

ON ASPECTS OF UNDERUTILIZATION OF HUMAN RESOURCES

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We worry about underutilization of human resources for different reasons at different times. During a war, when the military build-up takes large numbers of young workers out of the civilian labor force, we beat the bushes for additional workers and try to get the most out of the available human resources. In more peaceful circumstances, when unemployment is low and we are concerned about economic growth without inflation, we again want to get the fullest utilization of manpower. I suspect that it is precisely at such periods--when demand for labor is pressing against limited resources--that labor is most fully utilized, while good utilization is neglected when labor is plentiful. Thus we have the paradox that those of us who make speeches are more concerned about underutilization of human resources when it is at a minimum than when it is really rampant. However, both in good times and in bad, we are also concerned about underutilization in relation to poverty. Finally, it is viewed not only as an economic phenomenon but also in social and psychological terms--the denial of opportunity to serve at one's maximum capacity is seen as contributing to anomie, to the alienation from and anger at society that breed riots. A phenomenon that has all these effects is worth serious study.

One can identify several major forms of underutilization of human resources:

1. Unemployment - which we usually define as a situation in which people look for work but can't find it.
2. Involuntary part-time employment - a situation in which a worker wants full-time work, but can only get part-time work.
3. Involuntary nonparticipation in the labor force - a failure to seek work by people who really want it but don't look for it because their health or personal circumstances don't permit it, or because they think the search is hopeless.
4. Underemployment - situations in which a worker is employed below his highest skill, capacity, or potential.

In an attempt to identify and measure the total impact of these four aspects of underutilization of human resources, the Department of Labor, in reporting on a November 1966 survey of the employment problems in the 10 seriously disadvantaged poverty areas of 8 large cities, coined the term "sub-employment" to describe the total number of persons falling in any of these groups. Low income was used as a surrogate for

underemployment. Also, an attempt was made to estimate how many underutilized persons were missed in the population count. The estimated number of persons "sub-employed" by these standards equalled from one-fourth to nearly one-half of the civilian labor force in these poverty areas 8/. *

While the aggregate impact is formidable in poverty areas, far more human resources are underutilized outside such areas, simply because the population outside is so much larger. In order to get better insights into both the geographical locations of people hit by employment problems and into the nature and causes of their problem, as a basis for developing programs to deal with them, the Department of Labor is undertaking a number of steps:

1. The Bureau of the Census will soon be making separate tabulations for the Bureau of Labor Statistics each month of the data collected in the Current Population Survey for the aggregate of the poverty neighborhoods of the large Standard Metropolitan Statistical Areas and for the balance of these areas. The poverty neighborhoods are defined as contiguous groups of census tracts in which the population meets certain criteria associated with poverty. A total of some 4,660 census tracts are included, located in 100 SMSA's. These data were first compiled for March 1966 6/. Analysis of all the data regularly collected in the Current Population Survey, including its supplements, by poverty and nonpoverty areas in large cities will show the total effect of changing economic conditions and government programs on the status of the residents of both types of areas.
2. The Department of Labor is now designing a program of in-depth studies of employment problems in the poverty areas of each of ten large cities to probe more deeply into the reasons for the existence of these problems, the attitudes associated with them, etc. In preparation for these surveys, an experimental survey program was conducted in the spring of 1967 to study the problems of communication with slum residents in surveys, ways of getting insight into the characteristics of the large number of persons not enumerated in household censuses and surveys, and to develop and test questionnaires on reasons for nonparticipation in the labor force, on how people look for work, and on attitudes.

*References are listed at the end of the paper.

Unemployment

Of the four aspects of underutilization listed above, two are relatively well documented in the statistics and in the literature--unemployment and part-time employment. On unemployment and the factors associated with it, we have, in addition to many studies going back more than a century, the wealth of insights to be derived from the monthly Current Population Survey (now to be supplemented by data on the poverty areas as noted above), and information on the insured unemployed from the unemployment insurance records. These data usually deal with a snapshot of all individuals unemployed at one time and their characteristics. However, the work and unemployment experience of individuals over time, which gives better measures of the burden of unemployment, can be seen in the annual work experience survey made as a supplement to the Current Population Survey. The most recent in this series that has been published ^{2/} shows, for example, that although the average number of persons unemployed at any one time in 1965 was 3 million, there were 11.4 million persons who were unemployed at some time during the year. Similarly, although the number unemployed for 15 weeks or more as of any one time was only 500,000, the number who accumulated 15 or more weeks of unemployment during the year was 2.7 million. Thus the burden of unemployment falls on many more people in the course of a year than the monthly data will show.

Involuntary part-time employment

Involuntary part-time employment is also fairly well measured and documented. Defining part-time work as less than 35 hours a week, we find that there were 2 million workers involuntarily on part-time work for economic, as distinct from personal, reasons, in the average week of 1966. Two groups of workers are affected--those who regularly work full-time but are working part-time temporarily, and those who regularly work part-time.

The former, averaging one million in 1966 at any one time, present a transitory problem. They suffer temporary short work weeks as a result of bad weather, slack work, etc. A certain amount of this is inevitable; some workers are protected against the worst impacts of such temporary part-time work by measures such as union contract rules calling for a minimum payment if the worker is called in to work and by partial unemployment coverage under unemployment insurance systems. The impact on any individual is relatively small, since this group regularly works full-time--but the loss to the economy of one million workers being on short time in any one week is substantial.

The more serious problem is that of the group that usually work part-time although they want full-time work--a group that is seriously and persistently underutilized. In 1966 this group averaged about one million, with average hours

of 17.7 per week or a bit more than two days' work. Some of them were engaged in activities that by their nature afford only part-time work, such as domestic service. Others were in depressed industries, such as coal mining.

The combined effect of total unemployment and involuntary part-time employment traceable to economic reasons is measured by a figure regularly reported by the Bureau of Labor Statistics--"Labor Force Time Lost." This is a measure of the total work time offered to the economy by workers but unutilized. In making the estimate it is assumed that the unemployed and the part-time workers who want full-time work would be prepared to work a standard work week ^{1/}. This figure exceeds the total unemployment rate somewhat more when the latter is high than when it is low--that is, the extent of involuntary part-time employment rises as the general demand for labor drops. For example, in 1966 when the overall unemployment rate averaged 3.8 percent, the estimate of labor force time lost amounted to 4.2 percent. On the other hand, in 1958 when the total unemployment rate was 6.8 percent, the labor force time lost amounted to 8.0 percent. Thus the combined measure runs from 10 to 20 percent above the unemployment rate alone.

Involuntary nonparticipation in the labor force

About 4 out of 10 people of working age are neither working nor looking for work at any one time. Among them are housewives, students, retired persons, and those unable to work for reasons of health. Most of these people are outside the labor force because they don't want to work at present, although they form a large potential labor reserve.

There are among them, however, some whose nonparticipation is involuntary--who want to work but are not looking for work because they believe the search would be useless or because some factor outside their control prevents them from working. In many cases the barrier to their working is one that society could eliminate if it set about doing so, such as lack of skill, discrimination in employment, a remediable physical handicap, or a family responsibility that could be dealt with by such facilities as day care centers for children.

Of these involuntary nonparticipants, the men of working age awaken the most concern. In a society in which the accepted role of men as workers is so unambiguous, the man who has no job and isn't busy looking for one becomes the object of indignation or compassion, depending on one's social philosophy. There has, in fact, been a clearly rising trend in labor force nonparticipation among men between 55 and 64 years of age, since 1961, and for nonwhite men since the early 1950's. The increase occurs earlier and has been more marked for nonwhite than for white men--for the former the rate has gone from

about 13 percent in 1953 to 20 percent in the mid-sixties; for the latter, from about 12 percent in 1961 to 15 percent 4/.

In part the decline in labor force participation among men over 55 reflects earlier retirement, particularly in the more recent years when disability retirement (1957), and early retirement on reduced benefits (1961) under the Social Security Act became possible. At about the same time private pension plans were widely adopted. But it is hard to distinguish between voluntary retirement and the involuntary retirement of men who lost their jobs and had trouble getting new ones because of discrimination in employment, or low skill or educational level. Similarly, when ill health or a partial physical disability is present, in addition to difficulty in finding a job, some men may give up more easily and seek the "out" afforded them by retirement from the labor market.

For men below age 55 an increasing rate of nonparticipation in the labor force is more difficult to explain. The rates for white men have not changed significantly over the post-war period, but those for nonwhite men aged 45-54 rose from about 5 percent in the late forties to about 8-1/2 percent in the mid-sixties. The proportion at age 35-44 doubled, from nearly 3 to nearly 6 percent. These trends took place in periods of improving employment opportunity as well as during economic downturns. One factor in the long-term trend may have been the shift of many Negroes from farm (where underemployment is endemic but unemployment less common) to city, where their skills were not adaptable to the needs of industry.

For women, the factors are equally complex. The labor force participation rates for women in every age have been rising fairly steadily for many years, and for most of the women who are not in the labor force the choice of not working is voluntary. For those who want or need work but do not look for it, the reasons may be a mixture of inability to find work, poor health, and home responsibilities.

Some students have argued that persons who drop out of the labor force because they cannot find jobs should be considered unemployed even though they do not meet the usual test of unemployment in that they are not currently looking for work. In its report in 1962 the President's Committee to Appraise Employment and Unemployment Statistics, after considering the question carefully, reaffirmed the principal of labor force classification on the basis of current activity--i.e., working or currently looking for work--but recommended that those counted as not in the labor force by this procedure should be the subject of continued study and that statistics about their numbers and characteristics should be published regularly.

To make possible a regular count of some of the major groups of nonparticipants, a few questions were added to the monthly interview in the Current Population Survey, to be asked of all persons who were not working or looking for work. These were, in addition to the traditional sorting question on major activity in the survey week, questions on present desire for work, reasons for not looking for work, and intention to look for work in the next 12 months. The first analysis of results of these questions, asked in September 1966, has been published including some data for later months in 1966 and early 1967 5/. The data will be published regularly beginning in the near future.

It seems clear, however, that, useful as it will be to get a regular series to measure the major dimensions of nonparticipation as they change under different economic circumstances, the subject requires more subtle and complex analysis. The problems involved in studying involuntary nonparticipation were well summarized by Robert L. Stein:

"The challenge to the researcher in this area is to develop objective methods for measuring what are mainly subjective phenomenon. While most of our labor force concepts are based on objective, overt actions (e.g., working, having a job, seeking work in a specific way and within a specified time span), the data on reasons for nonparticipation are subjective based on desire for work, attitudes, perceptions, and opinions. These more elusive data require careful probing and cross-checking, to explore the depth of a reported attitude or the reality of a reported reason " 5/.

In recognition of these complexities, a number of special studies are being made to explore the problems of these workers more intensively. A special intensive survey of nonparticipation among adult men was made in February 1967 as a supplement to the CPS. Data from the National Health Interview Survey have been analyzed for the relation of health to nonparticipation 7/. And, as noted above, the experimental survey program on urban poverty area employment problems in the spring of 1967 included a pilot questionnaire on nonparticipation.

Some of the magnitudes of involuntary nonparticipation are beginning to emerge from analysis of these data. For example, in the survey made in September 1966, 5.3 million persons who were not currently in the labor force said they wanted a job now. Of these 1.1 million were not looking for work because of ill health or disability; 1.2 million because they were in school; 1.5 million (women) because of family responsibilities or inability to arrange for child care; .4 million for personal reasons--such as a death in the family; and 750,000 because they believed it was impossible to

find work 5/. (When more than one reason was given for not looking for work, as happened in one case out of four, people who reported they had ill health or disabilities, school or home responsibilities were classified in those groups, rather than in the group who believed no work was available, since the former reason was so overwhelming.)

Each of these groups presents its own problems that call for various remedial programs. Of particular interest is the 750,000 who don't look for work because they believe they cannot find it--the group sometimes referred to as "discouraged workers." One-third of them were men, and over half of these (140,000) were under 65 years of age.

These data suggest the types and approximate sizes of programs needed to help these people find employment. The greatest potential payoff is in programs to remedy health problems or rehabilitate the handicapped, and programs to provide day care centers for children--but before launching or expanding such programs we would need additional information on the skill resources of, and employment opportunities for, those who say they are kept from working by health or family problems. They may need training or special placement services, for example. On the other hand, smaller numbers, and especially few men, are nonparticipants because they think they couldn't find a job, but, having no health or family problems, these are most readily employable with the help of training and placement programs, and an investment in helping them might have the most immediate results.

Nonparticipation rates are significantly higher for both Negroes and whites in the poverty neighborhoods of large cities than in other areas. In the middle-age group, 55-64, white men in poverty areas have far higher rates than those in other areas, while for Negroes the differences between poverty area residents and others is less 6/.

One of the significant characteristics of nonparticipants is that a great many of them have a real attachment to the labor force. Some of them participate in the labor force in peak seasons (e.g., students in the summer, housewives in the Christmas shopping season) or enter intermittently. During the course of a single year some have a more permanent change of status--e.g., a student who finishes school and goes to work, a housewife whose children grow up, enabling her to take a job, an older person retiring. Thus there is considerable movement between nonparticipant and participant status.

This is true not only of students and housewives, but also of adult men. While we find significant numbers of adult men not in the labor force currently, many had worked in the recent past or intend to look in the near future.

For example, of 4-1/2 million men who were

not in the labor force in the first 6 months of 1966, one-third had been employed in the preceding 6 months and nearly half had been employed in the preceding 18 months 3/. One million of the 4-1/2 million were reported as being unable to work at the time of the survey; of the 3.4 million who were able to work, 57 percent said they intended to seek employment within the next 12 months.

Even more striking in its indication that non-participation is a transitory phenomenon for many adult men is the fact that, in 1964, of the 5.2 million men 25 to 64 years of age who were out of the labor force some time during the year, only 350,000, or one-sixth of the total were out of the labor force the whole year 3/.

In summary, the increasing amount of research on involuntary nonparticipation in the labor force has given us some broad dimensions of the problem--showing that it is not as vast as had been imagined, though still of substantial size--but has left many questions unanswered. The simple questions to which the monthly CPS questionnaire is perforce limited do not give enough insight into the complex of past experience, present needs, and motivations that determine job-seeking behavior, nor do they provide enough information to shape the variety of remedial programs needed.

Underemployment

It is safe to say that of all the aspects of employment problems the phenomenon of underemployment is one that, despite widespread and continuing concern, not only in the United States but in other countries, has yielded least to analysis and measurement. The problem arises in many different contexts. In developing countries, of which India is a notable example, there has been continued concern about the existence of a large group of university graduates for whom no really professional work can be found and who are forced to work in clerical capacities far below their highest putative skills. In the United States, particularly during the great depression of the 1930's there were many reports of doctors driving taxis and musicians selling dry goods. Even in relatively prosperous times, members of groups subject to discrimination are found to be employed in jobs well below the level for which they are qualified.

We have some insights into the extent of this phenomenon in the depression of the 1930's through data collected in the population census of 1940, in which people were asked not only for the occupation in which they were currently employed but also for their "usual occupation." In the aggregate about 950,000 men and 150,000 women (or 2.8 percent and 1.4 percent, respectively of all those employed at the time) were employed in occupations at a lower level of skill than their usual occupation 9/.

There is considerable evidence in more recent statistics for the underutilization of highly educated people. For example, the following tabulation shows the number of people in the labor force in 1960 who were 25 years of age or older and had 4 or more years of college education, and the number of these employed in occupations that do not require a college education: 10/

| | Total | Employed in occupations not requiring college education | |
|----------------------------|-----------|---|---------|
| | | Number | Percent |
| Total | 6,077,588 | 802,203 | 13.2 |
| White males | 4,219,540 | 510,988 | 12.1 |
| White females | 1,571,645 | 237,183 | 15.1 |
| Nonwhite males | 145,944 | 33,239 | 22.8 |
| Nonwhite females | 140,426 | 20,793 | 14.8 |

The higher underutilization rate for Negro men represents, in part, discrimination in employment. Negro women, with professional employment opportunities in the schools, apparently do better than Negro men.

These data, applying as they do only to persons with college education, probably understate the total incidence of underutilization, which is likely to be prevalent among workers with less obvious skill credentials.

In trying to develop clear-cut concepts of underemployment we may distinguish several aspects:

1. Workers employed in occupations below their highest skill.
2. Workers functioning below their capacity, either because they work in inefficient enterprises or because they are prevented, sometimes for reasons of personal inadequacy, from functioning at their highest capacity.
3. Workers employed at their highest present skill but below their potential if they had more education or training.

Each of the kinds of underemployment listed above presents problems of concept that involve questions of public policy and value systems. They also present serious problems of measurement.

We generally think we know what we mean by a worker being employed below his highest skill. But is the skill hierarchy implicit in this judgment one based on length of education or

training, on wage rates, or on some other value system? Or is it a matter of the values of the worker himself? We don't worry about a dentist who drops his profession and goes into the real estate business, if we know it was a voluntary choice. Are we then reduced to saying that a worker is underemployed if he considers himself underemployed?

Public policy in this area is undergoing evolutionary change. The principle that the worker has some right to maintain his skill status was recognized more than 3 decades ago when the unemployment insurance system was set up. In the administration of this system, a qualified worker gets compensation if no suitable work can be found for him; suitable work, differently interpreted in actual practice in different States, generally means work in the person's own occupation rather than one of lower skill level or earnings.

Giving the worker unemployment compensation is one thing; creating a job for him is quite another. Even this we do when there is a clear social benefit. For example, tariff protection is invoked to save the jobs of skilled watch factory workers who can also make fuses for artillery shells. We don't--yet--create or protect job opportunities when all that is at stake is the frustration of the individual who has, at great pains, acquired a skill that he cannot market. As long as he has a job--any job--we consider him taken care of.

Our concepts of what constitutes the social good may and do change, however; for example, the creation of the National Foundation on the Arts and Humanities in 1965 shows a willingness to subsidize musicians and artists for the public good. And it is not inconceivable that the frustrations of underemployment--expressed through riots and civil commotion--may create a willingness to deal with this problem--not for the sake of the individual, but for social peace!

In fact, we already have adopted some general measures that deal with major causes of the underemployment resulting from employment below a worker's highest skill level. Such employment

can occur when more workers acquire a particular high-level skill than the economy demands, when jobs are reduced by technological change, or when workers who have a skill are kept out of jobs by discrimination on the basis of race, sex, religion or age. One safeguard against excessive numbers of workers entering an occupation is a good program of vocational guidance in the schools which provides young people with information on prospective employment opportunities, such as that contained in the Occupational Outlook Handbook and other publications of the Department of Labor. Vocational guidance would be more effective if it were accompanied by planning of vocational school programs in line with manpower needs. The incidence of underemployment resulting from technological change can be reduced by retraining workers whose skills do not match the requirements of the economy, as is done under the Manpower Development and Training Act. This helps the workers who chose an occupation unwisely as well as the victims of structural change. Finally, discrimination in employment is being approached through fair employment practices and "equal employment opportunities" legislation. While we cannot be complacent about the results so far achieved, we do know a few things that can be done about this form of underemployment, and a beginning has been made.

In addition to the conceptual and public policy problems involved in underemployment of skilled workers there is the problem of measurement. If we use household surveys to get information about the characteristics of individuals, we would have to rely on the person's own statement as to the highest level of skill in which he is competent. Even academic credentials don't prove a level of skill, as this audience knows; how much less can we rely on the individual's own appraisal? A more objective test would be previous work experience in the occupation in question; but even this is limited proof: the person may have been incompetent in the judgment of objective and unprejudiced supervisors, or the standards of work in the occupation may have risen and he may not have kept up. Thus, while in an individual case it would be possible to evaluate a person's highest skill on careful investigation, the methods available for general statistics would not necessarily give us clear results.

The second aspect of underemployment is the situation in which the worker is operating below his capacity, either because he works in an inefficient enterprise or marginal farm, or for personal reasons. Within any one industry there may be a wide range in efficiency among enterprises. In a sense, all workers in an industry employed in plants other than the technologically most advanced, and whose output is lower because of this, may be considered underemployed in terms of known and available technology. By a less rigid standard, plants

so inefficient that they cannot pay minimum or prevailing wages and remain in business may be said to be underemploying their workers.

This is not entirely a theoretical concept. The relationship of low wages to plant efficiency and the need to do something about it has been recognized. For example, the International Ladies' Garment Workers' Union has for many years provided an engineering service to companies with which it has collective bargaining agreements, to increase their productivity and thus make possible higher wages for the workers and greater economic viability for the companies who deal with the union. The technical help in farming provided by county agents is another attack on this aspect of underemployment.

Working below one's capacity is not only a function of inefficient enterprises; there are also inefficient workers, who are prevented from working up to capacity by poor organization of their own work habits or by neurotic blocks or other psychological problems. Who among us is working at full capacity? The prevalence of this problem is recognized by industrial psychologists, but only the most severe cases receive any treatment or attention.

The third type of underemployment--workers employed at their highest present skill but below their potential if they had education or training--is also a real problem. Efforts to deal with it have included improvement in general education and the extension of vocational education, the development of training programs both on the job and in institutions, scholarships, fellowships and other aids to education, and programs to motivate workers and youth to get additional education and training or to "stay in school."

The measurement problems in connection with this kind of underemployment are extremely difficult. It is not easy to identify the potential of an uneducated or an under-educated person. Standard intelligence tests offer some clue but they have been rightly criticized because they are not free of the influence of language and cultural factors.

In summary, the various forms of underemployment, while not easy to conceptualize or measure, affect a great many people, and have been the source of a great deal of concern and the focus of specific measures and legislation to deal with them.

It can be said in general of the four aspects of underutilization of human resources that they appear to affect a substantial proportion of the labor potential of the United States; that we now measure with reasonable accuracy only two of them--unemployment and part-time employment--and will soon have more insight into nonparticipation, but that we are a long way from understand

ing or measuring underemployment; that even without such knowledge we have adopted measures to deal with it; but that more sharply focused programs would require better information than we now have.

1/ Gertrude Bancroft, "Some Alternative Indexes of Employment and Unemployment," Monthly Labor Review, February 1962, page 167.

2/ U.S. Department of Labor, Bureau of Labor Statistics, "Work Experience of the Population in 1966," Advance Summary, October 1967.

3/ Susan S. Holland, "Adult Men Not in the Labor Force," Monthly Labor Review, March 1967, Volume 90, No. 3, pages 5-15.

4/ "Manpower Report of the President," April 1967, Appendix Table A-4.

5/ Robert L. Stein, "Reasons for Nonparticipation in the Labor Force," Monthly Labor Review, July 1967, pages 22-27.

6/ James R. Wetzell and Susan S. Holland, "Poverty Areas of Our Major Cities," Monthly Labor Review, October 1966, (Reprinted as Special Labor Force Report No. 75).

7/ Carl Rosenfeld and Elizabeth Waldman, "Work Limitations and Chronic Health Problems," Monthly Labor Review, January 1967, page 41.

8/ U.S. Department of Labor, "A Sharper Look at Unemployment in U.S. Cities and Slums," 1967.

9/ U.S. Department of Commerce, Bureau of the Census, "16th Census of the United States: 1940. Population. The Labor Force (Sample Statistics): Usual Occupation," U.S. Government Printing Office, 1943, Table 9. In making this computation, occupation groups were assumed to conform to the following rough hierarchy of skill which was determined on the basis of average earnings of year-round, full-time workers in 1939, plus some consideration of educational levels required: (1) Professional and semi-professional, proprietors, managers and officials, farmers and farm managers; (2) clerical and sales, craftsmen and foremen; (3) Operatives; (4) Service Workers (except protective and domestic); (5) Laborers (farm and nonfarm), and domestic service workers.

10/ U.S. Department of Commerce, Bureau of the Census, Census of Population, 1960. Educational Attainment (Final Report, PC(2)-5B). Table 8 is the source of the data used. Occupation of unemployed persons was the last occupation in which they were employed. Occupations not requiring college education were taken to be the following: Clerical, craftsmen and foremen, operatives, service workers, and laborers (farm and nonfarm). Note that the occupation groups in this list include a few individual occupations that require college training, such as FBI agents, in the service occupations; on the other hand, all sales occupations and farm owners and managers are excluded even though many of them do not require college training.