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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: Comments on "Collection and Use of Job Vacancy Data in the Netherlands"

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Chapter URL: <http://www.nber.org/chapters/c1607>

Chapter pages in book: (p. 306 - 327)

## Comment

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The differences in the amount of use made of job vacancy data in the countries represented at this session probably arise from a number of sources, for example, from differences in the extent and quality of the information available, from differing policy needs, degrees of enterprise, initiative, and facilities in research in the government and elsewhere. But on reading the papers, I found myself wondering whether some of the difference stemmed from differences in national temperament. I propose this hypothesis not entirely in jest. There was such a wide range in the *tone* of the papers. The most cautious—or is it prudent?—was the Canadian. The Dutch and Swedish were coolly skeptical. The Japanese was brisk, efficient, and comprehensive. The French was the most assured and sanguine. The relation between national temperament, statistics, and empirical research is a fascinating one. But I shall resist the temptation to explore it further—another example, perhaps, of Canadian cautiousness.

What I propose to do instead is review briefly the difference in the degree to which the major potential uses of job vacancy statistics are exploited in the five countries surveyed here and try to suggest some reasons for this variation—apart from national temperament, that is.

The major uses may be described as operational, i.e., use in the placement activities of the employment service; and analytical, i.e., use, in conjunction with other data, as barometric or diagnostic indicators of the economic environment. The main purpose of such analysis, whether carried on inside or outside the government, is to provide some guidance to (or assessment of) policy, either of a general, demand-oriented or a specific, market-oriented type. The use of job vacancy or related data as a guide to policy by private organizations such as companies or unions should perhaps be mentioned to complete this list, but there is very little information in these papers on this aspect of utilization.

In making a review of intercountry differences in the use of these data, it is helpful to distinguish between operational statistics, i.e., statistics derived as a by-product of the administration of the employment services and vacancy or surrogate data which are collected by means of direct surveys of one type or another. By definition, of course, all countries which collect operational statistics exploit—although with varying amounts of success, exertion, ingenuity, and hardware—the first use, i.e., placement. It is difficult, in the absence of fuller comparative information, to comment further on this aspect. However, insofar as analysis is concerned, there is considerable variation in the degree to which the operational data are used in the five countries and evidently some rather wide differences of opinion regarding the *appropriateness* of such data for analytical purposes. The collection of nonoperational data seems almost to presuppose its use for analysis.<sup>1</sup> Thus Sweden, which, so far as one may judge from these papers, seems to head the list as an analytical user, also collects the widest range of nonoperational data in this area.

In Sweden, Holmberg reports, it was found that the operational data “could only be used as a *very rough* indicator of fluctuations in demand for labor (and *possibly* also as an indicator of differences in demand between various parts of the country)” (emphasis added). This “made it obvious that specific information was necessary as regards labor shortage” and other matters, for example, “the effects of labor mobility on demand.” The Swedish operational data are thus supplemented by information derived from a number of sources—the Shortage Surveys, the compilations from the Iron Mills Association, the Business Tendency Surveys, a number of special investigations concerning professional and technical personnel, and inquiries made by the County Labor Boards.

All this information, in addition to the operational data, is used in the analysis which guides the government’s general employment and specific labor market policy decisions. It is interesting to note that despite—or perhaps because of—this wide experience in the collection and use of vacancy and related data, the Swedes appear

<sup>1</sup> Not entirely, however, since such data may also provide a means of improving the operational information and the placement activity.

to be exceedingly skeptical about the value of much of this information. Thus Holmberg states: "Discussions and investigations have gradually made the demand concept clearer—with the result that this concept is no longer considered to be one that can be determined statistically." In the Swedish context this statement may have, in some respects, different implications than it does in North America. An employer operating for many years in a shortage labor market is induced or compelled to substitute less scarce for more scarce labor whenever and however he can. One important type of substitution in Sweden, as Holmberg has pointed out, is female for male labor.<sup>2</sup> The substitution, to some extent, "masks" the impact of demand changes on specific labor force groups. There is an interesting parallel here with the situation on the supply side of the market. The impact of declines in demand for specific groups may be masked by interoccupation or interindustry shifts of the unemployed or by movement out of the labor force entirely.

Japan is another country that has exploited the analytical use of vacancy data rather extensively. In Japan, however, in contrast to Sweden, the principal source of data for labor market analysis is the operational series. However, some important supplementary information is provided by the mobility studies, the establishment surveys of skilled workers, and the elaborate data on turnover. It is pointed out that "the series on job vacancies and labor shortages have been widely used by government officials, scholars, and journalists in analyzing the structural changes occurring in the Japanese economy and labor market," as well as for the analysis of unemployment, underemployment, and inflation. The operational data are evidently considered reasonably adequate as measures of both the level and composition of demand. The skepticism expressed by

<sup>2</sup> The shortage of male labor stimulates the demand for female labor, which in turn induces an increase in female participation rates. This clearly demonstrates the interdependence between demand and supply in the labor market, and considerations of this sort provoked Holmberg's surprising—to North Americans—statement that "the conceptual and technical difficulties of measuring demand and shortage in the labor market seem minor compared to those of measuring supply and unemployment." An analogous situation, providing an example of interdependence of demand and supply, characterizes the North American market in that persistent demand deficiency is alleged to have induced labor force withdrawal, and attempts to measure "hidden unemployment" have sought to quantify this aspect of "labor supply."

Holmberg is not apparent in the Japanese paper. Moreover, it is noted that, "given refinements of the data, which would further the confidence of the Economic Planning Agency in them, it can be anticipated that the series on job vacancies would play a *central role* in national economic forecasting as well as in the formulation of specific labor market policies" (emphasis added). One of the refinements which is of considerable importance is the addition of some occupation information since, as the authors point out, one of the most serious limitations of the PESO data is the absence of classification by occupation. It is significant that, at least until very recently, the Japanese labor market has been characterized—in the large-firm sector—by virtually a single "port of entry" (because of the lifetime-tenure arrangement), and under such circumstances occupational attachment would be of little or no consequence. As the "external market" broadens, however, occupational differentiation will become more meaningful, and this is evidently what is beginning to happen now as the traditional *Nenkoh* system is coming under pressure as a consequence of tight markets and structural change.

The situation in the Netherlands is again different. By far the larger portion of Niesten's paper is devoted to an exposition of the severe limitations of the operational data for analysis. The criticisms are very similar to those in the Swedish paper. I was not sure from reading Niesten's paper whether or not the operational data are used for analytical purposes; but if they are so used, such use is not extensive. It appears, rather, that the special labor shortage estimates provide the main source of analytical information. These estimates are used not only as a basis for labor market analysis and policy but also as a means of evaluating the operational data. We are not told of any difficulties encountered in defining and measuring shortages. Since this is a problem of some considerable magnitude, it would be interesting to learn something of the procedures adopted. Further, it would also be most helpful to have a description of how frictional unemployment is estimated in the Netherlands. The estimate of frictional unemployment is used, along with the data on shortages, to derive total vacancies.

The main French vacancy data today are an operational series.

As such, however, they differ from those of the other countries in that there is a legal obligation of employers to notify the employment services of all vacancies. Theoretically, then, coverage should be complete. In fact, as is pointed out by Chazelle, such is not the case. Unfortunately we are given no estimate of the "statement error" which was revealed by the Algerian repatriation effort. It would be interesting to have some notion of what difference, in terms of coverage, compulsory notification actually makes. It is not entirely clear whether the statement error is considered to fluctuate cyclically or not. Thus, M. Chazelle remarks early in his paper that "the error [representing the difference between the registered and actual demand for employment] appears to be nearly stable." But prior to this he has stated that in periods of underemployment employers tend to more direct hiring and in periods of overemployment they "become accustomed to no longer relying upon the labor bureaus. . . ." Is the implication, then, that the statement error is somehow the same in these two situations, although for different reasons? If so, this would be quite unlike the experience of most other countries. In any case, he does point out that coverage varies significantly from region to region.

Coverage and other problems notwithstanding, the French operational data are put to considerable analytical use. The raw data (i.e., without seasonal adjustment) have "considerable value" in labor market analysis at the aggregative national, regional, and occupational levels. The deseasonalized series have been found to be "a valuable prediction index of the fluctuations of the business climate."

Finally, it is of some significance that the experience derived from the Algerian repatriation—a most impressive and probably unique example of placement activity—has stimulated a demand for non-operational data. It might be noted that, unlike the situation in Sweden and the Netherlands, for example, it was not the deficiencies of the operational data for analytical purposes which revealed the need for nonoperational sources of information but rather the weaknesses of the operational data in the face of a most severe operational test which acted as the spur.

Like the French, the Canadian vacancy data are operational

statistics. It is true that the semiannual establishment survey of hiring and separation rates does provide some additional information on a vacancy count, but these data are used only for operational purposes. Further, the hiring rates are used, along with information on the numbers of paid workers, to estimate total hirings and, from these, penetration ratios. This, again, is an administrative use. In Thomson's words, "the principal use of data derived from the Semi-Annual Report is as a management tool in the operation of the NES." The Canadian statistics, then, both operational and nonoperational, are used almost entirely for operational purposes. The NES itself makes some limited analytical use of these data, but it is difficult to assess this activity because none of these studies is published. Certainly it is fair to say that there is no widespread use of vacancy data for analytical purposes in Canada, either within or outside the government. Of the five countries surveyed here, Canada exploits least the analytical use of these data.

Thomson describes very fully and convincingly the deficiencies of the Canadian data for analytical purposes. Canada, it is true, has some special problems in this area, particularly those relating to the economic geography of the country. But the list of criticisms is familiar, resembling in many respects that contained in the Swedish and Dutch papers. Yet the shortcomings of the statistics have not served to inhibit analytical use in these countries—to say nothing of Japan and France—to nearly the same extent as they have in Canada. This is one of the points I hope will be raised in discussion: How great is the variation in "quality"—in this limited sense of appropriateness for analytical use—among these countries? Or, to put the question differently, should this session be renamed the "use and misuse of job vacancy data in various countries"? I have attempted to estimate the "statement error" in Canada (Table 1) and hope this may provide some basis for comparative analysis although, of course, there are many other difficulties in using the operational data apart from incomplete and fluctuating coverage.

Perhaps the degree of analytical use of vacancy data has very little to do with variations in quality. It seemed to me, in reading these papers, that two factors are important in this regard: the

economic environment and the extent and nature of government employment policy—the two are, of course, not unrelated. A great stimulus to both analytical use and the collection of nonoperational data is persistent labor shortage—a condition which is also a great spur to labor market policy. At high levels of employment, the

TABLE I  
 "Statement Ratio," Vacancies Notified as Percentage  
 of Total Hirings, 1949-63

Year	Vacancies Notified <sup>a</sup> (thousands)	Total Hirings <sup>b</sup> (thousands)	"Statement Ratio" (per cent)
1949	1,027	2,807	36.6
1950	1,164	3,128	37.2
1951	1,332	3,528	37.8
1952	1,310	3,468	37.8
1953	1,289	3,275	39.4
1954	1,088	3,090	35.2
1955	1,233	3,422	36.0
1956	1,426	3,897	36.6
1957	1,120	3,646	30.7
1958	995	3,277	30.4
1959	1,176	3,571	32.9
1960	1,129	3,483	32.4
1961	1,306	3,534	37.0
1962	1,555	3,783	41.1
1963	1,447	3,894	37.2

<sup>a</sup> DBS, *Canadian Statistical Review* (from *Statistical Report on the Operation of the Unemployment Insurance Act*).

<sup>b</sup> Annual hiring rates (DBS, *Hiring and Separation Rates in Certain Industries*) times paid-worker total (DBS *Labour Force Survey*).

unemployment statistics constitute less and less meaningful sources of economic intelligence, and the need for other sorts of data grows correspondingly greater. At high levels of employment the Phillips curve threatens to become perilously steep, and effective utilization of scarce manpower almost becomes a necessary condition for survival in a competitive world. Four of the five countries surveyed at this session have operated against a background of persistent and in some cases severe labor shortage in recent years. The exception is Canada—an exception, too, in its rudimentary use of vacancy data for analysis and its limited excursions into labor market policy.



However, persistent labor shortage may not be a necessary condition for stimulating interest in the use and collection of vacancy data. In Canada the structuralist controversy of recent years appears to be having a similar, if belated, effect. Thus one of the first studies undertaken by the recently established Economic Council concerned the nature and sources of post-1957 unemployment. The first Annual Report of the Council, issued in January 1965, came down firmly on the antistructuralist side—and just as firmly in favor of a greatly expanded use of labor market policy instruments. Among its strongest recommendations in this area was that relating to the improvement and extension of labor market information and the expansion of its analysis.

ADOLPH STURMTHAL, UNIVERSITY OF ILLINOIS

A systematic comparison of job vacancy statistics in the different countries now using them might be of considerable interest. It is, however, indispensable that such a comparison be made in full understanding of the conditions under which the different labor markets operate. I have not made such a systematic comparison, but shall limit myself to a few points.

In the papers presented to us we find references to a distinction between frictional and structural vacancies. The first type is of a highly temporary nature, the second consists of the hard-to-fill vacancies. Only the latter are described as "true vacancies" according to the Dutch. French statistics, on the other hand, eliminate reported job openings after fifteen days; they limit themselves thus to frictional vacancies. This distinction among the various kinds of vacancies relates to the period of time that is required to fill them. This period will depend upon difficulties of obtaining information; difficulties of mobility for jobs and labor, including occupational mobility, which may in turn involve training and education; and third, a number of institutional arrangements. I shall discuss some of these institutional hindrances later and use for that purpose the Meij-Dunlop concept of the internal and external labor markets. Many other distinctions are of course possible.

It would appear that for operational purposes, in the narrow sense of the word, i.e., job placement, we are concerned with all types of job vacancies including the short-term vacancies. For general economic policy making or analysis—which includes diagnosing the general situation on the labor market, measuring excess demand in the labor market, using job vacancies as lead indicators of the phases of the business cycle—we are less interested in the “frictional” vacancies, than in those of a structural nature, i.e., the long-term and very long-term vacancies (including presumably expected vacancies for a certain period).

It is, of course, understood that vacancies have little meaning, or ambiguous meanings, except by reference to a given wage (and fringe benefit) level and given working conditions. I am not sure whether an evaluation of reported job vacancies in the light of this requirement occurs in every one of the countries maintaining job vacancy statistics.

Since institutional handicaps to mobility—in the most general sense of the word—are so important for the functioning of the labor market, consideration of the structure and nature of the internal labor market is vital for an understanding of job vacancy statistics. What matters in particular is the impact which the internal labor market has upon the external market, especially upon the processes of hiring and firing.

In these respects, many Western and Central European labor markets function quite differently from our own. This results not only from the long-term situation of full employment now existing in almost all of these countries. The differences I am referring to preceded historically the tight labor market that now exists and indeed may have resulted to some extent from the long-term unemployment prevailing during the interwar period. Roughly, and with the usual cautions regarding the accuracy of sweeping generalizations, this situation may be summarized as follows. Temporary individual layoffs are rare on the Continent, certainly less frequent than in the United States. Mass layoffs of an indefinite duration involve considerable problems. It is customary for a firm to notify authorities long in advance of its intentions to lay off a considerable number of employees. Public opinion strongly reacts against mass

layoffs. At times and in some countries, reaction has been so strong that mass layoffs for an indefinite period proved impossible. In some countries they are legally admissible only after prior consultation with the Workers Council. The Councils and the unions seem to be more ready to accept generalized shorter hours than individual layoffs. Their interest seems to be directed more toward preserving the aggregate number of employed than the aggregate number of hours worked. Another method of dealing with a reduction of business is a temporary closing down of the entire plant. For instance, in December 1964, the Alfa Romeo automobile plant in Italy was closed down for twenty-four days. There is also less formal emphasis on seniority. Social considerations—size of family, age—enter into the choice of those to be laid off when individual layoffs occur.

As a result, business recessions express themselves more often in generalized shorter hours than in separations. One of the consequences of this is that a subsequent expansion may proceed for some time without any significant hiring; an increase in the average number of hours worked per employee may suffice for at least the first phase of economic expansion. Temporary closing down of the entire operation has again a different impact upon job vacancies. Employers have more latitude in selecting—within the limits of the substitutability of one kind of labor for another—the job classification at which hiring is to occur. The number of job classifications that serve as “ports of entry” for additions to the labor force is thus dependent on managerial decisions within the limits set by technology and the state of the labor market. This number of job classifications may be quite small, but in a tight labor market the number will expand.

Job vacancy statistics under these circumstances measure at best only one of the factors that go into making up the total demand for labor. Changes in the number of hours worked are equally important and indeed more significant during the early phases of the upswing. An index might be provided by the ratio between the hours actually worked and the hours regularly worked in the particular industry and country.

Another consequence of this peculiar character of the internal

labor market is that job vacancy data are a poor advance indicator of an upward turning point in the cycle, while a properly adjusted series of unfilled vacancies may be a good or, as is said about Great Britain, possibly the best indicator of an approaching economic decline.

Insofar as promotions within the plant continue to depend in many European countries upon educational levels and training obtained outside the plant, the internal labor market has been traditionally less flexible than in the United States. Conceivably, the long-term tightness of the Western European labor markets and the growth of in-service training institutions are producing changes in that respect. Some evidence for this may be found in European experience in regard to the possibilities of substituting one kind of labor for another, in particular lower-skilled labor for labor with higher skill qualifications or female for male labor. Under the pressure of full and overfull employment, European management in many countries has considerably lowered its skill requirements and accepted lower-skilled workers for unobtainable workers with longer experience and higher skills. Perhaps the most dramatic indication of this process is the volume of imported foreign labor in the industrial nations of Central Europe. In the case of Switzerland, with a population of some 5 million, the number of foreign workers now exceeds considerably the figure of 700,000. I do not, of course, intend to imply that foreign labor is automatically of lower skill, but there is little doubt that foreign workers have lower qualifications in many cases, and even a hasty glance at German and Swiss newspapers will produce many examples of complaints about the lesser experience and lower training of foreign workers. Highly skilled workers have few difficulties in finding jobs at home, so that foreign industry is compelled to accept predominantly lower-grade labor. Moreover, at least in the case of many service industries (hotels, restaurants, hospitals), language problems alone suffice to reduce skill qualifications of foreign-language workers.

As to the reliability of data on job vacancy statistics, the crucial issue is whether they are obtained by questionnaires or interviews, on one hand, or arise out of normal business operations, on the other hand. With all due respect for the short-period experiments carried

on in the United States, I still have to be convinced that vacancy data obtained by questionnaires or interviews are anywhere near as reliable as those that emerge out of actual business needs and operations.<sup>1</sup> In many larger enterprises, hiring is done in a dispersed and uncoordinated way so that no single informant is in a position to estimate the number of vacancies or even to know of all ports of entry. True, the average size of European businesses is far smaller than that of the United States. On the other hand, manpower budgets and forecasts of manpower requirements are rarely used in business operations. Conceivably, the evolution of planning procedures in Western Europe will produce some changes that may assist in producing better estimates of job vacancies.

The proportion of reported vacancies to all vacancies is likely to vary a good deal in any given country. Such variations will occur over time; others are related to the skill level of the vacancy—in general, the completeness of reported vacancies varies inversely with the skill level. Finally, variations do occur with regard to the general situation on the labor market. It has been pointed out in various papers that as a rule the data for job seekers are far more reliable than those for unfilled vacancies. This is so primarily because the first set of data results from operational needs, the second only partly so. Since we do not know how the proportion of reported to total vacancies changes, the data can only be used in limited ways.

Full or overfull employment has a special impact on job vacancy statistics. In various reports statements are made to the effect that in such labor markets employers report more vacancies than they have, or even that a tightening of the labor market causes employers to report a larger proportion of the vacancies. I cannot claim to have made a careful study of this problem, but I should at least report that I have been told in Germany that the opposite phenomenon may occur. When the public employment service seems unable to provide manpower in the required quantity and quality, enterprises do not bother to report their requirements to the agencies. Since this does not appear logically impossible, some further research might be

<sup>1</sup> In the words of J. C. R. Dow and L. A. Dicks-Mireaux ("The Excess Demand for Labour," *Oxford Economic Papers*, February 1958, p. 2), statistics of unfilled vacancies "neither record transactions nor register decisions, but represent a sort of queue." People may join several queues or give up and join none.

indicated to determine whether under different circumstances the overreporting tendency outweighs the underreporting trend or not.

In several of the countries examined in the papers, little attention seems to be paid to the absolute number of job vacancies reported. Greater use is being made of trends in the number of reported job vacancies. I am not sure whether this avoids all the difficulties mentioned above, in particular those created by our lack of knowledge of the factors that determine the varying ratios of reported and total job vacancies.

In conclusion, it would seem to me that in the present state of our knowledge we must regard job vacancy statistics at the best as suggestive. Not even trend data are necessarily reliable. Thus, to use the data in an ordinal rather than a cardinal sense may not help us fully to escape the difficulties presented in the papers and summarized above. Perhaps systematic use of sample or establishment surveys and a comparison of their results with those of the reporting system in the entire universe would enable us to determine which proportion of job vacancies is reported at different times and in different situations. What we have to learn, however, is not merely the rate of responses in questionnaires but also the degree of reliability of the responses. I have to admit harboring the dark suspicion that the latter will not be very high until job vacancy data arise out of the ordinary needs of business rather than as a response to government questionnaires or in interviews.

MARGARET E. MARTIN, BUREAU OF THE BUDGET

In the space at my disposal, it would be impossible to comment adequately on five such informative papers as those prepared by our guests from other countries on their experiences in the development and use of job vacancy statistics. I recommend a careful perusal of the original papers. It would be redundant for me to summarize the main points, in view of the capable paper by the BLS staff which included the experience of many other countries as well. In these circumstances, the most a commentator can hope to do is to emphasize those items of foreign experience which appear particularly

pertinent to the United States and to our efforts to plan for useful job vacancy information.

First, why are we asking questions about the uses of job vacancy information? Normally a new statistical series is planned to throw light on a problem or series of closely related problems, and additional uses are found for it after development and use over a period of years. In this case, on the other hand, in the United States at least, we have a situation in which a large group of people, for differing reasons, have accepted the idea of the need for job vacancy information. In trying to settle on the characteristics of a series, however, they have found that their differing purposes require what are quite different concepts and specifications. So the apparent near-unanimity on the desirability of having a job vacancy series dissolves into conflicting views of the desirable properties of such a series. Perhaps it is natural, under these circumstances, that we turn to experience abroad, to see if the kinds of statistics developed, the problems encountered, the uses made, can suggest answers to our problems.

How relevant is foreign experience? A specific answer would, of course, vary from country to country and observer to observer, but several generalizations can be drawn from the illuminating papers contributed to this session:

First, since the measurement of job vacancies is an attempt to account for phenomena central to the operation of the labor market, statistical series on job vacancies will be affected in major ways by the dominant characteristics of the specific labor markets being observed. Most notably different from our own is the Japanese with its emphasis on hiring inexperienced secondary school graduates, but other reports also serve to point this warning.

Second, job vacancy statistics in other countries have been based largely on job orders placed by employers with public employment offices. In many countries, as the BLS survey points out, job orders "notified" and the number unfilled and at hand at the end of the month comprise the extent of the job vacancy statistics. Under these circumstances, the characteristics of the vacancy series depend in good part on the character of the public employment offices, their administrative and operating procedures, and the amount of public confidence they enjoy. In particular, the estimates of job vacancies

will be vitally affected by the utilization employers make of the public employment offices in comparison with other hiring channels.

Third, all but one of the five countries reporting in detail on job vacancies have experienced a relatively tight labor market during the past several years. We shall be trying to apply the lessons of their experience in a relatively loose labor market, and must be alert to the inherent differences.

Keeping these general cautions in mind, it seems to me that the experience of other countries can be very instructive. I shall touch on a few points that seem important to me.

*Major Uses.* In combination, the five countries used job vacancy statistics in all of the ways it has been variously assumed we might use such statistics (in addition to the obvious use of the individual job order as a part of the mechanism of placing workers in particular jobs). Different countries stressed different uses, ranging from the immediate purposes of the French system to assist in placing French repatriates from Algeria to the analytical investigations of the labor market undertaken by the Dutch in their estimates of labor shortage. Particularly under conditions of labor shortage, job vacancy statistics appear to gain in importance as a guide to employment service operations in recruitment and placement, and to assist the planning of vocational education authorities. In a number of cases, labor supply-demand relationships are examined by comparing job vacancies with unemployment and the movement in these series over time, witness the Swedish and Dutch experience. Warnings against the pitfalls in literal attempts to balance job vacancies and unemployment were frequently expressed, perhaps most forcibly in the Canadian and Swedish papers.

One interesting and apparently unique use was described by Niesten in the use of job vacancy figures and local estimates of frictional unemployment to arrive at estimates of "labor shortages," that is, vacancies unlikely to be filled by those frictionally unemployed. It would be interesting to hear more about how the local labor boards estimate "frictional" unemployment, and how well Mr. Niesten thinks such estimates could be made under conditions of relative labor surplus rather than shortage.

*Coverage.* Since most of the job vacancy series under discussion



consist of the flow of job orders "notified" by employers or the stock of unfilled vacancies measured at periodic intervals, their coverage is limited to that part of the labor market which makes use of the employment services, unless special additional efforts are made to represent other vacancies. Not only does partial coverage affect the number of job vacancies, but because employers appear to use the services at different rates at various stages in the business cycle, interpretation of the movement of the series is not simple. Furthermore, there may be differential coverage of occupations, industries, areas, or other characteristics of vacancies which are analytically important. The significance of partial coverage varies, depending on the uses to be made of the series. For supply-demand analysis and indicator purposes, partial or biased coverage may crucially affect the usefulness of the estimates.

These problems were enumerated in most of the papers. In some instances, efforts have been made to estimate total labor shortages, or shortages for specific categories of workers, but no one of the five countries has attempted to develop continuing estimates of job vacancies for the entire labor market. The Netherlands apparently comes closest with its annual estimate of labor shortages.

In general, foreign experience does not provide a strong model to follow in making current estimates of job openings throughout the economy. Attempts to go beyond the employment service administrative statistics have either been restricted in coverage (as in Japan, to skilled workers) or in detail (as in Canada or the Netherlands, where job vacancy estimates are prepared without occupational detail). Many of the cautions expressed by the various countries on the difficulty of interpreting the level and movement of their series result from the fact that most rely exclusively on employment service records, and that the few which make more comprehensive estimates recognize the difficulties and resulting uncertainties in their estimates.

Estimates of the proportion of all vacancies covered in the series are difficult to arrive at, and seldom are stated in exactly the same terms, but in several countries seem to approach 25 to 30 per cent (aside from the Netherlands, where the estimate is closer to 80 per cent, and from those countries where registration is now or recently has

been compulsory). Chazelle's paper describes some of the administrative problems which must be faced in attempting to obtain widespread reporting of vacancies to local employment offices.

*Time Dimension.* The papers stressed the importance of the time dimension in the definition of job vacancies. Are vacancies to be counted as the number occurring (reported or "notified") during a period or as the number remaining unfilled at a point in time? Should only vacancies which can be filled immediately be counted, or should those also be included for which active recruitment is now under way for hiring at some future time? These definitional problems vitally affect the level, composition, and movement of the series. Notice, for example, that the number of vacancies registered during 1963 averaged five times the number remaining unfilled in Sweden, about forty times in Canada. The occupational distribution of vacancies notified may well differ significantly from those remaining unfilled.

Different time dimensions can be selected depending on the basic concept or purpose of the series, as several authors point out. Niesten recommended that future vacancies be included in a series designed to reflect labor shortages, for example. In Canada, current vacancies are defined to include those available to be filled in thirty-one days, and others recommend more extensive periods.

*Characteristics of Vacancies.* Both for guiding placement activities and in analyzing the operation of labor markets, the characteristics of job vacancies are important, particularly the occupations for which workers are sought and the industries which are seeking them. The duration of the job (permanent or temporary), the age, sex, or other personal qualifications specified by the employer, such as educational attainment, are important factors in some countries. No country appeared to make much use of an undifferentiated total count of vacancies.

*Related Series.* In considering uses other countries have made of job vacancy series and what uses we might make, the availability or absence of other related series must be kept in mind. Several of the papers explicitly considered a number of other measures, and Holmberg noted that Sweden is reviewing all its labor market information in the hope of developing an integrated system. The United States should consider its own situation.

If job vacancies are to be compared with the unemployed, for example, it is obviously important to have information on the unemployed in similar occupational detail. A job vacancy series might be designed differently depending on whether or not adequate statistics on turnover—job separations and accessions—were also available. Current job vacancies may be less important in analyzing supply-demand relationships if short-run projections of manpower requirements can be made by other methods. Information on labor mobility facilitates the use of job vacancy information, especially in shortage situations. Information on wages in corresponding occupational detail is obviously pertinent.

Labor turnover and job vacancy statistics are closely related, but not necessarily in any simple way. In comparing job vacancy statistics with reports on new hires, it seems to me that much job turnover will never be counted among the vacancies. A job may be filled too quickly to be counted as a vacancy, it may disappear as a result of the redistribution of work assignments, or it may be a vacancy developed to meet the qualifications of a specific applicant and simultaneously filled.

I am not too concerned that a job vacancy series does not reflect all the demand side of labor market transactions. It appears to me analogous to the situation on the supply side, where we find many jobs being filled by persons who were not counted as unemployed in our unemployment statistics, having moved directly into a job from outside the labor force, or having changed jobs without experiencing any (measurable) unemployment. A special survey covering the year 1961, for example, found that about 60 per cent of the workers who changed jobs for whatever reason—to improve status, layoff from a prior job, illness, or whatever—did so without loss of time between jobs, and so were not reported as unemployed.<sup>1</sup>

The evidence suggests that neither job vacancies on the one hand nor unemployment estimates on the other are likely to be very good measures of total labor market activity—of all the transactions in the job market. Not only are they the net result of a much larger number of transactions, but apparently certain types of transactions are of a sort which will not be effectively reported in statistical

<sup>1</sup> Gertrude Bancroft and Stuart Garfinkle, *Job Mobility in 1961*, Special Labor Force Report No. 36.

series because of basic measurement problems. Incidentally, we now have labor turnover statistics for few industries outside of manufacturing.

In conclusion, let me emphasize what seem to me to be the major issues facing us with regard to job vacancy statistics in the United States, the issues which make the experience of other countries of so much interest. There are two, it seems to me: (1) Should the U.S. attempt to go beyond the compilation of employer order statistics from employment service operations to develop a general job vacancy series, and, if so, for what purpose? (2) What would the specifications of an "optimum" series be?

At the moment, job vacancy statistics are "in style." It is unpopular to raise cold, hard questions concerning the need for such information. Let us not be overwhelmed by this general enthusiasm. I hope that this conference will provide the dispassionate discussion needed of these major issues.

I conclude that the papers prepared for this session on foreign experience, when considered collectively, emphasize the importance of a cost-benefit type of analysis. No country, it seems to me, reported unqualified success with job vacancy statistics; analytical uses of the data were frequently expressed in terms of hopes rather than experience; many countries are relying solely on operating statistics from the placement offices.

Thus, depending on our objectives, a series of questions might be asked to help in weighing alternatives. We frequently think in rather crude terms at the Bureau of the Budget, so let me take the outlines of one proposal and sketch a few relevant questions. The Labor Department has proposed that a set of quarterly job vacancy series be developed (not on the basis of job openings notified to the local employment offices, but as a separate statistical report from a sample of employers), series which would be started in 150 separate major labor market areas next year and later be built up to cover the states and eventually the nation as well. It is impossible to say how much such a system would cost, but \$5 million a year is almost certainly an underestimate. Is this too much?

If the only purpose is to derive an over-all estimate of job vacancies to compare with the number of unemployed, my answer would

be: Almost certainly. Of course, if that were our sole objective, we could use a much smaller, carefully selected national sample, at much less cost.

Is the purpose to promote the placement of workers in vacant jobs? A possible alternative to consider might be an active job development program pinpointed to areas and occupations of likeliest success rather than spending time and effort maintaining repetitive reports from a fixed sample of employers.

Is the purpose to provide an economic indicator? I would suggest that alternative indexes might well be considered, as we shall be doing later at this conference.

Is the purpose to provide information basic to guidance, counseling, and planning training programs? Here one alternative seems to be short-run projections of manpower requirements and replacement needs—another statistical area for which clear-cut answers are extremely difficult. Personally, I am most impressed with the need for information in this area—yet I remain concerned that job vacancy statistics may not be the best answer. Certainly they are at most only part of the answer. You will not forget that while we are considering proposals to obtain quarterly statistics on job vacancies in some detail by occupation, industry, and area, we must wait ten years for the decennial censuses to obtain similar occupational detail on much the largest segment of labor demand—the employed.

Would the development of job vacancy data on the scale of this quickly sketched proposal represent the optimum allocation of our statistical resources? These and similar questions are being and will be asked during the coming year in Washington. Hopefully, this conference can assist in supplying the answers.

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The conference papers and the discussions on job vacancy statistics were overly concerned with the analytical uses and limitations of a national series of data and gave little attention to the benefit

the unemployed might receive from the publication of such data. Only in a brief remark by John Myers at the close of the third session did I note any suggestion that one of the users of job vacancy statistics might be the job seeker. Fortunately or unfortunately, the unemployed job seeker was not represented on the conference program, probably because there is no special group or institution that could adequately speak for his interests. At a conference that was primarily composed of academicians from private research organizations, the universities, and government agencies, one would have expected the major concern to be on the analytical uses and meanings of job vacancy data. But I was amazed that so little attention was given to the needs of the unemployed, at a time when overcoming unemployment has become one of our major national economic objectives.

Without trying to solve the problem of how much of current unemployment is structural, one must conclude that structural unemployment might be reduced if more were known about the demand side of the job market. The mere publication of statistics on job vacancies for machine tenders on the West Coast, for example, may induce unemployed machine tenders to migrate in that direction. The continued publication of data on unfilled needs for schoolteachers may be a factor that youth may consider in determining whether to train to be a teacher. Although job vacancy statistics may have limited analytical use, their publication under known standards and definitions with some occupational and geographic detail would certainly appear to benefit the job seeker. Increased information about the job market may improve its functioning without any increase in job orders to the placement agencies.

The value of job vacancy statistics to the job seeker seemed implicit in the discussion of statistics of other countries. While admitting the limitations of their vacancy statistics for economic analysis, the European visitors could not understand how we could undertake an active manpower program without a series of statistics on the demand for manpower. The Europeans seemed to think that job vacancy data were one of the many necessary ingredients of an active manpower program. It is interesting that no speaker noted the well-known fact that unemployment rates are lower in Sweden,

the Netherlands, Japan, France, and Canada than in the United States. This is true even after adjustments are made for variations in definitions and methodology. Note that Canada, whose unemployment rates were higher than those of the U.S. in 1960 (7.0 per cent compared to 5.6 per cent), had reduced unemployment to 4.0 per cent by the end of 1964. Although many factors influence the unemployment situation in a country, one might assume that job seekers in other industrialized countries are using the information available in their national statistics. Certainly we are less sophisticated than many countries in our knowledge of the demand side of the job market.

In discussing the papers on job vacancy statistics in various countries, Margaret Martin touched the heart of the issue in asking for a cost-benefit analysis of the systems in foreign countries as well as those proposed for the United States. The papers on job vacancy statistics in other countries lacked data on costs of collection and publication, which could provide us some useful guidance. The cost of such data is difficult to isolate when done as a part of other manpower administration functions. But costs and benefits need not be measured in strict monetary terms. What is the social and economic benefit to society of filling a job or obtaining a higher total employment of the labor force? Evidently, the cost of job vacancy statistics in many countries is outweighed by a lower rate of unemployment attained through an active manpower program. Is not the real test of the value of job vacancy statistics the benefit received by society in the contribution that is made toward full employment? It would appear that the Western European countries find the cost of their job vacancy statistics offset by the fuller utilization of their labor force—a result in part at least of better information available to workers and policy makers alike.

