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Direct Labor Market Effects of Unemployment Insurance

Abstract

[Excerpt] With high current interest in unemployment and inflation, policy makers and academicians have begun to reassess the impact of unemployment insurance on the labor market. Some ask whether high unemployment rates are partly the result of an addition to the labor market of workers with a high propensity for unemployment. Others see unemployment as being partly caused by an increasing tendency for workers to refuse “bad” jobs. Still others concentrate on the factors that lead to greater labor turnover and flows of workers through the labor market. Consequently, there has evolved a “new view” of unemployment, which considers more than the familiar concepts of deficient demand and structural and seasonal unemployment. It also pays attention to job search processes and the instability of certain jobs and certain workers.

Based on this “new view,” this paper seeks to gauge the impact of the American system of unemployment insurance (UI) on the labor market. The evaluative issues are: the efficiency of UI as a tool for income maintenance, the extent to which UI leads to greater unemployment, and UI’s income distribution effects.

Keywords

unemployment insurance, labor market, income maintenance, income distribution

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Direct Labor Market Effects of Unemployment Insurance

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With high current interest in unemployment and inflation, policy makers and academicians have begun to reassess the impact of unemployment insurance on the labor market. Some ask whether high unemployment rates are partly the result of an addition to the labor market of workers with a high propensity for unemployment. Others see unemployment as being partly caused by an increasing tendency for workers to refuse “bad” jobs. Still others concentrate on the factors that lead to greater labor turnover and flows of workers through the labor market. Consequently, there has evolved a “new view” of unemployment, which considers more than the familiar concepts of deficient demand and structural and seasonal unemployment. It also pays attention to job search processes and the instability of certain jobs and certain workers.

Based on this “new view,” this paper seeks to gauge the impact of the American system of unemployment insurance (UI) on the labor market.¹ The evaluative issues are: the efficiency of UI as a tool for income maintenance, the extent to which UI leads to greater unemployment, and UI’s income distribution effects.

UI as a Tool for Income Maintenance

The American system of unemployment insurance serves as a means of income maintenance for the involuntarily unemployed.² A commonly accepted rule of thumb is that UI benefits should amount to at least half of the average income earned while working (the so-called “replacement rate”). Since nominal replacement rates are below 50 per cent, many observers charge that UI fails to fulfill its income maintenance objective adequately.³

¹ This paper is a revised version of a report prepared for the Department of Labor. The views expressed are not necessarily those of the Department. Thanks are due to Richard Arnott, Martin Baily, and Steven Kalos.

² “Some studies have examined the income maintenance role of UI by computing an “aggregate wage replacement ratio,” the ratio of UI benefit payments to (estimated) wages lost during a “typical” spell of unemployment. This approach is exemplified by D. L. Edged and S. A. Wandner, “Unemployment Insurance: Its Economic Performance,” *Monthly Labor Review*, XCVII (April, 1974), 33-40. Such a procedure, however, fails to separate the issue of the adequacy of benefits for covered workers from the issue of the adequacy of coverage. Because this distinction turns out to be important, studies based on the aggregate wage replacement approach will not be reviewed here.

³ For instance, *The New York Times* editorialized: “The present national average benefit of roughly \$55 a week is just a little over one-third of usual pay, a gap that causes unfair hardship to many.” Cited in Martin Feldstein, “Unemployment Compensation:

The unadjusted ratio of UI benefit payments to weekly wage is not a good representation of replacement. For one thing, UI benefits are not taxable, so UI recipients save income and social security taxes. Feldstein observes that the ratio of unemployment compensation benefits to the net earnings from employment is much higher than nominal replacement rates would suggest.⁴ He cites the example of a family of four in Massachusetts, where unemployment compensation payments are 50 per cent of gross wage: the husband usually earns \$500 per month, the wife \$350, and suppose he becomes unemployed for two months. The family would receive \$872 in total offsets over the two-month period: \$604 in UI benefits, including dependents' benefits; \$162 reduction in federal income tax; \$50 reduction in state income tax; and \$56 reduction in Social Security payroll tax. Thus, income loss is only 13 per cent of gross earnings.

It might be argued that this is a statistical fluke either because UI benefits in Massachusetts are among the nation's highest or because the hypothetical family is somehow atypical. Feldstein refutes both contentions.⁵ Taking averages across the 48 contiguous states and the District of Columbia, there is some variation, but the qualitative result is the same: the net income lost by workers covered by unemployment insurance is only a fraction of the total income they would have earned had they been fully employed; about two-thirds of the net income loss of UI recipients is compensated for by UI, either by direct payments or through tax reduction.⁶

Incomplete coverage. The main problem with UI as a general scheme for income maintenance for the unemployed is incomplete coverage. While some 85 per cent of the labor force is engaged in employment covered by UI, only 48 per cent of the unemployed receive UI benefits. The bulk of the unemployed who are not UI recipients fail to satisfy the eligibility requirements. To be eligible for benefits, an unemployed worker must: (a) be able and available for work and actively seeking it, (b) not have refused suitable employment, (c) not be

Adverse Incentives and Distributional Anomalies," *National Tax Journal*, XXVII (June, 1974), 231. See also Raymond Munts, "Programming Income Maintenance: The Place of Unemployment Insurance," in U.S. Congress, Joint Economic Committee, *Studies in Public Welfare* (July 2, 1973), p. 50 and William Haber and Merrill G. Murray, *Unemployment Insurance in the American Economy* (Homewood, 111.: Irwin, 1966).

⁴ Martin Feldstein, "The Economics of the New Unemployment," *The Public Interest*, XXXIII (Fall, 1973), 3-42.

⁵ Feldstein, "Unemployment Compensation...", esp. p. 236.

"Three additional observations on Feldsteins calculations are in order. First, Feldstein neglects the loss of any job-related fringe benefits. Richard Lester, *The Economics of Unemployment Compensation* (Princeton, N.J.: Industrial Relations Section, Princeton University, 1962), p. 13, estimates that these benefits amounted to about 20 per cent of gross earnings in covered industries. Since some benefits do not terminate immediately with unemployment and those individuals who become unemployed probably receive smaller fringes, Lester figures that "an average loss of benefit rights equivalent to 10 per cent of gross pay is perhaps a reasonable estimate for unemployed persons who drew unemployment benefits in 1960 or 1961." The figure is undoubtedly somewhat higher today. Secondly, Feldstein's estimates of income replacement may be inflated to the extent that the costs of searching for a new job exceed the costs (such as union dues) of working. Thirdly, Feldstein's figures ignore a one-week waiting period for which no benefits are paid, and so overstate the average benefit-earnings ratio by about 10 per cent. Despite these considerations, however, it remains clear that the commonly cited figure of one-third for the ratio of net income replacement to weekly wage is a considerable underestimation.

unemployed because of a labor dispute, (d) not have left his job voluntarily nor been terminated for misconduct, and (e) have been employed previously in a covered industry or occupation for a minimum length of time and have earned a minimum amount. Having established eligibility, the worker must wait, generally one week, before benefit payments begin, and he can draw benefits only for a certain maximum length of time.

According to one survey,⁷ about 10 per cent of the nonrecipients were eligible unemployed filing for noncompensable waiting weeks and another 10 per cent had exhausted their benefits. Thus, something like 80 per cent of the unemployed nonbeneficiaries did not qualify for benefits nor would they ever be eligible to receive them. Additional examination of Table I's data on reasons for unemployment offers further insights as to ineligibility. Of 5,076,000 total unemployed, 672,000 had never been in the labor force and therefore failed to meet the minimum employment-earnings criterion.

TABLE I
DISTRIBUTION OF UNEMPLOYED PERSONS 16 YEARS AND OVER, BY REASON FOR UNEMPLOYMENT:
ANNUAL AVERAGE, 1974

Reason for unemployment	Number of unemployed (in thousands)			Total	Percentage of total unemployed
	Both sexes, 16 to 19 years	Male, 20 years and over	Female, 20 years and over		
Lost last job	288	1,252	675	2,205	43.5
Left last job	171	270	315	756	14.9
Re-entered labor force	431	347	662	1,441	28.4
Never worked before	527	46	98	672	13.2
Total	1,410	1,918	1,748	5,076	100.0
Insured unemployed				2,238	48.0

Source: *Manpower Report of the President*, 1975, Tables A-25 and D-5.

Another 431,000 were teenagers who had left the labor force but had reentered; they also were not likely to have met the minimum employment-earnings criterion. Additionally, 585,000 were prime-age adults who left their last jobs, presumably voluntarily, and so were ineligible. These 1,688,000 persons, one-third of the unemployed, were very likely not eligible for UI benefits.

Several other groups of unemployed were nearly as unlikely to have been eligible for UI benefits. Many adult re-entrants to the labor force (1,009,000) may not have accumulated sufficient work time or earnings in the base period, and the same holds for teenagers who lost their last job (288,000). Hence, another 1,297,000 of the unemployed were of doubtful eligibility. This leaves the 1,927,000 adult workers who had lost their last job,

⁷ See Committee on Unemployment Insurance Objectives, *Unemployment and Income Security: Goals for the 1970's* (Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research, July, 1969),

most of whom were probably eligible for UI benefits. This compares with a monthly average number of UI recipients in 1974 of 2,238,000. It may thus be inferred that the UI rolls are comprised predominantly of adult workers who lost their last jobs, plus relatively small numbers of workers in other categories.

Summary. In most of the country and despite widespread claims to the contrary, unemployment insurance benefits provide at least the target level of income replacement during unemployment for eligible workers, and for many substantially more. However, less than half of the unemployed (mainly adult workers who lost their last jobs) are UI recipients; the bulk of the unemployed do not receive UI benefits, apparently because they are not eligible for them.

Does UI Lead to Greater Unemployment?

The existence of an unemployment insurance would be expected to lead to more unemployment for a number of reasons.⁸ On the supply side, UI provides both the means and the incentives for more prolonged or frequent unemployment. The low rates of income loss for many covered workers tend to remove the financial inducement to avoid unemployment or to return to work. Covered workers need not accept the first available job offer if its wages or working conditions are unsuitable; they can look for something better, using UI benefits to help finance their job search. On the demand side, UI encourages employers to demand less steady labor than would otherwise be the case in the absence of this system.⁹ According to theory—in the absence of UI—those firms which have highly variable employment patterns would find that they would have to pay a wage premium to overcome workers' aversion to job instability and compensate them for the loss of income during the anticipated period of unemployment. To avoid the necessity of paying such a premium, they would use less seasonal techniques and produce less seasonal goods, thereby lessening employment variability. The UI system, by reducing the size of the wage premium needed to attract workers to unstable jobs, also reduces the incentives for firms to stabilize employment. Hence, UI leads to jobs being more seasonal, cyclical, and temporary than would be the case in its absence.¹⁰

⁸ See Feldstein, "The Economics of the New Unemployment," and "Unemployment Compensation

⁹ This would not characterize a UI system with perfect experience rating. But the experience rating procedures for the existing UI system, although they seem to operate in the right direction, are imperfect. For analyses of experience rating systems, see Joseph M. Becker, *Experience Rating in Unemployment Insurance: Virtue or Vice* (Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research, December, 1972); Joseph M. Becker, *Experience Rating in Unemployment Insurance: An Experiment in Competitive Socialism* (Baltimore, Md.: Johns Hopkins University Press, 1972); John H. Pencavel, "Some Labor Market Implications of the Payroll Tax for Unemployment and Old Age Insurance," Technical Analysis Paper No. 16, Office of Evaluation, Department of Labor (Washington, D.C.: January 1974); and Martin Neil Baily, "Unemployment and Unemployment Insurance," Department of Economics Discussion Paper No. 29 (New Haven, Conn.: Yale University, December, 1974), mimeographed.

¹⁰ In research in progress, Frank Brechling, "The Incentive Effects of the U.S. Unemployment Insurance Tax" (Arlington, Va.: Public Research Institute of the Center for Naval Analysis, PRI173-75, June, 1975) has advanced theoretical arguments for the proposition that the unemployment insurance tax embodies incentives which discourage high labor turnover demand pattern by firms. Since

There is probably little dispute about the soundness of the argument that, on balance, UI creates incentives for greater unemployment. However, the quantitative importance of these phenomena is open to question on empirical grounds, for reasons reviewed below.

Empirical evidence. UI might lead to more unemployment either by causing workers to have more frequent spells of unemployment or by causing each spell to be longer. At first glance, it might seem that the most direct way of estimating the impact of UI on unemployment would be to compare the unemployment experiences of those unemployed persons receiving UI benefits with the experiences of nonrecipients. We see in parts (a) and (b) of Table 2 that the insured unemployed had lower unemployment rates but the average *duration* of a spell of unemployment was longer. This simple comparison might suggest that UI contributes to unemployment by prolonging a spell of unemployment once it has occurred, but that the frequency of such spells is, if anything, reduced. Inferences of this type, however, are invalid. The composition of the insured unemployed is quite different from that of the total unemployed. The insured unemployed have larger percentages of whites, males, and prime age workers, and are roughly comparable with all unemployed with respect to occupation. Their longer duration of unemployment might perhaps be explained by longer search among superior and more numerous job opportunities, although this speculation cannot be tested with available data. We must resort, therefore, to indirect evidence on the impact of UI on the prolongation or greater frequency of unemployment spells.

Benefit rates and unemployment duration. There is no evidence as yet as to whether unemployment insurance causes the *frequency* of unemployment to be greater, either because UI induces firms to choose high

Brechling's focus is on the cost side of unemployment insurance and the arguments presented above consider the benefit side, the two points of view are not necessarily contradictory. Brechling reports plans to conduct empirical investigations in this area, which may help to resolve the issue.

TABLE 2

COMPOSITION OF TOTAL UNEMPLOYED AND INSURED UNEMPLOYMENT, APRIL 1975

	Total unemployed		Insured unemployed	
	(in thousands)	per cent	(in thousands)	per cent
(a) Unemployment rate		8.9		7.3
(b) Duration of unemployment				
Less than 5 weeks	2,897	36.2	1,183.9	24.3
5-14 weeks	2,695	33.7	2,381.1	48.9
15 weeks or more	2,403	30.1	1,301.5	26.7
	7,995	100.0	4,866.5	100.0
(c) Race				
White	7,041	82.0	3,512.0	72.2
All other	1,541	18.0	638.5	13.1
Information not reported	n.a.	n.a.	716.0	14.7
	8,582	100.0	4,866.5	100.0
(d) Sex				
Men, 20 years and over	3,560	55.6	2,898.2	59.5
Women, 20 years and over	2,838	44.4	1,526.1	31.3
Information not reported	n.a.	n.a.	442.2	9.0
	6,398	100.0	4,866.5	100.0
(e) Age				
Under 25	3,351	42.8	1,053.9	21.6
(f) Occupational class				
Professional, technical, managerial	745	9.1	265.9	5.5
Clerical and sales	1,349	16.5	559.4	11.5
Service workers	1,015	12.4	266.3	5.5
Farming, fishery, forestry	118	1.4	42.6	0.9
Industrial	4,156	50.8	2,586.1	53.1
Entry occupations and information not available	793	9.7	1,146.2	23.6
	8,176	100.0	4,866.5	100.0

Sources: *Monthly Labor Review*, XCVIII (October, 1975); U.S. Department of Labor, Bureau of Labor Statistics, *The Employment Situation: April, 1975*; U.S. Department of Labor, Manpower Administration, *Unemployment Insurance Statistics*, May, 1975.

turnover wage-employment strategies or because workers quit jobs more frequently as a result of UI. There are now several studies on the *prolongation* of spells of unemployment as a result of UI. With one exception, the authors of these studies conclude that the impact of UI on the duration of unemployment, although statistically significant, is small in proportionate terms.

In the first noteworthy study in this area, Lininger asked: Does the size of weekly UI payments affect the length of time individuals draw benefits? Data were taken from a survey of 749 persons in Michigan who had recently completed a spell of unemployment and had received UI benefits. After controlling for the effect of other appropriate variables, he found that there was at most a modest relationship.¹¹

¹¹ The factors controlled for, by means of multiple regression and a residual variance approach, were occupation, industry, length of employment, age, sex, race, education, and place of residence. The relationship between benefit amount (B) and wage (W) prior to unemployment were considered in two forms: the ratio of benefits to wage and the difference between wage and benefits. For

Taking data for 20,000 individuals from the National Longitudinal Survey for the period 1966-1969, Ehrenberg and Oaxaca¹² investigated the relationships among (a) duration of unemployment, (b) the ratio of an individual's weekly UI benefits to his pre-unemployment weekly wage, and (c) other variables thought to influence the duration of unemployment. They estimate the impact of current UI benefits, relative to the absence of such benefits, for various groups, as indicated below.

<i>Labor force subgroup</i>	<i>Estimated change in duration of unemployment (weeks)</i>
Older males, changed employer after a layoff, one spell of unemployment	1.0
Older females, changed employer	0.4
Younger males, changed employer	1.0
Younger females	0.1

The effects are small, although statistically significant.

Chapin¹³ hypothesized that the duration of unemployment claims (D) depends positively on the unemployment rate among those covered by UI, the average benefit payment divided by the average wage of the insured unemployed on their last job (B/W), and the maximum duration of UI claims (M).¹⁴ Data were taken from a cross-section in the 50 states for each of six years (1962-1967) and pooled,¹⁵ Chapin's hypotheses are apparently borne out in the empirical results, but the elasticities of B/W and M are quite low, .13 and .26 respectively. This means that "increasing the level of benefits relative to wages by 10% might increase D by

primary workers, who comprised 70 per cent of the sample, the results with regard to both forms "sustain the conclusion that an increase in the size of weekly unemployment benefits would not lead to longer durations of such benefits." For the secondary earners, Lininger found: "A one percent increase in B according to the B/W equation, leads to an increase of 0.4% in duration. According to the W-B equation, a one percent increase in B leads to an increase of 0.11% in duration...these changes are modest." Charles A. Lininger, Jr., *Unemployment Benefits and Duration: A Study of the Effect of Weekly Unemployment Benefit Amounts on the Duration of Unemployment Benefits* (Ann Arbor, Mich.: Institute for Social Research, University of Michigan, June, 1963).

¹² Ronald G. Ehrenberg and Ronald L. Oaxaca, "Unemployment Insurance, Duration of Unemployment, and Subsequent Wage Gain," August, 1975, mimeographed.

¹³ Gene Chapin, "Unemployment Insurance, Job Search, and the Demand for Leisure," *Western Economic Journal*, IX (March, 1971), 102-107.

¹⁴ It is likely that this model is misspecified econometrically. By including the unemployment rate as an independent variable, Chapin was assuming that increases in the unemployment rate cause, but are not caused by, a longer duration of unemployment. Presumably, however, the unemployment rate is determined in the same simultaneous system as the duration of unemployment. Failure to treat the unemployment rate as endogenous to the system causes simultaneous equations bias. Thus, it is not clear how meaningful Chapin's results are.

¹⁵ As Munts and Garfinkel observed in *The Work Disincentive Effects of Unemployment Insurance* (Kalamazoo, Mich.: W. E. Upjohn Institute for Employment Research, 1974), the high serial correlation in earnings-replacement ratios from one year to the next within a state inflates the statistical significance of the pooled regression results.

approximately 1.3% (which, in 1967 would mean about one day).” To the extent that we can believe Chapin’s results (despite the econometric difficulties), they are consistent with the findings of others that UI’s impact on unemployment is significant but small.

A similar conclusion has been reached by Marston.¹⁶ Using 1969 data, he compares the expected durations of unemployment for the insured unemployed with those of all unemployed, after adjusting for differences in the demographic composition of the two groups, and estimates these as 5.62 weeks and 5.00 weeks, respectively, a percentage differential of 11 per cent.¹⁷ Taking fuller account of demographic differences between the insured unemployed and total unemployed, he estimates that expected duration for the insured unemployed might be lengthened by as much as 31 per cent. He feels, however, that this is an upper bound and that a figure on the order of 15-20 per cent is most likely, and concludes: “The effect of unemployment insurance on duration is small.”

In an illuminating discussion of Marston’s paper, a number of important objections to his approach are raised by key figures in the labor turnover- unemployment insurance debate.¹⁸ Robert Hall focuses on the reason for unemployment issue and questions how much can be learned from even the most sophisticated comparison between the insured and the uninsured, since the groups are so different (cf. Table 2). Charles Holt expresses doubts over the legitimacy of the procedure by which Marston computed expected durations from continuation rates. Martin Feldstein is primarily concerned about the details of Marston’s calculations and for several reasons is “frankly surprised that Marston’s estimates are so plausible.”¹⁹ In response, Marston reiterates his justifications for some of the specific procedures he adopted, but he offers no new findings.

Dispassionate observers of this debate may evaluate the arguments differently. My own conclusion is that Marston has presented us with a reasonable set of calculations, the findings of which parallel those of Lininger, Chapin, and Ehrenberg and Oaxaca reviewed above, to the effect that UI contributes to unemployment but is not the major factor responsible for it. It would seem that the burden of proof must now be shifted to those who take the other side.

¹⁶ Stephen T. Marston, “The Impact of Unemployment Insurance on Job Search,” *Brookings Papers on Economic Activity 1: 1975*, pp. 13-48.

¹⁷ Expected duration is calculated from insured continuation rates (the fraction of unemployed workers covered by unemployment insurance who remain unemployed each week) for each demographic group. Marston chose not to use the usual Bureau of Labor Statistics figures on duration of an uncompleted spell of unemployment, because of the well-known biases in overestimating the length of completed spells. For more on this, see Marston, *op. cit.*, and Hyman B. Kaitz, “Analyzing the Length of Spells of Unemployment,” *Monthly Labor Review*, XCIII (November, 1970), 11-20.

¹⁸ Robert E. Hall *et al*, “Comments and Discussion,” *Brookings Papers on Economic Activity 1: 1975*, 14). 49-60.

¹⁹ *Ibid.*, p. 55.

Laws and payment practices. Holen and Horowitz sought to ascertain to what extent provisions of the unemployment insurance laws and payment practices account for interstate differences in unemployment rates.²⁰ Using a multi-equation model, based on 1971 data, they relate each state's employment and unemployment rates to various characteristics of that state's labor force (race, age, and educational composition), its industrial composition, and the characteristics of the UI system, including benefit levels. They hypothesize that states with higher UI benefits (as measured by the ratio of total UI payments to total number of unemployed in the state in the year) have higher unemployment rates and lower employment rates. They estimate the elasticity of the unemployment rate with respect to the benefit index to be +0.7. Since the 1971 unemployment rate was 5.9 per cent, this implies a 0.4 percentage point increase in the unemployment rate for each 10 per cent increase in benefits. Hence, they conclude: "As commonly hypothesized, unemployment is positively and strongly affected by benefit liberality."

Holen and Horowitz next examined possible benefit features that produced this effect. Included were: ratio of average benefit paid per insured unemployed to average weekly wage, fraction of workers in covered employment, monetary eligibility, rate of benefit exhaustion, and denial rate. Of the five benefit measures, the denial rate was by far the most powerful. According to the estimated elasticity, Holen and Horowitz calculate that doubling the denial rate would imply a 1.4 percentage point reduction in the unemployment rate. Interestingly, the benefit-wage ratio was not statistically significant. From this, we might be led to infer that it is the *existence* of UI benefits for an individual worker, more than the *amount* of the benefits, which determines UI's impact on unemployment. The authors themselves conclude "that more rigorous and careful screening of UI beneficiaries can lower the unemployment rate substantially with little danger of discouraging job search."

The Holen-Horowitz paper is most provocative and imaginative in channeling attention toward the operation of the UI system itself as a possible cause of unemployment, a direction that may well prove promising in future research. Before accepting their results, however, it is pertinent to raise a number of caveats:

(1) Their conclusion about the effect of doubling the national denial rate takes them nearly outside the range of state observations. As with all such projections, the results should be treated with care.

(2) It is strange that their primary variables (benefit liberality in the first set of equations, denial rate in the second) are statistically significant determinants of the *unemployment* rate, yet are not statistically significant in explaining the rate of *employment*. This casts doubt on the robustness of their results.

(3) Most importantly, the simultaneity inherent in the relationship between denials and the unemployment

²⁰ Arlene Holen and Stanley A. Horowitz, "The Effect of Unemployment Insurance and Eligibility Enforcement on Unemployment," *Journal of Law and Economics*, XVII (October, 1974), 403-432.

rate does not seem to have been adequately accounted for. There is a strong a priori basis for expecting that a higher unemployment rate in a state would lead to a lower denial rate, since as unemployment rises, the percentage who are job losers (and therefore most probably eligible to receive UI benefits) also rises, which would lead to fewer denials per claimant. Indeed, the unemployment rate is found to be influenced importantly by the denial rate (see their equation 10), with an even greater estimated elasticity than in the equation with reverse causality. Holen and Horowitz's statement that "higher unemployment rates induce lower denial rates...but the coefficient of the denial rate...is not biased by this fact because simultaneous equation estimation techniques were used" is correct only in the absence of specification error, but specification error does appear to be present.

Other evidence and counter-arguments. Aside from the failure of the empirical evidence to show large effects of UI on unemployment, other labor market considerations reinforce the notion that UI is not a major cause of unemployment. Much of the labor force finances job search by means other than UI benefits (e.g., family savings). Given these alternative means, UI may have a smaller marginal effect than if unemployed workers relied exclusively on UI benefits to sustain themselves. Another factor is that a record of prolonged or frequent spells of unemployment is not likely to be viewed favorably by employers. Not only are unstable employees apt to have accumulated less on-the-job training and therefore be less productive while they are working, but they also might be less likely to remain at work, thus imposing heavier turnover costs on their employers. In this way, a worker's previous unemployment experience may be taken by many employers as a signal of the individual's expected trainability and productivity.²¹ The job offers received by high unemployment workers would therefore be fewer in number and less attractive, tending to offset whatever monetary or psychic incentives UI might create for individuals to become unemployed more frequently or remain unemployed longer.

Probably the most important reason for questioning the empirical importance of UI as a contributory factor to current unemployment is the fact that less than half of the unemployed receive UI benefits. There are four consequences of incomplete coverage:

(1) The argument that the availability of UI benefits to replace the majority of one's income tends to prolong a spell of unemployment applies directly to beneficiaries only. Since spells of unemployment among beneficiaries are only marginally longer, if at all, on account of UI, and unemployment of uncovered workers is presumably unaffected by UI, it is hardly possible that the bulk of the unemployed would choose to remain without work a great deal longer because of UI.

²¹ For a pathbreaking analysis of market signaling, see Michael Spence, "Job Market Signaling," *Quarterly Journal of Economics*, LXXXVI1 (August, 1973), 355-374.

(2) Equally dubious empirically is the argument that the existence of UI benefits encourages workers in covered employment (roughly 85 per cent of the labor force) to leave their jobs with greater frequency, thus experiencing more spells of unemployment, since: (a) those who quit their jobs without good cause are ineligible to receive UI benefits, although it is possible that these laws are not strictly enforced, and (b) quits comprise only a small part of total unemployment, with many job changes being made without an intervening spell of unemployment.

(3) With incomplete coverage, workers whose unemployment would not be subsidized would not be willing to work for firms which are known to provide unstable employment unless they were to receive a higher wage as a compensating differential. But higher wages would reduce turnover. Hence, this particular adverse incentive of UI is offset, if not largely negated, by less-than-full coverage.

(4) In periods of aggregate-demand unemployment, there are more job seekers than jobs. Since an uncovered worker would face a higher cost of being unemployed, he might be more willing than a comparable covered worker to accept a given job offer. If searching for a new job from a state of employment, the uncovered worker might be less willing to take a new job if he anticipates an intervening spell of unemployment, and this would limit the number of job vacancies which might exist to be filled. In either case, fewer job opportunities would exist for covered workers. Facing diminishing employment prospects, covered workers would be inclined to re-evaluate their search strategies and search more intensively, not hold out so long in the search for a superior job, or not quit their current jobs as often. We see therefore that competition from uncovered workers may, when jobs are scarce, induce covered workers to adopt more stable employment patterns.

Summary. While there are several sound theoretical arguments for expecting UI to provide incentives for greater unemployment, empirical studies suggest that UI prolongs unemployment only very slightly. No evidence is available on whether UI causes people to experience spells of unemployment more frequently. In addition, UI's possible impact on unemployment is diminished by four sets of factors: incomplete coverage, the availability for many workers of means of financing job search other than UI benefits, the negative impact of an intermittent employment record on potential employers, and competition with nonrecipients for scarce jobs. For all these reasons, it seems reasonable to conclude that the American system of unemployment insurance does not appear to be a major cause of unemployment.

Income Distribution Effects of UI

Distribution of benefits. Until recently, UI's income distribution effects could be estimated from one source only, the 1967 Survey of Economic Opportunity, which asked for information on specific income

sources, including unemployment compensation benefits. Based on that data, Gillingham²² estimated that the poor as a whole received a slightly larger share of UI benefits than their share in the population, but that poor households were slightly less likely than their share in the population to be beneficiaries. However, because the amount of UI benefits was underreported in the SEO by a factor of about one-third, the Gillingham results are open to question.²³

Now, however, estimates from a new data source surmount some of the problems associated with the SEO. Benjamin Okner and others at the Brookings Institution have created a so-called MERGE file which links the SEO data with the Internal Revenue Service Tax File for 1966.²⁴ Although synthetic, data from the MERGE file are likely to give a more accurate picture of UI recipients than the unadjusted data. Feldstein²⁵ uses this file to estimate the distribution of UI benefits in relation to family income. He finds: (1) more families with incomes above \$15,000 received benefits than did families with incomes below \$5,000; (2) the total benefits received by families with incomes above \$25,000 was greater than the benefits received by families with incomes below \$3,000; (3) for low and middle income families, the cumulative percentage of UI benefits received is less than the cumulative percentage of families in those income brackets. From these data, Feldstein concludes that it is a mistake to believe that those who collect UI benefits are poor or would otherwise be poor.

Distribution of Costs

Feldstein's conclusion, although correct, runs the risk of misinterpretation, for nowhere does he relate the benefits received by individuals in a given income class to the costs they pay. The reason for this omission apparently lies with the extreme difficulty of determining even the approximate incidence of UI costs due to four characteristics of UI financing: (1) the UI tax is a state tax, the rates differing from one state to another; (2) UI is financed by a payroll tax on employers, but the tax is assessed only up to a certain cut-off amount of earnings; (3) presumably, the burden of the payroll tax is shifted in varying degrees to the workers and consumers, the remainder being borne by the firm itself in the form of lower profits, but the extent of shifting is unclear; (4) within a state, firms are experience-rated, so that firms with stable employment patterns pay lower taxes. As a consequence of these complexities in the financing of UI, we have no reliable estimates of the distribution of UI costs by income class. Alternative assumptions about the extent and patterns of shifting

²²Ben Gillingham, "Cash Transfers: How Much Do They Help the Poor?" (Madison, Wis.: Institute for Research on Poverty, January, 1971), mimeographed.

²³See, for instance, Muntz, *op. cit.*, p. 62: "This underreporting is felt by some UI experts to be too serious to warrant use of the SEO data."

²⁴The basic structure of the MERGE file is described in Benjamin A. Okner, "Constructing a New Data Base from Existing Micro-data Sets: The 1966 Merge File," *Annals of Economic and Social Measurement*. I (1972), 325-342.

²⁵Feldstein, "Unemployment Compensation...," Table 2.

yield substantially different patterns, some indicating very little redistribution, others suggesting the possibility that lower and middle income families may receive more of the benefits than their share of the costs. This is an empirical question about which very little is known. Thus, we may conclude the Feldstein's claim of "distributional anomalies in UI" has not been satisfactorily substantiated.

Summary

It has been established that relatively high income families receive a disproportionately large share of UI benefits. Little information on the distribution of costs by income class is available, but it is quite possible that the upper income groups may also bear a disproportionately large share of the costs. More empirical research is needed before the redistributive effects of UI can be known with any degree of confidence.

There is little argument about the desirability *on income maintenance grounds* of extending unemployment insurance benefits in a recessionary period, all other things being equal. UI is quite efficient as an income maintenance tool for covered workers. With respect to the *unemployment* problem, though, it is feared by some that the program goes too far in maintaining the incomes of covered workers, and as a result any extension of UI benefits will aggravate the unemployment problem. The evidence presented here suggests that fears of a *major* increase in unemployment as a result of such changes are largely unwarranted. However, extended UI benefits would appear to have some small, nontrivial adverse impact on unemployment. Finally, it seems that UI's *income distributional* impact has been portrayed unjustly as pro-rich. It may be that income is transferred through the UI system from the relatively well-to-do to the relatively poor.

There is no scientific way of bringing these considerations to bear in deciding whether or not to restructure the unemployment insurance system. This question can be answered only by invoking fundamental value judgments to decide how society would be better off, and I would not presume here to offer my own. This paper will have served its purpose if it has provided the basis for a more informed decision.