Volume Title: The Measurement and Interpretation of Job Vacancies

Volume Author/Editor: NBER

Volume Publisher: NBER

Volume ISBN: 0-87014-471-5

Volume URL: http://www.nber.org/books/unkn66-2

Publication Date: 1966

Chapter Title: The Role of Job Vacancy Data for an Active Manpower Policy

Chapter Author: Louis Levine

Chapter URL: http://www.nber.org/chapters/c1598

Chapter pages in book: (p. 49 - 71)

The Role of Job Vacancy Data for an Active Manpower Policy

LOUIS LEVINE
UNITED STATES EMPLOYMENT SERVICE

The current and lively interest in job vacancy information in the United States is closely related to the emergence of an active manpower policy and to the relatively recent passage of manpower legislation implementing this policy. Although there are obviously many interpretations of the meaning of an active manpower policy, one definition in its broadest sense is "those actions and programs which will produce the kind of labor force which can and will respond to the inevitable challenge presented by man's accelerating accumulation of knowledge." [1] Achieving this goal calls for manpower policies and operations which, among other devices, are ultimately designed to deal with employers and workers and their needs in a specific market place. Job vacancy information is part of a comprehensive occupational program which will provide detailed intelligence on the demand side of the job equation for improving the mechanism of the employment process.

Economists and historians generally attribute to the Employment Act of 1946 the social justification and legislative base for an active manpower policy in this country. Its passage gave expression to government assumption of responsibility for the achievement of maximum employment of the nation's work force as an accepted national goal. The outpouring of manpower legislation in the first

[1] Prepared statement of John F. Henning, Under Secretary of Labor, *Hearings Before the Subcommittee on Employment and Manpower,* Committee on Labor and Public Welfare, United States Senate, Eighty-Eighth Congress, First Session, Part 2.

half of this decade, matched in intensity only by the flow of social legislation of the thirties, reflected the fermentation of theory and experience in the postwar period in which the Employment Act of 1946 was the chief catalyst. Thus, the Area Redevelopment Act of 1961, the Manpower Development and Training Act of 1962, the Vocational Education Act of 1963, and the Economic Opportunity Act of 1964 all include provision for assisting workers to enhance their opportunities for employment, as part of the effort to attain the stated national goal of full employment.

The change in economic philosophy which occurred during the 1950's was in large measure specifically attributed to the persistently high unemployment rates in a period of generally rising gross national product, coupled with manpower shortages in certain occupations and industries. Initially, the tendency was to ascribe the high unemployment rate primarily to the growth of the labor force and to the effects of a rapidly advancing technology. The remedy for unemployment was more employment, and the major emphasis was upon measures to expand the number of available jobs.

In the resurgent periods that followed the four postwar recessions, unemployment not only continued at high levels but there was also a higher residual of unemployed after each recession. It became apparent that an increase in aggregate demand alone was an inadequate response to current needs. The impact of unemployment was not distributed equally throughout the labor force. Mass unemployment of the thirties had given way to class unemployment of the sixties. Looking behind the national aggregates and examining the component elements of unemployment made it quickly apparent that it was not a homogeneous phenomenon. Because of basic trends in the economy, unemployment rates among new entrants in the work force, displaced older workers, the unskilled, and nonwhite workers have been persistently and markedly higher than for the labor force as a whole.[2] Certain industries and areas have also developed problems of chronic unemployment. The 1963 Manpower Report of the President stated: ". . . changes are already evidenced in the increasing premium placed on skilled

[2] See Wilcock and Franke, *Unwanted Workers,* Urbana, Illinois, 1963.

labor, and the diminishing need for unskilled labor. New technology, along with shifts in consumer demands and defense needs, has resulted in obsolescence of some industries, plants, products, and processes, and has generated meteoric growth of others—with accompanying geographic dislocations as well." [3]

A clearly emerging development in the late 1950's and early 1960's was the need to improve the work preparedness of the labor force, of redressing the imbalance between demand for and supply of workers. Provision for occupational training in both the Area Redevelopment Act and the Manpower Development and Training Act implied both the preparation of the worker for employment, and an availability of employment for which he is qualified.

Early experience in the implementation of this legislation, however, indicated that there was a substantial group of unemployed whose educational deficiencies, motivational problems, or work habits severely limited their capacity to benefit from occupational training. In contrast with the Area Redevelopment Act of 1961 and the Manpower Development and Training Act of 1962, both of which provided for occupational training only, the 1963 Amendments to the Manpower Development and Training Act and the Economic Opportunity Act of 1964 provided not only for occupational training, but also for instruction in basic education and for counseling and other necessary services. This type of legislation represented a shift in our manpower policy from a reliance upon employment to that of "employability."

The emergence of interest in job vacancy information was the natural concomitant of manpower programs whose purpose was to identify job opportunities and to prepare workers for them. In earlier thinking on the collection of job vacancy data, the focus of interest was largely in terms of a single national index as a measure of full employment. Its formulation as an index or series was for the purpose of measuring national well-being and for initiating national programs and policies. Reflecting this composite approach, Sir William Beveridge said in 1945, "full employment . . . means always having more vacant jobs than unemployed men—not slightly

[3] *Manpower Report of the President,* Washington, D.C., 1963, p. XIII.

fewer jobs." [4] Even today, the British show, in published form, their total known vacancies against their unemployed as an index of manpower imbalances.[5]

In the United States, too, relatively recent economic theory on the definitional problems of full employment has been concerned with the use of national unfilled vacancies as a technique for measurement.[6] More recent interest, however, extends beyond a single national total to take account of vacancies in detailed occupations, industries, and areas, in order to implement an active manpower policy. Nevertheless, there are adherents to both camps, and the thinking which encompasses these circumstances is reflected in the following statement: "The present concept of the goal of full employment would require for its full implementation detailed statistics on the structure (occupational, geographic, sex, age, etc.) as well as on the over-all level of both job vacancies and unemployment. However, even if we had nothing more than national totals, we would still be able to judge whether or not existing unemployment was due to a deficiency of aggregate demand." [7]

Considerable information was available on the characteristics and distribution of the employed and the unemployed, the chief components of supply; but the major component of demand—job vacancies—remained a largely unknown quantity. In 1961, this gap was given expression by the President's Committee to Appraise Employment and Unemployment Statistics (Gordon Committee) when it reported that "it is doubtful whether any suggestion for the improvement of knowledge about the Nation's labor markets was more frequently voiced to this Committee than that calling for job vacancy statistics." [8] The Committee noted that the need for such

[4] W. H. Beveridge, *Full Employment in a Free Society,* London, 1944, pp. 18–20.

[5] *Ministry of Labour Gazette,* British Ministry of Labour.

[6] Albert Rees, "The Meaning and Measurement of Full Employment," in *The Measurement and Behavior of Unemployment,* Special Conference 8, Universities—National Bureau Committee for Economic Research, Princeton University Press for NBER, 1957, p. 36.

[7] Arthur F. Burns, "Economics and Our Public Policy of Full Employment," published in *The Nation's Economic Objectives: Roots and Problems of Achievement,* Chicago, 1964.

[8] *Measuring Employment and Unemployment,* President's Committee to Appraise Employment and Unemployment Statistics, Washington, D.C., 1962, p. 199.

information was becoming continually more acute and recommended that it should be obtained for operational, administrative, and analytical purposes.

The Congress, too, in establishing both the ARA and MDTA, provided that training must be conducted in those occupations where there was a "reasonable expectation of employment." This dictum, at least for those occupations requiring relatively short training periods, sanctioned in principle the determination of current job vacancies and the supply factors arrayed against them.

Interest in job vacancy data stemmed from other sources and circumstances. Lack of such information has given rise to a number of provocative questions among manpower analysts and economists seeking to unravel the factors causing dislocations in the job market. The expansionist school of economic thought, supported in part by the President's Council of Economic Advisors,[9] emphasized that much of our present unemployment may be thought to arise from a shortage of "aggregate demand." The expansionists emphasize a failure of capital investment to keep pace with earlier economic performance. Between 1953 and 1960, the population of the United States increased by 14 per cent. At the same time, GNP per capita showed an average growth of less than 1 per cent per year during this period. Similarly, the physical volume of industrial production in 1960 was only 19 per cent higher than in 1953, which meant that industrial output per capita had expanded only slightly more than one-half of 1 per cent per year during that time. The persistence of high rates of unemployment over long periods catapulted the rate of growth of the economy into a national issue. More rapid expansion in total demand for goods and services, the expansionists said, would result in new jobs to absorb the bulk of the unemployed. To achieve this objective, they advocate such things as easier credit, increased government expenditures, and lower taxes.

The structuralist school of thought, on the other hand, saw the principal cause of manpower dislocation in rapid economic and social changes which result in an imbalance of labor supply and

[9] *Poverty in the United States,* Committee on Education and Labor, U.S. House of Representatives, Washington, D.C., 1964, p. 18.

demand.[10] They point to the existence of hard-to-fill jobs at the higher skill levels and a concentration of unemployed at the lower levels of skill and education. Older workers, younger workers, and Negroes are denied job opportunities for a variety of reasons. Plants close down or move, leaving stranded communities in their wake. Job opportunities exist in the copper mines but not in coal mines; in the metal working centers of the Middle West but not in the cutover regions of northern Wisconsin and Minnesota. If these structural imbalances and rigidities were corrected, they say, the job market would be taking a long step in dealing with the unemployment problem.

Structuralists, particularly, would like to have information on a local basis for every unemployed individual and every vacant job. They advocate the improvement of vocational guidance and training programs and of job market mechanisms to match workers and jobs more effectively, relocation allowances to encourage greater mobility, youth job corps, and a number of other corrective techniques.

The divergent views evidenced by these two schools of thought point up some of the difficulties that arise in dealing with economic questions when insufficient knowledge is available. The two schools differ primarily in the emphasis and importance assigned to the various factors. Proponents of both agree, however, that information on job vacancies on both an occupational and local area basis, along with similarly detailed data on the characteristics of the unemployed, are essential for a precise definition of our unemployment problems. Analysis of these data would provide the basis needed to develop improved programs to combat the problems.

Among the more important claimants for job vacancy information is our public employment service system. The availability of such information is basic to its effective operation. Job vacancy information could improve the mechanism of the job market by facilitating the matching of workers and jobs. Frictions in the job

[10] Charles C. Killingsworth, *Hearings Before the Subcommittee on Employment and Manpower,* Committee on Labor and Public Welfare, U.S. Senate, Washington, D.C., 1963, Part 5, p. 1480.

market result in unemployment even when job opportunities are available. There were 3.5 million unemployed workers in December 1964 and 1.5 million of these were drawing unemployment insurance benefits. Reducing the duration of unemployment by just one week for only 5 per cent of these insured unemployed would, among other things, save more than $2.8 million in unemployment benefit payments—benefits financed by taxes on employer payrolls.

By providing a better insight into the nature of available job opportunities, the job vacancy program will assist the Employment Service in designing programs for the retraining of workers with obsolescent skills who have been adversely affected by automation and technological change. There are many unfilled jobs at the semiskilled and unskilled levels which should offer employment opportunities for the disadvantaged, "poverty" groups in our society. The program will also be useful in counseling younger workers and students and directing them to occupational choices which will provide better prospects for employment. The value of this program in carrying out the purposes of the Area Redevelopment Act, the Manpower Development and Training Act, the Vocational Education Act of 1963, and the Economic Opportunity Act, is self-evident. In fact, the collection and use of these data are fundamental to the role of the Employment Service in implementing its functions under an active manpower policy.

Existence of a job vacancy program should further help to improve the job market mechanism by stimulating employers to plan and take an organized approach to their manpower needs, just as they do in the rationalization of their production. Asking them to look at their vacancies should cause them to think about recruitment, formal on-job training, intraplant transfers, and a promotion-from-within policy. While in no wise denigrating the problems of the unemployed in the work force, there is a tendency to ignore the 95 per cent of those who are employed and to whom advancement within the establishment is a paramount need. Moreover, upgrading the employed would open more entry-level jobs to be filled by new or less qualified workers. One of the obstacles to absorption of new entrants into the labor force has been a sharp dwindling in

the entry-level jobs.[11] Thus, an expanded on-the-job training program by employers, to upgrade the skills of their workers, would serve the dual purpose of filling some of the hard-to-fill, more skilled jobs, and at the same time make available more entry-level jobs.

EMPLOYMENT SERVICE ROLE IN A JOB VACANCY PROGRAM

The Employment Service brings unique and important qualifications to the job vacancy information program and to its related operational uses for employability, training, placement, counseling, and employer services. Professor E. Wight Bakke, Director of the Labor and Management Center at Yale University and a leading manpower authority, in discussing the concept of an active manpower policy, commented as follows: "Since the beginning of World War II, no government group has contributed more in thought and experimentation to the development of the 'manpower policy' concept than the personnel and leadership of the Employment Service." [12]

The public employment service system is one of a handful of government agencies whose administrative structure and resources permit it to reach down, through its 1,900 local employment offices, to the grassroots of the nation's area manpower markets. Even among those agencies enjoying this fortuitous advantage, as for example the postal system or the benefit payment offices of the Bureau of Old Age and Survivors Insurance, none can match the professional resources of the USES and its affiliated state systems. By the very nature of its operations, the Employment Service is greatly concerned with occupational information. It is the progenitor and chief interpreter of the nation's most widely used occupational classification system; its *Dictionary of Occupational Titles* is the means whereby 23,000 different tasks are codified, organized,

[11] Louis Levine, "Changing Patterns in Manpower Training," in *Employment Service Review,* U.S. Department of Labor, Washington, D.C., August 1964, p. 3.

[12] E. Wight Bakke, "Employment Service Role in an Active Labor Market Policy," *Employment Service Review,* January-February 1964, Vol. 1, Nos. 1 and 2, p. 2.

and otherwise translated into a uniform mother-tongue for operational and statistical homogeneity.[13] In the local employment office reposes a near-total count of the community's unemployed, an indeterminate but large proportion of its job seekers, a close working relationship to the community's educational system, and, importantly for the job vacancy program, a personal relationship to the area's leading employers.

A job vacancy information program derives its essential meaning from its contribution to the employment process, which includes placement, training, counseling, and other manpower utilization techniques. The Secretary of Labor has taken a strong position on its priority and emphasis. He has insisted that, far from being a marginal objective, the use of these data for operating purposes is a central one. He elaborated by saying that he wanted a system of job vacancy information that would help place workers in jobs. If it could be worked out, he hoped that the system would, as a by-product, give us some useful economic data about the demand side of the job equation.

Ample precedent and practice exist for the primacy given to the operational uses of job vacancy information. In a study of twenty foreign countries which collect and make some use of job vacancy statistics, it was determined that by far the most important use of the program is job placement. All of the countries indicated they used the data for employee recruitment and placement. Another frequently cited use for job vacancy information was as a guide for establishing worker training programs.[14]

A job vacancy program achieves maximum utilization when implemented locally. The local public employment office has proximity and direct access to the forces that shape supply and demand, the employment process, and the emergence of job vacancies. Local office staff are aware of the competitive forces in the area job market, many of which are nonquantitative; for example, employment biases, working conditions, and "suitable" wages. A collection of figures by mail at a point removed from the local setting would

[13] *Dictionary of Occupational Titles,* Second Edition, United States Employment Service, Washington, D.C., 1949.

[14] William C. Shelton and Arthur F. Neef, *Foreign Job Vacancy Statistics Programs,* U.S. Department of Labor, Washington, D.C., December 1964, p. 20.

make it difficult, if not impossible, to assess these qualitative factors. To ignore them would be a disservice to both applicant and employer.

The usefulness of job vacancy information as a means of increasing the efficiency of the job market is closely correlated to the relevance of the data to specific areas, time, and characteristics. It is axiomatic that a broad mass figure frequently obscures, or entirely washes out, locally significant situations. What significance is the production of Christmas tree glass ornaments to the industrial pattern of the United States, or even indeed to the State of Pennsylvania? Yet, to Wellsboro, Pa., where one plant produces some four-fifths of the country's supply of this item, the concern is overwhelming. Even within the same occupation, hard-to-fill vacancies may exist in a few areas and pose no recruitment problem in a majority of the others.

Local processing of job vacancy data is desirable and, in some cases, necessary. The complexity of occupational detail permits local policing at a minimal cost. Conversion of plant occupational titles to standard *Dictionary of Occupational Titles* terminology, a major task under the present state of occupational reporting, can only be made possible by occupational analysts in the employment service system. The confirmation of many such classification decisions inevitably rests on direct consultation between employment service personnel and local employers.

The presentation of aggregate statistics on job vacancies, without modification, may be harmful. Organized labor, particularly, has been concerned about the possibility that a job vacancy program may indicate large numbers of vacancies, many of which are for jobs at substandard wages or working conditions. The collection of data at the local level by analysts familiar with the local situation permits a specialized evaluation of the results in relation to local wage patterns and working conditions. Similarly, a broad statistic poses the problem of a direct comparison between total vacancies and total unemployment, despite conceptual differences which still need to be resolved. Admittedly, the problem also exists at the local level, but the negative effect here is reduced by confinement to a local situation, where amplifying data are close at hand and thus less subject to misuse and abuse than otherwise.

Apart from other considerations, the placement process is a key element in Employment Service operations. In its matching of workers and jobs, the Employment Service must take account of job vacancies. Its social and legislative base for existence is an unqualified mandate to function as a labor exchange. To deny it access to job opportunities at the same time that it is charged with responsibility for registering and seeking jobs for the unemployed is to hobble its existence and to exacerbate the limitations in an already imperfect employment market.

A job vacancy information program can and should result in better services to employers. If the Employment Service has locally qualified applicants for existing vacancies, particularly when the job is hard to fill, the employer should be so informed and given the option of asking for a referral. Employers and local office staff can sit down together to discuss the factors affecting his competitive position in the job market, a practice that might well lead employers to improve their personnel and hiring practices. In addition, the vacancy program can increase the possibility of recruitment of hard-to-find workers through an interarea exchange of lists of available candidates; conversely, it can encourage the unemployed to seek jobs in areas where opportunities exist.

BACKGROUND OF JOB VACANCY INFORMATION COLLECTION PROGRAM

The need for job vacancy data for effective manpower operations has long been recognized by the United States Employment Service and its affiliated state employment services. As long ago as World War II, and later during the Korean conflict, pilot programs were initiated for the collection of job vacancy data in major metropolitan centers, in anticipation of possible area-wide manpower shortages. While these programs were discontinued after the end of hostilities, job vacancy data have been collected since that time on a voluntary basis by some fifteen state employment security agencies on a statewide or area basis, but in all instances except Michigan, without any occupational breakdown.

In 1951, however, the collection of job vacancy information was in a very rudimentary state of development, and prospects for ob-

taining these data seemed remote indeed. Thomas K. Hitch in his paper on the measurement of full employment said, "This practical definition of a maximum employment goal does not raise the often debated question of the proper balance between unemployment and job openings in a state of maximum employment. Such debate is largely sterile because there is no measure now, nor will there probably ever be a satisfactory measure, of job openings." [15]

Research in the area of job vacancy information has also been conducted by the Bureau of Labor Statistics. A survey made in 1956 to determine whether individual establishments keep job vacancy records indicated that employers do not keep records of vacancies which are comparable in accuracy or detail to their payroll records, and that the job vacancy data they could furnish (at that time) would not be equal in quality to that obtained in the employment statistics program.[16]

Since 1963, interest in a job vacancy information program in this country has grown rapidly, partly as a result of the report of the President's Committee to Appraise Employment and Unemployment Statistics, but also because the Employment Service has been increasingly viewed, under manpower legislation passed in the first half of the 1960's, as a manpower service agency, responsible for the development of occupational training programs geared to labor demand. In addition to the continuing pressures arising from the Gordon Committee Report, the Senate Subcommittee on Employment and Manpower (Clark Committee) and the House of Representatives Select Subcommittee on Labor have specifically urged the collection of such data as a tool to ameliorate the problem of unemployment.[17] President Johnson, in his press conference on August 8, 1964, approved a recommendation that an active program of experimentation and collection get underway immediately. The Secretary of Labor set a high priority on its early and

[15] Thomas K. Hitch, "Meaning and Measurement of 'Full' or 'Maximum' Employment," *The Review of Economics and Statistics,* February 1951.

[16] President's Committee to Appraise Employment and Unemployment Statistics, *Measuring Employment and Unemployment,* Washington, D.C., 1962, Appendix B, "A National Statistical Program on Job Vacancies," pp. 271–281.

[17] U.S. Senate, *Hearings Before the Subcommittee on Employment and Manpower,* and U.S. House of Representatives, *Hearings,* Select Subcommittee on Labor, Committee on Education and Labor, Washington, D.C., 1964.

successful conclusion. The Council of Economic Advisers, the Governors of New York, Illinois, and California, the National Bureau of Economic Research, academicians, economists, columnists, and a host of others have uniformly pointed out the desirability of obtaining such information.

In response to this widespread demand, as well as to meet its own needs, the USES initiated a program of pilot job vacancy studies, in cooperation with state employment security agencies, to determine whether vacancy information, by occupation, could be collected on an area basis. The first pilot study, designed to test the feasibility of collecting job vacancy data by detailed occupational classification, was conducted in the fall of 1963 by the Illinois Bureau of Employment Security, at the request of the Governor's Committee on Unemployment and in cooperation with USES staff. This feasibility survey covered sixty-two firms in the Cook County sector of the Chicago metropolitan area.[18]

In planning the Chicago feasibility survey, employers were asked not only whether they maintained formal job vacancy records, but if they did not, whether they could provide vacancy figures anyway. If the answer to both questions was negative, the questionnaire probed further, trying to establish or identify some process, such as a telephone call or a route slip, which could provide the vacancy information.

Among the more important findings of the Chicago survey were: (1) the collection of job vacancy data by occupation appears to be feasible; (2) only about one-fourth of the employers maintained formal job vacancy records, but four-fifths of the firms interviewed indicated that they could provide a listing of all vacancies, by job title, on a continuing basis; (3) a large proportion of the employers reported that they could identify "hard to fill" job vacancies; and (4) there was some confusion on the part of employers with respect to terminology, e.g., the term "job vacancies" was not familiar to some of them, and many employers were uncertain whether to include vacant part-time jobs or jobs vacant only a short time in their report. A complete report on this feasibility

[18] Elizabeth J. Slotkin, *Feasibility Study of Problems in the Collection of Data on Job Vacancies,* Illinois Bureau of Employment Security, March 1964.

survey is the subject of Elizabeth Slotkin's paper, presented in this volume.

While the Illinois study tested the collection of job vacancy data by occupation from a relatively small sample of employers, a second survey in Buffalo (conducted by the affiliated New York Division of Employment in cooperation with the Buffalo area Chamber of Commerce) sought to determine the possibility of compiling such information on a mass basis for a major industrial area. A Chamber of Commerce mailing list, used as the basis for the Buffalo survey, covered some 2,700 establishments employing a total of over 150,000 workers.

The Buffalo survey revealed basic flaws in the then current definition of a job vacancy. It also indicated that a high employer response for a new program, particularly in a large area, was difficult to achieve without a personal visit to the employer to explain its objectives, or extensive publicity, or both. On the other hand, it did prove of considerable value for the establishment of training courses.

An experimental program of job vacancy surveys on a far more ambitious scale, taking into account the knowledge gained from the Chicago and Buffalo experiments, is now being conducted by the United States Employment Service and its affiliated state agencies in cooperation with the Bureau of Labor Statistics. The surveys are designed to provide detailed data on a current basis—by area, industry, and occupation—on unfilled openings in individual establishments, and the kinds of skills needed to fill these jobs. Many of the country's largest employment centers—New York, Chicago, Los Angeles, Philadelphia, Baltimore, Milwaukee, and Minneapolis-St. Paul—are included in the group of pilot areas. A number of small and medium-sized areas—Kansas City, Miami, New Orleans, Portland (Oregon), Providence, Charleston (S.C.), Charleston (W.Va.), Richmond, and Birmingham—are also included to assure the representativeness of the survey in terms of geographical dispersion, industrial characteristics, and the nature of employment conditions. Altogether, the sixteen areas account for about one-fourth of the nonfarm employment in the country.

The primary focus of the experimental program is on helping to

reduce unemployment by using job vacancy data as a basis for a more effective matching of workers and jobs. The job vacancy data are being used to supplement existing information on training opportunities and for counseling and guidance. Techniques for increasing worker mobility may be a practical end result. The possibility of using such information for broad economic and manpower research will also be explored. The information on job vacancies collected from employers will also be compared with existing employment service operating data on the skills of the unemployed and the nature of employer job openings given the local employment office. Information on wage rates offered for job vacancies, on part-time and temporary openings, and on the duration of the vacancies, is being collected as part of the program in some areas.

PRELIMINARY FINDINGS OF SIXTEEN AREA SURVEYS

As of the close of January 1965, relatively complete results of area-wide job vacancy studies had been compiled and submitted by four areas—Birmingham, Milwaukee, Portland (Oregon), and Providence. These areas had initiated their experimental surveys in October 1964. The completed studies are historically significant as the first successful attempts to collect such information for detailed occupations in large metropolitan areas, permitting the inflation of results to a universe basis.

In addition to these four areas, seven others initiated their collection programs during November 1964. While the final results are not yet available, information has been submitted by these areas on the employer response rate and other limited types of data.

Both of these cohorts of information form the background for a number of preliminary observations, subject, of course, to the usual caveats attendant on early and unevaluated data.

Perhaps the most important finding is the fact that a job vacancy information program in the United States can be designed and made operationally useful. That more technical work has to be done cannot be denied. The parameters of job vacancy information in an area have yet to be defined. Application of the data to operations in the Employment Service and elsewhere, while obviously useful,

is still in its earliest stages, with realization far short of its potential.

Employer response exceeded expectations. Of the first four areas conducting their surveys in October, and an additional six conducting their surveys in November, eight areas reported an employer response of approximately 80 per cent or more. Three of these areas indicated response rates of 95 per cent or better! In the two areas where the response rates were 63 and 70 per cent, there were extenuating circumstances which accounted for the lower participation. It is worth noting that this experience was remarkably close to the findings of the Chicago feasibility study, which indicated that four-fifths of the employers could provide a listing of all vacancies, by job title, on a continuing basis.

Some questions have arisen concerning the role of the Employment Service in attempting to service employers on their reported vacancies. The Secretary of Labor has clearly indicated that the job vacancy program will not, and cannot, be used to alter the traditional voluntary nature of the public employment service. "Employers will not be sent any workers by the Employment Service merely on the basis of information they are asked to provide under this new program. As in the past, worker referrals will be made by the Employment Service only in response to a specific employer request." [19] When requested, the Employment Service will attempt to service employers; this is its traditional role. The Chicago feasibility survey, which so accurately predicted the extent of employer response, also indicated that some 90 per cent of the employers would have no reluctance in giving job vacancy information to the Employment Service. While no mention was made of subsequent job follow-up in the questionnaire, the result does indicate a high degree of rapport between the local employment office and the local employer.

Approximately one in four establishments reported one or more vacancies. Specifically, in six out of ten areas the percentage of establishments with vacancies ranged between 20 and 30. Among the

[19] Memorandum of Secretary of Labor W. Willard Wirtz to all employers, dated December 16, 1964.

other four, it ranged from lows of 12 and 19 per cent to highs of 34 and 35 per cent.

The information on job vacancies is useful for identifying shortage occupations and establishing training courses. A significant number of the vacancies have been unfilled for at least a month, providing clues to ARA and MDTA of training and vocational education opportunities. Among those hard-to-fill vacancies which are common to all four cities are: registered nurses, draftsmen, laboratory technicians, physical therapists and licensed practical nurses, stenographers and typists, machinists, tool and die makers, machine shop and related workers, and mechanics and repairmen. There are also many local hard-to-fill vacancies, depending on the nature of the local economy, such as occupations in textiles, clocks, watches, and jewelry, foundries, and lumber products. In reviewing the pattern of vacancies among the areas, it was clear that any total figure would mask variations occurring from one area to another, and that combined data would be of limited usefulness to the extent that these local data were obscured.

There appear to be occupational opportunities for the disadvantaged, for which short-term training courses may be indicated. This observation is particularly timely as administrators begin to appraise and implement the Economic Opportunity Act, and indeed all earlier legislation in the training field. While such hard-to-fill job opportunities were not too numerous, there was, nevertheless, a significant number in semiskilled and unskilled occupations. Among these, for example, were: chainmen and rodmen, lumbermen, foundrymen, and a series of occupations in local industries including textiles, confections, plastics products, metalworking, and watches and jewelry. These findings have not been evaluated as to the part played by wages, working conditions, and seasonality in making these jobs hard to fill.

The vacancies listed are obviously influenced by seasonal and cyclical factors. The highest percentage of vacancies for the four areas conducting October experiments occurred in trade, which undoubtedly reflected preseason Christmas hiring, and in durable goods industries, which represent that segment of the economy

responding most vigorously to the business upswing. While this observation is not surprising, it does indicate that historical series of job vacancies will have to be compiled before the maximum advantage can be derived from their collection and interpretation.

The Employment Service demonstrated that it has the technical resources to handle mass data collection of occupational information with plant title nomenclature and to convert them into standard *DOT* terminology. Literally thousands of employer titles were coded on a five- and six-digit basis, and these in turn were compressed into three-digit occupational groups for reporting convenience. The number of such groups approximated 100 in Birmingham and reached almost 200 in Milwaukee. Proximity to the employer was an invaluable aid in those instances where clarification was necessary.

A paramount objective of the experimental design is to gain insight into the extent of structural unemployment, as reflected in the matching, or mismatching, of available skills and available jobs. The vacancies, of course, represent the demand side of the equation. The active file of registrants in the local employment office represent the supply side. Results of the comparison clearly illustrate the imperfect balance between needed and available skills. On a broad occupational basis, for the first four areas, the most conspicuous imbalances occurred in the skilled and semiskilled groups. The relative number of skilled vacancies was twice as large as the proportion of skilled among the unemployed; moreover, the number of such vacancies was actually larger than the number of workers registered and seeking work. When it is recognized that many of those registered may already be working, or only marginally skilled, the relationship achieves even a greater imbalance. As might be expected for the occupational array, there was an inverse relation between level of skill and extent of supply. These data on a broad occupational grouping are only suggestive of the nature of the problem. Operational usefulness is predicated on a matching of specific skills, and the data illustrate that such a comparison results in even greater disparities.

A prime objective of the Employment Service in the experimental job vacancy program is to explore its penetration of the job market,

as reflected in the relation between existing job vacancies and job openings obtained by local offices. The public employment service received and handled more than 8 million job openings in 1964. Preliminary data from three areas, as well as those from other studies [20] suggest that job openings given to the Employment Service represent about one-fourth of the total new hiring activity in an area, exclusive of orders for domestics. This statistic on the degree of acceptance of the Employment Service may be understated, in view of the fact that local employment offices receive "open" orders from employers, particularly in those instances where occupations are hard-to-fill; open orders are a listing for one or a few openings, with the instruction that if additional workers are available, they may be referred against that same order.

The job openings which the Employment Service receives, based on broad occupational groupings in only three areas, appear to be a cross-section of the vacancies in the area with the exception of skilled workers. This comparison is made on the basis of the exclusion of domestics from both the job vacancy and job openings distribution. The number of openings for skilled workers in the Employment Service was only one-half the relative proportion this group comprised of total vacancies. The imbalance may be due to the fact that employers are more apt to seek skilled workers through union halls, or because the current shortage of many types of skilled workers discourages employers from seeking them at the local employment office. Also based on this limited sample, the Employment Service had a large representation of job openings in the professional and managerial group.

About half the total vacancies in the four areas were considered hard to fill, that is, they were still vacant following a month's recruitment effort by employers. It was not unexpected that the proportion of hard-to-fill jobs was higher among professional, managerial, and skilled workers. Somewhat surprising, however, was the difficulty in filling a relatively large number of jobs in the other occupational groups. Concerning the latter, the results are still

[20] Studies analyzing hiring channels were conducted by state employment security agencies in eight areas to determine employer recruitment and worker job-seeking channels.

unevaluated with respect to the part played by wages and working conditions.

Perhaps least satisfactory has been the experience of the Employment Service in the initial surveys developing job openings and making placements for the reported job vacancies. Several factors accounted for this in the four areas on which this observation is based. Perhaps the outstanding restrictive factor was that the program was new, with the main effort, as a practical necessity, directed toward the collection of the data rather than toward implementation of its operational aspects. In addition, a significant number of the vacancies were already in the job order files of the Employment Service, and the state agencies were asked to exclude these jobs in making a count of their follow-up efforts. Many of the reported vacancies were hard to fill, further limiting the success of referral and placement. There may be some implication that the Employment Service receives an undue proportion of the hard-to-fill jobs. This avenue of inquiry will be explored in subsequent studies. A number of jobs were reported for civil service workers; these could not be readily filled because of the long lead time involved. Other jobs reported as vacancies could be filled only through the union. One area reported that a large number of vacancies in one of their major industries reflected a seasonal peak demand when such workers were difficult to obtain. Other areas reported that, because so many of the jobs were hard to fill, there was not enough time allowed in the experimental design for job development and follow-up. Other jobs, of course, were filled before the Employment Service representative was able to make contact with the employer.

For a more detailed discussion of the technical background and preliminary findings of the experimental pilot surveys, I refer you to two other Department of Labor papers by Irvin Wingeard and Vladimir Chavrid in this volume.

CONCLUSION

In view of the useful results of this work and the widespread interest and need, the Employment Service, with the technical collaboration of the Bureau of Labor Statistics, plans to continue the

job vacancy program on an experimental basis in fiscal year 1966. Contact with employers in most instances will be made by local Employment Service personnel, assuring prompt processing of data, personalized service when requested, and local familiarity with competitive manpower developments in the area.

From an operations point of view, the Employment Service will use job vacancy information to facilitate a more rapid matching of jobs and workers in the communities where vacancies exist. It will harness the information to interarea recruitment operations, advising applicants of employment opportunities in other areas, and thereby increase worker mobility. A primary application of the data will be for the development of local manpower training programs and for the counseling and guidance of the unemployed. Finally, the Employment Service will assist employers in planning their own promotion and training programs in the light of immediate or anticipated occupational shortages.

A statistical spin-off will hopefully be obtained from the job vacancy data that will permit its use for economic and manpower research. The area surveys in the pilot program are predicated on a sample of a substantial proportion of the area's employment. These figures are subsequently inflated to a universe of job vacancies in the area on a three-digit occupational basis and, separately, on a major industry group breakout. Examination of the initial results indicates that much needs to be done to achieve greater reliability in the sampling stratum of smaller units, but this does not appear to impose unusual difficulties.

There is no indication at this time whether an index of job vacancies, if obtainable, would fall into the category of a leading or coincident indicator. According to the report on *Business Cycle Developments,* in which the classification of indicators are those designated by the National Bureau of Economic Research,[21] the series on accession rates is considered to be a leading indicator but the index of help-wanted advertising in newspapers is classified as a coincident indicator. Geoffrey Moore and Julius Shiskin, in a paper before the American Economic Association meeting in Chi-

[21] *Business Cycle Developments,* U.S. Department of Commerce, Bureau of Census.

cago, December 1964, suggested that Employment Service unfilled job openings may be classified as a leading indicator. Regardless of how the index of job vacancy data is classified, it is bound to add to the knowledge and understanding of local economic phenomena because of the paucity of reliable occupational data at the local level.

The United States Employment Service will summarize the data for the metropolitan areas. Reporting requirements will insure an orderly and continuing flow of area data to Washington for processing and subsequent publication, probably on a quarterly frequency. There is a presumption that such information will be summarized first at the local level. Media and channels already exist for the dissemination of local manpower information, and these will be utilized to include the anticipated flow of new materials.

The initiation of job vacancy surveys is an outgrowth of an active manpower policy. In turn, the job vacancy data will help shape our active manpower policy because, to be meaningful and responsive, this policy must be dynamic and kept abreast of current manpower developments. The pilot job vacancy experimental surveys demonstrate that the collection of such data is technically feasible and operationally useful. Implementation of the operating and statistical aspects of this major milestone only await legislative sanction.

Advancement and extension of the job vacancy surveys represent a much needed step toward the analysis and diagnosis of job market behavior and the administration of job market forces designed to achieve maximum development and utilization of manpower resources. This is a natural outgrowth of the increasing awareness and acceptance of the need for an active manpower policy in the United States. The large volume of newly enacted manpower legislation since 1961 in the fields of education and training, employment and unemployment of manpower resources, and occupational rehabilitation, makes a more comprehensive knowledge of job vacancies on a detailed occupational and geographic basis an absolute necessity. Much of the manpower emphasis in recent years has been devoted to the supply side of job market problems. It now becomes

increasingly important to direct attention to the demand side. In the final analysis, employability must lead to employment. The real test of effectiveness of recent manpower legislation will be in terms of jobs. One of the outstanding results of the pilot job vacancy surveys has been to reveal the imbalances between the kinds of jobs which remain unfilled and the skills of the available labor force.

As greater emphasis is given to providing manpower assistance to the economically disadvantaged and educationally and culturally deprived sectors of the population and labor force, the importance of job vacancy information increases. For numerous operations it is needed not only by occupation and locality but by specific establishment. Over a period of time, information can contribute greatly to the job market operations research of the public employment service, to the training and competence of employer service representatives, and to the improvement of manpower services to employers.