However, benefit adequacy studies show that low-wage workers and those with dependents suffer the greatest reductions in consumer expenditure when becoming unemployed. About one-quarter of the states provide additional benefits per dependent up to a certain limit, and several states provide minimum weekly benefits that exceed 50 percent wage replacement for low-wage workers. There is no real consensus on these aspects of benefit adequacy. However, these seem to be relatively low-cost areas where the social demands outweigh the insurance principles guiding the system.

Inadequacies and excesses occur with a wage-related benefit, regardless of what test of adequacy is applied. Benefits replace a portion of wages lost through unemployment, independent of the importance those wages have in the individual or in the family budget. For the wage earner with heavy family responsibilities, unemployment benefits often cover only a small portion of essential expenses. Precisely the same benefit amount may cover not only necessities, but also many incidentals, for a single wage earner, a worker with substantial income from investment or properties, or the member of a family with multiple wage earners.

The uneven results are inherent in a wage-related benefit that is not keyed to individual worker or family need. However, to criticize the benefit as inadequate or excessive in terms of meeting any particular individual's or family's circumstances is to ignore the objective of the program. The requirements UI addresses are not those of individual

claimants, but the presumed need of all workers who become unemployed—for some degree of income replacement.

The program is not designed to relieve poverty. Such relief presupposes a means test to ensure the individual is indeed destitute and offers a benefit keyed to the individual's needs. Instead, UI seeks to *prevent* poverty, by sustaining, to a "substantial" extent, whatever standard of living the insured worker's former wage provided—until he or she manages to get back to work.

UI beneficiaries are not poor. They have significant attachment to the labor force and represent all income categories. The program has been criticized by some who contend that tax dollars should be limited to helping only those who are truly in need. The principal purpose of UI, however, is to prevent unemployed workers from descending into poverty before they can find suitable employment. The program thus seeks to prevent both drastic reductions in unemployed workers' living standards and further damage to their self respect and confidence. These are realistic and desirable goals. Like preventative medicine, UI can help avoid considerable welfare and psychological costs.

NOTES

This chapter incorporates previous work done by Murray Rubin. My work on this chapter benefited from valuable suggestions and guidance from Ronald Oaxaca, Michael Ransom, Paul Burgess, Stephen Woodbury, and Kenneth Kline. Insightful comments were offered by conference discussant Robert St. Louis Claire Black and Ellen Maloney provided clerical support. Remaining errors are mine alone

1. Sections 3304(a)(4), (h), Federal Unemployment Tax Act (FUTA); section 303(a)(5), Social Security Act (SSA).

2. Hoar (1934, p 26) writes that the 1934 Wisconsin law called for benefits to be "half the average weekly wage, but not less than $5, nor more than $10."

3 Raushenbush and Raushenbush (1979, chapter 2) discuss the evolution of the Wisconsin law and the influence of the earlier workers' compensation law enacted by Wisconsin in 1911.

4. It is reported quarterly by the U.S. Department of Labor in *UI Data Summary* and annually in updates to *UI Financial Data, ET Handbook No 394*.

5. Under certain assumptions, this calculation could be done using sample data from the random audit benefits quality control program. Computation of the replacement rate recommended by the Advisory Council on Unemployment Compensation would impose a significant data processing burden on states. The process would involve weekly computations based on individual records

6 Grossman considers the primary market worker in a household to be the one with the highest annual earnings, he labels other members with earnings as *secondary market workers* (Grossman 1973, p 208)

7. Simulated levels of UI earnings replacement in the Panel Study of Income Dynamics data used by Gruber averaged around 50 percent. Relative risk aversion is the elasticity of the marginal utility of income with respect to income.

8. The full compensation triangle depicted in figure 5.3 is simply a two-dimensional representation of the quantity $(\underline{Y} - Y^1)$ represented by a vertical line in figure 5.2 Hurd (1980, p 227-228) gives a full exposition of this idea.

9 The estimate is achieved by taking a second-order Taylor Series approximation of the difference between the exogenous cost of achieving the unconstrained utility level in the presence of the ration and the cost of achieving the same level in the absence of any constraint, around the fully employed point. The result is "a conventional Harberger (1971) type triangle measure of welfare loss" (Ashenfelter 1980, p. 553), which is applied to aggregate time series data

10. Hurd (1980) estimated the parameters of a Taylor Series approximation of the substitution effect of a wage change on hours of work, integrated to find the compensated labor supply function, and then solved for the utility constant wage acceptance locus by inversion.

11. The results in O'Leary (1996) based on the Stone-Geary specification of utility are much more plausible than those based on a linear labor supply specification such as that used by Hurd (1980). It may be that the greater flexibility of the Stone-Geary form more fully captures underlying behavior.

12. This potentially long lag in how earnings influence benefits has not gone unnoticed by employers whose experience-rated tax liability can be shifted by specific short-term employment patterns.

13 Public Law 98-369, approved July 18, 1984. Michigan will soon switch from a wage request to a wage reporting state and simultaneously switch from an average weekly wage benefit computation to a high-quarter formula

14. The 4.4 percent rate applies in Alaska, which creatively deals with a large population having a highly seasonal income pattern.

15 Steady reduction in the fraction at the maximum weekly UI benefit amount was achieved in the 1985-to-1995 period in Alabama, Florida, New York, Ohio, and Texas, which currently adjust the maximum by legislative discretion, and in Colorado, Connecticut, the District of Columbia, Idaho, Kansas, Kentucky, Massachusetts, Michigan, North Dakota, Puerto Rico, and Washington.

16. Even for states where the maximum weekly benefit amount is set by law to be a fraction of the average weekly wage in the state, the ratio of maximum weekly benefit amount to the average weekly wage may not appear to conform with the statute because of differences in the period over which state-covered wages are averaged and the date the adjustment is to be made. In table 5.2, there are thirty-three states indicted as having a statute for annually adjusting the maximum weekly benefit amount Among these states, the most popular type of formula calls for averaging wages in the previous calendar year and adjusting the maximum in July. The figures in table 5 2 involve the maximum weekly benefit amount as of January 1996 and the average weekly wage in state UI-covered employment in calendar year 1995

References

Abowd, John M., and Orley Ashenfelter. 1981. "Anticipated Unemployment, Temporary Layoffs, and Compensating Wage Differentials." In *Studies in Labor Markets,* Sherwin Rosen, ed. Chicago: University of Chicago Press.

Advisory Council on Unemployment Compensation. 1995. "Unemployment Insurance in the United States: Benefits, Financing, Coverage." ACUC, February.

_____. 1996. *Advisory Council on Unemployment Compensation: Background Papers,* Vol. 3. Washington, DC: ACUC, January.

Anderson, David A. 1994. "Compensating Wage Differentials and the Optimal Provision of Unemployment Insurance," *Southern Economic Journal* 60, 3 (January): 644-656.

Ashenfelter, Orley. 1980. "Unemployment as Disequilibrium in a Model of Aggregate Labor Supply," *Econometrica* 48 (April): 547-564.

Baily, Martin N. 1978. "Some Aspects of Optimal Unemployment Insurance," *Journal of Public Economics* 10 (December): 379-402.

Becker, Joseph M. 1960. "Twenty-Five Years of Unemployment Insurance," *Political Science Quarterly* 74 (December): 481-499.

_____. 1961. *The Adequacy of the Benefit Amount in Unemployment Insurance.* Kalamazoo, MI: W.E. Upjohn Institute.

_____. 1980. *Unemployment Benefits: Should There Be a Compulsory Federal Standard?* Washington, DC: American Enterprise Institute for Public Policy Research.

Blaustein, Saul J. 1980. "Diverse Treatment of Claimants by States." In *Unemployment Compensation: Studies and Research,* Vol. 1. Washington, DC: National Commission on Unemployment Compensation.

_____. 1993. *Unemployment Insurance in the United States: The First Half Century.* Kalamazoo, MI: W.E. Upjohn Institute.

Blaustein, Saul J., and Paul A. Mackin. 1977. "Job Loss, Family Living Standards, and the Adequacy of Weekly Unemployment Benefits." U.S. Department of Labor, Unemployment Insurance Service.

Burgess, Paul, Jerry Kingston, Robert St. Louis, and Joseph Sloane. 1980. "Benefit Adequacy and UI Program Costs: Simulations with Alternative Weekly Benefit Formulas." Unemployment Insurance Occasional Paper 80-4, U.S. Department of Labor, Employment and Training Administration.

Burgess, Paul, Jerry Kingston, and Chris Walters. 1978a. "The Adequacy of Unemployment Insurance Benefits: An Analysis of Weekly Benefits Rela-

tive to Preemployment Expenditure Levels." U.S. Department of Labor, Employment and Training Administration.

_____. 1978b. "The Adequacy of Unemployment Insurance Benefits: An Analysis of Adjustments Undertaken Through Thirteen and Twenty-five Weeks of Unemployment." Unemployment Insurance Occasional Paper 78-6, U.S. Department of Labor, Employment and Training Administration.

Burtless, Gary. 1990. "Unemployment Insurance and Labor Supply: A Survey. In *Unemployment Insurance: The Second Half-Century,* W. Lee Hansen and James F. Byers, eds. Madison, WI: University of Wisconsin Press.

Congressional Research Service. 1980. "Federal-State Unemployment Compensation System." Study prepared for the Subcommittee on Public Assistance and Unemployment Compensation of the Committee on Ways and Means, U.S. House of Representatives, 100th Congress, 2d Session, Committee Print WMCP, 100-39 (September): 210-248.

_____. 1998. "Unemployment Compensation: Problems and Issues." 88-597 EPW, CRS.

Corson, Walter, David Horner, Valarie Leach, Charles Metcalf, and Walter Nicholson. 1977. "A Study of Recipients of Federal Supplemental Benefits and Special Unemployment Assistance." Mathematica Policy Research, January.

Crosslin, Robert L., and William W. Ross. 1980. "Achieving Wage Replacement Goals." In *Unemployment Compensation: Studies and Research,* Vol. 1. Washington, DC: National Commission on Unemployment Compensation.

Dahm, Margaret M., and Phyllis H. Fineshriber. 1980. "Examining Dependents' Allowances; Appendix A: Entitlement to Unemployment Benefits Based on Considerations Involving Need: Conformity With Requirements of Federal Law." In *Unemployment Compensation: Studies and Research,* Vol. 1. Washington, DC: National Commission on Unemployment Compensation.

Davidson, Carl, and Stephen A. Woodbury. 1996. "Optimal Unemployment Insurance." In *Advisory Council on Unemployment Compensation: Background Papers*, Vol. 3. Washington, DC: ACUC, January.

Edgell, David, and Stephen A. Wandner. 1974. "Unemployment Insurance: Its Economic Performance," *Monthly Labor Review* 97, 4 (April): 33-40.

Feldstein, Martin S. 1974. "Unemployment Compensation: Adverse Incentives and Distributional Anomalies," *National Tax Journal* 27 (June): 231-244.

Flemming, J.S. 1978. "Aspects of Optimal Unemployment Insurance Search, Leisure, Savings and Capital Market Imperfections," *Journal of Public Economics* 10 (December): 503-525.

Gramlich, Edward M. 1974. "The Distributional Effects of Higher Unemployment," *Brookings Papers on Economic Activity* 2: 293-341.

Grossman, Michael. 1973. "Unemployment and Consumption," *American Economic Review* 63 (May): 208-213.

Gruber, Jonathan. 1994. "The Consumption Smoothing Benefits of Unemployment Insurance." Paper prepared for the Advisory Council on Unemployment Compensation, August.

Haber, William, and Merrill G. Murray. 1966. *Unemployment Insurance in the American Economy: An Historical Review and Analysis.* Homewood, IL: Richard D. Irwin.

Hamermesh, Daniel S. 1977. *Jobless Pay and the Economy.* Baltimore: Johns Hopkins University Press.

_____. 1982. "Social Insurance and Consumption: An Empirical Inquiry," *American Economic Review* 72, 1 (March): 101-113.

Hamermesh, Daniel S., and Daniel T. Slesnick. 1995. "Unemployment Insurance and Household Welfare: Microeconomic Evidence 1980-93." Working Paper 5315, National Bureau of Economic research.

Harberger, Arnold C. 1971. "Three Basic Postulates for Applied Welfare Economics," *Journal of Economic Literature* 9 (September): 785-797.

Hight, Joseph E. 1980. "Trends in Unemployment Insurance Wage Replacement, 1950 to 1977." In *Unemployment Compensation: Studies and Research,* Vol. 1. Washington, DC: Commission on Unemployment Compensation.

Hoar, Roger S. 1934. *Wisconsin Unemployment Insurance.* South Milwaukee: Stuart Press.

Hurd, Michael. 1980. "A Compensation Measure of the Cost of Unemployment to the Unemployed," *Quarterly Journal of Economics* 95 (September): 225-243.

Kingston, Jerry, Paul Burgess, Robert St. Louis, and Joseph Sloane. 1981. "Can Benefit Adequacy be Predicted on the Basis of UI Claims and CWBS Data?" Unemployment Insurance Occasional Paper 81-2, U.S. Department of Labor, Employment and Training Administration.

Lester, Richard A. 1962. *The Economic of Unemployment Compensation.* Princeton, NJ: Princeton University Press.

Munts. Raymond, and Irwin Garfinkel. 1974. *The Work Disincentive Effects of Unemployment Insurance.* Kalamazoo, MI: W.E. Upjohn Institute.

National Commission on Unemployment Compensation. 1980. Unemployment Compensation: Final Report." NCUC.

Oaxaca, Ronald L., and Carol A. Taylor. 1986. "Estimating the Impacts of Economic Programs on Urban Areas: The Case of Unemployment Insurance Benefits," *Journal of Urban Economics* 19 (November): 23-46.

O'Leary, Christopher J. 1990. "An Econometric Analysis of Unemployment Insurance Benefit Adequacy."W.E. Upjohn Institute Staff Working Paper 90-95, W.E. Upjohn Institute, November

_____. 1996. "The Adequacy of Unemployment Insurance Benefits." In *Advisory Council on Unemployment Compensation: Background Papers,* Vol 3. Washington, DC: ACUC, January.

Papier, William. 1974. "Standards for Improving Maximum Unemployment Insurance Benefits," *Industrial and Labor Relations Review* 27, 3 (April): 376-390.

Raushenbush, Paul A., and Elizabeth Brandeis Raushenbush. 1979. *Our U.C. Story.* Madison, WI: Raushenbush and Raushenbush.

Social Security Board. 1938. *Running Commentary on the January 1937 Draft Bill (Pooled-Fund Type).* Washington, DC: Bureau of Unemployment Compensation.

U.S. Department of Labor. 1962. "Unemployment Insurance Legislative Policy, Recommendations for State Legislation 1962. No. U-212a. Bureau of Employment Security.

_____. 1992. *Unemployment Insurance Financial Data.* ET Handbook 394. Employment and Training Administration.

_____. 1995a. "Comparison of State Unemployment Insurance Laws." Employment and Training Administration, Unemployment Insurance Service.

_____. 1995b. "UI Data Summary." Employment and Training Administration, Unemployment Insurance Service.

Vroman, Wayne. 1980. "State Replacement Rates in 1980." In *Unemployment Compensation: Studies and Research,* Vol. 1. Washington, DC: National Commission on Unemployment Compensation.

UNEMPLOYMENT INSURANCE
IN THE
UNITED STATES

Analysis

of

Policy Issues

Christopher J. O'Leary
and
Stephen A. Wandner
Editors

1997

W.E. Upjohn Institute for Employment Research
Kalamazoo, Michigan

The facts presented in this study and the observations and viewpoints expressed are
the sole responsibility of the authors. They do not necessarily represent positions of
the W.E. Upjohn Institute for Employment Research.