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What Is Involuntary Unemployment?

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It may take a two-tenths of a percentage point increase in the monthly unemployment rate to be considered statistically significant by the Bureau of Labor Statistics, but even a one-tenth of a percentage point increase is considered politically significant judging from the flurry of memoranda and weekend meetings of Washington task forces that result. As the monthly release of the unemployment statistics has become a part of the public consciousness, however, these statistics have taken on a life of their own. An official of the Nixon Administration, for example, once told me that he thought unemployment would not be a political issue if, as in the period before World War II, no official unemployment statistics were collected. Believing the contrary, I then asked why the administration didn't simply "adjust" these statistics downward in the months prior to a major election to eliminate this political issue. After a considerable pause during which he first savored this idea and then began to look suspicious, the official responded that it wasn't a bad idea but that the risks of being caught doing it were too great. The point of this story is not that the integrity of our unemployment statistics has ever been under any serious attack but that the general understanding of the purpose these statistics are meant to serve is woefully inadequate. In my view this is primarily a product of the deliberate political attempt to confuse the measurement of the hardship of unemployment with the desirability of policies to eliminate that hardship. The result

is that many government policies are advocated because of high unemployment even when it cannot be demonstrated they will serve as remedies for it.

At the same time there now exists a deep uncertainty within the ranks of professional economists over the nature, causes, and cures for unemployment. To see why this is a world-wide phenomenon I have collected together in Table 1 roughly comparable data on the post-war course of unemployment in most of the major western-style economies. As can be seen from this table, unemployment in 1975-76 has averaged at least fifty percent higher than during anything but the post-war reconstruction period in virtually all of these countries. It is little wonder that such universal increases in unemployment, accompanied by universal increases in price inflation rates, have called into question old explanations for the causes and cures of unemployment.

In this paper I should like to explain the source of the disgruntlement by professional economists with their own theories of unemployment by starting from what I believe is generally accepted and then proceeding to the areas of disagreement. The first question I consider is the definition of involuntary unemployment. Since this definition is often thought to represent the heart of the disagreement among those who favor different policies to affect unemployment, it may seem surprising that this issue can be tackled at the outset. As I shall hope to explain, however, it is not the definition of involuntary unemployment that is the fundamental source of disagreement, but the question of the extent to which it can be eliminated by costless government policies.

Table 1

Unemployment Rates Adjusted to International Concepts,
Five Year Averages, 1950-1976 (percentage)

| | France | West Germany | Japan | United Kingdom | United States |
|---------|--------|--------------|-------|----------------|---------------|
| 1950-54 | 2.4 | 5.8 | 1.9 | 2.3 | 4.0 |
| 1955-59 | 1.8 | 2.4 | 2.2 | 2.4 | 5.0 |
| 1960-64 | 1.5 | .5 | 1.4 | 2.7 | 5.7 |
| 1965-69 | 2.1 | .7 | 1.2 | 2.9 | 3.8 |
| 1970-74 | 2.8 | 1.1 | 1.3 | 3.5 | 5.4 |
| 1975-76 | 4.1 | 3.6 | 2.0 | 5.0 | 8.0 |

Source: Detailed sources are reported in Orley Ashenfelter, "Unemployment as a constraint on Labour Market Behaviour," in Proceedings of the 1977 Meeting of the Association of University Teachers of Economics, Blackwells Ltd., forthcoming.

The Nature of Involuntary Unemployment

In order to examine the nature of involuntary unemployment it is easiest to begin by setting out a stylized description of how a fully employed worker is presumed to make economic choices. The basic building blocks in this description are the individual consumer-worker's preferences between non-market time^{1/} and conventional commodities, on the one hand, and the constraints on his earning and buying power that are imposed by the wage rate and prices he faces, on the other. As to preferences, it is surely true that most consumer-workers would prefer more of both commodities and non-market time, but with a given wage rate and prices more of one may only be had by taking less of the other. After, all, additional earnings to buy a larger commodity bundle must come at the expense of a lower consumption of non-market time, and vice versa. The basic problem for the consumer-worker is therefore to resolve this conflict and find that combination of non-market time and commodity purchases that is the most satisfying of all possible combinations. Presumably the identical individual facing a different regime of wages and prices might choose a different combination of non-market time and commodities, while different individuals facing the same wage and prices might also choose a different combination of non-market time and commodities. The detailed study and empirical measurement of the former makes up the core of a large set of studies in economics.

Implicit in this conventional discussion of the problem of choice for an individual consumer-worker are two important assumptions. First, it is

^{1/}Leisure, as conventionally defined, is only one part of the time spent out of the labor market. The term non-market time should make it abundantly clear that no normative significance is attached to the use of this time and that it certainly does not preclude what in conventional terms many would prefer to call work-at-home.

assumed that individuals may purchase all of any consumer goods that they can pay for at a known set of prices, so that there is no rationing of commodities. Second, it is assumed that individuals may work as many hours as they wish at a known wage rate. Suppose now that this latter assumption is false and that there is some upper limit on the number of hours that a consumer-worker can sell to his employer or to any other employers he can find. A worker is then defined as involuntarily unemployed if the number of hours he would otherwise choose to sell is greater than the number of hours that he can sell. By this definition, a worker who is involuntarily unemployed is forced to consume more non-market time than he would prefer and, consequently, a smaller bundle of commodities. Alternatively, a worker who is involuntarily unemployed cannot work as much as he would prefer and thus cannot purchase as large a bundle of commodities as he would prefer.

There are two remarks that should be made about this definition of involuntary unemployment. First, it is always possible to argue that if the worker perceives a binding constraint on the hours he may work for what has been the "customary" wage rate, then this wage rate has been misperceived. Thus, it is sometimes argued that workers would not perceive themselves as unemployed if they would look for work at lower wage rates; while others sometimes argue in response that there is no work available at any wage rate. My own view is that, in common language, a worker is viewed as unemployed by the community if he is perceived as identical to other workers with respect to preferences and skills and yet is unable to find the number of hours of work that others have both chosen and managed to find. Thus, it is the inherent inequality of the constraints on choice implied by the presence of

unemployment that defines it, and, in my opinion, what makes it seem so socially unacceptable. From the unemployed worker posed the question, "Why don't you accept the work available at lower wage rates?" I should expect to hear the question, "Why don't all other similarly situated workers have to do the same?" It is this constraint on choice perceived by the otherwise seemingly identical worker that defines his unemployment.

Second, it should be made clear that measured unemployment rates, such as those in Table 1, are only loosely connected with this definition of unemployment. These data include, for example, workers who quit employment to engage in job search and who would not generally be counted among the involuntarily unemployed. Moreover, because of international standards these data are meant to include only those workers who do not work even a single hour during the period of reference and this clearly excludes some workers with short hours who would generally be counted among the involuntarily unemployed. None of this is very surprising since the actual measurement of unemployment is necessarily a compromise that must heavily emphasize the use of objective and easily obtained information.

What Is the Hardship of Involuntary Unemployment?

The worker who suffers a spell of involuntary unemployment will generally suffer a loss of welfare compared to an otherwise identical worker. It is natural to inquire as to how great this hardship will be in monetary terms. One way to do this is to consider the amount of unemployment compensation that would be required to restore the unemployed worker to the level of satisfaction of the otherwise identical fully employed worker. At first it might be thought that this unemployment compensation should simply equal

the income lost as a result of unemployment. In the absence of any psychic or other burdens of unemployment, however, the required unemployment compensation will clearly differ from this earnings loss due to unemployment because of the additional non-market time available to the unemployed consumer-worker. To see this one need merely observe that an unemployed worker compensated by the full amount of his earnings loss would have command of the same bundle of consumption goods as the fully employed worker and a greater command of non-market time. Thus, a full restoration of lost earnings would over-compensate the unemployed worker. Only in the very unlikely case where non-market time is of no value to individual consumer-workers would the full restoration of lost earnings be either desirable or equitable.

It is easy to see that in general the exactly compensating fraction of lost earnings that unemployment benefits should replace must depend both on the strength of the consumer-worker's preferences for non-market time and the length of his spell of unemployment.^{2/} Where work attachment is great, the required unemployment compensation will be relatively high, but where the contrary is the case it may be very low. Likewise, short spells of unemployment where the enforced consumption of non-market time may be put to good use, either as leisure or in homework, will require relatively smaller compensation than long spells of unemployment where this will not be possible.

Although it is not possible to be precise, it is possible to make some illustrative calculations of the fraction of lost earnings it might be desirable

^{2/}For more details the interested reader might consult Orley Ashenfelter, Ibid.

to replace in an optimally designed unemployment compensation system. The available evidence on worker choices about hours of work in the absence of unemployment suggest that in the U.S. only perhaps ten to twenty percent of the lost earnings from very short spells of unemployment (of, say, two weeks in duration) should be replaced, but that perhaps forty to ninety percent of the lost earnings from spells of the average duration of unemployment (of, say, eight to ten weeks in duration) should be replaced. For those who are concerned about the adequacy of actual unemployment benefit levels in the U.S. it may be interesting to contrast these calculations with the fact that in most U.S. states the fraction of lost earnings replaced by unemployment compensation averages between fifty and sixty percent for most unemployed workers. This suggests that these systems may be geared to the actual needs of the average unemployed worker, but, as we shall see below, may be at considerable variance with the needs of those workers suffering spells of unemployment that differ considerably from the average.

Finally, it should be understood that the mere presence of involuntary unemployment does not imply a compelling rationale for any government or collective action to compensate it because private markets may already have done so. To the extent that consumer-worker's make choices regarding jobs with the full understanding and expectation of suffering spells of involuntary unemployment it may be expected that employers will have to offer compensation packages that fully compensate employees for these costs. For example, it is known that for technological reasons even nonunion workers in the construction industry must normally expect to be offered perhaps three-quarters the number of hours of work per year that they would be offered in other industries. Since this is known at the time workers choose their

occupations it will generally be necessary for employers to offer a higher wage for those hours that are worked in this industry than would otherwise be the case. Workers in this industry will therefore continually face periods of involuntary unemployment as I have defined it because, at their current wage rate, these workers will always prefer to work longer hours than they can generally obtain. Nevertheless, these workers suffer no loss of welfare compared to workers in other industries because their involuntary unemployment has been fully compensated by a wage advantage for those hours actually worked. Of course, whether the incidence of actual unemployment spells is compensated in this way must remain an open issue.

Can Unemployment Compensation Cause Unemployment?

Like most policies designed to alleviate hardship, unemployment benefits designed to compensate for involuntary unemployment may produce incentives to engage in the activity that is compensated. In the case where it is a governmental policy to uniformly replace a fixed fraction of lost earnings due to unemployment I have already implied that short spells of unemployment may be over-compensated and that the unemployment of workers with weak attachment to the labor force may be over-compensated. In both cases, moreover, there will be little incentive apart from stigma for an unemployed worker whose unemployment is over-compensated to accept employment when it is offered. This point may seem obvious when it is government policy to replace 100 percent of lost earnings due to unemployment, but it may be equally valid when this earnings replacement is less than 100 percent.

In general, the length of the period during which a worker is better off remaining unemployed will depend directly on the size of the unemployment

benefit and the worker's attachment to the labor force. Although it is not possible to be precise, it is possible to make some illustrative calculations of the length of unemployment spells that may be fully compensated on the basis of the available evidence on worker choices about hours of work in the absence of unemployment.^{3/} These calculations suggest that if it is government policy to uniformly replace sixty percent of the lost earnings of a laid off worker, then the average worker will have little incentive to accept a job prior to the passage of somewhere between five and thirteen weeks.

Of course, these calculations do not imply that individual workers do, in fact, respond to the incentives for "feigning" unemployment that the presence of unemployment benefits may have set up, but they do indicate that what may seem to be a purely humanitarian response to involuntary behavior may exacerbate some of the problems with which it was intended to cope. This merely illustrates the more general point that the appropriate governmental response to the compensation of involuntary unemployment must clearly involve both the equity and adequacy of compensation and the undesired responses that such compensation may cause.

Measuring the Extent to Which Unemployment is Involuntary

Methods to determine whether measured unemployment represents a constraint on choice must ultimately be based on a comparison of the behavior of consumer-workers who are reported as unemployed against what their behavior

^{3/} See Orley Ashenfelter, Ibid.

would have been expected to be if unemployment were not a constraint on choice. In general, the behavior of consumer-workers who face a constraint on the hours they may work in the labour market will differ both with respect to the amount of time they work and with respect to the pattern of their demands for commodities. Thus, one may look both to comparisons of the hours worked by unemployed workers as against what they would have been expected to work given the wage rate they face, and to comparisons of the patterns of their consumption against what otherwise would have been expected.

One very simple scheme would be to study the determinants of the employment and/or consumption of those workers who are not measured as unemployed and then see whether differences in these determinants, apart from measured unemployment, can explain the employment and/or consumption of those workers who are measured as unemployed. Unfortunately, methods for doing this are still in a rudimentary state and yet they are so complicated that I can do no more here than give a rough outline of the initial results.^{4/} In general, most analyses suggest that for adult males perhaps one-half of measured unemployment represents real constraints on hours of work and is involuntary, but that this fraction increases during periods of high unemployment. Whether these estimates will be replicated in further research remains an open question at this time, but they clearly suggest that involuntary unemployment is neither a thing of the past or a mere analytical abstraction.

^{4/}For some details see Orley Ashenfelter, "Unemployment as Disequilibrium in a Model of Aggregate Labor Supply," Working Paper No. 104, Industrial Relations Section, Princeton University, November 1977.

Can We Eliminate Involuntary Unemployment?

Is it my impression that in the contemporary history of popular economic thought the mere incantation of the words "involuntary unemployment" has served as justification enough for the espousal (and in 1977 the adoption) of a whole range of government programs. By now it should be clear that there is nothing in the definition and empirical existence of involuntary unemployment that suggests that any simple policies will permanently reduce it. For the definition of involuntary employment does not specify the cause of the constraint on choice that it represents and does not, therefore, by itself imply any remedy for its removal. It is unquestionably true that the removal of these constraints on choice would be desirable, but this says no more than that construction workers and farmers are made happier by moderate winters. Merely recognizing the existence of involuntary unemployment should no longer compel one to favor the indiscriminating adoption of a wide range of potentially distortionary and ineffective government programs. Finding and establishing the efficacy of the actions that will permanently reduce the constraints on workers' labor market behavior is the real challenge.