JOB VACANCY STATISTICS

HEARINGS

BEFORE THE

SUBCOMMITTEE ON ECONOMIC STATISTICS

OF THE

JOINT ECONOMIC COMMITTEE

CONGRESS OF THE UNITED STATES

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TUESDAY, MAY 17, 1966

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMIC STATISTICS OF THE
JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to notice, at 10 a.m., in room S–407, the Capitol, Hon. William Proxmire (chairman of the subcommittee) presiding.

Present: Senator Proxmire and Representative Curtis.

Also present: James W. Knowles, executive director; William H. Moore, senior economist; George R. Iden, economist; Donald A. Webster, minority economist; and Hamilton D. Gewehr, administrative clerk.

Chairman PROXMIRE. Mr. Cassell, I understand that Mr. Ruttenberg is unable to be here today. We are sorry that he is not here, but we are glad that he has such able replacements.

I also understand that Mr. Cassell is in one of those unfortunate emergency situations where he also has a conflict and will have to leave promptly. That distresses us, because we would like to have him in on the entire discussion which is often the most fruitful part of a presentation. But under the circumstances, Mr. Cassell, you may go ahead.

I see all these statements are long. I think it would be very helpful if they could be summarized, if possible. If not, perhaps part of the statements can be read and other parts made a part of the record. I will try and set a good example by asking unanimous consent that the opening statement by Senator Proxmire be placed in the record at this time. It will not be read. It is available to the press or anyone else who wants to read it.

(The opening statement is as follows:)

OPENING STATEMENT BY SENATOR PROXMIRE, CHAIRMAN OF THE SUBCOMMITTEE ON ECONOMIC STATISTICS OF THE JOINT ECONOMIC COMMITTEE

Senator PROXMIRE. The subcommittee's interest in data on job vacancies—the subject matter of today's hearing—goes back at least 4 or 5 years. These hearings are essentially a followup of a recommendation made by this subcommittee in our report on "Employment and Unemployment" of January 1962. That recommendation reads:

> Research should be undertaken directed toward development of a regular monthly survey of job opportunities or vacancies to illuminate the demand side of the labor market in the way the present series measures the supply of labor. Experience here and abroad indicates that substantial difficulties must be over-

come before a statistical series on vacant jobs can become operational but past success in using survey techniques to solve some other difficult data-gathering problems suggests that a useful program may be practical. In any event, the data from such a survey would be so useful in analyzing labor markets, in operating employment services, and developing practical worker training and retraining programs, that expenditure of some funds on research into this problem would be warranted.[1]

The subcommittee is far from being alone in making such a proposal. As a part of our continuing program for improved statistics for economic growth, the subcommittee last year asked individual economists, representatives of interested private organizations, and statistics users for suggestions as to the improvement of Government statistical programs generally. A number of these people, in responding to the subcommittee's request, mentioned that one of the major opportunities for improving our economic knowledge lies in providing statistics which would show, as currently as possible, the number and types of job vacancies. Some correspondents cited the usefulness of job vacancy data in guiding public and private training and retraining programs; while others suggested that job opening data would give us a better picture of current opportunities in the labor market. The point was made that even when unemployment is high, certain jobs go begging; but we do not have reliable information as to where they are, what they are, or how many.

The comments received from the individuals and statistics users were later submitted to the Office of Statistical Standards for comment and they, in turn, obtained the comments of the Government agencies concerned with the several suggestions.

After studying these proposals, the Bureau of Labor Statistics last fall summarized its conclusions about job vacancy data in these words which should be made a part of the record of these hearings at this point.

The Department has made pilot studies of the feasibility of collecting job vacancy information from employers and of the questionnaires and survey designs most appropriate for doing so. These studies clearly indicated that such a program is feasible. The Department is continuing to work on a number of problem areas, including the task of getting accurate occupational data for the vacancies, evaluating the data to determine whether jobs are vacant because of the wage rates or conditions of work offered, and the general problem of developing a survey system to provide the data at minimum cost.[2]

There thus seem to be at least three areas of usefulness for such statistics: (1) in matching men and jobs; (2) in local manpower planning; and (3) in manpower planning at the national level. We will try to learn something about each of these in the progress of these hearings.

Chairman PROXMIRE. Mr. Cassell, you may proceed.

TESTIMONY OF FRANK H. CASSELL, DIRECTOR, U.S. EMPLOYMENT SERVICE

Mr. CASSELL. I would rather paraphrase my statement.

I want to express my appreciation to the committee for the opportunity of appearing here today and having a chance to talk about the

[1] "Employment and Unemployment," report of the Subcommittee on Economic Statistics, January 1962, p. 6.

[2] "Improved Statistics for Economic Growth—Comments by Government Agencies on Views Submitted to the Subcommittee on Economic Statistics," March 1966, p. 44.

valuation and formulation of manpower policy, and the relationship of job vacancy data to it.

I thought I would go back in time a bit and indicate how my particular point of view has developed on this subject.

As Director of the Employment Service, I feel a special responsibility for the dissemination of information about job openings, and about the availability of workers which will contribute to the full employment of our people, and which will help meet the manpower needs of the country.

I have some previous experiences in this area which I should like to relate.

In 1961–63, I was chairman of the Governor's Committee on Unemployment in Illinois. In our report to the Governor we recommended the development of job vacancy data on a systematic basis, because the educators on our committee continually pressed for such information——

Chairman PROXMIRE. What was the period?

Mr. CASSELL. 1961–63.

Chairman PROXMIRE. That was under Governor Kerner?

Mr. CASSELL. Yes. And when we recommended the job vacancy data studies this was almost coincidental with the issuance of the Gordon report on the same subject.

Our interest came primarily from the educators on our committee, who persistently asked the questions. What do we train these people for? How are we going to spend the money? How can we spend it wisely? Into what kind of occupations should we direct these young people?

They wanted information that would make their programs more productive and economical.

This was the focus of our particular interest there. And my present interest is that we simply will have to have such information for vocational people, for high school administrators, and for anyone who is involved in counseling and guidance.

The Governor's committee felt, furthermore, that we needed the job vacancy information to enable us to provide the data to facilitate mobility from one part of the State to another, from one place where there were no jobs to places where there were jobs. And as you will recall, in southern Illinois we have had very heavy unemployment. In northern Illinois we had a shortage of people.

In addition to that, I have been chairman of the Chicago Urban League's Education and Guidance Committee. And one of our jobs there was to work with young people, to try to tell them something about where the jobs were, and where opportunity was.

Without job vacancy data we could not do this job properly. We simply did not have the job information to give to these young people.

Now, as a former executive of Inland Steel Co., I would have found job vacancy data especially helpful in planning ahead doing corporate manpower planning to relieve labor shortages. If I can digress just a moment, last fall I wrote a paper for the Stanford Business Review in which I was somewhat critical of corporate manpower planning because in a large part of American industry manpower planning simply is very underdeveloped. And it is underdeveloped for the reason that there are not enough good data upon which industry can base its planning. One of the most important pieces of information corporate

planners need for manpower is job vacancy data. And they need it over a period of time.

In the absence of such data, the typical thing to do is to not train and develop people, but to wait around until, hopefully, somebody comes in the door for employment. The consequence is, when we are suddenly confronted with shortages, everybody starts to do the same thing at the same time, training and hiring.

I think from a very special point of view, and in view of my own past experience, that job vacancy data would be extremely helpful, and would encourage American industry to do more of its own manpower planning to deal with these kinds of problems.

With this in mind, I would like to say that it seems to me that an adequate job vacancy survey program, which both Arthur Ross and Bill Chavrid will talk about, will bring the rifle shot to the subject rather than the blunderbuss. Essentially, in trying to decide what kind of programs we need, and how we should spend our money, our present information is not really as accurate and precise as I think it should be.

Second, this kind of data would certainly aid the Employment Service in knowing where to go to find jobs for the unemployed. This kind of data is very helpful when you are trying to decide which industries and firms may offer the best employment prospects by area or by occupation.

It certainly would add to our ability—that is, the ability of the U.S. Employment Service—to raise the efficiency of our placement activities. And as I said earlier, it would aid manpower planning during periods of extraordinary labor shortages or excesses, and by area or by occupation.

I should mention that just this last week we met with the people from the Employment Service in Milwaukee, where we have some very substantial occupational shortages. We spent a great deal of time discussing what our plans should be to answer the problems of labor shortages there. And I should say the vacancy studies which have already been done in Milwaukee were extremely helpful in enabling that group of people from Milwaukee to do some planning.

This kind of information, of course, would also help us on interarea recruitment.

For example in 1965 Milwaukee was short of welders, and Portland, Oreg., had an excess of welders. Now, these are the kinds of imbalances that show up in a study like this, and it is important for us to know this.

Taken together as a series of snapshots over a period of time, job vacancy studies, it seems to me, can help fill in the picture of occupational needs.

In other words, I think what I am saying is that taking a snapshot at one time is not adequate. You have got to take a series, to see how over a period of time the vacancy situation develops, how long the vacancies exist, and to give us a better picture from an operational and educational viewpoint as to where opportunity lies.

And certainly this kind of data would supplement the knowledge of guidance people, counselors, and school administrators as they plan school efforts.

From an operating standpoint, from the standpoint of operating the U.S. Employment Service, we need specific data about specific occu-

pations and about specific local areas. And this is terribly important to us in trying to develop this rifle-shot attack on the problems of employment and unemployment.

This is the kind of data which we are talking about. This is the kind of data which I should like to see developed in such a way that it can be used by local communities, such as we did in the Milwaukee situation.

I think it is terribly important that we enable local employers and local unions and local communities to intelligently plan their own programs to meet shortages or excesses. And I think these data will help.

There are two or three key points about these studies I would like to mention before I close. First I consider it still an experimental program, a pilot program, even though the areas surveyed covered about a quarter of the Nation's nonfarm employment.

Second, I was pleasantly surprised to learn of the 80-percent employer response to the study. I participated in the early phases of the Chicago feasibility studies, and wondered myself whether we would get that high a response from employers. And so I am very pleased to report that we have a very high employer response, and the employers do indeed cooperate. And as a matter of fact, in this year's round of studies apparently employers will be cooperating fully as well as they did in the first round.

Third, the vacancies covered a very wide variety of occupations, ranging from nurses to machinists; to engineers, machine operators, common labor and hospital attendants.

And lastly, with respect to leadtime, these data, I am told by our people, can be made available in each of the labor market areas in which we do the studies, practically immediately. It would take some time to summarize nationally. But the data we accumulate regionally in the areas can be made available to the people in those areas for their own planning almost immediately.

Now, the details for the fiscal year 1965 program will be described by Mr. Vladimir Chavrid, Director of the Office of Manpower Analysis and Utilization for the USES.

As I said, I still consider these programs experimental. I think we should continue the job vacancy studies in conjunction with our USES unfilled openings reports. Present indications are that there is a close correspondence between total job vacancies and the unfilled openings in the Employment Service.

In general, the types of openings which the Employment Service cannot fill readily are representative of the jobs which are hard to fill in the job market as a whole.

In 1966 we plan to try to identify and quantify the bottleneck occupations which, if filled, would open up additional jobs. By that I mean a bottleneck occupation could very well be a machinist. Fill the machinist job, and then you can fill a whole group of supportive jobs to the machinist. If you can fill an engineer job, you can fill an awful lot of draftmen's jobs under the engineer. These are what I call bottleneck occupations. If you do not have this one key fellow you cannot employ a lot of others.

As you know, funds for the expansion of this program were denied for fiscal 1967 by the House Appropriations Committee.

In view of the favorable results of the pilot projects and the importance of job vacancy data for manpower operations, we hope the House

as a whole and the Senate will give further consideration to this program expansion. By helping to keep abreast of current manpower developments in specific areas and occupations we believe that job vacancy data can help contribute to shaping and molding our active manpower policy to respond meaningfully and promptly to the changing job market conditions as they occur.

I thank you very much for this opportunity to appear here.

Chairman PROXMIRE. Thank you very much, Mr. Cassell. I understand you have to leave. You tell us when you want to go.

(Mr. Cassell's complete statement is as follows:)

PREPARED STATEMENT OF FRANK H. CASSELL, DIRECTOR, U.S. EMPLOYMENT SERVICE

I would like to express my appreciation to this subcommittee for the privilege of appearing before you today in order that I might discuss briefly the Department of Labor's experimental program for the collection and use of data on job vacancies. I plan to discuss this program primarily from the standpoint of its value in the formulation and administration of manpower policy and programs, and the activities of the Federal-State Employment Service system. It is my understanding that Arthur Ross, Commissioner of Labor Statistics, will cover the subject from the viewpoint of job vacancy data as an economic analysis tool.

My comments today are quite different from those which might have been prepared several years ago when work in the area of job vacancy research, at least in this country, was almost nonexistent. They are also significantly different from what we might reasonably be expected to say in the future, when we would hope to have several years of solid experience with the use of such data as a foundation and demonstration of definitive accomplishments. The history of the development of job market information—and this is effectively encompassed in the past 30 years—reveals at least two clearcut trends. One is the increasing requirements for detailed and specific information—specific in terms of particular components, groups and localities—for the implementation and administration of manpower legislation and programs. Second, we find that as previously unavailable information comes to light, new uses and needs emerge. These two are closely inter-related.

I should like to illustrate briefly. The deep national concern with the mass unemployment of the 1930's led to the development of a reliable and current measure of overall employment and unemployment. There can be no dispute that the *Monthly Report on the Labor Force* provides the single most important and indispensable indicator of the Nation's economic health. But it soon became equally obvious that for manpower operations—whether concerned with war-induced shortages, depressed areas, or human resource development—a good deal more was needed. A national unemployment rate of 3.7 percent tells us little about the situation in Los Angeles, for example, and is even less useful if we are attempting to deal with the problems of the Watts area. I became most keenly aware of this several years ago in Illinois, when as Director of Personnel Administration at Inland Steel, I had the honor to serve as Chairman of the Governor's Committee on Unemployment, which made an exhaustive study of manpower and unemployment problems in that State.

On the second point, our *Dictionary of Occupational Titles* furnishes a convenient illustration. Originally developed by the Employment Service during the 1930's to provide a commonly understood language for local office matching of job applicants and employer job orders, it soon acquired a host of other uses. These ranged from facilitating the transfer of workers from civilian to war-related production, to rationalizing the job structure and providing career ladders within employing establishments, to developing counseling and guidance tools, to identifying the changing nature of jobs in a technologically advancing economy, to guiding curriculum and course content in vocational schools.

The implementation of an active manpower policy is a voracious user of data. Policy objectives can be stated in broad terms, but manpower operations, if they are to be effective and efficient, require data and tools to create, adapt, and carry out programs to resolve problems that have been clearly and specifically defined.

The interest in job vacancy data that arose during the late 1950's was largely focussed on an overall national statistic. Since we have no experience with such

data in this country, I can only speculate that a series of this type might prove to be a useful addition to our existing store of economic indicators.

My concern here today, however, is with vacancy data as they relate to manpower operations. For this purpose, we do already have some experience, limited though it is, as a pilot venture.

We have now completed one full year of research and analysis into the collection of job vacancy information and are mid-way into another year of experimentation. This pilot program, conducted in areas which include one-quarter of the Nation's nonfarm wage and salary employment, clearly demonstrated that a large-scale job vacancy program is technically feasible, that employers willingly cooperate in providing valid data, and that the resulting information will be useful operationally for implementing an active manpower policy.

Information on job vacancies, with industry and occupational detail, in specific local areas throughout the country is needed for the effective administration of many of our principal manpower programs. Such data identify job opportunities in our major employment centers, pinpoint industry and occupational manpower shortages, and guide the establishment of training courses under the Manpower Development and Training Act and the Vocational Education Act of 1963. Such information can also be useful in designing programs to stimulate employment growth and reduce unemployment, to find jobs for "poverty-type" workers, and if necessary to initiate programs for insuring adequate referral of workers to essential defense production and high-priority nondefense industries.

Recent developments—both on the domestic scene, as well as abroad—have served to underline the value at this time of a job vacancy information program, responsive to manpower operating requirements:

1. The identification of skill shortages in certain occupations and industries has become extremely important in recent months as the trained supply of workers continues to diminish. By providing information on the nature of available job opportunities and the imbalances which exist on a local area basis between the kinds of workers needed and the skills of available workers, the job vacancy program can be of considerable use to the Employment Service operationally in filling current openings and in alleviating skill shortages through training, restructuring jobs, encouraging relaxation of employer specifications, and special recruitment campaigns.

2. The manpower legislation of the 1960's requires detailed knowledge of job opportunities in specific labor areas across the country to provide suitable vocational objectives in training or retraining portions of our work force. This legislation includes, in addition to the Manpower Development and Training Act and the Vocational Education Act, the Economic Opportunity Act of 1964—and the array of anti poverty programs related to it—as well as the Public Works and Economic Development Act of 1965. In conjunction with other occupational information tools, job vacancy information can help fulfill the requirements of some aspects of this legislation by assisting in the design of improved programs for the retraining of workers with obsolescent skills, those who wish to upgrade their skills, or those who have no marketable skills at all.

3. Some desirable jobs at semiskilled and even unskilled levels are currently hard-to-fill. These could serve as entry level-jobs for "poverty" group workers who lack requisite skills and education to meet qualification standards for higher level jobs. Considerable interest in such job opportunities identified by the vacancy surveys has come from the Office of Economic Opportunity, the President's Commission of Civil Rights, and Plans for Progress employers, all of whom are attempting to fit disadvantaged workers into productive and satisfying employment.

4. Comprehensive information on job opportunities, by occupation and area can help eliminate pockets of unemployment which exist because of lack of skills, geographic isolation, cultural disadvantages, and other obstacles to the matching of workers and jobs. It provides the raw data on job prospects needed by the Employment Service to encourage worker mobility, and to provide information useful in counseling younger workers and students and guiding them toward occupational choices that provide better prospects for employment.

5. The economy has already entered a period of manpower stringency, although shortages are still of the "spot" variety rather than nationwide in scope. If this trend continues, and if the Viet-Nam conflict makes further demands on the economy, we may need to give further emphasis to ways and means of identifying the industries and areas experiencing the most pressing manpower shortages, to methods which employers can use to facilitate the elimination of manpower bottlenecks, and to manpower programs needed to insure the most effective de-

velopment and use of human resources. The job vacancy program provides an important data resource for these purposes.

BACKGROUND OF THE EXPERIMENTAL PROGRAM

The U.S. Employment Service—and the affiliated State Employment Services—has long been aware of the value of job vacancy data as an important operating tool. As long ago as World War II and again during the Korean conflict, such data, by occupation and industry, were collected in the major metropolitan areas by the State Employment Services to identify and alleviate manpower shortages. Although most of these programs were discontinued when hostilities ended, some job vacancy data have been collected since that time on a voluntary basis by 15 State agencies, although, in all but one instance, without any occupational breakdown.

The inauguration of our experimental job vacancy program is, to some extent, a response to the findings of the President's Committee to Appraise Employment and Unemployment Statistics (the "Gordon Committee"). In its report to the President in September 1962, the Committee listed job vacancy data as one of the most conspicuous gaps in our present system of collecting employment and unemployment information.

Almost coincidentally with the release of the Gordon Committee report, the report of the Illinois Governor's Committee on Unemployment which I chaired was released in January 1963. One of the recommendations of our report too, was for the initiation of a program to "measure volume and composition of job vacancies and to report such information on a regular basis." I understand that this recommendation was one of the major factors in the selection of the Chicago area for the first feasibility study made by the USES to test the possibility of collecting job vacancy data from employers.

This study was initiated in 1963, with the cooperation of the affiliated Illinois Employment Service. Another feasibility study was conducted in the spring of 1964 in Buffalo, sponsored locally by the New York Employment Service and the local Chamber of Commerce. The results of these preliminary studies were highly encouraging. At the same time, other research by the U.S. Employment Service and the Bureau of Labor Statistics helped to define technical concepts and methodology, and investigated the collections and uses of job vacancy information in other countries.

At the direction of Secretary of Labor W. Willard Wirtz, and with the endorsement of the President, we began an experimental job vacancy program in the fall of 1964 to test the possibility of collecting such data on a relatively wide scale, and their usefulness for manpower operations. Primary emphasis was upon the value of the data for facilitating the operations of the job market, with a statistical program as a possible by-product. The USES, in cooperation with its affiliated State Employment Service agencies and the Bureau of Labor Statistics, conducted two comprehensive job vacancy surveys in each of 16 metropolitan areas representing a broad cross section of American industry in terms of size, industrial characteristics, geographical location, and nature of unemployment. These areas include: Baltimore, Birmingham, Charleston (S.C.), Charleston (W. Va.), Chicago, Kansas City, Los Angeles, Miami, Milwaukee, Minneapolis-St. Paul, New Orleans, New York, Philadelphia, Portland (Ore.), Providence, and Richmond. In the aggregate, these areas account for approximately one-fourth of the Nation's total nonfarm employment. The first round of surveys was conducted during the last quarter of calendar year 1964 and the second survey took place in April 1965.

A detailed description of the fiscal year 1965 program and its findings will be presented by Mr. Vladimir D. Chavrid, Director of the Office of Manpower Analysis and Utilization of the USES. My comments will be confined to summarizing some of the major findings of this research.

MAJOR FINDINGS

One of the most significant and conclusive results of the experimental program was the demonstration that valid job vacancy information by detailed occupation can be collected from a large sample of employing establishments. Approximately 80 percent of the nearly 20,000 employers sampled responded to the survey questionnaires. As a result of additional experimentation in some areas, it was demonstrated that employers would also provide information on wage rates offered for the vacant jobs and on the number of vacancies for part-time or temporary

jobs. Although the high degree of employer cooperation in the fiscal year 1965 surveys occasioned some surprise, it bore out very closely the pre-test of feasibility conducted in 1963 for Chicago.

About one out of every four employers responding to the 1965 surveys reported at least one vacancy. As expected, the proportions of employers reporting vacancies varied by size of establishment. About one-half of the large establishments had some vacancies, while only 1 in every 10 smaller establishments reported at least one vacant job.

The 1965 experimental program also revealed that the Employment Service plays a far more important role in the total job market than was previously believed. Approximately 30 percent of the job vacancies, excluding domestic service, were already listed with the Employment Service. Moreover, the distribution among broad occupational groups was reasonably similar for total job vacancies and unfilled Employment Service job openings. This correspondence was apparent, though to a lesser extent, in many of the more detailed occupational categories as well. More important, however, was the fact that the bulk of the job vacancies and of the ES unfilled openings were concentrated in the same occupations, except in certain skilled categories where hiring is normally done through union hiring halls or similar channels. This suggests that, in general, the type of openings which the Employment Service cannot fill readily are representative of jobs which are hard-to-fill in the job market as a whole.

This finding is being further confirmed by some of the preliminary results now becoming available in our FY 1966 program. In this survey, we asked employers to indicate whether they wished Employment Service assistance in filling their jobs. In the first 9 areas reporting on this subject, 60 percent of all employers answered affirmatively. In none of the areas did the proportion fall below 50 percent.

The 1965 surveys also demonstrated that with respect to vacancies, as with other job market measures, the labor demand-supply differences among areas are very substantial. While the combined data for the surveyed areas provided much important information, the data in this form are not particularly useful for operational purposes because of these area differences. For instance, the number of secretarial vacancies in all areas combined was in approximate balance with the number of applicants available. However, on an area basis, a large shortage of secretaries in New York City and a smaller shortage in Richmond were balanced by surpluses of such workers in the remaining areas. For welders, the combined data indicated a surplus of workers, although in Birmingham, Charleston (S.C.), and Milwaukee, these workers were in short supply.

Vacancies in the surveyed areas were found in a broad spectrum of occupations, although the heaviest demand was concentrated in a relatively narrow band. For example, openings for nurses accounted for 1 out of every 4 professional vacancies, while jobs for salespersons, clerks, and for stenographers and typists accounted for two-thirds of the vacancies in clerical and sales. Over half of the job vacancies in the service occupations were for waiters and waitresses, kitchen workers, practical nurses, and hospital attendants. One-fifth of the vacancies for unskilled workers were in warehousing occupations. Please remember, however, that this reflects the situation as it existed a year to 15 months ago. Even then, however, openings for skilled workers were more widely dispersed. Vacancies in each area tended to reflect its own industrial pattern.

A surprisingly large proportion of the job vacancies a year to 15 months ago—about half of the total—were relatively hard to fill, as indicated by the fact that they had been open for one month or longer. The identification of these hard-to-fill jobs, by occupation, in relation to total vacancies, promises to be one of the most significant contributions of the program, particularly to identify occupations for which training courses should be instituted. Over a period of time, such data could become one of the more valuable operational tools available to the Employment Service, in addition to providing vitally needed information for vocational guidance and vocational education.

In some areas, the survey requested information on wages for the reported vacancies. Analysis of the reported data indicates some of the vacancies were for jobs at wage rates below those normally offered for such occupations in the areas involved. Surprisingly, most of these below average offers were for professional and managerial occupations and for clerical and sales jobs. While precise data are not available in the absence of prevailing wage information for each occupation in each area, comparisons of the job vacancy data with wage offers for Employment Service job openings and similar data suggest that around

15 to 20 percent of the vacancies for which wage data were reported could be considered as offering substandard wages.

We attempted to collect information in a few areas on part-time and temporary vacancies. However, the information obtained with respect to this group was too limited to support conclusions with respect to the part such vacancies play in the job market. Because there may be considerable economic importance in connection with the part-time and temporary employment opportunities available in an area, particularly as they apply to older and younger workers and to women, this aspect of the program is being re-examined in our fiscal year 1966 program currently in progress.

Another significant finding of the fiscal year 1965 surveys was that the level of job vacancies apparently fell far short of the total number of unemployed in the areas, and was even well below the number of job applicants currently registered with the Employment Service.

There were very wide fluctuations among the areas, however, in the ratio of job applicants to vacancies, ranging from an approximate balance in Richmond and Milwaukee to a 10 to 1 relationship in Charleston, W. Va.,—a long-time area of high unemployment. Not too surprisingly, however, preliminary results from the FY 1966 surveys show a sharp increase in the number of vacancies this April as compared with those in April 1965.

The vacancy surveys also documented in greater detail structural unemployment problems in some areas. The types of workers needed were primarily in the higher skills, while the workers available were largely concentrated in the lower skill levels. In the professional and managerial classifications, aggregate vacancies exceeded the number of available applicants, while in clerical, sales, and skilled occupations, applicants outnumbered vacancies by about 2 to 1. In the service, semi-skilled and unskilled groups, the applicant-vacancy ratio was weighted heavily on the applicant side.

USES OF THE DATA

Probably the most extensive operational use of the information collected on job vacancies was in connection with manpower training programs. Vacancy information was instrumental in many of the pilot areas in identifying occupations for which training could be established under MDTA, OJT, vocational education and in special programs aimed at disadvantaged youth. The data also proved useful to the local ES offices for counseling and in job development for hard-to-place applicants.

Another important application of job vacancy information is its use in connection with antipoverty programs through the identification of the hard-to-fill jobs in the lesser skilled occupations. Of the vacancies for unskilled and service workers uncovered in the first survey, about half had been available for at least a month. Important among these were vacancies for laborers in the metalworking, transportation equipment, warehousing, and construction industries, practical nurses, hospital attendants, porters, waiters and waitresses, and kitchen workers. Nearly two-thirds of the vacancies for semiskilled workers had been available 30 days or longer. Among these were occupations in the machine shop, construction, and textile manufacturing industries, as well as openings for chauffeurs, drivers, and routemen. An analysis of the wage data for these lesser skilled occupations did not indicate any concentration of wage offers below the prevailing wage rates for the areas.

While job vacancy data proved to have many important operational applications, the first year's test did not provide any conclusive findings as to the degree to which the program might help increase the placement potential of the public Employment Service. Concentration on the technical and mechanical problems of getting this comprehensive experimental program underway within a short period limited the ES staff time available for obtaining jobs orders from employers. In addition, many of the vacancies reported by employers were already on file with the local Employment Service and placements made to these jobs were not attributed to the job vacancy program. As I noted earlier, more than 60 percent of all surveyed employers requested Employment Service assistance in filling their job vacancies in those areas where returns are in under area FY 1966 programs.

FISCAL YEAR 1966 PROGRAM

Since no additional funds were made available for this program in fiscal year 1966, current year plans are designed to improve the technical aspects of the program and to give particular emphasis to its operational usefulness. The first

survey under this year's program just took place about a month ago, and returns are now beginning to be tabulated.

In our present program, the sample of surveyed employers is being improved by increasing the representation of smaller firms and by improving the industrial distribution. The survey form itself was improved, and provision was made for the collection of wage data in all surveyed areas. As I mentioned, the questionnaire now also asks the employer to indicate whether he desires local Employment Service assistance in filling vacancies.

If time and resources are available, we hope, under our fiscal year 1966 program, to attempt to identify and quantify vacancies in "bottleneck" occupations, that is, vacancies which , if filled, would open some additional number of jobs. This research may be done in two labor areas, one having a high vacancy rate and the other a low vacancy rate. We also plan further studies of the relationship between job vacancies and ES unfilled openings and job applicants.

In addition, the possibility of using job vacancy data to increase worker mobility between various labor areas through the matching of occupational surpluses and shortages will be explored. Because of current skill shortages, it is important to identify those occupations in which workers are in short supply and the areas in which a surplus of such workers exists so that critical manpower shortages may be alleviated by encouraging these workers to move. Finally, we anticipate that we can achieve some improvements in the use of job vacancy information in our own manpower training operations, but also in assisting employers in the surveyed areas in planning their own internal staff training and promotion policies in the light of immediate and anticipated occupational shortages.

Funds for program expansion were denied for FY 1967, by the House Appropriations Committee. In view of the favorable results of the pilot projects and the importance of vacancy data for manpower operations, we hope that the House as a whole, and the Senate will give further consideration to this program expansion. By helping to keep abreast of current manpower developments in specific areas and occupations, we believe that job vacancy data can help contribute to shaping and molding our active manpower policy to respond meaningfully and promptly to changing job market conditions as they occur.

Thank you for this opportunity to outline my views on this important program.

Chairman PROXMIRE. One of the questions that has troubled me concerns the usefulness of job vacancy data over a period of time. You say that the job vacancy data would help corporate planning as well as help in many other ways. If data should reveal, for example, that as of today—mid-May 1966—there are vacancies in certain areas, how useful would that be in terms of making corporate plans to train personnel or hire personnel that could not possibly show much results before 1967? I realize that you say that there are patterns that develop by studying this situation, but even if we have had data on such changes in the past I wonder if on the basis of your great experience you find that this would be useful?

Mr. CASSELL. I will just turn it around as if I am doing corporate manpower planning.

The kind of information I need as a corporate manpower planner is information on a steady, consistent basis, so that I can watch trends over a period of time, and so that I can plan ahead to meet the leadtimes on the various kinds of occupations. In other words, if these data had been coming along, let's say, for the last 5 years, there would have been little excuse for me not anticipating that there would be a shortage of engineers, or a shortage of welders, or a shortage of this or that. One would only have to look at the data over a period of time to start doing his own training planning ahead.

A continuing picture would enable you to anticipate the shortage. If you don't have this information—and it is kind of a hard thing to describe—you always think that people are going to turn up. If you don't have the data you are sitting there and saying, "Well,

I am not going to spend the money on training, these people are going to turn up."

But if the reports keep coming in quarterly, saying, "Look, these occupations are short, they are very short, and we can't fill them in less than 30 days, and then I begin to say, "Well, I had better do something about training," or, "I had better do something about changing the nature of the job," or "I had better do some upgrading" or some such thing internally, because it has become clear to me that this is a shortage occupation. And I think the existence of the data enables an employer, looking at this, to become very realistic about what his chances are of going into the market. His only other alternative is what he is doing today. We bid against each other for the shortages.

Chairman PROXMIRE. There is another problem, you bid against each other for the shortages——

Mr. CASSELL. So that you drive up the price, and then very frequently—as is the case in Milwaukee and other cities—the people simply are not there anyway, because we did not do the planning with the leadtime.

Chairman PROXMIRE. What is the nature—what is the way, if you could describe it in a minute or two, that this data is actually secured? Obviously, if you don't use want ads and newspapers, you go around to a certain proportions of corporations, including all the big ones, and a sample of the small ones?

Mr. CASSELL. Are you speaking of this particular study, or the way I would do it?

Chairman PROXMIRE. What do you think would be the most efficient, the lowest cost way of getting useful and valid sound data?

Mr. CASSELL. I think this question is going to be answered later by both Mr. Ross and Mr. Chavrid.

Chairman PROXMIRE. I think that was something on which you could help us, because you have had a great deal of experience in management.

Mr. CASSELL. From a management standpoint a great deal of the data I have had to work with was inadequate. Some of the analyses of the newspaper ads are helpful for particular occupational levels. It is not something we should disregard.

But by and large, in the absence of systematic gathering of job vacancy data, an employer is pretty largely in the dark. He can call up another employer but about all they do is commiserate with each other on their shortages. But he does not know easily what is happening in another region, another area of the country. And one of the important things about this, too, is that hopefully as we learn how to deal with the mobility problem——

Chairman PROXMIRE. But actually, what you would do would be to go to the employment office of a corporation, and ask how many people they plan to hire. Do you feel that on the basis of your experience you could get useful statistics that would be valid at a reasonable cost?

Mr. CASSELL. Well, on the basis of the studies as they are being conducted now, as Dr. Ross and Mr. Chavrid will describe, I think at this point in time that is a reasonable assumption. I think all the time in working with data like this, one wants to work always to simplify, and always to economize. And I would think at this point

in time what I have seen is good and useful, but that is not to suggest that at a later time, as we learn to develop these data and use it, we can simplify it and hopefully reduce the cost of gathering it.

But the real point is that it simply does not exist for the employer at this point in time. It is something he does not have.

Chairman PROXMIRE. You have made a strong case that the employer would want this information and the management would want it. As I understand, organized labor has not taken a position on this, and that was one of the reasons why the House has not acted favorably here? Is there any reason why organized labor would, in your judgment and on the basis of your experience, be interested in this? I should think it would serve their interest as well as management's.

Mr. CASSELL. I am not in a position to judge what the motivations, the views of organized labor are. But I would say, on the basis of what I have said here today, that the program is feasible and that the operational uses of the data to put people to work or to alleviate labor shortages make the cost well worth incurring. My viewpoint comes from the fact that I am running an operating organization. My job is to match people and jobs, get them into jobs, help employers overcome shortages. And I think the unions certainly should be sympathetic to that particular point of view; namely, eliminating unemployment wherever we can eliminate it, upgrading people, training people to fill the shortages. So I cannot understand what is in their minds. My guess would be that my viewpoint—which is strictly operating, trying to do the job we have been assigned—certainly ought to be consonant with the general views of labor people who ought to be interested in this same thing.

Chairman PROXMIRE. How long would it take to summarize national data? You said it would take longer than the regional data.

Mr. CASSELL. I think I had better leave that to Mr. Chavrid or to Mr. Ross. Say about 2 or 3 months?

Mr. Ross. Weeks.

Chairman PROXMIRE. Two or three weeks?

Mr. CASSELL. I would like—let me make a guess here—a few weeks or longer depending on the amount of occupational and area detail we want. We have not yet gotten to the point where we are able to determine this. But certainly it would be available very quickly at the local basis.

Chairman PROXMIRE. This notion of bottleneck occupations is certainly a very useful concept. Is it sufficiently understood; is there enough experience with it, so that this can form the basis of valid data? You said, for example, that if a company succeeds in finding an engineer you will get five or six other jobs.

Mr. CASSELL. You can put draftsmen to work then.

Chairman PROXMIRE. Under the circumstances, I should think you would not get an adequate response unless you have a skillful interrogator. You go to management and ask, "Do you need draftsmen?" and they will say "No" if you don't discover that they need engineers first.

Mr. CASSELL. Yes. I think this is going to have to be ground into the program. This is a relatively new concept, and it is one that is going to be looked at during the coming year.

From a management concept it is an old concept. But the point is that we have never done anything with it analytically. Instinctively

you know in your own organization the bottleneck occupations; you can name them, and you know why you cannot hire people, because of the bottlenecks.

Chairman PROXMIRE. A lot of this depends on judgment, the psychology at the same time, to that extent it is less firm than the other statistics where you ask a person if he is looking for work, or you ask a question that can be determined on the basis of a somewhat more objective, factual reply?

Mr. CASSELL. Well, I happen to have been on the other end of this when they were attempting to determine what the definitions would be, and whether all of this was possible. And I, along with a number of other companies in Chicago, was a guinea pig. And my feeling from the other side was that these are pretty good data. They represented what we were thinking and what we felt we wanted.

So I would say, I think by and large, they are pretty reliable. And it comes from the fact that I had to answer the questions from the other side.

Chairman PROXMIRE. You worked with it?

Mr. CASSELL. Yes.

Chairman PROXMIRE. My final question is, could additional funds be better spent on the present interarea placement program, if you had to choose between them?

Mr. CASSELL. I am not about to choose. I need this—we all need this kind of data to help the interarea program. I think they are related and are necessary.

Chairman PROXMIRE. Congressman Curtis?

Representative CURTIS. Thank you, Mr. Chairman.

And first I would like to have put in the record an opening statement.

Chairman PROXMIRE. Without objection, it may appear at this point.

(The opening statement of Representative Curtis is as follows:)

OPENING STATEMENT OF REPRESENTATIVE THOMAS B. CURTIS, MEMBER OF THE SUBCOMMITTEE ON ECONOMIC STATISTICS OF THE JOINT ECONOMIC COMMITTEE

Mr. CURTIS. I want to congratulate the chairman for his initiative in arranging these hearings on the need for job vacancy statistics and the progress that has been made in developing them.

As the chairman knows, I have felt for some time that information on job vacancies is a vitally necessary tool of economic analysis. My interest goes back to 1961 when, under my direction, the House Republican policy committee conducted a far-reaching study entitled "Employment in the Dynamic American Economy." That study clearly indicated the importance of data on unfilled jobs, particularly in determining the proper focus of training and retraining programs. In remarks on the House floor in connection with that study, in my book, "87 Million Jobs," and in countless hearings and reports since then I have tried to do whatever I could to point out the need and the desirability of quick action by the administration to develop these data.

It is regrettable that it has taken nearly 4 years to begin the difficult task of developing this statistical series. Thanks to the work of this subcommittee and to the pioneering efforts of the National Industrial

Conference Board and the National Bureau of Economic Research, we are finally beginning to move forward. I will be greatly interested in the progress report of the administration witnesses and their future plans for developing this series.

These hearings may seem remote from the pressing policy problems that now confront us. But I believe that the long-run implications of this work will represent a major step forward in our understanding of how the economy operates and the appropriate steps required to maintain maximum employment and growth. The vast influence of our unemployment and price statistics testify to the importance which statistical data can have in shaping Government policy. In my opinion, job vacancy statistics will be no less important.

I am sorry that Prof. Arthur F. Burns, who has been an articulate and consistent supporter of job vacancy data, is in Europe and unable to be here for these hearings. No one has done more to clarify the policy uses which such data would have. As Dr. Burns has pointed out, what really matters for the purposes of the Employment Act is how the amount of unemployment actually compares with the number of job vacancies. If we were able to compare unemployment with unfilled jobs, we would know with greater certainty than is now possible whether aggregate demand is deficient or whether structural correctives are required to deal with unemployment.

In order to make Dr. Burns' views on this subject available, I ask that a copy of his speech before the Joint Economic Committee's symposium on the twentieth anniversary of the Employment Act of 1946, held on February 23, 1966, be included in the record of these hearings at the conclusion of these remarks.

Chairman PROXMIRE. Without objection, it is so ordered.

(The speech referred to follows:)

REMARKS[1] OF ARTHUR F. BURNS, PRESIDENT, NATIONAL BUREAU OF ECONOMIC RESEARCH, INC., AND PROFESSOR OF ECONOMICS, COLUMBIA UNIVERSITY

AGGREGATE OR STRUCTURAL APPROACHES TO ACHIEVING EMPLOYMENT ACT OBJECTIVES

The Employment Act which we celebrate today has had its share of the vicissitudes of fortune that go with life. The bill originally proposed by Senator Murray ran into massive opposition in the House, and many anxious months elapsed before the Congress hammered out an acceptable compromise. The machinery established by the Act has not always functioned smoothly or as its designers may have hoped. At times, the findings by the Council of Economic Advisers have lacked the detachment or the lustre of science. At times, the pronouncements of the Joint Economic Committee have suggested excessive partisanship or haste. In one year the Congress refused to vote a full year's appropriation for the Council's activities, and its ability to survive became doubtful. Despite such occasional setbacks, the moral authority of the Employment Act has grown with the passage of time. Indeed, in the span of a mere twenty years, the Act has acquired the force of an economic constitution. The President, his Council of Economic Advisers, the Congress, in some degree the entire executive and administrative establishment, including the Federal Reserve Board, now function under this "constitution" when major economic policies are developed.

As befits a constitution, the Employment Act lays down general principles and procedures, but gives little guidance on how the Federal government is to discharge its new responsibility of promoting "maximum employment, production, and purchasing power." To be sure, the Act stresses the importance of proceeding "in a manner calculated to foster . . . free competitive enterprise." This constraint reaffirms our nation's commitment to the principle of freedom, but it does

[1] Hearings before the Joint Economic Committee on "An Economic Symposium on the Occasion of the Twentieth Anniversary of the Employment Act of 1946," on Feb. 23, 1966.

no more than that. The Act also specifies that the means employed in furthering its objectives must be consistent with the "needs and obligations" of the Federal government, with "other essential considerations of national policy," and with "the general welfare." In view of this broad language, our successive presidents have been able to deal under the umbrella of the Employment Act with such objectives of policy as stability of the general price level, faster improvement of productivity, equality of opportunity, and equilibrium in the balance of payments. However, the Act itself is entirely reticent on these matters, and therefore gives no clue to the way in which any of these objectives is to be sought, or how the pursuit of one or another of them may aid or limit the achievement of "maximum employment, production, and purchasing power." In short, the Act practically leaves the means for dealing with recession, unemployment, or inflation to judgment concerning the individual case.

The flexibility inherent in the Employment Act has proved very helpful to government officials charged with its administration. Indeed, economic life is so full of surprises that it is doubtful if the Act could have survived if the Congress had prescribed some formula, whether the one suggested by the Murray bill or any other, for achieving maximum employment—to say nothing of maximum production or purchasing power. At the same time, the sweeping but imprecise mandate of the Act has imposed an extremely difficult task on the Council of Economic Advisers and the Joint Economic Committee, and beyond them on professional economists as a class.

Taking the past twenty years as a whole, the administrators of the Employment Act have concentrated on the maximization of employment, but they have not neglected other major objectives of national policy. By and large, our economy has performed well during this period. We have preserved the essentials of freedom in a revolutionary age, when many other nations have lost or destroyed their freedom. Our economy has continued to grow in size and efficiency. We have made great strides in moderating the business cycle, and the fruits of industry have been widely distributed among our people. The Employment Act has contributed to these achievements by introducing elements of order into economic policy-making and by providing assurance to both businessmen and consumers that economic storms would not be left to themselves. We must not, however, gloss over the lapses from full employment during the post-war period, or the series of recessions, the deterioration in the value of the dollar, the chronic deficit in the balance of payments, and the persistence of pockets of poverty in our land of plenty. If the efforts of the administrators of the Employment Act have not always been successful, the reason in large part is that they have worked with tools that are much too crude.

We need, in particular, better ways of determining whether, when or to what degree unemployment can best be attacked by over-all monetary and fiscal policies. Our nation has relied preponderantly on such policies during the past few years on the ground that aggregate demand was deficient. This approach has certainly not been wanting in plausibility. In view of the fact that we experienced a recession in 1957–58, that the recovery which followed was incomplete, that another recession occurred in 1960–61, and that a good part of 1962 was marked by sluggishness, there can be little doubt that a deficiency of demand was a major cause of unemployment during much of the period since 1957. However, the Council's calculations of the gap between actual and potential output, quite apart from being fragile, cannot be treated as measures of demand shortage. If aggregate output falls short of its potential, the gap may have nothing to do with any weakness of demand. It may instead reflect obstacles on the side of supply or a failure of the constituent parts of demand and supply to adjust sufficiently to one another. Since the structure of our economy keeps changing, these changes as well as difficulties on the demand side must be reckoned with in a scientific diagnosis.

Let me note briefly a few of the structural factors. First, welfare programs have grown very rapidly in recent years. A great merit of these social measures is that they maintain a flow of income during periods of unemployment, so that even poor men may practice some of the discrimination in job choosing that comes as a matter of course to the well-to-do. Our statistical measures, however, do not recognize this voluntary aspect of unemployment, nor the fact that our social legislation together with increasing prosperity have been tending to increase it. Second, women and teenagers have become a much larger factor in the labor force since the late fifties. But women are less inclined or less able than men to end their unemployment by taking a job in another city. Indeed, they are

less prone than men to move to another occupation or another firm within the city of their residence. Moreover, married women commonly seek only part-time or intermittent work. And since a large proportion of the teenagers in the labor force are students, they too frequently seek part-time or intermittent work. But a new entrant into the labor force rarely finds or takes a job immediately; in other words, he is unemployed for a time. Since these unavoidable intervals of unemployment are repeated for intermittent workers, the volume of unemployment has tended to rise as the intermittent work force has grown. Third, the obstacles to rapid adjustment in the labor market have lately become larger. The pace of technological change has quickened. The supply of part-time workers has increased with sudden rapidity, while the evolution of demand has been gradual. Also, the legally prescribed minimum wage has risen much faster than the average wage at the very time when the ranks of unskilled and inexperienced workers were swelling. Hence, shortages of some types of labor and in some communities have coexisted with surpluses in others to a larger extent than before.

It is developments such as these that the structuralist school has emphasized rather than any deficiency of aggregate demand. And just as the expansionist school has sought to fortify its claims by an impressive array of evidence, stressing in particular the depressed state of business investment in fixed capital between 1957 and 1963, so the structuralist school has marshalled considerable evidence on the high and rising level of overtime work, on the concentration of unemployment among less educated workers, on the jump in the ratio of the unemployment rate of Negroes to that of whites since the mid-fifties, on the exceptionally high ratio of the unemployment rate of teenagers to that of adult males during the past three years, and so on. Most structuralists have been entirely ready to grant that easy money, lower tax rates, and larger Federal expenditures—that is, the remedies favored by the expansionists—would reduce unemployment. They have insisted, however, that more lasting effects would be achieved by attending to the structural causes of unemployment, and that the risk of inflation would also be reduced in the process. Although their views were heeded to some degree, as the Manpower Development and Training Act of 1962 and related legislation testify, the expansionist theory proved more congenial to the mood of our times. Had it done so to a lesser degree, I believe that unemployment would now be no higher while the danger of inflation would be smaller than it has become.

My purpose on this occasion, however, is not to press the relative merits of this or that school of economic thought. My basic point is rather that existing information has prevented economic investigators from reaching the precise diagnosis of the unemployment problem that the Employment Act so plainly requires. The Act declares that the Federal government has the responsibility of promoting "conditions under which there will be afforded useful employment opportunities * * * for those able, willing, and seeking to work." To discharge this responsibility, statistics are needed to determine to what degree, if any, the aggregate demand for labor falls short of the number of "those able, willing, and seeking to work"—that is, of the supply of labor. But the aggregate demand for labor includes the unfilled jobs as well as those that are being manned, just as the aggregate supply of labor includes the unemployed workers as well as those who have jobs. Hence, to determine the relation between aggregate demand and supply, information is needed on three magnitudes—employment, unemployment, and job vacancies. Unhappily, while we have comprehensive statistics on the first and the second, the data on job vacancies are fragmentary, and it has therefore been impossible to bring either the expansionist or the structuralist theory to a decisive test.

If I read the Employment Act correctly, its implementation requires continuous, carefully compiled, and comprehensive statistics on job vacancies. It may be interesting to know whether the existing unemployment rate is above or below 4 per cent, but neither this conventional figure nor any other can be relied upon to identify maximum employment—or its equivalent in common usage, full employment. What really matters for the purposes of the Employment Act is not what figure on unemployment appears to correspond best to the concept of full employment, but how the amount of unemployment that actually exists compares with the number of job openings. When unemployment exceeds job vacancies at prevailing wages, the demand for labor is clearly insufficient to provide employment for everyone who is able, willing, and seeking to work. At such a time, a deficiency of aggregate demand exists, and a governmental policy that relies on monetary, fiscal, or other devices to expand demand is, in principle,

suited to the nation's needs. On the other hand, when the number of vacant jobs is equal to or larger than the number of the unemployed, there is no deficiency of demand. A government that is seriously concerned about inflation will not seek to expand demand at such a time, but will instead concentrate its efforts on securing better matching of the men and women who seek work with the jobs that need to be filled. By equipping ourselves in the future with more of the information needed to determine the true state of demand, we should be able to pursue the objective of full employment with less danger of causing serious inflation.

This objective will be promoted by other improvements in economic information. Our statistical system is the best in the world, but it is not keeping pace with the needs of our times. We learn, for example, that unemployment amounted to 3.3 million this January. What precisely does this figure tell us? A short answer is that it reports the number of jobless persons who are able, willing, and seeking to work. This answer, however, is incomplete and in some respects misleading. In the first place, the figure includes an unknown number of individuals who, while they are willing to work and are seeking work, are so handicapped physically or psychologically that they would be unable to hold down a job even in a very tight labor market. Second, the unemployment figure includes several hundred thousand persons who actually have jobs; specifically, those who are waiting—whether of their own choice or the employer's—to start work within thirty days, those who are searching for a new job while they are absent from work, and those who have been temporarily laid off but have definite instructions to return within thirty days. Third, the unemployment figure includes an undetermined number who are not looking for work diligently. A man who applied for a job as much as sixty days ago, but made no other effort to find a job while waiting for a reply to his application, may still be counted as unemployed. Fourth, the unemployment figure includes a certain number of persons, again of unknown magnitude, who are not looking for work in any sense, either because they are temporarily ill, or because they are waiting to be recalled from an indefinite layoff, or because they believe that no work is available in their community or trade. On the other hand, the unemployment figure omits some, perhaps many, persons who have stopped looking for work because they have established that acceptable jobs are unavailable within their geographic reach. Clearly, the unemployment figures which serve as a basis for much of our policy-making are highly technical and somewhat dubious aggregates. Not only is it desirable to refine the concept of unemployment; we also need to learn how to assemble and use statistics of unemployment so that the parts which cannot be readily influenced by broad fiscal or monetary policies may be approached by more direct measures.

Other branches of our statistical system also show signs of age and need to be revitalized—notably, the records of prices and wages. The quotations that enter into price indexes of industrial commodities at wholesale are largely based on list prices rather than actual market transactions. But in the course of an economic upsurge, such as we have been experiencing, discounts tend to become smaller, concessions fewer, and premiums more frequent or larger. By neglecting these changes, our price indexes have understated the advance of the wholesale price level since mid-1964. If more accurate price indexes had been available, we might have realized sooner that the remarkable period of general price stability which began in the late fifties had come to an end, at least temporarily.

Despite their element of bias, the wholesale price indexes have the merit of comprehensiveness—an advantage that our measures of wage changes lack. The fullest set of figures published by the Bureau of Labor Statistics pertains to hourly earnings of production workers in manufacturing. These figures represent hours paid for, not hours worked, and hence do not allow for the increasing number of hours paid for but not worked. They do not include fringe benefits—a factor that has become of major importance to employers and employees alike. A sizable and increasing fraction of employees are classified as "nonproduction" workers, and they are not covered at all in the wage statistics. Finally, it is well to note that employees in the goods producing industries are now outnumbered by those in the service industries, and that the statistical coverage of wage rates and earnings in the service industries is meager.

But the records that are used most widely and on which businessmen as well as government officials have come to rely most heavily are the estimates of gross national product—that is, the nation's total output of goods and services. These figures not only inform us on past and current economic conditions, but also serve as a basis for much of the forecasting in which economists and others necessarily engage. As is true of so many parts of our statistical system, the gross national

product estimates are more dependable than comparable data for most other nations. They are not, however, as good as they should be. The July 1965 issue of *Economic Indicators,* for example, reported that the gross national product in 1964 was 623 billion dollars. The next month's issue reported the appreciably higher figure of 629 billion for the same year. In fact, had it not been for certain changes of definition that accompanied the statistical revisions, the latter figure would have been 640 billion. Or to cite a more nearly current example, the increase between the first and second quarters of 1965 was reported in successive issues of *Economic Indicators* as 9.2, 9.5, and 11.2 billion dollars, while the increase between the second and third quarters was reported as 11.0, 11.6, and 12.7 billion. While I admire the constant striving of statisticians for promptness, precision, and conceptual relevance, I also suspect that the initial under-estimates of the growth in our nation's output last year may have contributed to the somewhat tardy realization by policy makers that slack in the economy was vanishing. I have wondered over the years, and still do, how much might have to be added to the cost of gathering our statistics so as to reduce, if not eliminate, the need for sizable revisions in the future, and whether the resulting benefits would not greatly outweigh the cost. I hope that the Joint Economic Committee, which has often taken the initiative to improve our statistical system, will seek answers to these questions.

Let me say, finally, that the implementation of the Employment Act requires, besides better information, more realistic models of the workings of our economy than are now current. Contrary to widespread notions, neither the labor force nor the output per manhour grows steadily and smoothly, year after year. Nor is the gap between actual and potential output like a bathtub that merely needs turning on of the fiscal faucet to be filled. Experience teaches that productivity increments tend to decline as full employment is approached. If this tendency is overlooked by the makers of policy, the bathtub may overflow. Experience also teaches that confidence is a basic factor in economic life, and that it therefore makes a difference, even if we cannot express it in a mathematical equation, how we seek to fill gaps. Arithmetically, one dollar in the Federal budget is like any other, but from an economic viewpoint the individual dollars differ. The great success that attended the recent reduction of income tax rates cannot be attributed solely to the arithmetical magnitude of the fiscal stimulus. It was also due to the fact that the government took numerous steps to improve confidence after the unhappy steel price episode of April 1962, that the fiscal stimulus adopted in early 1964 took the form of a tax reduction instead of an increase in expenditures, and that the tax reduction became effective over the entire range of personal and corporate incomes instead of being limited, as some well-meaning citizens had urged, to individuals at the lower end of the income scale. But just as confidence may be strengthened by creating a better environment for enterprise and investment, so also can it be damaged by imprudent management of governmental finances or by arbitrary interference with the workings of labor and commodity markets.

I wish to congratulate the present Council of Economic Advisers and the Joint Economic Committee on their efforts to bring our evolving economic knowledge to bear on the nation's economic condition. They need not be reminded of William James' pragmatic maxim that "we have to live today by what truth we can get today, and be ready tomorrow to call it falsehood."

Representative CURTIS. I would like to pick up just a couple of points here. How much information can you get from the people in vocational education as far as the jobs available in the community?

In St. Louis, for example, I think we have a very good public high school vocational educational program, and our junior colleges are moving into it. In talking with them, I find they seem to have a pretty good grasp of job vacancies. Apparently, over a period of years, they have developed a network of information with employers. Can you tell me on a national basis, how much value—how much information—can be gotten from these groups?

Mr. CASSELL. I am somewhat familiar with this but not as much as I should like to be on a national basis. I come from Illinois, and about the best I can do at the moment is to pick an example from Illinois. I would have to say that it is very spotty from region to region and

area to area as to the contact between vocational people, for example, and industry people.

I think one of the great values of this kind of study is going to be to draw the two of them together. You see, there are two sides of the coin. And here we are producing data which enables both of them to operate a little bit more intelligently. The job vacancy data we are developing in the Employment Service with the cooperation of the BLS are the kind of data that help the vocational man to assess what the opportunities are. And they help the employer to assess where his needs are. This, I think, helps bring the two of them together. And I just finished last night reading a vocational educational conference report, which was held in Maryland a week or two ago, in which the educators kept saying over and over again, "this is the kind of data we need to help us do our planning so that we can spend our money wisely."

Representative CURTIS. I think you are quite responsive.

Let me add to your conclusion that the picture is spotty. St. Louis City is a political unit, and St. Louis County, which is part of the metroplex, is another political unit. I commented that in St. Louis City vocational education, at least in the public school sector, seems to be well advanced. In St. Louis County, which has a larger population than the city, we are just beginning to move. And this certainly indicates the spottiness that you mentioned.

And I think the same goes for the private vocational educational schools, of which there are many. There seems to be no national organization of vocational educators where they exchange information on the techniques that they may have developed to try to establish early warning systems, as I call it, on what new jobs are coming in demand, and what established skills are becoming obsolescent. Would that meet with your observations?

Mr. CASSELL. I think just before you came I mentioned my own experience as chairman of the Governor's committee in Illinois. A third of that committee were educators. And for 2 years I listened to what they were saying. They were saying, "look, when is the Government going to produce the kind of data that we can use to do our job?"

I spoke to a group of vocational people here in Washington about a week ago. And when I had finished I was beseiged by requests from them, "will you get information from my town, from my city?" As a matter of fact, one of the problems here is the fact that I think the demand for this information is so wide, we are going to be amazed at the task ahead of us.

Representative CURTIS. Let me move into another sector of possible source of information in gathering data. This is the private employment agencies. In my attempts to find out what they are doing, I find a very loose national organization. Very few of these private employment agencies are in touch with each other. There is a little bit of a network developed. But they certainly do generate a lot of information on jobs available, because that is their stock in trade. Would you comment on the extent to which you find that they are helpful in getting information?

Mr. CASSELL. Since I have been on the job here—which is a little more than 2 months—I have had three meetings with the private employment agency people to discuss this very subject. And from

our standpoint we are very happy to provide the private employment agency people with the kind of data that we are producing and will be producing that ought to help match people in jobs.

Secondly, I asked them specifically to join in in producing the data, and supply us with as much labor market information as they could produce from their organizational membership to help us understand the total labor market.

In addition, we have met with another group, with which you are probably familiar, the college placement council.

Representative CURTIS. Yes, indeed.

Mr. CASSELL. And we are meeting with them later this month in a joint meeting to discuss how this kind of information and data can not only be used jointly, and to further the efficiency of the job market, but to see what they can produce to help us, and what we can produce to help them.

Representative CURTIS. Very good.

Now, a third big area is the relationship of our Military Establishment to the civilian sector. I have seen, over a period of years, articles, and one just recently in the past 2 or 3 months in the Labor Department's Bulletin, pointing out that about 80 percent of the skills needed by the military have their counterparts in the civilian sector. But I have been distressed to find that in the military itself, there seems to have been very little development of nomenclature of these skills or a liaison between the military and the Department of Labor and others who are in the training field. We are spending over a billion dollars a year, at least, in the military sector training people in skills existing in the civilian sector. I have often thought that the civilian sector could do a much better job, and that, therefore, considerable liaison would be helpful. Would you comment, though, solely on how they fit into your present studies?

Mr. CASSELL. I would like to leave the question of nomenclature to Mr. Chavrid, whom I am sure is very familiar with this particular problem.

Representative CURTIS. I was only using the point on nomenclature as an illustration. What I am mainly interested in is what you are doing in relating it to this big area of what the military is doing in the field of training, and the need for skills, et cetera.

Mr. CASSELL. One of the most important things we are doing is, we have employment service people at all the separation centers who are working on counseling and guidance. Just last week I was down in South Carolina, in Charleston, in that area where there are a lot of people being separated from the military. And I talked with our people down there about their experiences. And they are doing just the thing you would like to see done, namely, trying to match up the skills and the background that these people have accumulated during their military service with appropriate civilian occupations.

This is at two levels. This is with the enlisted man who is coming out. But then as you know, there are a whole group of people, retired military officers with 20 years' experience in the service, getting out at the age of 45 or so, who have to learn new careers. And frequently these are military executives who have to learn how to be other kinds of executives. We are just coming to this last point. But the whole matter of matching the military people who are coming out is being done.

Now, I would be the first to say that I don't think we are doing enough of it. And I don't think I personally know enough how this ought to be done.

Representative CURTIS. I am really interested in this aspect. Say the military needs x number of welders, or x number of bulldozer operators. Why take kids 18 or 19 years old and send them by the numbers to welding school or bulldozer operating schools? Why not tell the private sector what the military needs in the way of these skills? Because they do exist. That was what was done with the Seabee manpower procurement in World War II—matching the skills needed with civilians having those skills.

I want to make one general observation, if I may, Mr. Chairman. I think that the key to this whole business is, does automation create more jobs than it destroys? I think it does. But these jobs are frequently geographically apart from where the jobs destroyed existed. And they are frequently in different skills.

And furthermore, a job destroyed is easier to identify that the new jobs created. A job destroyed has nomenclature; it has a human being attached to it. The newly created job frequently does not have nomenclature and does not have an individual human being attached to it. But I think a great deal depends on accepting this and dealing with it.

There are those who argue that automation destroys more jobs than it creates. I think our disagreement lies in the fact that they have a narrow definition of automation, and possibly a more correct dictionary definition than the one I used. I am using it in the broad sense. But if this is so, then certainly we have got to do a great deal more in developing an early warning system, no matter what new jobs are being created, and get the nomenclature, find out where the jobs are, and get the men trained for them.

Thank you.

Chairman PROXMIRE. Thank you, Congressman Curtis.

Our next witness is the Commissioner of Labor Statistics, Arthur M. Ross.

We are delighted to have you, Mr. Ross. You may proceed in your own way. We have a very impressive statement from you. If you care to summarize, it would be quite satisfactory.

STATEMENT OF ARTHUR M. ROSS, COMMISSIONER OF LABOR STATISTICS, DEPARTMENT OF LABOR

Mr. Ross. Yes, I would like to have it introduced in the record. And I will summarize it for 10 or 15 minutes if I may.

Chairman PROXMIRE. Yes, sir.

Representative CURTIS. And may I say, Mr. Cassell, that any additional information that you would like to put in, and extend your answers to questions, you may do so.

Mr. CASSELL. I would be happy to do so.

Chairman PROXMIRE. That is a good addition.

Mr. Ross. Mr. Chairman, I am going to deal particularly with the analytical uses of job vacancy data. And I think it might be helpful to comment on a couple of points raised in the question before summarizing my statement.

The question was raised, How are the data collected? In the job vacancy surveys the data are collected directly from employers gen-

erally through questionnaires. We are experimenting with two methods. One is a separate questionnaire on job vacancies which is sent to the employer by the local employment office. The other is to combine the job vacancy questions with the labor turnover questions; that is, another option. If that works out well, it might be possible to get labor turnover information for all industries, manufacturing, and nonmanufacturing, together with the vacancy data. This is an open question of what technical option we use, depending upon the outcome of the experiments.

Chairman PROXMIRE. Will you give us a little more information on what you mean by "labor turnover"?

Mr. ROSS. That is the information on accessions, terminations, the quit rate, the layoff rate, and so forth. We now get those data for manufacturing industries only. And we would like to extend them also to the other industries.

Mr. Chairman, you also raised the question of whether there is a concrete definition of the job vacancy, or whether it is a pretty ambiguous thing.

I think we do have a pretty concrete operational definition. In these surveys we define a vacancy as an opening for which they need a new worker, somebody who is not presently in the company, a job that is unoccupied, a job which is immediately available, and one for which they are actively recruiting. And I would submit that that is a pretty understandable definition. And we do find that employers generally understand what we mean, and that they are able to identify their vacancies. In the experimental surveys the Department has made followup personal visits to many of these firms, and they have corroborated that the employers' concept of a vacancy generally corresponds to our concept of a vacancy.

So I think that question of yours could be answered in the affirmative.

Proceeding to my summary, Mr. Chairman, I think the general case for vacancy data is that we ought to know about labor demands as well as labor supply. Our information on unemployment and on the growth of the labor force tells us about the oncoming supply and existing supply of manpower. We do have more of a vacuum of information on the demand side.

The interest and need for vacancy data is greater now because of the manpower shortage problem. Secretary Wirtz called in Mr. Ruttenberg, the Manpower Administrator, and myself back in December. And he told us that he thought we were doing a pretty good job in studying unemployment, but we had a long way to go before we could master the problems of information about labor shortages.

We have been working on that ever since. I filed a monthly report. And the President has asked me to make public a monthly report on both present and prospective shortages.

This calls for careful analysis of the whole economic picture. And I think we all feel that if we had better information on labor demand in the form of job vacancies we could do a better job at this.

Now, I don't think this is limited to the present year. If we are going to approach and maintain full employment, there are going to be constant problems of imbalance between supply and demand of manpower. There are going to be constant mismatches. It will not

be an easy task to reconcile the two, and I think there is an increasing and constant need for this.

In the statement I described some of the background, the experiments during World War II and the Korean war, the development of foreign vacancy statistics. And I might say that we would not be satisfied with the kind of program they have in foreign countries, which is based upon employment service orders.

Representative CURTIS. Would you identify the countries, if you could?

Mr. Ross. Yes, sir.

Representative CURTIS. Are they in there?

Mr. Ross. They were in the statement.

Representative CURTIS. Which are the better? Could you just comment? I guess they are Western Europe mostly.

Mr. Ross. Yes. The ones mentioned in the statement, among them are the United Kingdom, Sweden, the Netherlands, and France. They are not the only ones, but they are the ones who have done perhaps the most with it.

You are also familiar with the experimental surveys of the National Industrial Conference Board in Rochester. And we will report at greater length upon our own experimental surveys during the past couple of years.

You perhaps know the National Bureau of Economics Research had a conference on job vacancies research last year. I was a member of the planning committee. And I think that many of the conclusions about job vacancy research were brought together there.

Now, my statement does emphasize the analytical uses of the information, and I think I would like to read four or five pages from my statement, and that would be about what I would want to emphasize.

The lack of job vacancy information constitutes the most significant gap in our knowledge of labor market conditions. Statistics on job vacancies would give us a measure of unsatisfied demand for labor which, together with our data on employment, would provide a more complete measure of the demand for labor—something we have never had before.

Some of the major potential analytical uses for job vacancy information are as follows:

1. Job vacancy information can be used to develop a picture of the size and characteristics of unfilled demand for labor. Such information can then be analyzed in its own right, just as many useful analyses are made of the size and characteristics of unemplyoment.

2. Trends in job vacancies, especially if classified by occupation, can be of considerable value in throwing light on the ability of our economy to adjust to changes in the demand for labor, and a vacancy information would be a good lead indicator.

3. When used in conjunction with data on employment, unemployment turnover and hours of work, this can help us analyze the current economic situation to bring to light the major policy decisions that have to be made in dealing with unemployment and labor shortages, inflation, and so on.

4. We could—well, I mentioned that the President has asked me to prepare regular reports on shortages, and I feel we could do a better job in addition to the indirect and circumstantial data we now have

to use if we had direct evidence through measures of vacancies classified by occupation, industry, and area.

5. The job vacancy information will throw additional light on demand and supply conditions in the labor market, in relation to changing wage levels. And I believe myself that the wages for the vacancies should always be taken into account in analyzing them.

6. The vacancy data can help us sharpen our projections of manpower requirements by occupation, which are a very essential tool in estimating training needs, and in counseling both at the employment service level and in the educational institutions.

7. The information, as Mr. Cassell has emphasized, can be used by business firms to get a picture of the area within which they are recruiting, and to develop their recruiting and in-plant training policies.

And finally, I feel that this information can be of equal value to labor organizations in evaluating the demand for the services of their members and in developing policies for training, apprenticeship, and collective bargaining.

In meeting these analytical needs more information is required than merely the number of vacancies. We need to know how many of the jobs employers are trying to fill have been vacant only briefly, and how many of them represent hard-to-fill jobs. The latter may indicate imbalances between supply and demand, resulting from a disparity between the skills needed by industry and the skills available among unemployed workers in the community. They may also reflect unrealistic hiring standards, or low wage rates and unfavorable conditions of employment. To get insight into these questions we need job-vacancy data separately for each local area, and by specific occupation. And we also need information on the wages to see what proportion of the vacancies are being offered at substandard levels.

Job-vacancy information can add greatly to our analytical insights into the labor market, particularly if studied together with other data. Analysis of vacancies together with data on labor turnover will suggest what proportion of the vacancies at any time represent a normal condition reflecting the typical turnover experience in the industry. For example, we would expect the construction industry to have a higher rate of vacancies than an industry characterized by more stable employment, such as banking.

Similarly, we need to analyze vacancies in relation to employment and its seasonal and cyclical fluctuations. If you had a sudden increase in vacancies in an apparel manufacturing, it might only mean that it is entering the busy season, but a similar increase reported by a nonseasonal industry would be another matter all together.

It would also be essential to study vacancies in relation to the apparent supply of labor as reflected in unemployment data for the locality. In the pilot studies we made last year, we found a large number of vacancies in relation to the apparent supply of workers in professional, managerial, and sales occupations, and a smaller number of vacancies in relation to supply in the blue-collar and less-skilled occupations. In order to make these analyses possible, I might say that we need better local data on unemployment, because as you know, the unemployment estimates locally leave much to be desired. The Department of Labor is working to improve these measures, and hopes to secure resources to do so.

In interpreting the significance of job vacancies in an industry or occupation, we need to relate the vacancies to the total employment. For example, if you had 5,000 vacancies for engineers, that would be one-tenth of 1 percent of the total number of engineers in the country. Five thousand vacancies for physicists would equal 12½ percent of all physicists.

So in order to put the vacancy data into perspective, we need estimates of employment by industry, both on a nationwide and local basis. We have those. We also need better information for occupations which we are only now setting out to develop on a systematic basis.

And finally, to make the data on job vacancies most useful for analytical purposes, we need to study the trend and vacancies in relation to those in the other measures, including employment, unemployment, labor turnover, hours, and wages.

I am confident that the data on job vacancies will provide a valuable additional dimension to our system of economic changes, and will provide critical insights into the economy. In some cases we will be able to identify what measures should be taken to improve the speed and efficiency of local placement and recruiting mechanisms. In another case we will have a clearer indication of the need to make a better match between workers and jobs by retraining, counseling and relocation grants, and programs to reduce discrimination.

Analysis of labor supply and demand information may point to the need for higher levels of effective demands in periods other than the present.

The analysis of job-vacancy data, together with other information on the economy, will give better clues than previously have been available to the selection and timing of private and public policies.

Now, we have given a lot of thought to the criteria and technical definitions. I won't go into that, although Mr. Chavrid may cover some of that. And we can do it in the questioning, if you like, Mr. Chairman.

We do discuss in my statement the pilot surveys from the standpoint of how you define vacancies—and there are problems there. And we discuss the pilot surveys from the standpoint of occupational classification. And there are problems there. And we discuss the handling of wage data in the analysis of vacancy information. We discuss the problems of establishment sample and industry coverage. And we discuss the response accuracy problem—I might say that in the response accuracy checks which are summarized in my statement we have had pretty encouraging results in terms of not only employer cooperation but also the accuracy of their reports when checked against the evaluation by skilled BLS people who actually went into the plants and studied the vacancies themselves.

There is an understatement of vacancies of about 12 percent, as a result of various factors which we hope can be corrected.

Now, there has been considerable concern, both in labor and management circles, about the danger that job-vacancy data once collected would be misused. One possible misuse that has caused some apprehension is that the number of job vacancies might be subtracted from the number of unemployed workers, and the difference between these two figures might then be represented as the "true" unemployment figure. I do not know any serious student of labor problems who would propose such a use; for the problem of unemployment is

highly complex and must be considered in relation to the age, sex, color, skills, local residence, and other characteristics of the unemployment. We have to recognize that no economic measure or statistical measure is completely free from the danger of misuse. This goes for our price statistics, our employment and unemployment statistics, as well as the vacancy data we would like to develop. If we were to refrain from collecting any data that could possibly be twisted or used out of context, then we would have to close all of our statistical agencies, as well as the scientific laboratories for the potential misuse is much more deadly in the field of science than in the field of statistics.

I believe that the danger of possible misuse should not be a bar to the development of data under responsible auspices that will be valuable if properly used. We must recognize, of course, the obligation of Government agencies, responsible for statistics to use the data properly, and to caution the public against improper interpretations, and we will be assiduous in this regard. Indeed, we intend to analyze the data on job vacancies carefully, and acquire deep experience in the behavior of the data before interpreting its significance.

I would be the last to claim that we have solved in advance all the problems of concepts, all the problems of checks, all the problems of analysis and interpretation. We will not rush to publication before we have this experience.

And I might observe, Mr. Chairman, that this is something that is true of all of our economic intelligence. We have been collecting and publishing unemployment data for many years. But even now we are experimenting with different concepts of unemployment through a supplemental family household survey, and we will make a decision later this year as to changes in the definition of unemployment, and changes in the way that the families will be interrogated. If this is true for unemployment after so many years of publishing these data, it stands to reason that we have nothing to be ashamed of in the fact that we have not solved all the conceptual or analytical problems of vacancies.

My concluding paragraph is as follows: Let me say that although the conceptual and technical problems described above are important, they are not of such magnitude as to prevent the statistics collected in a national program from being useful for analytical and operating purposes. We have come a long way in the past few years in identifying and resolving problem areas. We have examined in detail the arguments for and against the problem of job vacancies statistics. We feel that the need for job vacancy data heavily outweighs the problems involved. An ongoing and comprehensive vacancy program can greatly assist in the implementation of an active manpower policy and the development of economic analysis needed for major policy decisions.

Thank you, Mr. Chairman.

(The complete statement of Mr. Ross is as follows:)

PREPARED STATEMENT OF ARTHUR M. ROSS, COMMISSIONER OF LABOR STATISTICS, BUREAU OF LABOR STATISTICS, DEPARTMENT OF LABOR

I. INTRODUCTION

Over the past two decades, there has been continued discussion of the potential uses of quantitiative information on job vacancy data. Interest in such a program intensified in the early 1960's as the government instituted an active man-

power policy to combat high unemployment. In part, interest centered on vacancy statistics as a guide to labor market programs, including the placement, training, retraining, and relocation of unemployed workers. In part, interest reflected the debate on what general economic policies should be adopted to reduce unemployment. As the economy has moved from high to low unemployment in the mid-1960's, shortages of workers in some occupations and industries have provided added impetus to obtain information on job vacancies.

The President's recent Manpower Message emphasizes the need for accurate information concerning the extent and nature of labor shortages. "Specific shortages of labor slow up the expansion of the economy. They can put pressure on costs and prices. We are determined to do whatever is necessary to keep the economy expanding and avoid inflationary bottlenecks. The time to deal with manpower shortages is before they develop. Effective manpower policies can reduce unemployment and at the same time head off manpower shortages."

The President also directed the Commissioner of Labor Statistics to provide the "fullest possible information on existing or threatening labor shortage situations." For each of the past several months, in response to the President's directive, I have prepared a report on manpower shortages and reserves. The evidence on which these reports are based has been primarily circumstantial—employment gains, unemployment declines, changes in hours of work, labor turnover rates, job openings filed with the Employment Service, and other indirect indicators of manpower problems. Our experience in preparing these first reports has made it clear that direct evidence concerning unfilled vacancies is essential for determining the true extent and nature of manpower shortages. With such information, and with analyses of related data, we could more effectively pinpoint and deal with problems of shortages as well as surpluses in relation to current demand.

Attempts to obtain information on job vacancies and the unfilled demand for labor go back many years and have encompassed many different approaches. Indexes of help-wanted advertising date back to the mid-1920's. Statistics on actual job vacancies were extensively collected by State employment security agencies during World War II and the Korean War, and are still collected on a bi-monthly basis in several labor areas. The United States Employment Service record of job orders, which shows the number of jobs that employers place with the Employment Service to recruit workers, has provided insight into the demand for labor. Since only a portion of all job openings are placed with the Employment Service, however, the usefulness of this information is somewhat limited.

In the mid-1950's, the Department of Labor began to examine ways of developing job vacancy information on a systematic and statistically sound basis. The Bureau of Labor Statistics undertook a pilot study in 1956 to determine if it were feasible to collect job vacancy data by mail. The Bureau's initial reaction was that employers did not have sufficiently complete records and could not make sufficiently accurate estimates of vacancies.

Nevertheless the President's Committee to Appraise Employment and Unemployment Statistics (the Gordon Committee) asked the Bureau of Labor Statistics in 1962 to re-examine and report on the possibility of setting up a major job vacancy statistical program, pointing out the widespread interest in such a program and its potential uses. The Bureau's report, *A National Statistical Program on Job Vacancies*,[1] as well as the many comments the Committee received from those whom it consulted, favorably impressed the Committee which recommended that the Department of Labor initiate the program of research suggested in the report. This research, undertaken on a cooperative basis by the Department's Bureau of Employment Security and the Bureau of Labor Statistics in fiscal year 1964, concentrated on conceptual and definitional problems. It included pilot feasibility studies in the Chicago and Buffalo areas and a survey of the nature and uses of job vacancy statistics being collected in foreign countries. An exploratory study was also conducted by Robert Ferber and Neil Ford of the University of Illinois in 1963 and 1964.[2]

The research undertaken in 1964 identified many of the conceptual and technical problems that had to be solved. In fiscal year 1965, a more extensive pilot program was set up to find out whether employers would be willing and able to report job vacancy information by occupation on a voluntary basis. This program which was continued in fiscal 1966, demonstrated clearly that employers can

[1] Printed as Appendix B of the Committee's Report.

[2] Robert Ferber and Neil Ford, "The Collection of Job Vacancy Data Within a Labor Turnover Framework," in *Employment and the Labor Market*, edited by A. M. Ross, University of California Press, 1965.

and will provide such information, and that reasonably accurate estimates can be made.

The results of a conference held by the National Bureau of Economic Research in February 1965 also fortified the Department's belief that a job vacancy reporting program was feasible and desirable. At this conference, a large number of papers were presented covering all aspects of the measurement and interpretation of job vacancies, including the potential uses, problems, advantages and disadvantages of such a program. The insights gained from the discussions helped to resolve many of the Department's doubts, and pointed the way toward further improvement in the collection techniques and refinement of conceptual issues.

The Department's conclusion as to the feasibility of collecting meaningful job vacancy data was further corroborated by an exploratory study in Rochester, N.Y., done in 1965 by the National Industrial Conference Board, with support from the Ford Foundation. The report of the Conference Board stated that "statistics on the number of job vacancies by occupation can be collected with a level of accuracy that renders the figures meaningful." It further stated, after examining the uses and the money costs of such a program, that ". . . in our view the documented uses and the additional expected uses amply justify the estimated costs."

Interest in and use of job vacancy data is not limited to the United States. Many foreign countries have instituted such programs, among them the United Kingdom, Sweden, the Netherlands, and France. Foreign experience has provided us with valuable insights into the advantages, disadvantages, and problems connected with job vacancy programs. Let me describe briefly some of the characteristics of the job vacancy programs of foreign countries.

Job vacancy statistics in foreign countries are primarily the product of the administrative statistics of local employment service offices. Most countries tabulate and publish statistics on the number of vacancies registered each month, the number filled through their employment services (placements), and the number remaining unfilled as of a particular day. Published figures are frequently broken down by regional, occupational, and industrial classification, generally corresponding to the classifications used for the employment service statistics on registered unemployed job applicants. A few countries obtain job vacancy statistics from establishment surveys, usually in addition to their employment office statistics.

Most foreign programs have a relatively loose definition of a job vacancy, corresponding to that used in registering employer job orders. Similarly, there are no standards as to how actively an employer must be seeking a worker. Most countries count not only current vacancies, but also registered vacancies which the employer does not wish to fill until some future date. Generally, they count registered vacancies involving part-time work, temporary or even casual labor, as well as regular full-time work.

Statistics collected in most foreign countries represent an incomplete count of existing vacancies. The proportion of total vacancies covered varies among countries, depending on the degree of employer utilization of the employment offices, and varying with occupation and industry. The actual proportion is unknown in most foreign countries.

Despite the limited coverage of their vacancy statistics, foreign countries make extensive use of the information resulting from their statistical programs. The primary use is for recruitment and placement.

Some countries find monthly employment office job vacancy statistics to be useful indicators of trends in the demand for labor, both total and by area, industry, and occupation.

A number of countries use job vacancy figures by area and occupation in conjunction with unemployment figures to analyze the causes of employment and to determine needed corrective measures. An examination of the two sets of data provides a useful indication of labor shortages and surpluses in particular occupations, nationally, regionally, and locally. Coupled with other statistics, job vacancy information is used in the formulation of policies on labor mobility, location of industry, geographic maladjustments, and structural unemployment.

A number of countries use job vacancy statistics as a lead indicator of changing economic conditions, particularly as an indicator of approaching downtrends in the economy. Others indicate that they are an excellent indicator of emerging labor shortages, and of inflationary pressures resulting from labor market conditions.

A few countries use job vacancy statistics as a guide to training needs, mostly for short-term worker training programs. Current vacancy statistics, however,

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are not usually viewed as a good indicator of future trends, and are therefore less useful for determining training programs of a more extended nature. They may also be useful for vocational guidance, but only as a very broad indicator of trends.

Many insights have been gained from foreign experience with job vacancy statistics. One is that these figures should be used in conjunction with other data that are relevant in analyzing conditions in the job market.

We would not be satisfied with a system of statistics on job vacancies for job market areas in the United States as inadequate as those described above. Our economy is larger and more complex than those of the countries cited and our other manpower statistics are correspondingly more detailed and comprehensive. The system we are proposing for job vacancy information is, therefore, more elaborate and will suit our needs much better than the kind of simple tabulation described as a result of compiling applications to employment service offices.

II. ANALYTICAL USES OF JOB VACANCY INFORMATION

The lack of job vacancy information constitutes the most significant gap in our knowledge of labor market conditions. Statistics on job vacancies would give us a measure of unsatisfied demand for labor which, together with our data on employment, would provide a more complete measure of the *demand for labor*—something we have never had before.

I would like to summarize briefly some of the major potential analytical uses for job vacancy information and then discuss some of them at greater length.

1. Job vacancy information can be used to develop a picture of the size and characteristics of unfilled demand for labor. Such information can then be analyzed in its own right, just as many useful analyses are made of the size and characteristics of unemployment.

2. Trends in job vacancies, especially if classified by occupation, can be of considerable value in throwing light on the ability of our economy to adjust to changes in the demand for labor. They may serve as a lead indicator of changing economic conditions.

3. Job vacancy information, when used in conjunction with information on employment, unemployment, labor turnover, and hours of work, can enhance our ability to analyze the current economic situation for light on major policy decisions that have to be made in dealing with unemployment, labor shortages, and inflation. I shall discuss this in more detail below.

4. In the present economic situation, the question of labor shortages has become sufficiently critical, especially in relation to skilled manpower, that the President, as previously indicated, has asked the Department of Labor to watch the situation closely and to prepare regular reports. I have already pointed out that much of our evidence on labor shortages is indirect and circumstantial. We could do a much better job if we had direct evidence on labor shortages through measures of job vacancies classified by occupation, industry and area.

5. Job vacancy information will throw additional light on demand-supply conditions in the job market in relation to changing wage levels. Analyses of the effect of employment changes upon wage rates, although potentially very useful in appraising wage developments and policy, has not exhibited highly precise results when applied to data available for the United States. The additional dimension of job vacancies in the measurement of labor demand would contribute another powerful tool of analysis.

6. Job vacancy data can help us to sharpen the Bureau of Labor Statistics' projections of manpower requirements by occupation which are so essential in developing estimates of training needs to guide in the planning of the many education and training programs supported by the Federal Government. Up to now, these projections have been based on analysis of past trends in manpower requirements as measured by employment. We have recognized that in so far as there is unsatisfied demand for labor, the figures on employment are an imperfect measure of demand for labor.

7. Job vacancy information can be used by business firms to get a picture of the area within which they are recruiting workers, and to help in developing more effective recruiting policies. This would be especially valuable to firms considering new plant locations.

8. Such information could be of equal value to labor organizations in evaluating the demand for the services of their members and in developing policies for training, apprenticeship, and collective bargaining.

In meeting these analytical needs more information is required than merely the number of vacancies. We need to know how many of the jobs employers are

trying to fill have been vacant only briefly, and how many of them represent hard-to-fill jobs. The latter may indicate imbalances between supply and demand, resulting from a disparity between the skills needed by industry and the skills available among unemployed workers in the community. They may also reflect unrealistic hiring standards, or low wage rates and unfavorable conditions of employment. To get insight into these questions we need job vacancy data separately for each local area, and by specific occupation. We also need information on wages to see what proportion of the vacancies are offered at wage levels below prevailing entry rates for the occupation in the community. From many points of view additional information on the personal and skill requirements associated with each vacancy would be desirable, but it would be difficult to collect all these specifics as part of a large-scale survey program. Job vacancy information can add greatly to our analytical insights into the labor market, particularly if studied together with other data. Analysis of vacancies together with data on labor turnover will suggest what proportion of the vacancies at any time represent a normal condition reflecting the typical turnover experience in the industry. For example, we would expect the construction industry to have a higher rate of vacancies than an industry characterized by more stable employment, such as banking.

Similarly we need to analyze vacancies in relation to employment and its seasonal and cyclical fluctuations. We would expect a sudden increase in vacancies to be reported by a seasonal industry such as apparel manufacturing at the start of its busy season, but a similar increase reported by a non-seasonal industry would be another matter altogether.

It would also be essential to study vacancies in relation to the apparent supply of labor as reflected in unemployment data for the locality. In the pilot studies we made last year, we found a large number of vacancies in relation to the apparent supply of workers in professional, managerial, and sales occupations, and a smaller number of vacancies in relation to supply in the blue collar and less-skilled occupations. In order to make these analyses possible we need better local data on unemployment, and the Department of Labor is working to improve these measures.

In interpreting the significance of job vacancies in an industry or occupation we need to relate the vacancies to total employment. Five thousand vacancies for engineers represent only ½ of 1 percent of the total; 5,000 for physicists would equal 12½ percent of all physicists in the United States. In order to put the vacancy data into perspective we need estimates of employment by industry, nationally and for States and local areas, which we already have, and similar information for occupations, which we are only now setting out to develop on a systematic basis.

Finally, to make data on job vacancies more useful in analyzing job market developments we need to study trends and changes in vacancies in relation to those in other measures—employment, unemployment, labor turnover, hours and wages. In order to make this possible we need systematic statistics on job vacancies, comparable from locality to locality, and collected at regular intervals.

I am confident that data on job vacancies will provide a valuable additional dimension to our system of economic measures and will provide critical insights into the economy. In some cases we will be able to identify what measures should be taken to improve the speed and efficiency of local placement and recruitment mechanisms. In other cases we will have much clearer indication of the need to achieve a better match between workers and jobs, by such measures as training, retraining, counseling, relocation grants, and programs to reduce discrimination. Analysis of labor supply and demand information may point to the need for higher levels of demand.

The analysis of job vacancy data together with other information on the economy will give better clues than have previously been available to the selection and timing of public and private policies.

To make these analytical uses possible, certain requirements are imposed on the job vacancy data we develop. In particular, the definitions and concepts used in the measurement of vacancies should be appropriate for their analysis as part of the whole structure of job market information. Moreover, the occupational and industrial classification of the data should be comparable with the classification systems used for other job market data.

There has been considerable concern about the danger that job vacancy data, once collected, would be misused. One possible misuse that has caused some apprehension is that the number of job vacancies would be subtracted from the number of unemployed workers and the difference between the two figures would

be said to be the "true" unemployment figure. No serious student of labor problem proposes such use, for the problem of unemployment is highly complex and must be considered in relation to the age, sex, color, skills, and other characteristics of the unemployed.

We must recognize that no economic statistical measure is completely free from the danger of misuse. If we were to refrain from collecting any data that could possibly be twisted, or used out of context, we would have to close all the statistical agencies of government (as well as all scientific laboratories—where potential for misuse is even more deadly than in the field of statistics).

I believe strongly that the danger of possible misuse should not be a bar to the development of data that are valuable if properly used. We must recognize, of course, the obligation of government agencies responsible for statistics to use the data properly and to caution the public against improper interpretations, and we will be assiduous in this regard in this new statistical program. Indeed, we intend to analyze data on job vacancies carefully and to acquire deep experience in the behavior of the data in reflecting the job market before interpreting its significance. I would be the last to claim that we have solved, in advance, all the problems of analysis and interpretations. We will not rush to publication before we have this experience.

III. THE PILOT SURVEYS OF JOB VACANCIES BY THE DEPARTMENT OF LABOR

The pilot studies made by the Department last year, and those still going on' will be described in some detail by Mr. Chavrid of the Bureau of Employment Security. I will comment only on the technical aspects of the surveys—problems of definition, sampling and estimating methods, the results of our studies of the accuracy of response, and the problems of assuring that the vacancies reported were being offered at or above prevailing entry wage rates in the community.

Despite a strong belief that a job vacancy statistics program is feasible and can add much to our knowledge of the functioning of the job market, we are fully aware that some conceptual and technical problems remain to be solved. We have already solved many of them, but to imply that the solutions have met with unanimous acceptance would be misleading and might endanger the future success of the program.

Definitional Problems: Defining a job vacancy has been the subject of intensive research by the Department. The merits and demerits of various definitions, including those used by the National Industrial Conference Board and by foreign countries, have been explored in depth. In the course of developing a definition, many difficult questions had to be resolved.

Should vacancies to be filled by recall of laid-off workers be included?

Should vacancies expected to arise at some future date be included?

Should temporary or seasonal openings be included as well as permanent ones?

Should vacancies to be filled by transfer, reassignment, promotion, or demotion of present employees be included?

Should a vacancy be counted only if it is open for a period of time, or should it be counted the moment it opens up?

Should a vacancy be counted if it results from a work stoppage?

Should part-time as well as full-time jobs be counted?

After considering all the alternatives and their ramifications, the definition we have provided to employers in the pilot surveys is as follows:

A current job vacancy is an existing employment opportunity in your establishment for some worker from outside your firm (i.e., a "new" worker—not a company employee) for a job that is unoccupied and immediately available for occupancy by a "new" worker for whom your firm is actively searching or recruiting. *Include* such vacancies for all kinds of positions, classifications and employment (full-time, part-time, permanent, temporary, seasonal), including those outstanding on orders with employment agencies and notifications to unions. *Exclude* jobs to be filled by recall, transfer, promotion, demotion or return from paid or unpaid leave; jobs unoccupied because of labor-management disputes; and job vacancies for which "new" workers were already hired and scheduled to start work later. *"Actively searching or recruiting"* means current efforts to fill the job vacancy through orders listed with public or private employment agencies and school placement offices; notifications to labor unions and professional organizations; "help-wanted" advertising (newspaper, post office, etc.); recruitment programs; interview and selection of applicants.

The most important feature of this definition is that it spells out three conditions which must be met before a job vacancy can be counted. (1) The job must

be unoccupied; (2) the job must be available for immediate occupancy by a new worker outside the company; and (3) the job must be the object of an active search for a new worker outside the company.

Through use of these criteria, the job vacancy definition used is reasonably comparable with the unemployment definition used in the BLS monthly household survey of the labor force. Just as an unemployed individual must be actively seeking work to be counted as unemployed, a true job vacancy must entail a positive company effort to fill it. Similarly, the vacancy must be unoccupied and available for immediate filling, just as an unemployed worker must be available for immediate employment. (In our present unemployment measure a few persons seeking a job for which they would only be available at a future date—such as a student out of school in Easter week who is looking for a Summer job—are counted as unemployed; we are seeking a way to change this definition to include only unemployed persons available for work in the survey week.) This approach thus eliminates the vacancy which will not be filled from outside he firm, i.e., by the unemployed or by new workers, such as the vacancy for the company president to be filled from the roster of existing officers.

One question about the current job vacancy definition still under study relates to how long a vacancy must exist before it should be included in the count of job vacancies. One point of view is that a job vacancy should exist for an entire week before being counted for this purpose. Since an unemployed person is generally one who was not at work at any time in an entire week and was looking for a job, it is argued that a vacancy should be "looking for a new worker" for an entire week. A contrary viewpoint holds that all vacancies existing at a given point in time, such as the last day of the week, should be included in the vacancy count. It is argued that any vacancy which is immediately available for occupancy and for which new workers are actively being sought at any given time is immediately available to an unemployed person and would change his employment status if he were to begin working immediately in the available vacancy.

In the pilot studies in fiscal year 1965, data were collected using both definitions—i.e., vacancies existing on the last day of a certain week and those which had been vacant the entire week. Over four-fifths of the estimated total vacancies as of the last day of the week had existed one week or longer. In two-thirds of the areas the proportion of vacancies existing one week or longer exceeded 85 percent and in one-half of the areas it was 90 percent or more. In my opinion, the issue is a close one and should be given further study.

Our research indicates that employers can respond reasonably accurately to a request for data under the definition used in the pilot surveys, despite the absence in some companies of formal records on vacancies. Nevertheless, it would be misleading to imply that this, or any definition for that matter, can resolve all the problems entailed in collecting the information or put to rest all the criticisms of the program. We have examined and will continue to examine the problem, hoping thereby to improve the definition and the statistics collected.

We are, for example, collecting an additional statistic in the tests now underway. This figure, represents the number of jobs for which active recruitment is underway but for which no actual vacancy exists at the moment.

Occupational classification

Identification of occupations is another major problem of the job vacancy program as it is with many other statistical collection programs. Vacancy information must be provided by specific occupation in order to meet the requirements for either an operating program or an analytical program. The amount of occupational detail to be collected is a particularly important problem.

In the Department's pilot surveys, vacancies were requested only by job title; those reported were then classified and coded by occupation according to the Dictionary of Occupational Titles, by local employment service personnel. (Employers themselves were not asked to code the occupations, since many employers are not familiar with or do not use the DOT in their classification system.) Coding of job titles is a very difficult task even for experienced occupational specialists, since no standard terminology is universally used by industry. Many employers do not have formal job classification systems, often providing job titles to fit a particular worker or a particular work situation. Other establishments use general job titles to cover a wide range of occupational duties and responsibilities. Thus, the precision of the occupational classification system now used in the program still needs to be improved.

Several alternatives for the classification of occupations were examined during the course of the Department's experimental research. These included the

method now used of asking for job titles and having local personnel of the State employment office classify them by DOT number. Another possibility was to provide each respondent with a precoded list of the occupations on which data were required. Still another was the development of a carefully worked out, precoded list of occupations with accompanying brief descriptions that were adapted to each industry but would be comparable among industries. None of these possible methods, including the method finally decided upon, was without its conceptual and technical problems. Such problems, however, are not peculiar to the job vacancy program alone, but extend through all statistical programs dealing with occupations. More work still remains to be done on occupational classification before a fully satisfactory solution can be found.

Wage rates offered for vacancies

It is obviously important in evaluating job vacancies to distinguish between *bona fide* vacancies and those offered with wages or conditions of work below prevailing norms. For analytical purposes what is needed is a measure of demand *at a given level of wages*, and when the intention is to compare demand with supply the appropriate wage level is that currently prevailing for the occupation, at the point of hiring, in the community. Another reason for our interest in knowing the wage levels being offered for the vacancies was the apprehension that some employers might report an unrealistically high number of vacancies.

For these reasons, in the two survey rounds of FY 1965 an attempt was made on a limited scale (in the five Standard Metropolitan Statistical Areas of Baltimore, Chicago, Los Angeles, Miami, and Minneapolis-St. Paul) to check the wage rates offered against prevailing entry rates. The questionnaire used in these areas asked for the rate of pay offered for the job to which the vacancy related. The respondent was encouraged to furnish a single rate of pay but was also told that where a range of rates was offered, depending on the varying educational, training, and experience qualifications of prospective applicants, a statement of the offered pay rate range would be acceptable. Encouragingly, most employers with vacancies showed no reluctance to report wage data.

To obtain information needed to check the wage rates, local employment service offices were instructed to furnish prevailing area entry wage rates for each occupation for which one or more employers reported both vacancies and pay rate information. This information might be based on employer orders, "suitable wage" determinations under the Unemployment Insurance program, union wage scales, BLS Community Wage Surveys, management-labor contracts, and the best judgment of local office personnel most knowledgeable about wage rates for particular occupations. In reporting this information, the employment services offices rejected the entry wage rates at the extreme low end of the distribution of actual rates of which they had knowledge, although in many cases workers have actually been hired at these rates.

The wages offered for job vacancies reported by employers were compared with the prevailing entry wage rates reported in the employment service offices. In those cases in which employers indicated a range of rates for a vacancy, the *lowest* rate offered was used for the comparison. For this reason, and because the extreme low end of the distribution of actual entry wage rates was omitted, we believe the analysis shows the maximum probable occurrence of vacancies offered at below prevailing rates.

In the five cities the pattern was remarkably similar. The vacancies found to be below prevailing rates ranged from about 15 to 20 percent of the total vacancies reported in April 1965 surveys. Thus the results of this comparison, which are indicative but not definitive, show that the great bulk of the vacancies reported were at or above the prevailing entrance rates of pay.

Further study of wages below prevailing rates is necessary and will be made in present and future surveys. For instance, in all of the current vacancy surveys being made in fiscal year 1966, the rate of pay offered for a particular vacancy is requested. These data will be analyzed in the light of whatever information may be available on the prevailing entrance wages in each occupation in each industry. It may be possible, after considerable research on the subject, to work out a basis for screening vacancies and to separate those offering less than going rates from the others. Conceivably, with such an analytical tool an estimate could be made of the approximate proportions of vacancies with less than prevailing wage rates—a useful guide to interpretation of vacancy data.

Further study is necessary of other aspects of this issue. What is the relationship between hard-to-fill vacancies (i.e., those unfilled one month or longer) and wage rates offered? Are such wage rates below prevailing levels? Or, as

Charles Holt and Martin David [3] suggest, does "* * * a company that has been seeking a particular type of worker for two months * * * behave quite differently, in terms of its * * * offering wage, than it did when it had been recruiting for only a week?"

What about other conditions of employment such as unrealistically high educational or experience requirements, or unfavorable hours of work? No way has yet been devised for collecting an anaylzing information on all relevant conditions of employment within the framework of a viable statistical program.

Thus there is no lack of problems for further study to clarify the relationship between wage rates and job vacancies. In an era of potential labor shortages few matters are more worthy of study.

Establishment sample and industry coverage

In the two rounds of pilot job vacancy surveys in fiscal year 1965 a prescribed method for the selection of a probability sample of employers in each area was provided to the State agencies in order to make it possible to use the area sample results to estimate total vacancies in each area. The universe from which the sample was selected included all establishments with four or more employees which were covered by the State unemployment insurance law in the first quarter of 1964, supplemented by a list of known nonagricultural establishments employing 100 or more workers which were not covered by the State unemployment insurance law. Establishments with fewer than four employees, as well as farms and private households were not included in this experimental program because they require the development of special techniques with regard to sampling, collection, and estimation. Noncovered establishments with fewer than 100 employees were included where this was considered necessary to assure adequate representation in certain nonagricultural industries. The universe from which the sample was drawn, therefore, generally extended across all nonagricultural wage and salary payroll employment except for the very small establishments.

The sample size in each of the 16 area experimental surveys was rather large, since it included all of the larger establishments which, when arrayed by size in descending order, had a cumulative employment total equal to 50 percent of the area employment universe. In addition to this rather large certainty stratum for larger establishments, the sample included a fixed number of smaller establishments, amonting to 1,000 in each of the four largest areas and 500 in each of the remaining areas. In order to assure good industry and size mix among the smaller establishments, sample members were selected at random from a listing of all of the smaller establishments in the universe (comprising the remaining 50 percent of the area employment universe) arrayed by employment size within each two-digit standard industrial classification. Nine broad industry categories and three establishment size groups were used to form sampling strata.

Estimated area totals of job vacancies were prepared for each three-digit occupational classification for which job vancanies were reported. This was done by inflating the area sample results to estimated area universe totals. The inflation factor for each stratum was derived from the base period total employment of the universe of establishments and of the responding establishments falling into that stratum.

Since the estimates in this survey are based upon samples, they may differ from the figures that would have been obtained if it were possible to make a complete enumeration using the same schedules and procedures. The standard error is a measure of sampling variability, that is, the variations of sample estimates from a complete count that might occur by chance because only part of the universe is surveyed. The chances are about two out of three that an estimate from the sample would differ from a complete enumeration by less than the standard error. The chances are about 19 out of 20 that the difference would be less than twice the standard error. In the April 1965 round of surveys in all 15 Standard Metropolitan Statistical Areas the relative standard error of estimated total current job vacancies was 1.7 percent for all establishments; it was 0.5 percent for larger establishments and 3.4 percent for smaller establishments. The standard error ranged by area for all establishments in the April 1965 surveys from 3.3 percent for Richmond to 7.1 percent for Kansas City.

There is less precision in the estimates of job vacancies in occupations peculiar to smaller establishments (e.g., barbers) than in occupations predominantly in larger establishments, reflecting the higher degree of sampling error associated

[3] Charles C. Holt and Martin H. David, "The Concept of Job Vacancies in a Dynamic Theory of the Labor Market," in *The Measurement and Interpretation of Job Vacancies*, National Bureau of Economic Research, New York, 1966.

with estimation from a few small units with large sampling weight. In the current round of surveys an effort has been made to lower the sampling error by including greater representation of small establishments.

Checking the accuracy of response to the pilot surveys

In the pilot projects in 16 areas in fiscal year 1965, the Bureau of Labor Statistics conducted response quality check surveys for both rounds of job vacancy surveys in several selected areas—6 for the first round and 5 for the second. In each of these areas, trained and experienced BLS staff personally interviewed a randomly selected subsample of 611 establishments, or about seven percent of the respondents to the 2 rounds of job vacancy surveys immediately after their completion. The interviewers completed questionnaires and probed to get meaningful information about the quality of reporting, response problems, completeness and accuracy of data reported, the kind of records used as sources for the information, problems in providing the information, and problems associated with the feasibility of reporting and collecting meaningful job vacancy data on a continuing basis by mail.

Highlights of the response quality check surveys were as follows:

1. The concepts, definitions, instructions, and schedules used proved satisfactory and effective and were generally understood by the respondents; 95 percent of the persons interviewed in the follow-up quality check surveys reported no difficulty in understanding and no particular questions about the job vacancy definition, or what to include and exclude.

2. As a corollary to the above, there was a high degree of accuracy in the reporting. Nearly nine out of 10 establishments correctly reported their total number of job vacancies.

3. The degree of cooperativeness and the positive attitude of respondents in the survey were highly encouraging. About 85 percent of the reporters in the follow-up quality check survey signified their willingness to report vacancies on a continuing basis in the future; and only five percent indicated an unwillingness to do so. A number of employers went further and expressed interest, during the response analysis survey, in the potential use of the job vacancy data for training and guidance purposes with the expectation that such use would improve the quality of the supply of labor available to meet their needs.

4. The total number of job vacancies was understated. A three percent understatement (varying from an understatement of about seven percent for the larger establishments to an overstatement of one percent for the smaller establishments) of the number of vacancies was found as a net result of the detected error in reporting by respondents. There may be some further undetected downward bias in reporting owing to the lack of employer records from which job vacancies can be reported; it was found that establishments which had completed or partial records on job vacancies were more prone to report vacancies. Smaller establishments are less likely to keep records and hence more likely to have undetected downward bias than were the larger establishments.

5. Questions in the response quality check surveys elicited information on the positive actions that employers had taken to fill the specific job vacancies they had reported. On the average, for each occupation for which vacancies were reported, two positive actions were undertaken by employers to fill the vacancies. About one-third of these actions consisted of newspaper and other advertising, while another third were requests to public and private employment services.

Small random samples of nonrespondent establishments were also interviewed as part of the follow-up response analysis surveys. The primary purpose was to determine the extent and direction of any bias that might be introduced in the estimated total of job vacancies by assuming the same vacancy rate for respondent and nonrespondent establishments.

Interviews conducted with six percent of the nonrespondents in the 11 area surveys disclosed that nonrespondent establishments, both large and small, had substantially higher levels of current job vacancies than did the respondents. In consequence, it was found that the level of vacancies estimated for nonrespondent establishments would have been understated by about 35 percent if it had been assumed that there was no difference in the rate of job vacancies between respondents and nonrespondents.

The seriousness of this understatement by nonrespondents is materially decreased in view of the fact such establishments represented less than one-fourth of all surveyed establishments in the 11 area response analysis surveys. Hence, combining the detected error for both respondents and nonrespondents reveals an over-all understatement of 12 percent.

Method of collection: There still remains some question as to how information on job vacancies should actually be collected. This year, the Department's experimental survey program includes two additional rounds of job vacancy surveys—one at the end of March 1966 and the other at the end of May 1966. In 12 areas, the experimental surveys parallel those conducted in fiscal year 1965, which collected job vacancy information independently from any existing data program. In two States, however, a new approach is being tried. Pilot surveys are being conducted in these States to test the feasibility of collecting job vacancy information through the cooperative Labor Turnover Statistics system currently operated by the Bureau of Labor Statistics, the Bureau of Employment Security and the affiliated State employment security agencies. This test collection of job vacancy data in conjunction with labor turnover information is also being extended to industries other than manufacturing and mining, which are not now covered by the cooperative Labor Turnover Statistics program. This method is being tested in the belief that it may offer analytical advantages, as well as operating economies since turnover and vacancies can be usefully studied togeter.

The Department now has a fiscal year 1967 budget request before Congress for $2.5 million to launch a large scale job vacancy program in January 1967. The program would cover 75 or 80 Standard Metropolitan Statistical Areas, and possibly all 50 States, at quarterly intervals. The method used to implement the program will depend on the outcome of the fiscal year 1966 experiments.

One alternative would be to institute an independent quarterly collection of job vacancy information in the 75 or 80 areas. Another would be to use the existing monthly collection program of labor turnover data (extended to cover all nonfarm industries) as a vehicle to collect job vacancy information on a quarterly basis in all 50 States. This would thus make both job vacancy and labor turnover data available for all 50 States and the Nation, as well as for 75 or 80 areas. The Department will study the results of the pilot studies and make a decision later this year as to the technical option to be followed.

IV. CONCLUSION

In conclusion, let me say that although the conceptual and technical problems described above are important, they are not of such magnitude as to prevent the statistics collected in a national program from being useful for analytical and operational purposes. We have come a long way in the past few years in indentifying and resolving problem areas. We have examined in detail arguments for and against a program of job vacancy statistics. We feel that the need for job vacancy data heavily outweighs the problems involved. An ongoing and comprehensive job vacancy program can greatly assist in the implementation of an active manpower policy and the development of economic analysis needed for major policy decisions.

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Chairman PROXMIRE. Thank you, Commissioner Ross. This is very encouraging testimony.

And my questions both to you and Mr. Cassell and Mr. Chavrid certainly do not indicate that I am opposed to this program. I am all for it. But I do want to do my best to bring out some of the problems that I think we are likely to run into.

Mr. Ross. We do appreciate the continued interest of the committee in this program, and we feel it has been very helpful.

Chairman PROXMIRE. Thank you very much.

Now, you have said something that I think ought to be underlined and repeated, especially coming from you. You say—

> The lack of job vacancy information constitutes the most significant gap in our knowledge of labor market conditions. Statistics on job vacancies would give us a measure of unsatisfied demand for labor which, together with our data on employment, would provide a more complete measure of demand for labor—something we have never had before.

Mr. Ross. Yes, sir.

Chairman PROXMIRE. And I think that coming from you, and with your reputation, and with your authority, that should be quite persuasive with Congress.

You indicate also that the pilot program shows that the employer can and will reach reasonably accurate estimates. Can you elaborate a little on that, how they show that?

Mr. Ross. Yes, sir.

Chairman PROXMIRE. I think you show earlier that there has been a considerable question. The Bureau's initial reaction was that the employer did not have sufficiently accurate records from which to make estimates on vacancies.

Mr. Ross. The 16 pilot surveys were made cooperatively with the Bureau of Employment Security, the Bureau of Labor Statistics, and the States and localities. The BLS conducted establishment response surveys for the 16 areas that we tested. An experienced BLS staff personally intereviewed 611 establishments to see if the responses were good. And this was about 7 percent of the total respondents in the two rounds of vacancy surveys.

We found that the concepts definition and instructions and schedules were satisfactory, and were generally understood by the respondents. Ninety-five percent of the employers said they had not had any difficulty in understanding what we meant by a vacancy. And

what we should include or exclude. There are very careful instructions on what to include and what not to include in reporting the vacancy.

We found that 9 out of 10 establishments correctly reported the total number of vacancies. In other words, our people agreed with them as to the count of vacancies.

We found a high degree of cooperativeness from about 85 percent of the reporters and the followup check signified their willingness to report vacancy on a continuing basis in the future. Only 5 percent said they were unwilling.

We have in mind quarterly surveys of vacancies.

Chairman PROXMIRE. But you also found, as I understood you to say, an understatement of vacancy of something like 12 percent?

Mr. Ross. Yes.

Chairman PROXMIRE. How did you arrive at such a precise estimate of the understatement?

Mr. Ross. A 3-percent understatement was found as a net result of detected errors in reporting by respondents.

Chairman PROXMIRE. And you always made this kind of correction?

Mr. Ross. We have not corrected the figures. Those are so far experimental.

Chairman PROXMIRE. In general, would you have a correcting percentage?

Mr. Ross. No. I think the attempt would be to iron out these response errors. I would say that for the first couple of surveys errors of this magnitude are not discouraging. And we would attempt to iron them out. Of course, some employers do not yet have good records. And part of the task would be to get the employers to establish records to pinpoint the number of vacancies. Some employers have rather decentralized hiring procedures. And for them to cooperate it would be necessary for them to put together from their different hiring points the information on vacancies.

Then we say there may be some further undetected downward bias in reporting due to the lack of employment records. It was found that the employers which had complete records gave us better and more accurate counts than those that didn't have complete records. We found the smaller establishments are less likely to keep complete records. And we feel that there was more underreporting on the part of the smaller establishments than the larger establishments.

Chairman PROXMIRE. How large a sample would you feel would be necessary to get an accurate picture?

Mr. Ross. We think that all of the large firms——

Chairman PROXMIRE. The few largest firms, or something of that kind?

Mr. Ross. All of the large firms and a good sample of the small firms in each industry.

Chairman PROXMIRE. How do you define large firms, how big?

Mr. Ross. I think Mr. Chavrid could answer that better, Mr. Chairman.

Chairman PROXMIRE. I will wait until he testifies.

Mr. Ross. Now, combining the detected error for both the respondents and the nonrespondents—we had to account for whether respondents would have less or more reporting error than the nonrespondents—revealed that overall understatement of 12 percent.

This, as I say, is not discouraging for these pilot surveys. And I believe that through getting more employers to cooperate—and 85 percent is again a very encouraging tally the first couple of times around—by keeping systematic records, this understatement could be reduced.

Chairman PROXMIRE. Is there any area that you feel has to be excluded from this? Would it include government? Would it include Federal, State, and local government—all three? Are there any peculiar problems involved in the governmental sector which would be quite different?

Mr. Ross. I think that Mr. Chavrid could give you a more intelligent response.

Chairman PROXMIRE. How about the Armed Forces? Is that also in this area?

Mr. Ross. No, this would be civilian employment.

Chairman PROXMIRE. It would not include Armed Forces?

Mr. Ross. No, because I think their vacancies take the form of draft calls, and we get pretty good information on that.

Chairman PROXMIRE. How about the problem—you have mentioned this, but I am not sure how you correct for it—of a very large agricultural area where people would like to have hired hands, but figure that they obviously cannot hire them, because nobody will work for the wage that a farmer can afford to pay?

Mr. Ross. These surveys are taken in metropolitan areas. And the program which is now before Congress would make it possible to extend the surveys from 16 to about 80 metropolitan areas. They would, therefore, not cover agriculture.

Chairman PROXMIRE. Now, you are asked to make estimates of labor shortages for the President.

Mr. Ross. To make an appraisal, I do not make theoretical estimates.

Chairman PROXMIRE. How did you do that without these statistics?

Mr. Ross. Well, we do the best we can with what we have. I think the reports are respectable, but we could do a lot more if we had vacancy statistics.

Chairman PROXMIRE. You say they are respectable now?

Mr. Ross. If you like, I would be glad to supply for the record copies of the last three manpower shortage reports which I have made public at the request of the President.

Chairman PROXMIRE. Please do so.

(Reports referred to follow:)

THE MANPOWER SITUATION: EMERGING SHORTAGES AND RESIDUAL SURPLUSES[1]

(By Arthur M. Ross, Commissioner, Bureau of Labor Statistics)

The Nation's manpower situation is in transition. Civilian employment has risen by 2.4 million during the year, while unemployment has fallen by 600,000. The seasonally adjusted unemployment rate for December, at 4.1 percent, was at the lowest point since May 1957. The rate was 2.6 percent for adult men and only 1.8 percent for married men.

Clearly the picture is changing, but it is important to see it in perspective. Opinions are widely expressed that a general labor shortage has arrived or is imminent. What are the facts?

[1] Statement issued with release of *Summary Employment and Unemployment Estimates: December 1965.*

1. The current situation shows stringency in some areas and occupations and in a few industries. There is still no evidence of a general shortage of labor.

2. Geographically, the tightest job markets are found in the Great Lakes area (e.g., Chicago, Detroit, Milwaukee, Cincinnati, and Cleveland), where the heavy manufacturing industries are centered. Estimated unemployment rates are in the neighborhood of 2 or 2½ percent in such areas. Job markets are considerably looser in many New England and West Coast areas (e.g., Fall River, Lawrence, Los Angeles, San Diego and San Francisco-Oakland). There is every indication that unemployment in some of the Negro ghettos (such as those of Watts, Harlem and West Oakland) remains unacceptably and dangerously high.

3. The labor situation appears to be tightest in the metal-working machinery and construction industries. Elsewhere there is little clear evidence that production schedules are being delayed by manpower shortages. Defense-production industries such as aircraft, ordnance and electronics have been able to find needed workers except that difficulties are experienced in recruiting skilled personnel such as engineers, scientists, mathematicians, tool and die makers, and electronic maintenance workers.

4. Manpower shortages are heavily concentrated in the professional and skilled occupations such as those just mentioned. Other widely-sought skills are those of machinists, turret-lathe and milling-machine operators, sheet-metal workers, some construction workers, shipfitters, boilermakers and arc welders. There are shortages of physicians, nurses, hospital attendants and other health-related personnel. Low-paying jobs in some industries are difficult to fill.

5. As noted above, the unemployment rate for adult men is low. Yet there were 1,249,000 jobless men in December, mostly seeking fulltime employment. There were about 838,000 women out of work, with 80 percent desiring fulltime jobs. There were 800,000 unemployed teenagers, with about 45 percent wanting fulltime jobs. Among the unemployed there were 600,000 who had been out of work 15 weeks or more. The unemployment rate for Negroes remains twice as great as that for whites.

6. It should also be kept in mind that the unemployment would be considerably higher if hundreds of thousands were not enrolled in manpower and social programs, such as Neighborhood Youth Corps, Job Corps, the work-study program, etc. At the same time, people in these and related programs such as MDTA and vocational education are acquiring the qualifications which will enable them to take regular jobs and help avert manpower shortages in the near future.

7. Thus we do not have a general labor shortage but rather a mixture of emerging shortages in a few areas, occupations and industries; residual surpluses in others, and an approximate balance in the remainder. At the same time, it seems clear that manpower demands will intensify during 1966 as a result of increased defense production, continuing capital expansion and greater numbers of men in military service.

8. To meet this new situation, the first step is to know the problems in detail and in depth. At the initiative of Secretary Wirtz, the Department of Labor is working with the Department of Defense, the Department of Commerce and other agencies in order to ascertain specific manpower requirements, shortages and surpluses in specific areas, occupations and industries. Conferences will be held with representatives of several industries and unions in the near future.

9. These efforts, it is hoped, will facilitate more effective use of vocational training, on-the-job training, apprenticeship training, employment-service operations, inter-area recruitment and worker relocation in order to remedy skill shortages. But other measures are also needed. In view of the severely limited supply of adult men, some jobs will have to be redesigned so that women, older workers, young people and part-time jobseekers can perform them. Unnecessarily stringent hiring specifications with respect to education, age and experience will have to be relaxed. Transportation facilities should be improved in some metropolitan areas where low-income neighborhoods are quite distant from available jobs. Wages should be more competitive in certain poorly-paid yet essential occupations. Needless to say, equal employment opportunity is more essential than ever.

10. In conclusion, the period just ahead will test our ability to use our human resources to an even fuller extent in order to meet production schedules and maintain satisfactory economic growth. Likewise it will test our capacity to eliminate potentially inflationary manpower bottlenecks as they develop.

[News from U.S. Department of Labor, Friday, April 8, 1966]

No overall labor shortage exists in the U.S. today but there are some "imbalances" between labor supply and demand.

At the same time, there also are "considerable" untapped reserves of manpower and the government itself can accomplish only part of the task of matching up manpower requirements and human resources. Private industry must do a great deal more to provide training and upgrading for its own workers in order to prepare them for greater responsibilities.

These are major points made in a "Report on Manpower Shortages and Reserves" by Commissioner Arthur M. Ross of the Labor Department's Bureau of Labor Statistics.

The report comes in response to President Johnson's directive that the Commissioner provide monthly "the fullest possible" information on possible manpower shortages.

The full-scale manpower review—the first of its kind—reveals that—

In some areas, such as Boston, Cincinnati, Los Angeles, Seattle and St. Louis, skilled workers, engineers and scientists are hard to find.

Defense industries have accounted for about one-fourth of the employment gain in manufacturing over the past year.

With employment growing by 900,000 since last December, "spot" manpower problems "are being met up to now."

Report on Manpower Shortages and Reserves

(By Arthur M. Ross, Commissioner, Bureau of Labor Statistics, U.S. Department of Labor)

I. INTRODUCTION

In his recent Manpower Report to the Congress, President Johnson directed that "the Commissioner of Labor Statistics should include in the employment and unemployment reports, beginning in March, the fullest possible information on manpower shortages, both actual and threatened."

Since this report, covering the situation in the month of March, is the first to be issued, a brief statement of its purposes may be helpful. The principal purpose is to provide accurate up-to-date information on manpower shortages, as well as surpluses, to employers, union officials, education and training authorities, and the general public. Understanding of the manpower situation in general is important in order to gauge whether expansion of production and employment may continue as in the past. Identification of manpower shortages in specific areas, industries, and occupations should be helpful in gearing up recruitment, training, upgrading and related policies to meet the requirements most effectively. Likewise, knowledge of the characteristics of available workers will assist employers in making necessary adjustments in their personnel policies.

Matching up manpower requirements and human resources in an indispensable step in maintaining economic progress, avoiding inflationary bottlenecks, eliminating hardship and achieving full employment. In the last analysis, the government itself can accomplish only a small part of the task. It is therefore essential that employers, workers, union officials, educational and training authorities and the general public be well informed concerning the manpower situation.

Much of the data concerning areas and occupations was provided by the United States Employment Service of the Bureau of Employment Security and the affiliated State Employment Services. Industry data were supplied in large part by the Business and Defense Services Administration in the Department of Commerce. Other cooperating agencies include the Bureau of Apprenticeship and Training, the Office of Emergency Planning, the Department of Defense and the Council of Economic Advisers. Needless to say, statistics and analysis by the Bureau of Labor Statistics have been drawn upon.

General Indicators of the Manpower Situation

Employers, it is evident, are finding it increasingly difficult to locate some types of workers. Want-ad columns are growing longer, unfilled vacancies are more numerous, and widespread complaints are heard that applicants do not have the proper qualifications or experience.

It does not follow, however, that we are suffering from a general manpower shortage or an exhaustion of manpower reserves. The explanation is that there are imbalances between manpower supply and demand which are capable of

being remedied by private and public efforts. The untapped reserves of labor supply are also considerable.

The general indicators of the manpower situation, as of March, are consistent in showing that manpower problems exist in some occupations, industries and areas, but that we do not have an overall shortage of labor.

A. *The Employment Trend*

During each of the past several months, payroll employment has increased about 300,000 more than the seasonal expectation. The March 1965–March 1966 increase, at 2.9 million, was nearly a third greater than the increase over the same months from 1964 to 1965. This employment advance could not have been possible if there were an overall manpower shortage or if skill bottlenecks had become unbreakable.

B. *The Unemployment Rate*

For the better part of a year now, the national unemployment rate has been moving downward at the rate of about 0.1 point per month, from 4.8 percent in April 1965 to 3.8 percent in March 1966. While the improvement has been very great, the rate is still higher than the 3.5 percent of November 1953 or the 2.6 percent of May, June and July, 1953.

In March, the total number of unemployed was 3.0 million. Of these, about 1.4 million were adult men, and all but 75,000 of them were seeking full-time work. There were 900,000 unemployed women, more than 80 percent of whom were seeking full-time jobs, and 750,000 teenagers, about half looking for full-time work. Even though unemployment among men is still close to a seasonal peak and can be expected to drop sharply in the next 2 months because of the pickup in seasonal work, there still remains a considerable reservoir of workers available for employment expansion.

C. Average earnings and hours of work

In a period of severe manpower shortage, average earnings escalate as a result of heavy overtime assignments, premium wage rates and loose classification of workers. Data on average hourly earnings of factory workers ($2.68 in March 1966 as compared with $2.59 in March 1965) indicate that these practices are not widespread. The average workweek in manufacturing was 41.5 hours in March 1966 and 41.2 hours a year previously.

Hours of work have moved up more rapidly, however, in some industries where the manpower situation is tight. Examples include the instrument industry, where hours of work rose from 41.2 in March 1965 to 42.3 in March 1966; the aircraft and parts industry in which hours rose from 41.8 to 44.0; and ship and boat building and repairing, in which hours rose from 40.1 to 42.1. In other industries such as metalworking machinery and screw machine products, hours of work have showed smaller increases over the past year, but are at extremely high levels.

In the bulk of industry, hours of work have only risen slightly and are still not at critically high levels. In industries such as primary metals, fabricated metal products, apparel, and rubber and plastic products, hours of work in March 1966 were the same or lower than in March 1965, indicating that workers were still available in sufficient quantity to make unnecessary any increase in the workweek.

D. Labor turnover

Rising quit rates in manufacturing indicate that workers are able to find abundant alternate opportunities for employment. Over the February 1965–February 1966 period, quit rates in manufacturing rose from 1.7 percent to 2.4 percent (seasonally adjusted). However, the rate was unchanged from January to February, and still was well below the rates of the Korean conflict and World War II. The rate of accessions (the rate at which employees are hired) also increased—from 4.0 percent (seasonally adjusted) in February 1965, to 4.7 percent in February 1966, reflecting the fact that employers in general are able to find additional workers to expand their payrolls.

E. Manufacturer's orders and shipments

While manufacturer's orders and shipments are rising, the ratio of shipments to unfilled orders has not changed particularly in most industries. This means that producers are keeping up with the flow of new business. There are only a few authenticated instances in which production schedules are being missed because of manpower shortages.

F. Price trends

Recent consumer price increases—such as those of meat and poultry, apparel and footwear, oil and gasoline have not been connected with manpower shortages, for the most part. City consumer price indexes do not show a larger than average increase in communities, such as those in the Great Lakes region, where qualified labor is hardest to find. In some of the lower paid consumer services, however, labor costs are rising as employers find it necessary to make their jobs more attractive in order to compete for manpower in a period of high employment.

II. THE MANPOWER SITUATION IN LABOR AREAS

The most recent reports indicate that about one-third of the 150 major metropolitan areas have relatively tight manpower situations. Those areas reporting the lowest unemployment rates and the most severe hiring difficulties are mainly in the industrial, durable goods producing sections of the Midwest and East. The lowest rates were reported for Flint and Lansing, Michigan; Fort Wayne, Indiana; Cedar Rapids, Iowa; and Reading, Pennsylvania. Larger areas with tight situations include Detroit, Chicago, Minneapolis, Cincinnati, Cleveland and Milwaukee. States with the greatest concentration of shortage areas include Indiana, Iowa, Michigan, Pennsylvania, and Georgia.

On the other hand, there are numerous labor market areas with unemployment rates of 5 or 6 percent or more. The bulk of these are in California, Massachusetts, Pennsylvania, and West Virginia. They include Stockton, Fresno, San Bernardino, San Diego, Lowell, Fall River, Atlantic City, Duluth-Superior, Altoona, Scranton, Wilkes-Barre-Hazelton, and Wheeling.

Defense Plants

Special studies have been made of a dozen areas in which defense-related plants with "mass hiring needs" (up to 15,000 workers in individual cases) are located. These plants are engaged in the production of aircraft, ships, ammunition and explosives. On the basis of studies by the United States Employment Service, it can be expected that eight of the plants will not have serious difficulty in meeting their 1966 manpower requirements. The reasons for optimism are that the firms are among the higher-paying employers in their communities; the working conditions are above average; the bulk of the needs are for semi-skilled workers, who can be trained and upgraded on the job; and the plants are not located in tight labor areas.

Of the remaining four plants, two are likely to have moderate problems and two (which are located in Seattle and Cincinnati) will encounter more serious difficulties.

The Situation in Five Specific Areas

It would not be practical to summarize the manpower situation in all 150 major areas. As an alternative, job market conditions will be described for a few of the more important areas. The purpose will be to give a sample of looser as well as tighter areas in various parts of the country.

A. *Boston.*—In the early months of 1966, unemployment in Boston was the lowest for any year since 1957. Many industries are finding it more difficult to recruit qualified workers. Three out of every five vacancies listed at public employment offices have been unfilled for 30 days or more, with the largest number being in medical and health service occupations.

Government-supported training activities include the following: There are 2,437 trainees enrolled in MDTA courses, and additional courses for 732 workers have been approved. Over 1,000 apprenticeship opportunities have been developed in recent months. New OJT contracts will absorb 318 trainees, and two Youth Opportunity Centers will accommodate 700.

B. *Cincinnati.*—Labor supply has been tightening in this manufacturing center, with the unemployment rate the lowest in recorded history. The most pressing needs are for clerical, professional and skilled manual workers. The shortage of skilled metal workers is so great as to cause possible delays in production schedules. Yet, there are surpluses of material handlers, custodial workers, female assemblers, and cafeteria workers. There were also unemployed construction laborers during the winter.

C. *St. Louis.*—The job market in St. Louis has also been tightening, although not yet to the same extent as in Cincinnati. There have been shortages of highly skilled workers during the past year, which have been met to some extent by recruitment from other areas. At the same time there are untapped reservoirs of unskilled and entry-level workers, particularly in East St. Louis.

D. *Seattle.*—The unemployment rate in Seattle is higher than the national average. Despite recent gains in aircraft employment, the number of workers in Seattle's leading industry is less than it was in 1962.

By the end of 1965, about 90 percent of the unfilled jobs listed at the local unemployment office had been vacant for 30 days or more. About half of these were for skilled workers in aircraft. In addition, there were critical openings for engineers, draftsmen, and engineering technicians which could not be filled from within the community.

Looking ahead further into 1966, the supply of unskilled workers appears to be more than adequate. Nevertheless, real difficulties will be encountered because so many of the new jobs will be for well trained and experienced workers already in short supply.

E. *Los Angeles.*—The highest unemployment rate in these five areas is found in Los Angeles-Long Beach, partly as a result of continuing in-migration of workers. Recent surveys have confirmed the alarming extent of joblessness in Watts. The home-building industry has been retarded by the decline in housing starts, despite the fact that winter ordinarily has little effect on construction activity in Southern California.

At the same time, shortages of qualified workers in nationally scarce occupations have been intensifying. Unmet manpower needs are concentrated in aerospace, resulting from increased orders for both military and civilian aircraft. Aside from engineers, technicians and skilled metal tradesmen, health service workers are also in short supply.

The public employment service has placed about 2,200 jobs in interarea recruitment. Greater emphasis is being placed on MDTA and OJT programs, drawing in some measure from poverty groups. Employers are being urged to reduce hiring specifications, redesign their jobs to use more women and lesser skilled individuals, and recruit outside the area.

The manpower situation is quite different in these five areas. They range from Cincinnati, classified as rather tight, to Los Angeles, regarded as rather loose. There are almost 10 times as many unemployed persons in Los Angeles as in Cincinnati, and the unemployment rate is at least two points higher. *Yet there is a basic similarity among these areas in one respect.* Skilled workers, engineers and scientists are hard to find, while there are unused reserves of less skilled, less experienced and otherwise less attractive job candidates. The extent of the mismatch varies from one community to another; but it is plain that the common problem is one of imbalance, rather than overall labor shortage. It is the task of private and public manpower policies to remedy these imbalances in order that employment growth may continue in orderly fashion.

III. THE MANPOWER SITUATION IN SPECIFIC INDUSTRIES

This section of the report will analyze the situation in several industries which are of concern because they are heavily involved either in defense production or in the manufacture of capital goods. Included are some of the industries which have voiced frequent complaints concerning manpower shortages.

A. *Metalworking Machinery.*—Recent data indicate no real let-up in the tightening manpower situation. Although employment fell by 600 to 315,500 in March, average weekly hours and overtime hours continued to rise, and were significantly above the levels of one year ago. Average weekly hours in March 1966 were 46.9 up 0.8 hour from March 1965. Overtime hours reached 8.1 in February 1966 (the latest month for which data are available), up 1.0 hour from February 1965 and the highest level for the month since the series began in 1958.

In the past three years the metalworking machinery group has shown the most significant increases in unfilled orders backlog of the individual manufacturing industires. In recent months, however, the backlog situation has eased somewhat. The ratio of unfilled orders to shipments rose from an annual average of 4.2 months in 1963 to 7.1 months in 1965, with the greatest change occurring between 1963 and 1964. The peak month was reached in June 1965, when a 7.6 months backlog was recorded by the group. Since that time, the backlog has declined somewhat, and in January 1966 the ratio was 6.7 months, as compared with 7.3 months for December 1965. Nevertheless, in view of the high skill levels of workers in this industry, the labor supply situation may be one of the Nation's most critical.

Among the specific segments of the industry, machine tools (and especially metal-cutting and metal-forming tools) have had the greatest increases in the

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backlog of orders. Metal-cutting tools had a backlog of 7.5 months in December 1965, while metal-forming tools had a backlog of 10.2 months.

Other machinery industries or industry groups show different movements in the ratio of unfilled orders to shipments. The *engine and turbine industry* has shown a rising rate since 1963; the annual average was 8.2 months in 1963, 8.5 in 1964, and 10.0 in 1965. In January 1966, however, the rate declined to 10.8 months, as compared with 11.1 months in January 1965. The ratio for *General Industrial Machinery* also has been rising consistently since 1963 and is still increasing. The annual rate for 1965 was 2.9 months as compared with 2.4 months in 1964. The upward trend became sharper in the latter part of 1965 and has continued into this year. In January 1966, the backlog was 3.4 months as compared with 2.5 months for the same month last year.

B. *Iron and Steel Foundries.*—Employment in iron and steel foundries increased by 500 workers in March to 234,000. This relatively small increase in employment in the face of continued rises in demand for the industry's products may indicate problems on the horizon. However, in March 1966 the average workweek was down from year-ago levels (43.2 hours this year, as compared with 44.8 hours in March 1965). Average overtime hours, at 5.6 hours in February 1966 were up slightly from January, but unchanged from a year earlier.

C. *Construction Equipment and Machinery.*—Data for this industry indicate a tight but not serious manpower situation. Employment in March 1966, at 261,000, was up 14,500 over March 1965. The workweek—at 43.3 hours in March 1966—was up ½ hour from March 1965. Overtime hours were also up somewhat over 1965 levels, rising 1.1 hour from February 1965 to February 1966 (from 3.9 hours to 5.0 hours).

D. *Defense Industries.*—Employment in defense industries—aircraft, communications equipment, electronic components and accessories, ordnance and ammunitions, and shipbuilding and repairing—rose by 27,700 in March to 1,965,000. At that level, employment was up by 278,000 from a year earlier. Defense industries accounted for over a fourth of the gain in manufacturing employment.

Within the broad group, there were some divergence in trends. Employment in *Communications Equipment* rose slightly in March, continuing the uptrend of recent months. At a level of 462,000, employment was up 43,000 over the year and above its 1962 peak. However, the average workweek declined slightly in March to 42.0 hours, but was still 0.6 hour higher than a year earlier.

The *Ordnance Industry* continues to show the marked expansion begun in mid-1965. Between March 1965 and March 1966, employment increased by 27,000, with three-fourths of the advance occurring among production workers. The (seasonally adjusted) factory workweek, declined in March, from 42.4 hours to 42.3 hours, and was not at critically high levels.

In the *Aircraft Industry* the situation remains tight but not critical. Employment rose by 14,700 between February and March, but still remained substantially below 1955–59 levels. At 44.0 hours in March, the average workweek was 2.2 hours higher than a year ago. Average overtime (at 5.3 hours in February 1966) was down from January, but was significantly higher than the level of February 1965. A recent survey indicated that employment in the aircraft industry is expected to increase by nearly 50,000 between December 1965 and June 1966, intensifying pressures on the industry.

Data on the backlog of unfilled orders for "defense products industries," show some easing of the situation in late 1965 and early 1966. The group as a whole showed considerable month-to-month variation without any particular trend until the beginning of 1965, when the backlog rate rose from 9.1 months to a peak of 10.5 months in September. The backlog has since declined and stood at 9.6 months in January 1966.

There were some disparate movements in the backlog among the industries in this group over the past year, but in late 1965 and early 1966 some reduction in the backlog occurred for all the industries. The communication equipment industry's backlog reached a peak of 6.7 months in July and has been declining since then. By January 1966 the rate was 5.8 months, as compared with 6.2 months a year ago. The aircraft and parts industry showed an upward trend since the beginning of 1965, rising from 11.0 months at the beginning of the year to a peak of 13.2 months in November 1965. However, in December 1965 and January 1966 the rate dropped, to 12.2 months. This would indicate that they are able to find the equipment, materials and labor to hold their own.

E. *Screw Machine Products.*—Some 2,000 companies in this industry manufacture custom-made component parts for nearly all hard-goods manufacturing.

Serious shortages of skilled labor have been reported. Orders booked in the first 11 months of 1965 were 27 percent above 1964. To meet the increased demand for their products, companies have extended the workweek and have accelerated recruitment and training. They also indicate that the shortage of skilled workers in the industry may restrict the flow of component parts in the near future.

Employment reached an all-time high of 99,000 in March. The gain from a year earlier totaled 7,200, with the bulk of the new jobs falling in the production worker category. The steady upward trend in employment has been in evidence since late 1964 and has been accompanied by a sharp rise in the workweek. In March, the workweek averaged a relatively high 45.0 hours, down slightly from February, but up 0.7 hour from a year earlier. Similarly, overtime was up sharply, showing an increase of 1.5 hours between February 1965 and February 1966 (to a record February level of 7.1 hours).

Although data on prices for the specific industry group are not available, the Wholesale Price Index includes a related category of "bolts, nuts, screws, and rivets." Since January 1965, the Wholesale Price Index for these products has risen 5.4 percent, more than 3 times the rate for all industrial commodities (1.6 percent).

IV. OCCUPATIONAL SHORTAGES AND SURPLUSES

A. Employment service data

The intensity of occupational shortages has increased measurably over the past year and a half. Unfilled Employment Service job openings as of March 1, 1966, totaled 344,000—the highest figure for that date since the end of World War II. The March 1 total was 40 percent above that reported in July 1964.

Professional and skilled jobs still account for most of the hard-to-fill openings, but unmet needs at lower skill levels have increased sharply since mid-1964.

Employment offices report that 7 of every 10 openings available for 30 days or more have gone unfilled for lack of qualified applicants. About 15 percent were not filled because of unfavorable working conditions; all other reasons accounted for another 15 percent.

Shortages are still of the "spot" variety, rather than general in character. Even with unemployment down to 3.8 percent in March, there are 3 job applicants at local employment offices for every unfilled opening.

Among professional and technical categories, draftsmen, social welfare workers, trained nurses, mechanical and electrical engineers, laboratory technicians and assistants, and accountants and auditors were in shortest supply. The number of unfilled openings has increased most rapidly for draftsmen, electrical engineers and technicians.

In the blue-collar category, the most prominent shortages are for mechanics and repairmen, machinists, welders and flame cutters, pattern-makers, tool makers and die setters. At the lower end of the skill spectrum, local shortages of construction laborers, warehousemen, automotive washers and greasers and machine shop laborers are reported.

Among service workers, the occupations in shortest supply include waiters and waitresses, housemaids, nursemaids, restaurant cooks and kitchen workers, private housekeepers and porters. Some workers have moved out of these occupations into others offering greater status and compensation.

B. *Occupational unemployment rates*

Unemployment rates for the broad occupational groups of experienced workers show considerable declines over the past year. The seasonally adjusted rate for professional and technical workers fell from 1.7 percent in the 1st quarter 1965 to 1.2 in the first quarter 1966. Similar declines occurred in jobless rates for clerical workers—3.6 percent to 2.8, and for sales workers—3.5 percent to 2.7.

At the same time, unemployment rates are still fairly high in the blue-collar field. In March 1966 the rate was 3.7 percent for skilled craftsmen, 5.0 percent for semi-skilled operatives, 8.9 percent for nonfarm laborers, 4.7 percent for service workers and 6.6 percent for agricultural wage workers. While some of this unemployment represents seasonal layoffs, and normal turnover in the job market, nevertheless it also includes an untapped labor supply, a considerable margin for economic expansion.

In addition, the labor force continues to grow. On the basis of population trends, the projected increase for 1966 was 1.3 million persons. We expect that an additional 300,000 will be drawn into the job market by the attraction of plentiful opportunity.

But the extra margin of labor supply, in the full sense, is not limited to the unemployed and the new entrants. Many persons are not working to capacity.

There are still about 1,800,000 who want full-time work but are only obtaining part-time; and half of these are adult men. A much greater number can assume greater responsibilities if employers will upgrade them along with necessary training and break-in arrangements.

V. CONCLUSION

Although this is the first published report in this series, we have been studying manpower shortages intently since last December. It is significant that the shortage areas, occupations and industries at the present time are largely the same as those we identified several months ago. Meanwhile, payroll employment has grown by over 900,000, and there is every indication that the expansion is continuing. Thus, despite difficult "spot" shortages, the problems are being met up to now.

[News from U.S. Department of Labor, Thursday, May 26, 1966]

The Nation's manpower supply is still ample for employers to maintain a rapid rate of economic growth.

This fact is emphasized in the second monthly Report on Manpower Requirements and Supply, made by Commissioner Arthur M. Ross of the Department of Labor's Bureau of Labor Statistics at the request of President Johnson. The first report was published in April.

The May review points out that even with recent increases in employment—with nonagricultural payrolls up by 650,000 persons between March and April—new additions to the labor force remain great enough to permit further business expansion.

The report also notes that—

Seasonal pickup in certain industries—particularly in construction—has increased the demand for experienced workers.

Washington, D.C., Atlanta, Minneapolis, St. Paul, Cleveland, Houston and Milwaukee show the lowest unemployment of all large metropolitan areas.

Workers are in the shortest supply in machinery manufacturing.

New defense contracts on the West Coast have created unusually heavy demands for engineers and metal workers in the aircraft industry.

MDTA training activities are playing an important role in providing manpower for hard-to-fill openings.

Report on Manpower Requirements and Supply, May 1966

(By Arthur M. Ross, Commissioner, Bureau of Labor Statistics, U.S. Department of Labor)

[This is the second monthly report on manpower shortages and reserves prepared in response to President Johnson's request in his Manpower Report to the Congress. Much of the information was provided by the United States Employment Service, Bureau of Employment Security, and the affiliated State Employment Services. Other cooperating agencies were the Business and Defense Services Administration of the Department of Commerce, the Council of economic Advisers, and the Bureau of Labor Statistics]

I. GENERAL ECONOMIC SUMMARY

As we reported last month, manpower reserves are still sizable enough to permit further expansion of employment. The number of wage and salary earners on nonagricultural payrolls rose 650,000 between March and April. The increase since April 1965 has been almost 3,000,000. Increases of this magnitude indicate that employers are still able to staff new positions and maintain a rapid rate of economic growth.

Even with the recent increases in employment, the Nation's manpower reserves remain substantial. Much of the additional manpower consists of new additions to the labor force, which will become greater at the end of the school year in June.

The number of unemployed workers declined slightly in April, to 2,800,000. Among the unemployed were 1.1 million adult men, 840,000 adult women, and 860,000 teenagers. The national unemployment rate (seasonally adjusted) was 3.7 percent, the lowest April rate since 1953, but virtually unchanged from February and March. Rates of unemployment for adult men and for married men, however, edged downward in April (to 2.4 and 1.8 percent, respectively).

Thus the reserve of male workers is still being squeezed down to meet manpower requirements.

It is apparent, however, that manpower problems in particular industries, areas and occupations have intensified as economic activity has picked up with the return of spring. Payroll employment increased by 700,000 (seasonally adjusted) between January and April, while the number of unemployed fell by almost 200,000. Seasonal factors would increase the demand for experienced workers in the months to come, even if production and employment were not increasing beyond seasonal expectations.

Many employers state that available workers do not have sufficient qualifications, that costs are increasing as a result of inefficiency and heavy overtime assignments, and that high turnover is multiplying the expenses of recruitment and training.

Labor turnover data provide circumstantial evidence corroborating the claim that the manpower situation has tightened. After no change in February turnover rates in manufacturing rose sharply in March. The quit rate in manufacturing in March 1966 was 2.7 percent, up from 2.4 percent in February and 1½ times the rate in March 1965. The rate of accessions (or hirings) rose from 4.8 percent in February to 5.1 percent in March.

The highest March quit rates were in the furniture and fixtures, leather and leather products, lumber and wood products, textile mill products, and apparel industries. These are the lowest paying of all manufacturing industries, and historically have had difficulty in retaining workers in times of rapid economic growth and abundant job opportunities.

It is important to avoid exaggerated impressions of the degree of stringency, however. Other economic indicators show that the expansion is being taken in stride so far as manpower supply is concerned. In periods of severe stringency, average weekly hours and overtime hours increase sharply as employers stretch out the utilization of their existing workforce. Although hours of work rose in 1965 and early 1966, this trend has halted in the past two months. The factory workweek in April remained the same as in March—41.5 hours—and was 0.1 lower than in February. Average overtime hours were unchanged for the third straight month.

In durable goods manufacturing, hours rose by .1 hour to 42.4 in April, but were the same as in two of the previous three months. Average overtime hours also rose in April (by .2 hours to 4.6) but were no higher than in February.

Among individual manufacturing industries, average weekly hours were highest in machinery manufacturing and paper and allied products (43.7 hours), and transportation equipment (43.5). The only significant increases over the month were in ordnance (.6 hour), and transportation equipment (.5 hour). In most other industries, hours either rose slightly or actually declined last month. (The foregoing data on labor turnover, hours and overtime are seasonally adjusted.)

If inefficient, marginal workers were as numerous as some are inclined to believe, the productivity statistics would be affected. Yet output per man-hour in the total private economy was 3.0 percent higher in the first quarter of this year than in the first quarter of 1965. This is about equal to the trend rate of productivity increase during the entire postwar period. The productivity advance since the last quarter of 1965 has been 0.6 percent, equivalent to an annual rate of 2.4 percent.

Again, if manpower shortages were holding up production on a significant scale, the ratio of unfilled orders to monthly shipments in manufacturing would be stretching out. In a few industries such as metalworking machinery, order backlogs have been accumulating. But for durable goods industries as a whole, the average backlog of 3.2 months in March 1966 was the same as a year previously. For all manufacturing industries the ratio of orders to shipments was 2.7 months in March, the same as in February and up 0.3 month from March 1965.

II. THE MANPOWER SITUATION IN LABOR AREAS

One-third of the 150 major labor areas for which monthly unemployment measures are available are now classified as having relatively low unemployment (unemployment rates of about 3 percent or less).

Among the largest metropolitan areas (1,000,000 or more population), the areas of low unemployment are Washington, D.C.; Atlanta, Minneapolis-St. Paul, Cleveland, Houston and Milwaukee. Other areas with relatively tight job markets are Hartford, Connecticut; Wilmington, Delaware; Cedar Rapids and Des Moines, Iowa; Lansing and Saginaw, Michigan; Rochester, New York;

Lancaster, Pennsylvania; Ft. Wayne, and Indianapolis, Indiana; Dayton and Columbus, Ohio; Dallas, Texas; Richmond, Virginia; and Madison, Wisconsin. Although regular reports from the major employment centers show a continued downward trend in unemployment rates, there are as yet no major areas which warrant classification in the overall labor shortage category, defined by an unemployment rate of 1.5 percent or less.

The number of major areas having substantial unemployment rates (6 percent or more) has fallen from 29 in February 1965 to 18 in February 1966. Relatively large areas with substantial unemployment are Fresno, San Bernadino, San Diego and Stockton, California; Fall River, Lawrence-Haverhill, Lowell, and New Bedford, Massachusetts; Duluth, Minnesota; Atlantic City, New Jersey; Altoona, Scranton, and Wilkes-Barre-Hazleton, Pennsylvania; Charleston, Huntington-Ashland, and Wheeling, West Virginia. The cities of Miami, Newark, Oakland, Philadelphia, Pittsburgh, and San Diego are designated as "persistent unemployment areas" for purposes of Federal procurement preference.

III. THE MANPOWER SITUATION IN SELECTED INDUSTRIES

The most serious manpower problems of any industry continue to be found in *machinery manufacturing*. The machinery industry will need 150,000–200,000 additional workers in 1966, and important occupations are already in short supply. Manpower problems in the machine tool segment of the machinery industry intensified during April, although other segments appear to be holding their own.

Seasonal fluctuations have the most pronounced effect on the *construction industry*. Employment increased between March and April, although strikes and poor weather held the increase below seasonal expectations. Skilled workers—particularly electrical workers, plumbers, pipefitters, iron workers, carpenters, bricklayers and sheet metal workers—are in short supply in many sections of the country. California, New York and Pennsylvania still have high rates of unemployment in construction, however.

The industry most affected by placement of new defense contracts is *aircraft*. Several important new contracts on the West Coast, both defense and nondefense, are creating unusually heavy demands for engineers and metal workers.

IV. OCCUPATIONAL SHORTAGES

The occupations in shortest supply are still those reported last month—engineers, draftsmen, nurses, other health service workers, machinists, tool and die makers, machine tool operators, and pattern and model makers. There are nationwide shortages in these occupations regardless of the situation in particular labor areas. Even unskilled industrial workers are difficult to hire in some of the tighter areas.

An indication of the nature and trend of shortages in specific occupations is provided by interarea recruitment data of the Federal-State employment service network. Over the March 1965–March 1966 period, there was a substantial increase in interarea requisitions for every major occupational group. Needs for professional workers increased by almost a third, those for production workers nearly tripled, those for clerical and sales workers nearly doubled and those for service workers jumped over 75 percent.

Among professional workers, the largest numbers of jobs placed in interarea recruitment were in engineering and health specialities. The engineering specialties in greatest demand are mechanical, electrical and industrial engineering. Needs for draftsmen—mostly in aircraft, shipbuilding, ordnance, contract construction and engineering and architectural services—have increased sharply during the past few months.

Among production workers, demand continued to increase in skilled occupations such as metalworkers, particularly machinists, tool and die makers, and machine tool operators. Similarly, interarea recruitment for pattern and model makers multiplied significantly in the first quarter of 1966, as recent large contracts in the aircraft industry pushed hirings for these workers. Demand for semi-skilled metalworkers also increased in many areas. The recent step-up in aircraft has promoted additional interarea recruitment for semi-skilled workers needed by this industry.

V. PROGRAMS TO COPE WITH SHORTAGES

Reports on hiring practices show a further readiness among employers in most sections of the country to reduce hiring specifications, eliminate arbitrary barriers to employment, and accept trainees who have completed Federally-financed training programs.

The U.S. Employment Service is also taking new actions aimed at resolving problems of skill shortages. (1) State agencies have been advised to inform employers of developing skill shortages and to provide guidance about adjustments in hiring specifications, job simplifications, and the establishment of training programs. (2) MDTA training is being redirected to accommodate itself both to the need for equipping the disadvantage for available jobs in the community, for which 65 percent of the training funds will be allocated; and, for meeting skill shortages in local areas, which will absorb the remaining 35 percent. (3) Close cooperation with other agencies through a series of task forces and special work groups, is mobilizing resources in the Departments of Commerce, Defense and Health, Education, and Welfare for improvement of information and policies.

MDTA training activities are also playing an increasingly important role in providing additional manpower for hard-to-fill openings. Approximately 345,000 persons have been enrolled in MDTA institutional training programs since the inception of the program in 1962. Almost one-third of these persons have enrolled since mid-1965. Three-fifths of all institutional MDTA training undertaken through 1965 has been geared to training workers in shortage occupations. On-the-job training programs under MDTA are helping to meet the heavy demand for trained workers. In the last few days of April, for example, on-the-job training programs were approved for more than 6,000 workers. These included one contract with the Social Development Corporation of Washington, D.C. to establish hospital training programs for 1,775 workers in eight subprofessional occupations—nurses' aides, ward clerks, orderlies, dietary aides, psychiatric aides, computer operators and programers, and medical secretaries. Sixty-five other contracts were approved for the training of workers in occupations ranging from apprentice draftsmen and surgical technicians to machinists and apprentice tool and die makers.

Government-sponsored programs can only meet a small part of the Nation's training needs. It is essential that employers increase their own upgrading and training activities in order to correct manpower imbalances as they develop.

Chairman PROXMIRE. I am wondering about the validity of these reports, in view of the strong case you make here for getting this additional data.

Mr. Ross. Well, I don't want to fall between two stools in replying to you, sir. I will say that we are able to identify the areas which are the tightest. We are able to identify some of the professional and skilled labor and service occupations where the jobs are hardest to fill. We are able to identify certain industries, such as a machinery and construction, which are having problems in that locality——

Chairman PROXMIRE. You can't get much of it quantitatively?

Mr. Ross. We can't make it quantitative.

We do have the data on unfilled Employment Service openings. We know that while some employers use them, some do not.

Chairman PROXMIRE. That is about all they have in foreign countries, isn't it?

Mr. Ross. Yes.

Chairman PROXMIRE. So we go as far as they go now?

Mr. Ross. Except that some of the foreign countries probably have a much better—in some of the foreign countries the employers use the Employment Service more than in this country, so that their employment service records would be more complete than ours would.

Chairman PROXMIRE. Have you discussed this at all with labor leaders?

Mr. Ross. Yes.

Chairman PROXMIRE. The reason I raise this point is that we are having Mr. Goldfinger tomorrow, and it would be very helpful to me if I could anticipate his viewpoint. Could you give us what you think might be said, to the extent that they may have reservations or objections?

Mr. Ross. Yes. I would not want to speak for him, of course. We have been very aware of the misgivings on the part of some labor and management people as well. And we think that we have been able to answer them. For example, labor has expressed the concern that some gross estimate of vacancies would be deducted from the gross total of unemployment, and then the subtrahend would be represented as the true or net figure of unemployment. As I said in my statement, I do not think that any responsible labor economist would do such a thing. And that is not our intent.

Chairman PROXMIRE. I am sure that experts such as you would not do it. But it is a perfectly natural thing for many, many people to do, if these statistics are available. And I am wondering what we can do to minimize that. In my judgment that certainly should not prevent this information from being available, but how can we prevent the misuse?

Mr. Ross. I think what we do to minimize it is to associate the vacancy data with occupational detail, industry detail, location, area detail—in other words, a vacancy has an occupation, it has an industry, it has an area, it has a wage rate, just as a person has arms and legs and eyes and a nose. And I think we should discourage as much as possible promiscuous use of undefined or unqualified vacancy totals.

Now, as you say, there is always a possibility that people will use them that way. And I think the advantages of the data are great enough that we should go ahead in any case and do all we can to prevent misuse.

Chairman PROXMIRE. Maybe it will take us time to develop this, but I certainly appreciate hesitation in this area.

Mr. Ross. Yes, I do too.

Chairman PROXMIRE. Because if, for example, we had 3.7 percent unemployment, and you found that there were 2 percent vacancies, and the charge was made that the true unemployment is less than 2 percent for this reason, it obviously would be wrong. But also it would be very tempting for those who want to minimize unemployment decisions.

Mr. Ross. Yes. I think it would not be justified to say that under those circumstances the unemployment rate is really 1.7 percent. I would see no validity in such a statement. Of course, someone might make it, just as people misinterpret price statistics and wage statistics. We would do all we could to discourage misinterpretations. But it is a free country.

Chairman PROXMIRE. Congressman Curtis has very courteously permitted me to go ahead. And I appreciate it. I have just a couple of more questions.

Would this information be useful, for example, for those of us who are somewhat critical of the NASA program, those of us who feel that it is draining too many engineers out of the civilian economy, and call for manpower studies, to at least evaluate what the impact of that is? Would we be in a better position with this kind of a study to evaluate what effect governmental programs of various kinds have on the availability of people with certain skills?

Mr. Ross. Well, I think it would to some extent, Mr. Chairman. We do know, at least we have estimates, of the involvement of engineers, both in-house and in private industry in the NASA program.

If we had information on the need for engineers elsewhere it would be possible to make some judgments there. Of course, there are many kinds of engineers, as you know. And we would have to distinguish between civil engineers, aeronautical engineers——

Chairman PROXMIRE. Would you do that in your understanding of how this program would work?

Mr. Ross. Well, we have a section in my statement on the problem of occupational detail. This is something that needs more study. And we have not yet fully solved the question of how much specificity we could have as to the different types of engineers, different types of physicians, different types of teachers, and so on.

Chairman PROXMIRE. How about the alternatives? To what extent might existing programs be strengthened to achieve some of the same independence as the vacancy data? I have in mind the Employment Service listings, the NICB index of help wanted advertising, and various professional mediums.

Mr. Ross. Well, I think the openings on file at the Employment Service do provide a helpful source of information. Manpower Administrator Ruttenberg and I are using them in our analysis of shortages and in the reports we are making. I might say that henceforth Mr. Ruttenberg and I will make the shortage reports jointly, although I have been doing them previously.

More can be done to get that information up to Washington speedily. But the fact still remains that from one locality to another there are differences in the degree to which employers in different industries use the Service and file their orders. And there are some industries, such as construction, that do not operate through the Service. They generally get their employees in the union hiring halls. So typically at least the union employers would not file any orders with the Employment Service. And there are some of the professions and the white collar occupations that generally go to the private employment agencies organization, or—then, of course, many jobs, as you know, are filled informally by word of mouth, by personal contacts, and so on. And they would not turn up in any formal reports from either private or public employment offices.

The index of help wanted advertising by the National Industrial Conference Board is an indicator—I do not think it is a precise statistical indicator, nor that it ever could be. And I do not think that it would ever give us a good breakdown of demand as between occupations. For one thing, the really hard jobs to fill are advertised in many communities, or in many papers. You will find, let's say, Lockheed needing aeronautical engineers.

Chairman PROXMIRE. There are a lot of duplications?

Mr. Ross. Yes; there would be great duplication.

Chairman PROXMIRE. It is hard to eliminate it, too.

Mr. Ross. And again you might have a thousand vacancies for engineers and a thousand vacancies for restaurant cooks, and you would get much bigger display ads for the former than for the latter, or more ads all together. But there are still a thousand vacancies for each. I do not disparage the NICB help wanted advertising index at all, and I am very much impressed by their experimental job vacancy surveys, but you should not think the help wanted ads will give us the information we need.

Chairman PROXMIRE. Just one final question. Would the development of job vacancy data on the scale contemplated represent the optimum allocation of our statistical resources?

Mr. Ross. I think that we need the data sufficiently at this time as to justify the allocation of the money we are requesting for this purpose.

Chairman PROXMIRE. Would this be the optimum, would this be the best place we could put our money?

Mr. Ross. Well, we are, of course, seeking additional money for a number of purposes. I believe that this justifiably has a high priority among all the purposes for which data are needed.

Chairman PROXMIRE. Thank you very much.

Congressman Curtis?

Representative CURTIS. Thank you, Mr. Chairman.

And thank you, Mr. Ross, for what I regard as a very excellent presentation. It is most timely, because we are way behind where we should be in this area.

I am reminded that I slipped over here from the Ways and Means Committee, where we are putting the finishing touches on the unemployment insurance bill. After months of hearings, we realize how weak our data are. Our knowledge of this problem of employment and unemployment is inadequate. If we had job vacancy information available to give us some better idea of the profile of the unemployed, we would be much further ahead. One of the basic points is whether we should simply extend the benefit period under unemployment insurance, or attack long-term unemployment by the manpower training approach. I was terribly disappointed when the witnesses of the administration, in their prepared statements, failed to relate the two. But, of course, the training of the long-term unemployed is dependent upon having some statistics on the jobs available.

I want to point up other areas where these statistics would be valuable, not from the standpoint of discounting what you have said, but to help myself get a survey. I have remarked that our new immigration laws were really turning over to the Department of Labor the problems of immigration, related as they are to the needs for the skills of particular immigrants in our society.

How does the Department of Labor now operate these new provisions of the immigration laws without having more sound statistics on job vacancies? Is that in your area?

Mr. Ross. That is more in Mr. Chavrid's area in the U.S. Employment Service.

Would you care to have him answer at this time?

Representative CURTIS. I will wait to come to him.

But from your standpoint, would you agree that if we were going to do a job here these kinds of data would be invaluable to us?

Mr. Ross. Yes. Well, for many purposes, including immigration, employment services policy, interarea recruitment, and so on, we do need to have lists of short occupations. And of course if vacancy data are available, it will give us a more accurate list. It is always important when you come to labor shortages to base it on evidence rather than on the loudness of complaints, because the employer who complains the loudest is not necessarily the one who is really the shortest of labor.

Representative CURTIS. Incidentally, in your exchange with Senator Proxmire on the possible misuse of statistics, I was thinking that it also might help to prevent the present misuse that is going on, at least in my judgment, where the cause of our unemployment problem has been identified as a lack of aggregate demand, rather than structural and frictional imbalances. I would be willing to risk the misinterpretation of the statistics if I could help to dispel some of what I think is a very shortsighted approach to the nature of our unemployment.

I have observed that you can get roast pork by burning the barn down, but it is a poor way of getting it. I think this country throughout its history has been short of labor, and we have filled a great deal of our labor needs through immigration. But I think we are still in this period of shortage of labor.

The second area is rehabilitation. There has been some development in this area, and I am wondering whether or not these data might not be available for this purpose. It is not automatically recognized. But the great need there would be to identify what kind of jobs there are for people who might have a handicap. Is there enough of that kind of data available to you and do you avail yourself of it now?

Mr. Ross. Again, I think that is something which Mr. Chavrid of the Employment Service could better comment on, because it is an operating question so far as the rehabilitation is concerned.

Representative CURTIS. A third area in this business of meeting the demand for skills isn't to take the unemployed, who tend to be untrained and semiskilled and train them for the difficult skills that are in demand. It is the much more difficult problem of taking a person with a job and upgrading his skill, and then leaving his good but less-skilled job to be filled by someone who requires training.

With this in mind, I was interested in a study where an estimate was made of the amount of on-the-job training done by private industry. And the figure came out, as I recall it, to $14 to $16 billion a year. But again, in this area, there should be some way of identifying what is going on. An employer has told me that he does not even advertise for these people, because he knows they are in such short supply. Or it is a skill that just has come in, and there is no training going on, so many employers do not advertise at all. They simply set up a method of on-the-job training. Now, I do not know whether there is any way that we can get these data, or whether they are in such shape that they can be used. But if they were, I think they would be very important in our understanding of this problem.

Mr. Ross. Mr. Curtis, I have not seen the $16 billion estimate. I have discussed this with industry people. And I am not aware of any comprehensive or reliable study of the amount of in-plant training. And I agree with you that the upgrading in this plant training has tended to deteriorate somewhat during the past decade, because there was a lot of unemployment throughout, and employers were able to find what they needed more often than not on the open market.

Now, the point Mr. Cassell made—and it may have been before you arrived, sir—was that as an employer he found that he was often in doubt as to whether to wait and see if the person would show up in response to an ad or a job order, or whether he would have to take one of his existing people, give him more training, and put him on a more responsible job. I think the vacancy job would help employers to make that decision more rapidly.

Representative CURTIS. I fully agree with you.

Incidentally, the quit ratio seems to always go up during periods of economic upturn.

Mr. Ross. Yes, indeed.

Representative CURTIS. That is an accurate statement of mine?

Mr. Ross. Yes; it is.

Representative CURTIS. This indicates a healthy thing. People who possibly in a period of relatively high unemployment will stick with their jobs rather than look around for something better, or upgrading skill, or whatever. Is this a ratio that is of any value in indicating job vacancies?

Mr. Ross. Well, it is affected by quite a few things. Naturally, when a person quits, ordinarily the employer wants to replace him. So that, itself, would indicate a vacancy. We find, however, that the quit rate is highest in the low-paying industry.

Representative CURTIS. Well, that would indicate an upgrading of skills, then, would it not?

Mr. Ross. Yes. For example, right now in manufacturing, which is the only place we have quit rates, the quit rates are highest in lumber, apparel, textiles—well, other of the higher paid manufacturing industries, they are not so high, let's say, in machinery, where we have some of the more noted occupational skills.

So it is a good general economic indicator, but it does not tell you where your difficult shortages are.

Representative CURTIS. Now, just to mention again the problem of military manpower utilization. I am speaking not only of the utilization of people they put in uniform, but those that they might have in the civil service, under the military, plus the munitions industry, which is a fluctuating thing.

Now, we have or had—and I think it is still in existence—a Manpower Utilization Board, that is the exact title it had during World War II. And I think it continued in existence. Its job was to try to anticipate the military needs in relation to the tight skills from the military standpoint, at any rate, in the civilian sector. And in our draft laws right now there is a provision where people in certain occupations are deferred.

It would be interesting to know what data they have, how they collect it, and where these shortages are. Have you reached into that area at all?

Mr. Ross. Mr. Curtis, I think it might be best if we would file a statement for the record on that question of critical occupations in relation to draft policy.

Representative CURTIS. And anything further that you might want to supply along the lines of the questions that I asked before on this?

Mr. Ross. Yes, sir.

(Following statement was later supplied for the record:)

In determining if there is a shortage of workers in a particular occupation—one of the criteria used in placing an occupation on the List of Currently Critical Occupations—information is developed primarily from indirect evidence, and following a detailed examination of available data. The number of job openings on file with the State Employment Services provides some evidence. Analysis of current and past trends in employment and unemployment in the particular occupational group provides some information. Discussions with unions, trade associations, employers, educators and training authorities are also helpful.

Other information examined relates to wage levels, hours of work, recruiting efforts, and training activities. In no occupation, however, are there direct incontrovertible facts such as might be provided by long-term information on the level and trend of job vacancies. Without such direct evidence, determination of an occupational shortage must rest on circumstantial evidence.

Representative CURTIS. Incidentally, here is an in-house operation of the Federal Government where they control both the demand and are in the business of trying to meet this demand. And I suspect that they have got over a period of years on an empirical basis a lot of data. And yet it is not available. I can't even get the study that the administration was supposed to have been making—which was reported as being available, I think, in April of 1965—into this whole problem of the draft as a method of procuring manpower for the Military Establishments and its impact on our labor market. I think I know what is in that report, or I have an idea of some of the conclusions.

But to have a report of that importance suppressed—and that is apparently what it has been—to me is a rather shocking thing.

The final area that I want to touch on—and you have already answered to some degree—relates to the shift that is continuing to go on in our society from rural to urban occupations. I felt that a great deal of the problem of the Negro has been erroneously identified as a Negro problem when really it is the age-old problem that occurs whenever there is a shift of the rural dweller into the urban areas. And there is great need, I would argue, for updating our Federal vocational educational program, which was heavily oriented toward retraining or training in the agricultural skills, toward the kind of skills that are in the urban areas. But I think we have got to reach into the agricultural area, and not separate it out. There needs to be this coordination between the Department of Agriculture and the Department of Labor.

I said that was my final observation. I do have one other before I ask a very specific question.

It seems to me that as a society, as our economy advances, it moves heavily from the manufacturing or product area into distribution and services of all sorts. And certainly in the job area the demand for skills seems to be increasingly in the service and distributive area, if we include in service things like medicine, education, and government, local and State.

This, I think, is an important factor, because so much of our statistics seems to be oriented toward those which are easiest to collect, which is in manufacturing. Would you say that is a fair observation?

Mr. ROSS. Yes, I think that goes for employment statistics, wage statistics, fringe benefit statistics, turnover statistics, almost every kind. And it is part of my program at the Bureau to extend the program throughout the economy into the service industry, and those that are harder to collect.

Representative CURTIS. The specific question I had in mind was this. When I asked Secretary Wirtz earlier this year—and I think you were on the panel at the time—why we had not moved forward more rapidly in this area of getting our job vacancy statistics, he responded by saying it was because Congress had not given the administration the money. And I asked him how much he was

talking about, and he said $2.5 million. And I was frankly a little bit shocked to think that this program had been held up for any reason of that nature. What are you asking for now in the way of additional funds?

Mr. Ross. The program which we are requesting would be $2.5 million.

Representative CURTIS. It is that same figure?

Mr. Ross. Yes.

May I comment?

Representative CURTIS. Certainly.

Mr. Ross. I think it is on a little different point, so perhaps I had better do it later.

Representative CURTIS. I certainly hope that the administration presses this, and alerts the leaders of the Congress to the need for it. I certainly will do everything I can on my side of the aisle, as I have stood ready to all along. And to me it is a shame, really, that we have held back developing this kind of data because of sums of money of this size. We would have this money back a thousand times over, in my judgment, in getting better programs and unemployment insurance, manpower training, immigration—and you have named a great many others.

Thank you.

Mr. Ross. Mr. Chairman, one question that you raised I don't think I answered very well. Could I add a little bit to it?

Chairman PROXMIRE. By all means.

Mr. Ross. You asked what were the misgivings which labor had expressed about the program, and whether I thought we had been able to meet that. One of them I did mention was the possibility of misuse of gross vacancy data against gross unemployment data. I have commented on this. And we, of course, would not do it.

A second misgiving which has been expressed is whether employers understand the concept of vacancy, and whether they might not exaggerate their vacancies. We find upon our response checks that most of them do understand very well, and rather than an exaggeration, there is an understatement.

Thirdly, a point raised by some of the labor people goes to the definition of a vacancy. Our current definition would count as a vacancy a job which has become open for any period of time. Now, the labor people argue that since one is ordinarily not counted as unemployed unless he was unemployed throughout the survey week, therefore a vacancy should be counted for our statistics when it has been open for a week.

We have counted them both ways. And we find that it does not make an awful lot of difference, in that most of the vacancies reported have been open for a week. But I think that is an open question, and one which we will want to do more thinking about. We have not arrived at a dogmatic position concerning the question of how long a vacancy should be open before being counted.

Next, the labor people have expressed concern as to whether substandard wages or other unfavorable working conditions——

Chairman PROXMIRE. This agricultural question, where you are asking people if they will work for 50 cents an hour?

Mr. Ross. Yes. Of course, the program does not contemplate coverage of agriculture yet, but the labor people have been apprehensive lest a vacancy which could not be filled because the wages were too low be given legitimacy and authenticity by being counted with other legitimate vacancies. Our feeling about that is that it is very important to know the wages, and if possible other important conditions of work, and to keep them always in mind in analyzing these vacancies. Vacancies that cannot be filled because the wages are too low should be identified as such, for operating purposes.

Chairman PROXMIRE. You would count it as a vacancy?

Mr. Ross. Our program does count reported vacancies as such. Now, we did make a study, a first pilot study of the wages—you see, in a couple of areas we also collected wage rates, although not in all the areas—excuse me, may I correct that—in five areas the wage information was also collected. And my statement does show——

Chairman PROXMIRE. Would this have a very big effect on the statistics? Supposing you excluded all those vacancies where the wage was obviously too low?

Mr. Ross. No; it shows that the great majority of the vacancies do offer at least the going entry rate for that occupation in that community. But it is a problem. And I feel that one should not lose sight of the wages that are being offered.

Finally, the labor people have felt, and I agree, that it would be a mistake to engage in a large scale publication, a published interpretation program too quickly before we know what we are dealing with. This is true with any new statistical program. And it is our feeling, as I say in my statement, that we would want to look at the information carefully and to study it, at least to discuss it with our industry advisory committee, our labor advisory committee, to discuss it with academic experts, and so on, before we decide what types of publication would be appropriate.

Thank you.

Chairman PROXMIRE. Thank you very much.

Our last witness is Mr. Chavrid, Director of the Office of Manpower Analysis and Utilization.

You have an excellent statement here, Mr. Chavrid; very detailed. I am sure it will be helpful to us. I had a chance to go through it. You may present it any way you wish. Do you wish to put the whole statement in the record and summarize it?

STATEMENT OF VLADIMIR D. CHAVRID, DIRECTOR, OFFICE OF MANPOWER ANALYSIS AND UTILIZATION, U.S. EMPLOYMENT SERVICE

Mr. CHAVRID. Yes, Mr. Chairman.

Mr. Cassell described some of the operating uses of the data. Mr. Ross reviewed some of the analytical uses of the data. I would like to briefly describe—and this is summarized in my statement—the experiment that was conducted in fiscal year 1965 in some 16 labor market areas.

The 16 areas that were selected for the experiment were based on criteria relating to the size of the area itself, the industrial composition of the area, its geographic location, as well as the extent of unemployment in these areas so that we could get as good a cross section

as possible, in terms of geography, industry, and the economic well being of the area.

The studies were done by the U.S. Employment Service and the affiliated State employment services in cooperation with the Bureau of Labor Statistics. All of the work done in the field was done through the State agencies, except the response analysis which was done by the Federal staff of the Bureau of Labor Statistics.

The emphasis in the experimental program was operational in nature, in an attempt to improve the functioning of the job market.

A variety of information was collected in the experimental program.

We obtained information on the total number of job vacancies at a given date, those that were open for 7 days or more, and those that were open 30 days or more.

We have also obtained information on part-time job vacancies and temporary job vacancies in two areas. We have obtained data in five areas, as was mentioned earlier, on wage rates, to see what the extent of substandard wages would be.

In some areas, we also have divided the sample establishments selected into two groups with half the area receiving a standard collection schedule and the other half a variant schedule. The additional data collected on the variant schedule included part-time and temporary vacancies and wage data. This was done in an attempt to see if the attempt to collect some additional information would result in a lower or higher response on the part of the employers to our questionnaires.

As it turned out this did not have an important bearing on the willingness of the employer to cooperate in providing the information. There were, however, differences in the response by different areas. In the first survey that was conducted in the last quarter of 1964, some 78 percent of the employers who were asked for the information responded. In the April 1965 survey there was an 81 percent response. In some areas, the response was unusually large. In fact, in Milwaukee the response was close to 95 percent. And so it was in Portland, Oreg.

I sometimes think that the kind of response we had was perhaps based more on the specific timing of the survey and the ability of the local office to get enough staff to do the job at that moment, rather than the reluctance of the employers in one area or another to provide the information.

In both rounds of the survey 99 percent of the schedules returned by the employers were usable.

Now, briefly, on the nature of the job vacancies, there were, all told, some 20,000 employers selected in the sample in the 16 areas. This was on a sampling design that provided for the inclusion in the sample of large establishments, medium-sized establishments, and small establishments.

A question was raised of what was meant by a large establishment or a medium establishment. These varied from area to area, depending on the size of the area. In the case of New York a large establishment was defined as one having more than 2,000 workers. The medium-sized establishment was defined as that having between 100 and 2,000 workers. A small establishment was that having between 4 and 99 workers. No establishment below four employees was in the sample.

In the case of Richmond, which was a smaller area, a large establishment had 200 or more workers, a medium sized from 200 down to 88 and a small one would employ between 4 and 87.

The employment in the so-called medium and large establishment which were to be covered in the sample was to represent 50 percent of the total nonagricultural employment in a given area.

Employers were asked on the schedule to list their vacancies by plant job title, which were then converted by the local office employment service staff into the codes and nomenclature defined in our *Dictionary of Occupational Titles.* The people who coded the schedules were experienced in this area of work. If there were to be emerging occupations, as Mr. Curtis has brought out, that currently are not in the *Dictionary of Occupational Titles,* this would appear on the job vacancy questionnaire that the employer would fill out. If the occupation or the job title listed there was not known to the local employment service, they would send out an experienced occupational analyst, who would then try to assign some existing code or develop a new one for that particular occupation.

So through vacancy surveys it is possible to learn about new and emerging occupations as they develop, which might not happen as stated before, if only help wanted advertising were used to identify job vacancies.

Representative CURTIS. Could I interrupt?

Your sample covered all kinds of occupations, then. It was not just manufacturing?

Mr. CHAVRID. The sample covered all kinds of industries, including government.

Representative CURTIS. Very good.

Mr. CHAVRID. Including nonprofit institutions, the total in a community. The only thing that it did not cover was an establishment which had less than four workers. We felt that we were reaching a diminishing return by going that low.

Now, the Employment Service job openings are reported for all skill levels.

I might mention that, what we call here the so-called broad skill groups are occupational groups like professional, managerial, clerical, and sales, service, and then it goes down to the skilled, semiskilled, and unskilled. There were nine such groups. These 9 one-digit groups include 580 so-called three-digit occupations. And within these there are all told 9,000 different occupational codes. All of these are coded in the *Dictionary of Occupational Titles.*

So it is necessary for experienced staff to identify all of these occupations in the individual areas and for the Nation as a whole if the data are to serve some useful purpose.

In both rounds of surveys, vacancies were found at all skill levels. Clerical and sales occupations accounted for nearly 30 percent of the vacancies in both rounds, a larger number than for any occupational group. The second largest representation was among professional and managerial workers.

While the vacancies were reported at every skill level, the magnitude and distribution varied widely from area to area.

Demand for certain occupations was general, while for others it was concentrated in specific areas. Almost all areas reported a demand for nurses, for example. In New York City there were almost 1,000

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vacancies for industrial engineers, while in 13 other areas there was a combined total of only 300 vacancies for this particular occupation. So there were very wide differences among the areas.

More vacancies existed in manufacturing industries than in any other segment. But this was to be expected because, in most of the 15 areas, factory jobs were the largest segment of the employment. About 30 percent of nonfarm employment in those areas was in manufacturing, and about the same proportion of vacancies was also found in manufacturing.

A separate analysis was made in our paper of the so-called hard-to-fill jobs. We have more or less arbitrarily defined hard-to-fill jobs as those vacancies which exist for 30 days or more. And about 50 percent of all of the openings fell into this category, that is, they had been open for 30 days or more.

By occupation, as we expected, the proportion of the so-called hard-to-fill vacancies ranged from slightly over 70 percent in the professional and managerial and skilled groups to about 45 percent in clerical and sales groups.

While the overall proportion of long-duration vacancies was high, certain detailed occupations were considerably higher. Among the professional and skilled groups, for example, 9 out of 10 vacancies for trained nurses and for tool and die makers were open 30 days or longer, while 80 percent of the vacancies for civil and chemical engineers and tailors were hard to fill.

Now, a major purpose of the job-vacancy experiment was to determine the extent of the Employment Service participation in the local area job market, that is, the percent of total vacancies in the area which was accounted for by Employment Service unfilled openings at a single point in time. The comparison revealed that of the total job vacancies in the community, the Employment Service held about one-third. This is a very impressive figure, and much higher than we in the Employment Service or people on the outside thought. It is nearly comparable with some of the more advanced countries or—let's put it differently—some of the countries in which it is believed that the Employment Service is much more advanced than in the United States.

There were differences, of course, between areas. This would depend upon the effectiveness of the Employment Service in the area, as well as the extent of labor shortages. The more shortages there are in the community, the more likely the Employment Service would get the larger share of such openings.

There was, on the whole, a general correspondence between the unfilled job openings that were listed with the public Employment Service and the job vacancies, except for certain occupations such as bricklayers and carpenters and other construction occupations, in which placements are made primarily through the unions.

I might at this point touch on the immigration question. There is no question that the additional information on the job vacancies would provide a more conclusive tool for determining the total occupational shortages at any one time. But the decision to admit immigrants or not is based on needs in the individual communities.

We have two lists. One refers to the professional occupations, which by law we must admit to the United States. The second list

is of those occupations for which very little training is needed. So the Secretary of Labor compiled a list of those occupations, that is, those that could be met by available American workers.

But in between there is a large grey area of nonprofessional occupations which require considerable training, which may be short in Milwaukee, but are surplus in Scranton, Pa., or elsewhere. So the determination for this is based on the extent to which there is a need for them in individual communities.

This is one of the operating uses in the job vacancy data.

Some of the others were in the development of training courses under the Manpower Development and Training Act.

In Baltimore and Kansas City, for example, the job-vacancy information was used as a basis for establishing vocational training courses in the school. The Oregon agency reported that the data from the first round of job-vacancy surveys was used by the State department of education to develop vocational education and other post high school courses for Portland Community College.

In Wisconsin, the job-vacancy survey aided in the development of mass training programs for 3,000 disadvantaged youths to be trained for the next 2 years.

At the national level we have used this information to guide the State agencies in the development of training programs.

In terms of using this information for developing additional jobs in which the Employment Service could place unemployed applicants, its use at this time was not too great. Perhaps the most important reason for this was that the kind of occupations that employers reported as having been unfilled for any duration of time were pretty much the kind of occupations that the Employment Service is having a very difficult time in filling. But in the higher skilled occupations where there are applicants, this could be a pretty useful tool.

These studies were used for the Employment Service to structure the visits to the employers.

I might say here that there had been a lot of apprehension at the inception of the survey that because the studies were made by the Employment Service, the employers would not report the data, because the Employment Service would run out and start developing jobs. This was an erroneous assumption, and the final results were a very pleasant surprise to me and others in the Employment Service. There has been no difference in reporting attributable to this. In the first round certain areas attempted to develop jobs right after that first round. In the second round the response in these areas was the same. In addition, areas where there was no job development had about the same response rates as those that did. So there was no effect of that at all.

To begin with, we did not attempt to develop jobs in any establishment unless we have an applicant in that occupation. And I am sure that if we had an applicant in a particular occupation which the employer has been short for 30 days, he would be most happy if we were able to provide a qualified applicant to him.

The experimental surveys clearly indicated that the labor supply in virtually all areas exceeded labor demand by relatively large margins some 12 and 15 months ago. We don't know what the situation is

now. These analyses were based on the number of applicants by occupations that were registered with the public employment office, and the total job vacancies that this survey provided.

I might mention here that on a national basis the Employment Service job registrants account for some 80 percent of all workers who suffer a spell of unemployment. So in terms of the occupational detail for some 80 percent of the unemployed there is really no better source of information than the public employment office applicant file, because the characteristics of these people, such as age and educational level, are obtained by a very competent person who is trained to do this.

In Charleston, W. Va., the job applicants outnumbered the job vacancies by about 10 to 1. For every job vacancy there were 10 job applicants. In only one area—and that was Richmond, Va.—were the number of job vacancies somewhat higher than the number of job applicants.

Of course, there was wide variation by occupation from area to area.

Now, in fiscal 1966 we will continue this experimental program in roughly the same areas with some modification of our schedule. Wage data will be obtained in all the areas. We will drop the collection of vacancies existing for 7 days but less than 30 days, because this information was not useful for operations. The number of vacancies open 7 days was almost the same as the total number of vacancies. We will retain the collection of vacancies in existence 30 days or longer.

Chairman PROXMIRE. You say you are dropping the first category of those where the vacancy is open for less than 7 days?

Mr. CHAVRID. No; we will get all of the vacancies regardless of the duration. And in addition, vacancies that are open 30 days or longer. So that we will have total vacancies.

Chairman PROXMIRE. This would be one of labor's objections, that you require 7 days for a person to be classified as unemployed, but that is not symmetrical, because you do not require it to be open 7 days before you fill it; is that correct?

Mr. CHAVRID. I don't think that is their objection.

Chairman PROXMIRE. I say that one of their concerns is that it is not symmetrical.

Mr. CHAVRID. We are not asking for 7 days or more this year, we are asking for all of the openings which the employer has now. In getting this additional information for 7 days or longer, we found that it was almost the same as the total job vacancies, over 80 percent of all the job vacancies were open 7 days or longer. So it would be an additional burden on the employer to provide this information. It is not useful for the operations, if I may say so. It may be useful for some statistical analysis. But we in the Employment Service are concerned primarily with these data in terms of the manpower operations.

Now, on the surveys that are now underway we have obtained some insight as to how they compare with the earlier ones. This is very preliminary. There has been an increase in job vacancies. Also, we have asked a specific question of the employer, if he would like Employment Service assistance to fill his job. And over 60 percent, on a preliminary basis, said, "Yes, we would be most willing to cooperate with you."

Mr. CHAVRID. This is about all that I wish to say. And if there are any questions, I would be more than happy to answer them.

Chairman PROXMIRE. Thank you very much, Mr. Chavrid.

(Mr. Chavrid's prepared statement follows:)

PREPARED STATEMENT OF VLADIMIR D. CHAVRID, DIRECTOR, OFFICE OF MANPOWER ANALYSIS AND UTILIZATION, U.S. EMPLOYMENT SERVICE

It is my pleasure and privilege to appear before you and to place in the official record some of the wealth of job market information derived from the Nation's first major effort in the field of job vacancies.

You have already heard Mr. Frank Cassell, Director of the United States Employment Service, testify on job vacancy data as an operations tool in the administration of manpower policy. Mr. Arthur Ross, Commissioner of Labor Statistics has approached the subject in conceptual terms with emphasis on vacancy data as an economic analysis tool. My purpose in appearing before this Committee is to provide the basic statistical support underlying both of these positions and at the same time to show what these data mean to the on-going and prospective programs of the Employment Service.

It is a relatively rare circumstance to participate in the development of a new avenue of work, much less to witness its emergence as a useful tool in the pursuit of knowledge and in application to existing problems. The job vacancy program has provided such an opportunity. I have been privileged to share with my colleagues the satisfactions arising out of this new program whose potential, I believe, will eventually permit it to take its place alongside those basic economic barometers which measure the number of people who work and those who are seeking work.

I have observed that there are no passive onlookers to the job vacancy program. Such is its attraction and power to move the imagination and so manifold its uses that it has created both a host of devoted adherents on the one hand, and equally interested partisans on the other, not necessarily of the same size, who wish to modify its form in one way or another.

The initiation of the job vacancy program in late 1964 and early 1965 was unique in at least three respects. First, it was an avowedly experimental effort full of unknowns and administrative difficulties yet the scale on which it was tried—the cities covered accounted for one-fourth of the Nation's work force—presumed a very high level of sophistication. Second, the time allotted for its completion, including conceptual thought, preparation of how-to-do-it manuals, staff training, gathering, processing, and analyzing the data, and applying the findings to job market problems, was only one short year. Lastly, the acceptance of this program by employers, educators, manpower agencies, economists, and the general public appears to have few parallels in previous efforts of this kind.

The job vacancy program marked another milestone. It showed for the first time, by relatively precise measurement, the important role that the Employment Service plays in the job market. At any point in time, unfilled job orders on hand in the Employment Service are estimated to constitute about 30 percent of existing job vacancies in the Nation. This job market exposure compares favorably with some of the highly regarded employment service systems abroad and occasioned considerable surprise among domestic and foreign manpower experts.

In assessing the facts revealed by these surveys, I would like to convey a major caution. The program is so new and the techniques so experimental that we cannot altogether tell the difference between fact, atypical variation, or perhaps plain sampling error. Figures will appear throughout this report which cannot be explained entirely by known economic phenomena. Consequently, we suggest that the data shown be regarded not as precise measurements but as approximations within which the probable answers will tend to cluster. The program will need to become periodic and the results inspected over time before more definitive conclusions can be formed.

BACKGROUND

In fiscal year 1965 the United States Employment Service of the Bureau of Employment Security, in cooperation with the affiliated State employment security agencies and the Bureau of Labor Statistics, conducted an experimental job vacancy program in 16 metropolitan areas. These areas accounted for approximately a fourth of the Nation's nonagricultural employment. Two surveys, the

first spread over the last quarter of calendar year 1964 and the second in April 1965, were conducted in each of the following areas:

Baltimore	Milwaukee
Birmingham	Minneapolis-St. Paul
Charleston, S.C.	New Orleans
Charleston, W. Va.	New York
Chicago	Philadelphia
Kansas City	Portland, Oreg.
Los Angeles	Providence
Miami	Richmond

The primary emphasis of the experimental job vacancy program was operational in nature in an attempt to improve the functioning of the job market. The public Employment Service has a large volume of manpower information available on a local area basis. This information consists of current employment and unemployment statistics, listings of job openings filed by employers, estimates of future occupational needs as estimated by the area skill surveys and training needs surveys and information on job applicants registered with the Employment Service. Information on current job vacancies would be an important supplement to this existing body of local area data and is needed for a more efficient and effective matching of workers and jobs.

In the 1965 experimental program, information on total job vacancies, vacancies existing one week or longer and vacancies existing one month or more were collected on what will be referred to as the standard collection schedule.

In addition, several types of variant schedules were used. In New York the schedules did not collect information on vacancies existing one week or longer. In Chicago, Miami, Baltimore and Minneapolis-St. Paul, the standard collection schedule was expended to provide for collecting wage data for the vacancies reported.

Still another experiment was to determine what effect the request for different types of information had on employer response rates and which type of schedule was most successful in obtaining the data. Five of the labor areas surveyed collected the job vacancy information on a split area basis (i.e., half the sample received the standard schedule and the other half received a variant schedule). The data collected in the half of the sample which received the variant schedule were temporary vacancies in Kansas City, part-time vacancies in Charleston, W. Va., wage information in Los Angeles, all three of these items in New Orleans, and in Philadelphia, information on total vacancies only.

Tests were also made to determine whether employer response was affected by conducting the job vacancy surveys entirely by mail from the central office of the State employment service as compared with conducting the surveys from local offices which involved employer visiting, in addition to mailing, both to introduce the program and to follow up on nonresponse. Accordingly, three of the area surveys were conducted from the State office. To the extent possible, the other 13 areas attempted to tie operating techniques such as job order development and placement to the collection of vacancy data.

SAMPLE AND RESPONSE

Complete information on the nature of employer response is available for 15 of the 16 areas included in the experiment. Although completing the survey, the data from New Orleans are omitted because of technical problems encountered early in the study.

Approximately four out of every five employers included in the sample of the remaining 15 areas provided information on their job vacancies. The overall response rate was 78.4 in the first round and 81.1 percent in the second round. In no area was there less than 60 percent response in either round, and three areas in the first round and four in April had response rates exceeding 90 percent.

In both rounds of surveys, slightly more than half of the total nonagricultural employment in the 15 areas was included in the sample and the percent of sampled employment in the responding establishments was generally very high. In fact, it was close to 100 percent in Milwaukee and Portland, Oreg. (Table 1).

TABLE 1.—*Percentages of establishments and employment in sample and responding firms, 2d round (April 1965) of job vacancy survey, by area*

	Universe		Percent of universe in sample		Respondents: Percent of sample	
	Number of establishments	Employment	Establishments	Employment	Establishments	Employment
Baltimore	12,807	541,321	6.3	57.4	85.4	84.4
Birmingham	4,462	178,905	12.8	54.3	92.7	94.2
Charleston, S.C.	1,506	51,457	35.6	66.8	83.6	92.5
Charleston, W. Va.	1,647	68,539	37.1	77.5	82.8	96.2
Chicago	47,800	2,163,300	4.3	51.1	64.5	71.3
Kansas City	8,570	535,436	8.1	53.3	85.7	87.4
Los Angeles	57,520	2,203,070	3.4	50.6	93.8	88.5
Miami	9,790	309,598	11.0	59.2	88.1	85.7
Milwaukee	8,829	414,875	9.4	60.7	93.9	98.6
Minneapolis-St. Paul	13,109	547,510	5.5	52.1	86.4	69.3
New York	114,920	3,336,690	4.9	50.4	72.3	74.2
Philadelphia	30,559	1,349,104	4.8	41.3	87.1	76.9
Portland	8,140	249,897	12.2	59.9	97.8	97.1
Providence	7,579	222,687	10.0	54.2	60.2	65.4
Richmond	3,999	168,526	20.1	67.8	89.3	94.1

In both rounds of the survey, over 99 percent of the schedules returned by employers were usable. In the first round, 7 areas, and in April, 11 areas, reported that all schedules submitted were usable. Furthermore, in the "split" areas which used both standard and variant schedules, there was no appreciable difference in the percent of employer response. In no case was there more than 4 percentage points between the groups using the different schedule, either in terms of response rates or percentages of respondents reporting vacancies.

Prior to initiating the FY-1965 job vacancy program, a test survey conducted in Chicago probed the reaction of employers to furnishing vacancy data to the local employment service office. Despite the overwhelmingly favorable response, there still was a residue of apprehension that employers might feel their right to hire through whatever channels they wished would be placed in jeopardy and, furthermore, that the confidentiality of the reported data could be violated. Subsequent results of the broader 16 area study merely confirmed the earlier Chicago finding. An analysis of the data from the two surveys indicated that employer response was one of the most favorable in the history of data collection. To avoid any violation of privacy, the employment service in the respective areas were instructed not to try to fill any jobs unless they had available applicants on hand and had obtained prior employer permission to make referrals.

Milwaukee and Portland, two areas which mounted strong operational followup efforts, had response rates well above 90 percent in both rounds of surveys. There was no attempt at job order development during the first round of surveys in five areas (Charleston, S.C., Chicago, Los Angeles, Miami and Minneapolis-St. Paul). In the second round, two of these areas (Los Angeles and Minneapolis-St. Paul) included a job order development effort as part of the experiment. The lowest response rate in round one and the second lowest in April was in Chicago which had no operational followup. The other two areas which did not do any operational followup were in the middle third, in terms of response.

NATURE OF JOB VACANCIES

About one-fourth of the almost 20,000 employers sampled in each of rounds one and two of the fiscal year 1965 surveys reported job vacancies. There were, however, distinct differences in proportions of respondents reporting vacancies in terms of size of establishment. In both surveys some 57 percent of all large establishments reported job vacancies as compared with about one-fourth of the medium and one-tenth of the small establishments.

Differences in the proportion of firms reporting vacancies varied widely in the areas surveyed, ranging from about 10 percent of the responding establishments in

Charleston, W. Va., to almost two-fifths of responding establishments in Milwaukee.

Employers were requested to list their vacancies by plant job titles which were then converted by ES personnel into the codes and nomenclature defined in the 1949 edition of the *Dictionary of Occupational Titles*. Occupations are classified in the *Dictionary* into nine major categories which are given a one digit code. These nine major categories are: professional and managerial, clerical and sales, service, agricultural-forestry-fishing, skilled, semiskilled, and unskilled. The nine major categories are also defined more specifically in terms of 3-digit occupational codes, of which there are some 580 and then 6-digit codes of which there are some 9,000 different occupational titles.

In both rounds of the survey, vacancies were found at all skill levels. Clerical and sales occupations accounted for nearly 30 percent of the vacancies in both rounds, the largest number for any occupational group. The second largest representation was among professional and managerial. (Table 2.)

While vacancies were reported at every skill level, their magnitude and distribution varied from area to area. For example, approximately half of all job vacancies in Charleston, West Virginia, were for professional and managerial workers, while 5 percent were for semiskilled workers. On the other hand, roughly half of the job vacancies in Providence were for semiskilled workers, and vacancies for professional and managerial personnel made up less than 5 percent of the total.

TABLE 2.—*Percent distribution of vacancies by major occupational group and area, April 1965*

Occupational groups	Total—15 areas	Baltimore	Birmingham	Charleston, S.C.	Charleston, W. Va.	Chicago	Kansas City	Los Angeles	Miami	Milwaukee	Minneapolis-St. Paul	New York	Philadelphia	Portland	Providence	Richmond
Total, all occupations	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Professional	21.8	13.1	24.4	16.8	44.0	20.8	19.7	27.0	10.7	16.8	26.4	26.4	18.2	19.6	3.5	14.5
Clerical and sales	27.3	24.8	22.5	15.3	34.2	27.1	38.1	24.2	25.2	15.5	35.7	34.6	19.6	29.9	11.0	26.2
Service	9.6	12.3	13.8	7.9	9.2	8.6	4.4	10.8	16.6	16.3	5.5	6.4	12.9	18.0	12.3	9.4
Agricultural, forestry, etc	1.2	.3	.2	.6	1.4	.8	2.4	.2	.1	2.0	14.9	0	.4	.9	.1	.3
Skilled	15.1	17.8	13.2	32.5	4.4	23.3	19.6	8.4	14.2	20.7	4.1	10.6	22.7	13.2	18.1	14.1
Semiskilled	18.3	21.0	11.8	16.1	5.0	15.3	13.3	24.6	26.2	14.4	9.5	15.4	20.8	10.5	45.4	16.7
Unskilled	6.7	10.7	14.1	10.8	1.8	4.1	2.5	4.8	7.0	14.3	3.9	6.6	5.4	7.9	9.6	18.8

Demand for certain occupations was general, while for others it was concentrated in specific areas. Almost all areas reported a demand for nurses. In New York City alone, there were almost 1,000 vacancies for industrial engineers while in 13 other areas there was a combined total of only 300 vacancies for this occupation. Similarly, about 1,600 vacancies for draftsmen were reported in New York City as against 1,000 in 13 areas combined. Because of the importance of the apparel industry, there were many vacancies for tailors and tailoresses in Philadelphia and New York, but in the other areas the demand for these was quite small. Furthermore transportation laborer openings were a sizable portion of unskilled vacancies in New York City. Elsewhere the need for this type of laborer was relatively light.

In general, the vacancies reflected the industrial mix of the areas. More vacancies existed in the manufacturing industries than any other segment, but this was to be expected because in most of the 15 areas, factory jobs are the largest segment of employment. About 30 percent of the non-farm employment in these areas were in manufacturing, and about the same proportion of vacancies was also found in manufacturing.

Among the individual areas, about 40 or more percent of the vacancies were in manufacturing in highly industrialized areas like Providence and Chicago. The bulk of the vacancies in Charleston, S.C., the State capital and site of many Federal government activities, was in the government sector. Almost half the vacancies in Miami, a resort area, were in trade and service.

Seasonal differences affected the industrial pattern of vacancies. This was especially true in the trade sector where there was a significant drop in the number of vacancies between rounds one and two. In the earlier surveys, a great many of the vacancies reflected the need for additional help for the Christmas season.

HARD-TO-FILL VACANCIES

The job market is always in a state of flux as people enter and withdraw from the labor force, or change jobs, and as employers attempt to replace the workers who leave or are offered new positions. Therefore, no matter what the state of the economy in an area at any given time, there are always job vacancies available. However, many of these vacancies are filled in a relatively short period of time depending upon the attractiveness of the job offer, the availability of labor supply, the tightness of the job market, and other factors. On the other hand, some vacancies may take a long time to fill because of a lack of workers with requisite skills for the open positions, or because of low wages, poor working conditions, poor plant location, unrealistic hiring specifications, etc. These hard-to-fill vacancies, rather than the gross figure of vacancies, are the primary tool to help identify manpower shortages and aid in manpower program action to match employer demands with the occupational supply of workers available.

The average amount of time required to fill a vacancy varies, of course, with the occupation involved, the economic situation in the area, wages offered, and many other factors. In the Chicago feasibility study previously mentioned, another of the questions which employers were asked was to indicate by occupation an average length of recruitment time. It was presumed that if the vacancy extended beyond this period, it would pass into the category of "hard-to-fill". Employers reported that the longest period of time—one month—was needed to fill the professional, technical, and managerial positions and the shortest period of time—one to two weeks—was for unskilled occupations. Therefore, to accurately define hard-to-fill vacancies, a different period of time is needed for each category of skill. However, it was conceded that simplicity of form outweighed other considerations and the decision was made to define "hard to fill" as a vacancy which existed for 30 days or longer. Although the resultant list of jobs vacant 30 days or longer is a most useful indicator of manpower shortage, further research needs to be devoted to this field in view of the known variation in average period of recruitment.

In both rounds of the FY–1965 surveys, over half of all vacancies had been unfilled at least one month and were therefore considered hard to fill. The percentages of job vacancies that had been open for 30 days or longer in April 1965 ranged from a low of a little less than one-third in Minneapolis-St. Paul to a high of nearly nine-tenths in Baltimore. Due to the pioneering effort of the survey, it is not yet known whether the wide variation on these percentages resulted from factors relating to employer reporting, economic differences between areas, or survey procedure.

By occupational group, the proportion of hard-to-fill vacancies ranged from slightly over 70 percent in the professional and managerial and skilled groups to about 45 percent in the clerical and sales groups. The proportion of vacancies that was hard to fill in the other occupational groups may be found in Table 3.

While the overall proportion of long-duration vacancies was high, certain detailed occupations were considerably higher. Among the professional and skill groups, for example, 9 out of 10 vacancies for trained nurse and for tool and die maker were open 30 days or longer while 80 percent of the vacancies for civil and chemical engineers and tailor were hard to fill. Occupations in the semi-skilled group which were in great demand and hard-to-fill were sewing machine operators, chauffeurs and drivers, filer and grinder, and occupations in the treatment of metals and in the service group, there were hospital attendants, practical nurses, janitors, porters, cooks, police and sheriffs and bailiffs. Workers in the manufacture of clocks, watches and jewelry and transportation laborers were the unskilled occupations with the greatest proportion of vacancies open 30 days or longer.

There were also differences by area in the proportion of hard-to-fill vacancies by occupational group. For example, in 3 areas in each round, 9 out of 10 of the vacancies in the professional group had existed 30 days or longer. On the other hand, the percent of long standing professional vacancies was quite low in Los Angeles and New York.

TABLE 3.—*Hard-to-fill* [1] *vacancies as a percent of total vacancies by area and occupational group, April 1965*

Area	Total all occupations	Professional and managerial	Clerical and sales	Service	Skilled	Semi-skilled	Unskilled
Baltimore	89.4	94.8	95.7	94.2	92.6	85.9	64.6
Birmingham	65.0	75.8	40.0	60.4	81.1	66.2	74.4
Charleston, S.C.	80.9	88.2	76.9	79.3	79.5	82.0	72.5
Charleston, W. Va.	81.2	92.0	83.0	76.7	48.3	12.1	81.0
Chicago	63.1	81.6	50.8	45.5	77.5	57.8	31.6
Kansas City	51.9	79.9	34.9	3.2	64.7	74.3	2.9
Los Angeles	38.4	50.6	22.3	31.0	26.1	54.1	6.0
Miami	76.4	76.6	61.5	77.2	84.5	90.6	58.4
Milwaukee	59.2	81.6	41.6	41.1	63.3	61.6	60.3
Minneapolis-St. Paul	31.3	59.7	27.5	34.4	46.5	15.7	12.6
New York	34.9	35.3	22.8	27.0	36.1	49.4	68.6
Philadelphia	[2]	[2]	[2]	[2]	[2]	[2]	[2]
Portland	62.2	81.3	52.3	32.6	82.5	68.1	83.8
Providence	84.2	91.8	57.6	100.0	86.7	87.4	71.5
Richmond	86.7	83.1	82.8	71.5	91.2	92.4	93.9

[1] Vacancies in existence 30 days or longer.
[2] Not available.

CORRESPONDENCE BETWEEN OPENINGS AND VACANCIES

A major purpose of the job vacancy experiment was to determine the extent of penetration of the ES local offices into area job markets, i.e., the percent of total vacancies in the area which were accounted for by ES unfilled openings at a single point in time. The comparison, by detailed occupation of vacancies and unfilled job openings, revealed a surprising degree of penetration, namely, that ES unfilled job openings at the time of survey were equivalent to about one-third of the aggregate total of job vacancies in the surveyed areas. Jobs in domestic service were excluded from both arrays.

On an individual area basis, however, there were wide differences in the extent of ES participation in the vacancy total. In the April survey, over 40 percent of the job vacancies were listed in the local ES offices in Kansas City, Portland, Milwaukee, Minneapolis-St. Paul, Birmingham, and Los Angeles, while less than 25 percent were listed in Charleston, West Virginia, Charleston, South Carolina and Richmond (Table 4).

TABLE 4.—*Total job vacancies, unfilled employment Service job openings, and job applicants registered with the Employment Service, by area, April 1965*

	Number of job vacancies	Number of unfilled Employment Service job openings	Job openings as a percent of vacancies	Employment Service job applicants	Ratio of Employment Service applicants to job vacancies
Baltimore	7,381	2,407	32.6	25,095	3.40
Birmingham	1,854	866	46.7	6,775	3.65
Charleston, S.C	1,413	211	14.9	2,432	1.72
Charleston, W. Va	655	97	14.8	5,894	9.00
Chicago	27,947	9,725	34.8	60,576	2.17
Kansas City	2,836	1,712	60.4	15,306	5.38
Los Angeles	22,506	9,348	41.5	[1]	[1]
Miami	4,037	998	24.7	6,506	1.61
Milwaukee	8,542	3,464	40.6	11,519	1.34
Minneapolis-St. Paul	8,061	3,305	41.0	21,697	2.69
New York	46,780	18,727	40.0	65,469	1.40
Philadelphia	15,037	4,239	28.2	[2] 61,300	4.08
Portland	2,893	1,354	46.8	12,990	4.99
Providence	5,663	[1]	[1]	[1]	[1]
Richmond	4,015	643	16.0	1,706	.43

[1] Not available.
[2] Data on job applicants not entirely comparable with other areas.

There was a fairly close correspondence between unfilled openings and vacancies on a major occupational group basis (one digit DOT Code). As can be seen in Table 5, the distribution of vacancies and openings for professional and managerial and clerical and sales was quite similar. On the other hand, in the skilled group, vacancies accounted for a higher proportion of the total than openings, reflecting the fact that hiring in some skilled occupations is traditionally done through union hiring halls and other channels rather than through the Employment Service.

Another measure of similarity, and perhaps more important, is reflected in the fact that only a relatively few detailed occupations account for the bulk of the vacancies and job openings. Thus, only 43 (3-digit) occupations comprise 66 percent of the total job vacancies and these same occupations account for 58 percent of the job openings. Table 6 expresses this relationship. The correspondence between vacancies and unfilled openings was not particularly close for many occupations having small numbers of vacancies or unfilled openings.

Among the individual areas, the percentage distributions of openings and vacancies on a broad occupational basis were also quite similar, for some groups more than others. Similarities were notably present in the service and clerical and sales occupations.

TABLE 5.—*Percentage distribution of job vacancies and ES unfilled job openings by major (1-digit) occupational groups, 1st and 2d rounds of job vacancy surveys*

Major occupational group	1st round		2d round	
	Job vacancies	Unfilled openings	Job vacancies	Unfilled openings
Total	100.0	100.0	100.0	100.0
Professional and managerial	21.0	21.9	22.0	23.8
Clerical and sales	27.5	28.2	29.0	27.6
Service [1]	8.2	10.2	9.5	10.7
Skilled	16.9	12.7	14.1	11.3
Semiskilled	17.3	20.2	16.2	18.5
Unskilled	8.8	6.7	7.7	7.8
Other	0.3	0.1	1.5	0.3

[1] Excludes domestic service occupations.

TABLE 6.—*Percent job vacancies and unfilled openings in selected 3-digit occupations representative of each major occupational group*

Occupations (for specific listing, see next page)	Percent job vacancies	Percent unfilled openings
Total, all groups, 43 occupations	66	58
Professional and managerial, 11 occupations (including 6 categories of engineers)	62	65
Clerical and sales, 11 occupations	78	64
Service,[1] 4 occupations	62	47
Skilled, 8 occupations	58	50
Semiskilled, 5 occupations	71	64
Unskilled, 4 occupations	[2] 56	27

[1] Excludes domestic service occupations.
[2] May be some distortion because of sample inflation.

LIST OF 43 SELECTED 3-DIGIT OCCUPATIONS

Professional and Managerial: engineers (metallurgical, chemical, civil, electrical, industrial, and mechanical), social and welfare workers, trained nurses, draftsmen, laboratory technicians, healers and other medical occupations.
Clerical and Sales: bookkeepers and cashiers, clerks-general office, general industry clerks, office machine operators, secretaries, stenographers, and typists, stock clerks, salesmen-insurance, salesclerks, salespersons, sales-except to consumers.
Service: waiters and waitresses, kitchen workers, attendants-hospital, porters.
Skilled: machinists, tool and die makers, machine shop occupations, welders and flame cutters, carpenters, plasterers, mechanics and repairmen-motor vehicle, mechanics and repairmen-other.
Semiskilled: textile products occupations, machine shop occupations, occupations in the treatment of metals, chauffers and drivers, occupations in laundering, cleaning, etc.
Unskilled: occupations in meat products, packing and filling occupations, transportation equipment laborers, warehousing and related occupations.

OPERATIONAL USES OF THE DATA

The primary emphasis of the experimental job vacancy program was for Employment Service operational use in the job market. In the first two rounds of the surveys, the most extensive use of the job vacancy information was in connection with manpower training programs. The surveys disclosed unmet needs for workers in a wide range of occupations, many of them suitable for MDTA institutional or apprentice training. Data on vacancies open for one month or more (defined as hard-to-fill vacancies) rather than on total vacancies were most useful in determining training needs.

In Baltimore and Kansas City, the job vacancy information was used as a basis for establishing vocational training courses in the schools. The Oregon agency reported that data from the first round of job vacancy surveys were used by the State Department of Education to develop vocational education and other post high school courses for the Portland Community College. In Wisconsin, the job vacancy survey aided in the development of a mass training program for 3,000 disadvantaged youth to be trained over the next two years. Because of the job vacancy survey, the number of adults to be trained in Milwaukee was expanded in 12 occupations, including industrial laboratory assistant, production foundry worker, machine shop inspector, nursing assistant, cook, electric appliance repairman, and repairman for lawn and boat motors.

The Urban League of New Orleans had been endeavoring to establish an on-the-job training program, to be financed jointly by MDTA funds and a nonprofit organization. With the use of job vacancy data, the Louisiana Employment Service was able to furnish the Urban League with a list of about 30 occupations which were suitable for on-the-job training. On the basis of information obtained from the New Orleans job vacancy survey, a second list of 50 occupations with potential for apprenticeship training was developed and made available to the Louisiana Board of Apprenticeship. As a result, several on job training (OJT) projects were planned. Two of these were for a group of specialized occupations in the dye industry and for auto repairmen.

At the national level, the USES used the job vacancy data to prepare guides for State agencies to follow in the development of manpower training programs.

Local employment offices in eleven of the surveyed areas attempted to develop new job orders from the vacancy data. Placements as the result of the job development efforts were relatively small. Many vacancies were already filled before the Employment Service could attempt job order development. Job order development was limited by the fact that many of the vacancies were already on file in the ES local offices; in attributing placements to the job vacancy program, States were instructed not to count placements for an occupation until such placements began to exceed the job order for that occupation already on file in the ES from the employer. In addition, a number of vacancies were closed to ES assistance due to union hiring rules or the existence of civil service regulations and thus reduced the number of vacancies available for job development and placement activities.

Another reason for the limited number of placements was the fact that so many of the vacancies were in jobs for which there were no available applicants. Finally, although the States were instructed to attempt job development and placement, the newness of the program, the need for initiating complex administrative and analytical procedures, and the short time permitted to get the program underway, results tabulated and reported, of necessity kept the States from devoting the time that would be given if the program were operational over a period of time.

Vacancy data were useful, however, in helping Employment Service staff to structure their contacts with employers more effectively. Even on the basis of two surveys, agencies found that the information suggested new areas for promotional activities and led to increased employment possibilities for applicants. In New York, for instance, the Employment Service learned, as the result of the surveys, that job vacancies existed in establishments not known by the agency to have vacancies in such occupations.

Several areas participating in job vacancy surveys used the job vacancy findings in counseling. Some of these areas were Portland, Los Angeles and Richmond. Furthermore, the Wisconsin agency used the job vacancy data along with other job market information in a bulletin on vocational outlook in Milwaukee. National occupational outlook information would be combined with local data in the form of an occupational monograph.

Although some of the participating agencies expressed the opinion that the job vacancy data would be useful in worker mobility, there was not sufficient time to integrate the existing vacancy program into the established interarea clearance machinery to take advantage of job imbalances between areas. It is intended in future surveys, to summarize the data in a manner useful for specific mobility projects and for the whole Employment Service interarea recruitment program.

WAGE ANALYSIS

In much of the pre-experimental discussion concerning the validity of the vacancy figures, it was advanced by some economists that many of the vacancies reported would carry substandard wage rates. This, they added, would tend to overstate the economic significance of the vacancy data or conversely, render them meaningless as a gauge of job opportunity within the area. Consequently, it was decided that in five areas, the vacancy experiment would attempt to collect wage data. For each of the occupations for which an array of wage data was available from employers, Employment Service placement specialists were asked to provide the going rate for the occupation in the area.

The job vacancy surveys demonstrated that (1) employers are able and willing to furnish wage rates in conjunction with their vacancy information; and (2) that wages offered, by and large, were in line with going rates for those occupations in the area.

In round one, four reporting areas (Chicago, Los Angeles, Miami, and Minneapolis-St. Paul) provided wage data for approximately two-thirds of the total vacancies reported in these areas. By area, the proportion of vacancies with wage data ranged from 55 percent in Los Angeles to almost 85 percent in Miami.

In round two, employer response improved in all areas where wage data were collected except in the Minneapolis-St. Paul area where it remained at a very high level. Five areas collecting wage data in round 2 (the above four plus Baltimore) reported that 83 percent of the vacancies included wage information. The proportion of vacancies with wage data to total vacancies reported ranged from 70 percent in Minneapolis-St. Paul to over 90 percent in Miami.

The sample design made it possible to measure in another way the impact on reporting of the collection of wage data. In Los Angeles wage data were collected for one-half the sample and not for the other half. There was virtually no difference in the employer response rate of the wage sample as against the other half of the sample for which no wage data were requested.

In general, the wages listed for job vacancies were in line with entry rates as determined from local office records. Of the vacancies for which comparable entry wage rates were available, approximately 15 to 20 percent of the vacancies offered wages below the usual range of entry rates for the occupation in the area.

Because of the survey design, these percentages were based only on actual vacancies and wages reported rather than on an inflation of the vacancies to a universe total. If it were to be subsequently demonstrated that smaller firms pay lower wages than the larger firms, it would have the effect of understating somewhat the percentage of substandard wage vacancies. This earlier limitation will be corrected in the fiscal year 1966 experimental surveys. All areas are requested to collect wage data and inflation procedures will permit a more accurate measure of both substandard and above-average wage rates attached to the job vacancies.

UNEMPLOYMENT, JOB APPLICANTS, AND JOB VACANCIES

Economic policy in the United States has been designed to maximize employment opportunities. While in sympathy with the policy, various elements have been in disagreement as to the best methods for achieving this goal. Does joblessness arise from a lack of aggregate demand, that is, are there not enough jobs for all those who want them? Or does unemployment stem primarily from structural imbalances, that is, an inability to match existing jobs with existing workers because of skill differences, geographical or commuting problems, or such factors as wages, restrictive hiring specifications, and the like? We hoped the experimental vacancy program, would provide some more insights on some of these questions, but much more needs to be done along these lines.

As part of this effort, information on ES job applicants was tabulated for each area and related to the corresponding job vacancy data by detailed (3-digit) occupation. On a national basis, Employment Service job registrants account for some 80 percent of all workers who suffer a spell of unemployment.

The two experimental surveys clearly indicated that the labor supply in virtually all areas exceeded labor demand by a relatively large margin 12 to 15 months ago. Here again, there existed marked variations by area. At one extreme, Charleston, W. Va., reported a ratio of 10 applicants for each job vacancy. At the other extreme, Richmond was the only area in which the number of job vacancies exceeded the number of applicants.

The variations in the relationship of vacancies and job applicants unemployed by occupation was even more marked. For the 15 areas as a whole, there were fewer applicants than openings in the professional and managerial category. There were about twice as many applicants as vacancies in the clerical and sales and skilled categories, and 3 or 4 times as many applicants as vacancies in the semiskilled and service groups. As expected, surpluses were most pronounced in the unskilled occupations, with over six times as many applicants for every vacancy in round 1 and almost 5 applicants to 1 vacancy in round 2.

The comparison of vacancies and applicants by occupation indicated that there were definite skill imbalances in the economy. Job vacancies were most often found in the higher skilled occupations, while the bulk of the applicants were located at the lower end of the skill spectrum.

Despite the overall excess of applicants, there were many shortages for specific occupations in these areas. In Kansas City, there were 4 times as many vacancies for nurses as there were applicants, and 3 times as many openings for welders as there were applicants. Even in Charleston, W. Va., where joblessness was quite high, several hundred engineers were needed but only 9 applicants were available.

Clerical and sales workers appeared to be in short supply in New York, yet there were 3 applicants for bookkeeping jobs for each vacancy. In Milwaukee there were more vacancies than applicants in the service group, although applicants for janitor and porter and barber and beautician jobs exceeded the number of vacancies.

Although there were 10 times as many skilled applicants as vacancies in Minneapolis-St. Paul, there were almost 3 times as many vacancies for machinists as there were available applicants. In Milwaukee where applicants were slightly

greater than vacancies in skilled occupations, there were fewer applicants than vacancies for tool and die maker, mechanics, masons and welders.

There were also several cases of interarea occupational imbalances. For instance, while a surplus of applicants for welders and mechanics existed in Charleston, W. Va., there was significant shortage in these occupations in Milwaukee.

In enumerating these many variations by area, I recognize that I may have indulged in excessive detail. My purpose, however, was deliberate. I wished to show that the use of aggregate figures alone, either for the 15 areas as a whole or for a larger conglomerate, would conceal vital differences between areas and effectively limit the application of manpower program actions.

JOB VACANCY SURVEY IN 1966

The fiscal year 1966 experimental program is being conducted in two sections. In 12 labor areas (including the entire State of Wisconsin), the experiments are designed primarily to develop job vacancy data for use in conjunction with employment service operations. The areas will be the same as those surveyed in 1965 with the exception of New Orleans, Providence, and Philadelphia. In two experimental surveys, in Maryland and Connecticut, the collection procedure will be tied to the cooperative labor turnover program. In both cases, the data will be collected in the field by the State employment services.

A revised sampling design was developed for the 12 area phase of the program to improve the accuracy of the estimates of job vacancies by occupation. Firms were sampled by 2-digit SIC industry and stratified into six specific size groups. These six groups will be the same for each area surveyed. The revised sample design will increase the number of small firms included in the surveys and will better represent the individual area's industrial mix.

The survey data collection form was also redesigned for easier understanding by the employers. The definition of vacancies open 30 days or longer was clarified because there were a number of instances in the first two surveys where employers thought this referred to the duration of the job itself rather than the duration of the vacancy. Data on vacancies of one week's duration proved to be of little operational or analytical value and is not being collected in the current program.

Because the experiments for collecting wage data proved feasible and because of the great interest expressed in these figures, wages offered for the reported vacancies will be collected in all surveyed areas in 1966.

There will be no "split" areas using both a standard and a variant schedule as in the FY 1965 program. Instead, the same survey form will be used for all firms in an area.

Since data on part-time and temporary vacancies proved inconclusive last year, these figures will be gathered once again in two areas to test their feasibility of collection. Information on temporary vacancies will be collected in Miami and part-time vacancies in Chicago. In addition, the Wisconsin agency will collect data on a Statewide basis and for Milwaukee separately, on "other job openings," i.e., positions for which a firm is actively seeking workers, but which are *not immediately* available (anticipated or future job vacancies). The standard definition for a job vacancy includes only those jobs *immediately* available.

On the 1966 schedule, a box is now provided in which the employer can indicate his desire for employment service assistance in filling the vacancies listed. This is expected to facilitate job development without impairing relations with the cooperating respondents since job development will be conducted with firms specifically requesting it.

Some preliminary findings of the April 1965 experiment are available at this time:

Because of the new sampling design, the sample of firms was larger in all areas. It was expanded approximately 2 to 3 times in the largest areas in the survey—New York, Chicago, and Los Angeles—and to a lesser extent in the smaller areas.

In 8 areas and the State of Wisconsin, preliminary tabulations are available on the number of respondents reporting vacancies. Although about the same proportion of responding firms reported vacancies as last year—1 out of every 4—there was a large variation among the areas. In Charleston, West Virginia, where unemployment is relatively high, only about 19 percent of the respondents reported vacancies. On the other hand, the proportion of employers with vacancies was about 43 percent in Richmond, Minneapolis, and Chicago, each low unemployment areas.

Approximately three-fifths of the employers reporting vacancies requested employment service assistance in filling them. The proportion of employers asking for ES aid in filling their vacancies, however, ran as high as 75–80 percent in Los Angeles and Richmond.

The preliminary estimate of reported job vacancies is almost double those reported in April 1965 for the same areas. Although some of the increase in the number of vacancies can be attributed to the fact that more employers were surveyed this year, the increment since last April was so large as to indicate that at least a portion of this was due to improved economic conditions and a tightening of the job market. It should be remembered, however, that these data relate to reported vacancies only, and information is not available at this time concerning the number of vacancies when statistically inflated to represent area-wide totals.

The 1966 surveys, as the Committee recognizes, are being conducted in a job market which has tightened considerably from the previous year. The national unemployment rate between April 1965 and April 1966, two of the months in which vacancy surveys were made, had declined from 4.8 percent to 3.7 percent. As sizable inroads are made into the Nation's available manpower pool, the operational problems of placement agencies grow more difficult. At the same time, the need for specific knowledge about labor demand and job shortages grows more insistent. Although far short of the total picture, the 1966 job vacancy surveys, by covering 25 percent of total nonfarm wage and salaried workers, will nevertheless provide information on a substantial segment of the job market.

The Committee will be interested to know that in response to continuing public demand, the United States Employment Service and several of the State agencies participating in the experimental effort have prepared articles on their job vacancy program findings. These articles were printed in the *Employment Service Review* and subsequently reprinted under a separate format which is attached to this testimony.

I appreciate the opportunity given me to place the results of this pioneering effort into the official record.

JOB VACANCY SURVEYS

Job Vacancy Data for an Active Manpower Policy[1]

(By Louis Levine, Director, U.S. 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," [2]

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 information on the demand side of the job equation for improving the mechanism of the employment process.

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.

Among the more important claimants for job vacancy information is our public Employment Service system. The availability of such information would contribute 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 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. Reduc-

[1] Reprinted from Employment Service Review, April 1965 issue, publication of the U.S. Employment Service, Bureau of Employment Security, U.S. Department of Labor.

[2] Prepared statement of John F. Henning, Under Secretary of Labor, hearings before the Subcommittee on Employment and Manpower of the Committee on Labor and Public Welfare, U.S. Senate, 88th Cong., 1st Sess., pt. 2.

ing the duration of unemployment by just 1 week for only 10 percent of these insured unemployed would, among other things, save more than $5.6 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 may assist the Employment Service in designing training programs for the retraining of workers with obsolescent skills or those 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. Such data would also be useful in counseling 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 can be of great assistance to the Employment Service in implementing many of its functions under an active manpower policy.

Existence of a job vacancy program would 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 would cause them to think about recruitment, formal on-job training, intraplant transfers, and a promotion-from-within policy. Exclusive concentration on the problems of the unemployed in the work force may result in a tendency to ignore the 95 percent who are employed and to many of whom advancement within the establishment is a paramount need. Moreover, upgrading the employed would open more entry-level jobs to be filled by new entrants 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. 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 making available more entry-level jobs.

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 information on job opportunities at the same time that it is charged with responsibility for registering and seeking jobs for the unemployed is to seriously impede its operating effectiveness and to add considerably to the limitations influencing 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. An employer 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 or, conversely, can encourage the unemployed to seek jobs in areas where opportunities exist.

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. Interest has increased also because of the growing emphasis on the Employment Service as a manpower service agency and its responsibilities for the development of occupational training programs geared to labor demand under manpower legislation passed in the first half of the 1960's.

An experimental program of job vacancy surveys 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 are included in the group of pilot areas. A number of small and medium-sized areas are also included to assure that the survey is representative in terms of geographical dispersion, industrial characteristics, and the nature of employment conditions. Altogether, the 16 areas account for about one-fourth of the nonfarm employment in the country.

PRELIMINARY FINDINGS

As of the close of January 1965, relatively complete results of areawide job vacancy studies had been compiled and submitted by four areas—Birmingham, Milwaukee, Portland (Oreg.), 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 universal basis.

Seven other areas 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.

Employer response exceeded expectations. Of the first 10 areas conducting their surveys in October and November, 8 areas reported an employer response of approximately 80 percent or more. Three of these indicated response rates of 95 percent or better! In the two areas where the response rate was 63 and 70 percent, there were special circumstances which accounted for the lower participation.

Approximately one in four establishments reported one or more vacancies. Specifically, in 6 out of 10 areas, the proportion of the establishments with vacancies ranged between 20 and 30 percent. Among the other four, the proportion ranged from lows of 12 and 19 percent to a high of 34 and 35 percent.

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 training and vocational education opportunities. Among those which were general to the first four cities surveyed are registered nurses, draftsmen, laboratory technicians, physical therapists and licensed practical nurses, stenographers and typists, machinists, tool and die makers, machine shop and related occupations, and mechanics and repairmen. There are also many local hard-to-fill vacancies, depending on the nature of the local economy.

There also 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 were nevertheless a significant number of 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 recruiting workers for these hard-to-fill listings.

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 represents 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. Thus, for example, 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. As might be expected for the occupational array, there was an inverse relationship 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 reveal that comparisons of detailed occupations show even greater imbalances of supply and demand.

The experimental job vacancy program should provide the Employment Service with the means for exploring its penetration of the job market as reflected in the relationship between existing job vacancies and job openings obtained by local offices. This aspect of the surveys is discussed in greater detail elsewhere in this issue. In general, however, the tentative conclusion appears warranted that the job openings which the Employment Service receives approximates a cross section of the vacancies in the area, with the possible exception of skilled occupations.

About half the total vacancies reported 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 and 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 unevaluated with respect to the part played by wages and working conditions.

CONCLUSION

In view of the encouraging results of this work and the widespread interest and need, the Employment Service, with the technical collaboration of the Bureau of Labor Statistics, has proposed the initiation of a job vacancy survey program covering a total of 150 Standard Metropolitan Statistical Areas during 1965–66. These areas, representing two-thirds of the country's nonfarm employment, would be surveyed quarterly.

Advancement and extension of the job vacancy surveys represent a much needed next step in 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. In this connection, vacancy surveys are 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, concerned with the 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 the 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 the 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 unemployed.

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 also by specific establishment. Over a period of time, such information can contribute greatly to the job market operation research of the public Employment Service, to the training and competence of Employer Service representatives, and to the improvement of manpower services to employers.

Employment Service Operating Data as a Measure of Job Vacancies[1]

(By Vladimir D. Chavrid and Harold Kuptzin)

In calendar year 1964, the public Employment Service received some 8.2 million nonfarm job openings from over 1 million employers—a total which, on the basis of the best available estimates, represents nearly one-fourth of all new hires for the country as a whole. About 6.3 million of these openings—equivalent to nearly 16 percent of the new hires—were filled by workers referred and placed by the Employment Service. Because use of the public Employment Service in this country is optional for employers, some question has been raised as to whether the openings listed at public employment offices are representative of all job openings in terms of their occupational and other characteristics. The new Department of Labor experimental job vacancy program throws some new light on this subject.

Under this experimental program, the term "job vacancy" is defined as: ". . . current job openings in an establishment which are immediately available for occupancy for workers outside the firm and for which the firm is actively seeking workers." The job vacancy figures to be developed as part of this program are intended to represent, with a few exclusions, the sum total of all current job opportunities. The more important of these exclusions are vacancies for which there is currently no active recruitment (jobs held for employees who will be recalled, jobs to be filled by transfers or promotions, jobs for which new workers have already been hired but have not yet reported, jobs vacant because of labor

[1] Reprinted from Employment Service Review, April 1965 issue, publication of the U.S. Employment Service, Bureau of Employment Security, U.S. Department of Labor.

disputes), and vacancies which are not available for immediate occupancy (jobs for which recruitment is now in progress—such as teaching positions—but where personnel hired are not expected to report for work until the beginning of the fall semester).

DIMENSIONS AND OBJECTIVES OF THE PROGRAM

The following points should serve to recall and highlight some of the more important aspects of the experimental program.

1. The experimental job vacancy information surveys are being conducted twice during this fiscal year in the 16 pilot areas selected. These 16 areas include most of the country's largest employment centers, and a group of smaller and medium-size areas to assure representation in terms of geographical dispersion and the nature of employment conditions.

2. The surveys are being conducted by State Employment Services affiliated with the U.S. Employment Service of the Bureau of Employment Security in cooperation with Bureau of Labor Statistics of the Department of Labor.

3. Data are being collected in considerable occupational detail by requesting employers to list the plant titles of their vacant jobs. These plant titles will be translated to standardized occupational classifications, as listed in the *Dictionary of Occupational Titles*, by Employment Service occupational analysts or other qualified staff.

4. The primary focus of the experimental program is to help reduce unemployment by using job vacancy information as a basis for a more effective matching of men and jobs. In most areas, employers will be offered assistance by the local office in filling their job vacancies if suitable applicants are available, and if the employer wishes to give a specific job order to the Employment Service.

5. The data are also being used to supplement existing information on training opportunities and for counseling and guidance. The possibility of using such information as an economic indicator will also be explored.

6. The information collected from employers is being compared with existing Employment Service operating data on the skills of the unemployed and the nature of available job openings. These comparisons should provide additional clues regarding the degree of skill maladjustments in the area.

7. Information on job vacancies is being collected on the basis of a probability sample, and the data will be inflated, by occupation, to represent areawide totals. The sampling frame is designed to insure that employers representing more than 50 percent of total employment—including all large establishments—are covered by the survey, and that it provides for representation in all major local industry groups.

8. Information is being collected in most areas on duration of the job vacancies, and these data also will be inflated to areawide totals, by occupation. Separate information is being compiled for vacancies existing 1 week or more (for comparability with national unemployment estimates) and for those existing 1 month or more (as an indicator of hard-to-fill vacancies).

9. As part of the experimental aspects of the program, information is being collected in some areas on wage rates offered for job vacancies, and in others on vacancies for part-time and temporary employment. In 3 of the 16 areas, information is being collected through the State central offices of the Employment Service, rather than through the local offices. In these areas, the Employment Service will not attempt to develop job orders on the basis of the vacancy reports, unless the employer initiates such a request.

10. Because of the experimental nature of the program, the timing of the initial surveys conducted by the States was staggered from October 1964 through January 1965. Four area surveys were conducted in October, seven in November, four in December, and one in January.

11. The second survey for all 16 areas is scheduled for April 1965.

In terms of basic objectives, the experimental program was designed to provide answers to some of the following questions:

1. Is it feasible to collect information on job vacancies from employers, by occupation, on a regular basis?

2. Can such information be translated into a standardized occupational system which would be comparable among employers and areas, and comparable with other information on local labor demand and supply?

3. What, if any, structural imbalances in labor demand and supply does the job vacancy information reveal?

4. Can employers provide valid information on the duration of vacancies, as well as on wage rates, part- and full-time vacancies, and openings for temporary

workers? Will the request for such information limit the response with respect to total vacancies?

5. Will contacts by the Employment Service to develop job orders for vacant jobs, if qualified applicants are available, serve to limit employer response?

6. Can the job vacancy information be used to improve the placement and other manpower operations of the public Employment Service, in terms of matching jobs and workers, in planning training programs, and in counseling and guidance activities?

Preliminary answers to some of these questions are now becoming available from initial reports of the State Employment Services covering the surveys conducted in October and November.

NATURE OF EMPLOYER RESPONSE

When this article was being written (toward the end of January), summary reports from the State Employment Services were available only for the first four areas surveyed under the experimental program—Birmingham, Milwaukee, Providence, and Portland (Oreg.)—and partial data for six of the seven areas surveyed in November (Baltimore, Charleston (S.C.), Miami, Minneapolis-St. Paul, New York, and Richmond). Thus, many of the present conclusions must be regarded as tentative and subject to revision when additional information becomes available and is analyzed in detail.

One conclusion that appears likely to be sustained, however—on the basis of the information already available—relates to the feasibility of collecting job vacancy information by specific occupation from employers. The experience in the first 10 reporting areas appears to demonstrate that the collection of such information from employers is indeed feasible—at least on a one-time basis. Employer response exceeded 60 percent in each of the 10 areas, reaching 80 percent in 6 areas and 90 percent or more in 3 areas (Milwaukee, Portland, and Richmond). An examination of the schedules returned, and a response analysis survey of a subsample of the establishments contacted, conducted by the BLS in several of the pilot areas, indicated that the employers generally understood the instructions, definitions, and forms, that they were willing to report the data requested, and that they reported their vacancies in an accurate manner. Whether this high rate of response can be sustained if the surveys are conducted on a periodic basis is, of course, not yet certain. The second round of surveys, to be conducted in April, should provide a further indication of this.

Employer response did not appear to be significantly affected in the first 10 areas by the possibility of additional contacts by local employment offices to explore whether the employers wished Employment Service assistance in locating workers to fill their job vacancies. As a matter of fact, the four areas reporting the highest response rates—Birmingham, Milwaukee, Portland, and Richmond—are areas where such job order development efforts were part of the experimental program.

The proportion of firms reporting job vacancies of any kind during the survey month ranged from about 12 percent in Charleston, S.C., to 35 percent in Milwaukee. In most of the remaining areas, about one-fifth to slightly more than one-fourth of all firms surveyed listed job vacancies.

A large proportion of the vacancies reported were of relatively long duration. In 9 of the 10 areas (data not available for New York City), more than two-thirds of the vacancies had been in existence at least 1 week, and about half in all 10 areas had been open for a month or more. Five of the 10 areas (Baltimore, Charleston, Minneapolis-St. Paul, Providence, and Richmond) reported that more than half of the job vacancies listed were in the relatively hard-to-fill category (in existence for 1 month or longer).

Surveyed employers in all 10 areas reported job vacancies in a broad of occupational classifications, including some in lower skill categories. The number of separate 3-digit occupational classifications for which vacancies were listed ranged from 79 in Charleston, S.C., to 214 in New York City. The occupational distribution of the vacancies reported by employers is shown in the table on page 7.

The pilot areas in the experimental program were also requested to summarize the information on job vacancies, on an inflated areawide basis, in relation to their local office unfilled job openings as of the end of the month, and also in relation to the job applicants registered at the local offices. Such data were available for three areas—Birmingham, Milwaukee, and Portland—as of this writing.

Job openings listed with the Employment Service represented around 29 percent of the total number of job vacancies in these three areas. The proportion in

professional and managerial occupations was over 41 percent, however, and it exceeded 30 percent in the clerical and sales, service, and semiskilled groups. Employment Service job openings represented about 20 percent of the total number of unskilled job vacancies in these areas, and about 16 percent of the skilled.

Turning from the demand to the supply aspects of these data, unemployment in Birmingham, Milwaukee, and Portland (Oreg.) was relatively moderate at the time the survey was taken. Approximately 90 percent of the unemployed were registered at the local offices in these areas at the end of October. The number of applicants classified as skilled was slightly below the vacancy total (inflated to represent area totals), however, and professional and managerial applicants exceeded the number of vacancies in that category by a relatively small margin. In contrast, the number of applicants was about 2½ times or more the number of vacancies in the clerical and sales, service, semiskilled, and unskilled categories.

As another example, the inflated job vacancy data showed that job vacancies for skilled welders in Milwaukee in October were about 1½ times the number of job applicants with this type of occupational background (187 to 112). At the same time, Portland had only 12 vacancies in this occupation and 100 applicants, and Birmingham 89 vacancies and 53 applicants. Yet if the number of vacancies and applicants for welders were shown on an aggregate basis for all three areas, the data would indicate that demand and supply for this occupation were nearly in balance (288 vacancies compared with 265 applicants).

Subject to congressional approval, the Department is now planning to introduce a job vacancy information program in fiscal year 1966 on a quarterly basis in the 150 metropolitan areas for which regular labor area surveys of employment and unemployment are prepared by the USES and the affiliated State Employment Services. Such an expansion would, of course, take full cognizance of the experience accumulated in the operations of the experimental program in terms of schedule design, methods and types of information collected, and procedures for the effective utilization of these data in improving the operations of the job market.

Percent distribution of job vacancies, by major occupational group, 1st 4 surveyed areas,[1] 1964

Major occupational group	Total vacancies	Vacancies existing 1 month or more	
	Percent distribution	Percent distribution	Percent of total
Total	100.0	100.0	59.3
Professional and managerial	11.1	12.4	66.3
Clerical and sales	22.2	14.2	38.0
Service [2]	8.6	6.2	43.2
Skilled	24.7	29.1	69.9
Semiskilled	21.0	26.4	74.8
Unskilled	12.4	11.7	55.1

[1] Job vacancies reported by employers, inflated to represent areawide data, for 4 areas surveyed in October—Birmingham, Milwaukee, Portland (Oreg.), and Providence.
[2] Excludes vacancies for domestics, but includes a small number of vacancies in agriculture, forestry, and fisheries.

Even when in full operation, however, the job vacancy program will provide only a single dimension of a sound program for the compilation, analysis, and utilization of information on occupational developments and outlook. The job vacancy program is designed to yield a detailed snapshot, as of a single point in time, of occupational skill requirements in a local community. A series of such snapshots, accumulated over time, will make available essential information on the changing characteristics of occupational needs. However, the job vacancy data by themselves do not represent a complete fulfillment of the requirements for the kinds of occupational job market information necessary for a proper appraisal of manpower requirements and resources in local labor areas.

Three additional elements seem to be needed for a comprehensive occupational job market information program for local areas. These include:

1. A relatively current benchmark or inventory of employment by occupation in a community—to be updated periodically, perhaps once every 2 years. While some information on employment by occupation is available from the decennial

census, these data soon become obsolete, and the occupational detail provided is not precise enough for use in local manpower operations.

2. A detailed analysis of relatively long-range (2 or 5 years) occupational requirements in relation to probable resources. The job vacancy information—which provides data on current occupational needs—can be used as a basis for updating this forecast in terms of changing developments as they occur.

3. A broader program for the translation of these materials into appropriate counseling and guidance tools, and for the utilization of the information in planning community development and training programs, improving the functioning of the job market, and facilitating interarea recruitment and mobility of workers.

Plans are being developed for the implementation of such a broader occupational information program. Some of the basic tools and approaches needed for this program are already in existence—developed through a number of years of operating experience in conducting comprehensive area skill surveys, the preparation of local occupational profiles, occupational guides, and related Employment Service programs, and in implementing the provisions of recent manpower training legislation.

Indiana Job Vacancy Surveys [1]

(By Emily Hawk and Evelyn Toliver) [2]

Indiana conducted seven area job vacancy surveys in September and October 1964, preceding the pilot surveys conducted by State Employment Services in areas in various parts of the country. Indiana's purposes and approach differed somewhat from those in the Department of Labor's pilot program. Indiana was particularly interested in conducting job vacancy surveys and in beginning them early, partly for use in connection with the re-employment program in South Bend, and in order to have current occupational information when its General Assembly convened in early January 1965. Vocational training was expected to be an important issue in the Assembly, and the information obtained from job vacancy surveys would be useful in documenting the overall need for training. Also, job information, by area, was needed for the use of vocational education departments in the public schools and new area vocational schools.

As was true in the Department's pilot program, we also were interested in determining whether employment office orders were representative of the occupational demand situation in general. Thousands of unemployed people were registered for work in local offices while thousands of unfilled job orders were on file in employment offices and an undetermined number of other job openings were known to exist. How numerous and how different were these job openings which were not listed from those on file with employment offices? Were there vacancies in occupations for which local offices had qualified applicants? Did employers and local offices agree about the kinds of jobs that were hard to fill?

We wanted to know, too, how employers would react to attempts to collect job vacancy information and how successful we would be in developing and filling job orders obtained from employers reporting job vacancies.

We elected to sample employing establishments in our seven largest areas, contacting all firms employing 100 or more and a sample of smaller ones in all industries. The samples were drawn from the latest available (March 1964) tabulation of firms covered by the Indiana Employment Security Act, and the largest noncovered firms, consisting of hospitals, government agencies, and nonprofit organizations, were added. The samples were not inflated to area totals. Concurrently with the employer surveys, local offices reviewed their job orders.

At the time of the survey, employment in the seven areas was at or near the peak for the year. In each area, except South Bend, nonfarm employment was above the corresponding period in 1963 and the unemployment rate was below the year-ago rate. The State and area unemployment rates, except for South Bend, were all below the national rate.

In most areas, vacancies per 100 employees in responding firms showed an inverse relationship to unemployment rates. Differences in response rates among areas and the relative stability of employment were factors which caused some distortion in this relationship.

Employer response to requests for job vacancy information was very good in terms of percentage of firms returning the survey forms, but considerable effort

[1] Reprinted from Employment Service Review, April 1965 issue, publication of the U.S. Employment Service, Bureau of Employment Security, U.S. Department of Labor.

[2] Emily Hawk and Evelyn Toliver are analysts in the Research and Statistics Section, Indiana Employment Security Division.

was expended to get replies and there was reason to question that all vacancies were reported. About one-fourth of the firms responding listed vacancies.

Of the 2,737 firms contacted, 96 percent responded to the requests for information. However, 4,312 contacts were made, including 769 personal visits and 1,416 telephone calls, to obtain the responses of 2,634 firms. About half of the firms responded to the first request; another 40 percent answered the second request; and the remaining 6 percent replied to a third contact. In general, personal visits were made on the initial request only; these were much more effective than initial contacts by mail, yielding nearly three times as many responses. One office which contacted some firms by mail the first time and followed up with personal visits obtained information during the visits from 57 percent of the firms. Most followups were by telephone, and these also were very effective.

Many of the firms contacted the second time explained that they had not understood that the form was to be returned regardless of whether job vacancies existed in their firms, although this was stated in the instructions accompanying the form. Others stated they had not replied because they felt that their vacancies could not be filled by the local office, leading us to wonder whether all vacancies were listed by the firms that replied to the first request. Employers contacted the second time also indicated that mail requests may not reach the proper company official. Survey forms were addressed to the company, usually with no individual specified. In some cases, the forms had not reached the same person later contacted by telephone. There was great variation in titles of those completing the forms; a review of 150 survey forms in one area revealed 35 different titles, ranging from assistant cashier to president. The size of the firm appeared to be the determining factor as to who furnished the information.

Specific reasons for not participating in the survey were given in only a few cases. Most of the nonresponse was among firms in which interviewers were unable to contact the proper official on followup or among firms which stated they had not received the form, had returned the form, or would return the form but did not. A few replied that they had no time for such surveys, and one of the largest firms in the seven areas (branch of one of the largest in the country) stated that giving such information was "contrary to its philosophy." This firm also expressed concern that the local office would consider the job vacancies as job orders. Although assured that the office would make no referrals, the firm did not participate. However, other branch establishments of the same firm did cooperate.

The best response was from firms with over 100 employees; this group also received the greatest percentage of initial personal visits; listed most of the total vacancies; and had a higher percentage of their job orders on file in local offices than did smaller ones.

The kinds of unfilled jobs reported on job vacancy survey forms corresponded closely in all seven areas with the kinds of orders on file in local offices. There was general agreement, also, about the kinds of jobs that are hard to fill. Two thirds of the five- or six-digit occupations reported as job vacancies were represented in local office files, although local offices had identical orders from only one-third of the job vacancy survey employers. The occupations not represented in local office orders were not unusual occupations; nearly one-half were in the professional and skilled occupational groups and had been on file in local offices at one time or another. No entirely new occupations were reported.

The amount of job development undertaken by local offices was limited by the fact that 60 percent of the job vacancies reported were described by employers as hard to fill, and most of the occupations represented were those carried on local office unfilled job orders. Interviewers reviewed job vacancy forms as they were returned and checked the files for qualified applicants. When it seemed possible that good referrals could be made, the interviewers attempted to develop job orders. With a few exceptions, employers had no objections to listing job orders with the employment offices. However, many of the easier-to-fill vacancies were already filled. In all, fewer than 14 percent of the new vacancies listed by employers were developed as job orders, and only 3 percent of the new job vacancies had resulted in placements at the close of the study.

Employers reported the greatest number of new vacancies in the clerical and sales group; this group represented the second highest number of local office orders. Most of the job openings developed were in this group and the second highest number of placements resulted. About half of the vacancies reported by employers in this group were considered hard to fill; local offices reported to a slightly higher percentage as hard to fill. Three percent of the new vacancies in this group resulted in placements.

Professional and related occupations represented the second highest number of new vacancies reported, but job orders in this group represented one of the lowest proportions of total job orders. Ninety percent of these job vacancies and job orders were considered hard to fill. The smallest number of job openings was developed in this group and the fewest placements made. Obviously, the demand for qualified applicants for these kinds of occupations cannot be supplied currently from any source.

About the same situation existed for the skilled occupations; slightly fewer new job vacancies were reported; more job orders were on file in local offices. Considerably more job development was undertaken, but placement results were little better than for the professional group. About 80 percent of the skilled job vacancies were considered hard to fill.

Semiskilled and unskilled occupations were considered by employers as the easiest to fill, and it was in these groups that the highest percentages of placements were obtained from job development. Although unskilled occuaptions represented the highest proportion of total job vacancies and job orders, this was because of situations in two areas: The Gary-Hammond-East Chicago area figures were affected by intensive recruitment for steel mills, and the Fort Wayne area by heavy demand for the electrical machinery industry. In most other areas, fewer job vacancies were listed for the unskilled than for any other group.

Local offices filled slightly fewer than half of the unskilled job openings they developed.

There were many job vacancies reported in occupations suitable for training under the Manpower Development and Training Act, but in most cases training courses in these occupations had already been proposed, were in progress, or had been completed by the end of the survey period. Openings for welders were reported in five areas, although MDTA training courses have been in operation since 1963 in the areas. The survey indicated that continuation of training in this and other courses is necessary. Present apprenticeship training appeared to be inadequate; many of the vacancies listed were for such occupations as machinist, tool and die maker, skilled machine operators, and electricians. However, this information was not different from that reported on local office job orders for which openings appeared in these same occupations.

Several conclusions were drawn from the Indiana job vacancy studies:

Job openings on local office orders do represent the general occupational demand situation.

Because the kinds of job orders corresponded to the kinds of job vacancies, and because employers and local offices were finding the same types of jobs hard to fill, job development opportunities were limited.

The number of placements resulting from job development attempts was small compared with the effort involved.

It is possible to obtain job vacancy information; however, collection by mail without followup will yield a much lower response than collection by personal visit and followup calls.

There is a tendency among small firms not to report when they have no vacancies. This may lead to some bias when conclusions are drawn.

Portland Studies Job Vacancies[1]

(By Wesley E. Zellner)[2]

The proposed study of job vacancies in the Portland, Oreg., area was received with enthusiasm by the Oregon Employment Service. The copy of the letter to the President from the Secretary of Labor, which accompanied the survey instructions, played an important part in generating interest and enthusiasm.

The proposed study plan provided for surveys in October 1964 and January and April 1965. This October to April period coincides with the employment dip and recovery phase experienced each year, although in 1964 the area had been characterized by a relatively tight job market situation. It was anticipated that information concerning job openings over and above that received by the local offices in their normal operations would yield valuable insights into the disparities

[1] Reprinted from Employment Service Review, April 1965 issue, publication of the U.S. Employment Service, Bureau of Employment Security, U.S. Department of Labor.

[2] Wesley E. Zellner is Supervisor of the Research and Statistics Division, Oregon Department of Employment.

between labor supply and labor requirements which prevail during a slack employment season. Subsequent cancellation of the January survey was disappointing, in that some of the hoped-for data on seasonal changes in demand would not be available, although the April survey is expected to yield useful information on this aspect of demand.

Preparations for the October portion were initiated during early September. Preliminary discussions were held with the local office managers to acquaint them fully with the procedures for obtaining job vacancy information and job development. In the meantime, central office work (selecting a sample of employers to be interviewed, printing record cards and questionnaires, etc.) was being completed. These preparations proceeded smoothly. A news release was issued and an announcement submitted to television stations, but there was no widespread campaign to reach employers, labor organizations, or the general public.

Interviewing and mailing proceeded without serious difficulty. The total number of employers responding without a followup represented something less than half of those selected. A week was allowed between the due date for the schedules and the first followup calls. During this interval, completed schedules were processed and, whenever applicable, referred to the local offices for job development. Then the first followups were started. It developed that most of the employers who had not returned the schedule had forgotten about it. Quite often, the information was then obtained over the phone. Only 15 of 994 employing establishments refused to cooperate in the study, although an additional 31 persisted in "forgetting" to forward their completed schedule. Seven others did not respond because data were not available.

In total, 1,173 job vancancies were reported. Of these, 408 were already on file in the local offices, and 765 were vacancies that had not previously come to the attention of the Employment Service. Because no suitable applicants were registered with the local office, no effort was made to obtain job orders on 119 of the 765 new vacancies reported. Another 181 could not be filled either because of union hiring restrictions (47) or the requirement that the applicant be on a Civil Service list (134). There were, therefore, 465 job vacancies, not previously known to the Employment Service, available for possible referral of job applicants. It was found, however, that slightly more than half of these openings had been filled or for some other reason were no longer extant by the time employer contacts were made.

Only a small proportion—36 of 227—of the newly reported job vacancies were subsequently listed with the Employment Service. The impact of the survey upon placement was negligible; only 15 placements resulted from the survey.

It appears that timing was an important contributory factor to the unsatisfactory placement results. The local offices indicated that the time lapse between the date the opening first became available and the date it was referred to the Employment Service interiewer was too great. Part of this delay was caused by the failure of employers to return the report on the due date, and part was due to time lost during the initial processing of the completed reports. Another problem stemmed from what some employers interpreted as a breach of the confidential nature of the report. To avoid recurrences of this sort, it should be made clear to employers when they receive the schedule that any job vacancy information they report will be made available to the local offices.

About 35 percent of the job vacancies reported were already on file in the local offices. More often than not, reported vacancies had gone unfilled for a month or more. This was particularly true of the shortage occupations. Long-term job vacancies were apt to occur in smaller firms. Studies of hiring channels have demonstrated that these employers do not generally resort to methods capable of reaching large numbers of potential applicants when they are trying to fill a job opening.

Between October 15 and November 15, unemployment in the Portland metropolitan area showed a seasonal rise of about 4,000, an increase of over 30 percent. The study did suggest that much of this increase could have been avoided or postponed if there were some way to channel qualified persons into the job vacancies which existed in the area. It is not possible, however, to quantify the effect that filling these vacancies would have or to determine how the skill composition of the unemployed group would be altered.

An important short-run solution would appear to lie in improving and speeding up the process by which qualified applicants are directed toward existing job vacancies.

Milwaukee Employers Cooperate in Job Survey [1]

(By H. J. Jackson) [2]

Milwaukee was one of the first areas to conduct a job vacancy survey. Employer cooperation was excellent; 95 percent of the firms surveyed returned questionnaires, all of them usable.

Staff of the Wisconsin State Employment Service decided to make their initial approach to employers on an individual basis, rather than through an employer association, and to stress the practical uses of the information, especially its use as an indicator of area training needs. About a week before the survey began, letters were sent to firms in the survey sample, asking for cooperation and emphasizing the need for local training information. Four days before the survey began, there was a meeting of the special antipoverty committee of the Social Development Commission of Greater Milwaukee. At this meeting, the director of theMilwaukee local office announced the job vacancy survey and pointed out its relevance to the development of youth training programs which were of particular interest to the group. There was extensive local newspaper coverage of the meeting and the planned survey.

Additional strength was given to the project by the assignment of Employer Relations Representatives to introduce the program to employers with whom they had had previous contact. Undoubtedly, this contributed to the high response rate.

Milwaukee and Waukesha local office staff, assisted by administrative office research analysts, visited 387 firms. Questionnaires were mailed to another 409 employers, and 269 followup telephone calls were made. The excellent response from employers indicates that it will probably be feasible to conduct the next Milwaukee job vacancy study by mail. This will result in considerable savings in cost and will permit a greater emphasis on job development efforts.

Members of the survey crew were instructed to undertake job development efforts only if they would not jeopardize future employer cooperation. A total of 285 job openings and 78 placements resulted directly from the survey. This comparatively unimpressive record is in part attributable to the fact that in this first round of surveys, establishment of the program was the primary concern, and job development was not stressed as it will be in future surveys.

The long-range effect of the job vacancy program upon placement could be substantial. Job vacancies were reported in almost 200 different 3-digit occupations. In more than two-fifths of these occupations, there were more estimate vacancies than there were applications in the Employment Service active files.

The location of the estimated vacancies has important implications for future Employment Service operations. A time series of this information can tell us what industries to visit or telephone for orders, when to contact them, and what kinds of orders to expect. For example, 57 percent of the estimated vacancies in the Milwaukee SMSA were in nonmanufacturing and 60 percent were in firms with fewer than 144 employees.

Occupations in which vacancies are reported, when compared with job orders received from employers, can help us evaluate employer acceptance of our services. For example, openings on file were low compared with vacancies in skilled trades but high relative to vacancies in professional occupations.

When evaluated in connection with the applicant supply, reported vacancies can tell us what applicants we need to seek and what training to encourage. Our applicants fell far short of the estimated number of job vacancies in professional, semi-professional, managerial, clerical and sales, and skilled occupations.

Further evidence of shortage occupations is given by vacancies reported as open for a month or more. There may be some bias in this figure since employers may normally take longer to fill certain types of jobs than others. Yet, there are obviously shortages when 67 percent of the vacancies for engineers and scientists, 85 percent of the vacancies for nurses, and over half the vacancies for skilled machine shop occupations had existed for a month or more.

In total, the Milwaukee job vacancy study was a success. The Milwaukee and Waukesha offices sent each employer a letter thanking him for his cooperation and preparing for the next survey. The Employment Service usually cannot create jobs, but it can reduce unemployment through filling available jobs faster and through providing the information needed to train people to match jobs. Job vacancy studies can, in many ways, help to do both.

[1] Reprinted from Employment Service Review, April 1965 issue, publication of the U.S. Employment Service, Bureau of Employment Security, U.S. Department of Labor.

[2] H. J. Jackson is Supervisor, Manpower Analysis, Wisconsin State Employment Service.

Progress Report—Job Vacancy Studies [1]

(By Norman Medvin and James Higgins) [2]

Growing attention has been directed in recent years toward the development of information on job vacancies. For many years, a great deal of information has been available on the Nation's employed and unemployed. Lacking, however, are precise data showing where the jobs are and the kinds of skills needed to fill them, which could be used to facilitate the placement of workers in these jobs.

Lack of information on job vacancies 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 divergent views evidenced by the "expansionists" and the "structuralists" 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 area basis, along with similarly detailed data on the characteristics of the unemployed is essential for a precise definition of both employment and unemployment problems. Analysis of these data would provide the basis needed to develop improved programs to combat the problems.

The need for a count of job vacancies by area and by occupation and an active program of placing workers in these jobs was also pointed out by the President's Committee to Appraise Employment and Unemployment Statistics (the "Gordon Committee"). In the words of the Committee report: "It is doubtful that any suggestion for the improvement of knowledge about the Nation's job markets was more frequently voiced to this Committee than that calling for job vacancy statistics." While there are undoubtedly many technical difficulties in obtaining valid job vacancy data, the Committee noted that the need for such information is becoming continually more acute and recommended that it be obtained for analytical use and for operational and administrative purposes.

The need for job vacancy data for effective Employment Service operations has long been recognized by the U.S. Employment Service and its affiliated State agencies. To meet its prime responsibility for the placement of jobseekers and the recruitment of qualified applicants to meet employer staffing requirements, the solicitation of job orders from employers has always been an essential activity of the public Employment Service. However, it was not certain that job orders obtained by the local office were representative of total job vacancies in the community. For this reason, as long ago as World War II, and later during the Korean conflict, pilot programs were initiated for the collection of job vacancy data by occupation and industry in major metropolitan centers in anticipation of possible areawide 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 15 State employment security agencies on a statewide or area basis, but in all instances except one, without any occupational breakdown.

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. Additional research by the Bureau of Labor Statistics was conducted in early 1964 on the job vacancies reporting programs in foreign countries.

Beginning in 1963, interest in a job vacancy information program in this country grew rapidly, partly as a result of the increased emphasis on the Employment Service as a manpower service agency, and its responsibilities for the development of occupational training programs geared to job market demand under such legislation as ARA, MDTA, VEA, and the EOA. It also reflected the continuing pressures arising out of the report of the President's Committee to Appraise Employment and Unemployment Statistics, the recommendations

[1] Reprinted from Employment Service Review, March 1966 issue, publication of U.S. Employment Service, Bureau of Employment Security, U.S. Department of Labor.

[2] Norman Medvin is Chief and James Higgins is a Labor Economist in the Branch of Skill and Industry Surveys, Office of Manpower Analysis and Utilization, U.S. Employment Service.

of the Senate Subcommittee on Employment and Manpower, and the active support of the Governors of California, Illinois, and New York, among others.

In response to the 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 a labor 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 study covered 62 firms in the Cook County sector of the Chicago metropolitan area. The major findings of this study indicated that the collection of job vacancy data by occupation was feasible and that about four-fifths of the employers could provide this information on a continuing basis. In addition, a large proportion of the employers reported that they could identify hard-to-fill vacancies.

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) studied the possibility of compiling such information on a mass basis for a major industrial area. A Chamber of Commerce mailing list was used as the basis for the Buffalo survey and covered 2,687 firms employing a total of over 150,000 workers.

An experimental program of job vacancy surveys on a more ambitious scale, taking into account the knowledge gained from the Chicago and Buffalo experiments, was initiated in the fall of 1964 by the Bureau of Employment Security and the Bureau of Labor Statistics in the U.S. Department of Labor. This program was formally announced by President Johnson during his press conference of August 8, 1964. Sixteen labor areas were included in the job vacancy surveys and accounted for approximately one-fourth of the Nation's employment. Two surveys were conducted in each of the 16 areas, the first spread over the last quarter of calendar year 1964 and the second in April 1965. The 16 areas surveyed were as follows:

Baltimore	Milwaukee
Birmingham	Minneapolis-St. Paul
Charleston, S.C.	New Orleans
Charleston, W. Va.	New York
Chicago	Philadelphia
Kansas City	Portland, Oreg.
Los Angeles	Providence
Miami	Richmond

The fiscal year 1965 job vacancy program was experimental in nature. There was no certainty that employers would furnish the data, that the great volume of detailed occupational information could be processed in meaningful form, or that the data so gathered would be useful in improving the mechanism of the job market.

Numerous technical concepts had to be mastered. The definition of a job vacancy, a sampling technique structured to the absence of occupational benchmarks, the design of an effective collection form, preparation of instructions covering the gathering, processing, and application of the data for use in Employment Service operations, editing procedures, and response analysis evaluation were but a few of the problems encountered in planning the surveys.

As part of the experimentation, 5 of the 16 areas were split into two groups for control purposes. One-half of the surveyed employers in each area was given a standard schedule and the other half a variant schedule. The purpose was to measure response under varying reporting requirements and to test the feasibility of collecting special types of information such as wage data and part-time and temporary vacancies.

The primary emphasis of the job vacancy program was determined to be for Employment Service operating use in the job market, with statistics as a by-product of the operational effort. Operational uses were directed toward increased placement of workers, vocational counseling and guidance, establishment of training classes under MDTA and vocational education, and encouragement of worker mobility through matching of inter-area surpluses and shortages. Of course, since completion of the first year's experimentation, the job market has grown progressively tighter, and it may well be that subsequent uses of the pro-

gram will focus on occupational shortages for defense and essential nondefense industries and program policy on how to overcome or ameliorate them.

The most important finding of the surveys was that it is both feasible and practicable to collect job vacancy information by detailed occupation. A very large proportion of employers—approximately 80 percent of those sampled by the USES and affiliated State services in the 16 pilot areas—were able and willing to provide these data. In addition, a series of controlled tests in some of the 16 areas indicated that employers appeared willing to furnish other types of data relating to their vacant jobs, such as wage rates and information on part-time and temporary vacancies. Although the high degree of cooperation in both rounds of surveys occasioned some surprise, it bore out very closely the results of the pre-test of feasibility conducted by the Illinois employment security agency in Chicago in 1963.

About one out of every four employers responding in the 16 areas reported at least one vacancy, although this varied by size of establishment. About one of every two large firms had some vacancies, while in the smaller establishments, 1 in every 10 reported at least one vacant job.

The two experimental surveys indicated that the level of job vacancies fell short of the number of unemployed at the time of the surveys. In the 16 areas, there were about 2.4 job applicants registered for work in the ES files for every job vacancy. There were wide variations among areas, however, ranging from an approximate balance in Richmond and Milwaukee to a 10 to 1 relationship in Charleston, W. Va.—long an area of high unemployment.

The problem of structural unemployment is clearly demonstrated by the imbalance between the types of workers needed, which were mostly in the higher range of skills, and the types of workers available, which were mostly on the bottom rungs of the occupational ladder. The lowest ratios of applicants to vacancies were in professional and managerial occupational classifications, where aggregate vacancies exceeded applicants, and in the clerical and sales and skilled occupations, where the number of applicants averaged about double the vacancy total. In the service, semiskilled and unskilled groups, the applicant-vacancy ratio averaged about 4 and 5 to 1.

Although vacancies occurred in a broad spectrum of occupations, the heaviest demand was concentrated in a relatively narrow band. For example, nurses accounted for one out of every four professional vacancies. Sales persons, clerks, and stenographers and typists accounted for two-thirds of the vacancies in clerical and sales occupations. Over half of the job vacancies in the service occupations were for waiters and waitresses, kitchen workers, practical nurses, and hospital attendants. One-fifth of the vacancies for unskilled workers were in warehousing. Vacancies for skilled workers were more widely dispersed. Obviously, each area reflected its unique industrial pattern.

A surprisingly high proportion of the job vacancies—about half—were hard-to-fill, as indicated by the fact that they had remained vacant 1 month or longer. The identification of these hard-to-fill jobs in relation to total vacancies, by occupation, promises to be one of the most useful tools of the program. Over a period of time, such data can be a guide to training opportunities, assuming other variables such as wages and working conditions are not adverse.

THE EMPLOYMENT SERVICE IN THE PICTURE

The experimental job vacancy program indicated that the Employment Service plays a far more important role in the total picture of job vacancies than was previously recognized. In the cities surveyed, some 30 percent of total job vacancies, excluding domestics, were listed with the Employment Service. There is a reasonably close correspondence in the occupational distribution between total job vacancies and unfilled Employment Service job openings. This correspondence suggests that the types of openings which the Employment Service cannot fill readily are reasonably representative of hard-to-fill job opportunities for the job market as a whole.

The results of the surveys clearly demonstrate that, with respect to vacancies as with other job market measures, the labor demand-supply differences by area are very substantial. If the program becomes operational, an area-by-area approach will be required to make the job vacancy program meaningful for manpower planning and operations.

USES FOR DATA

It is apparent that job vacancy data will have many operating uses. Probably the most extensive use to date has been in connection with manpower training

programs. Seven of the participating State agencies have used the information to establish training programs, for MDTA, OJT, vocational education, and in special programs aimed at disadvantaged youth. Other uses by local offices have been for counseling and job development.

The job vacancy program, through its listing of many hard-to-fill jobs in the lesser-skilled occupations, has operational implications for the "poverty" program. About half of the vacancies for unskilled workers listed in the first survey had been open for at least a month. Prominent among these were laborers for the metalworking, transportation equipment, warehousing, and construction industries. Nearly two-thirds of the vacancies for semiskilled workers also had been available 30 days or longer; among them were jobs in the machine shop, construction, and textile manufacturing industries, and for chauffeurs, drivers, and routemen. Of the vacancies in service occupations, approximately one-half were hard-to-fill. Many of the vacancies were for practical nurses, hospital attendants, porters, waiters and waitresses, and kitchen workers. The available wage data do not show any special concentration of less-than-prevailing wage offers for the lesser skilled jobs.

Information on the value of vacancy information for job placement purposes is inconclusive thus far. Concentration on technical and mechanical problems in getting the program underway inhibited intensive local office use of these data for job order development. In addition, many of the vacancies reported were already listed with the Employment Service. Although there had been some apprehension that job development and placement efforts flowing directly out of this program might jeopardize the reporting, such job development efforts as were made did not appear to have any effect on the willingness of employers to supply data. A proposed revision of the data collection schedule will invite the employer to ask for recruitment assistance from the ES local office, if he desires such help.

In 6 of the 16 areas in the first survey, and in 5 of the areas in the second survey, a response analysis was conducted jointly by the Bureau of Labor Statistics and the State ES agencies as part of the overall job vacancy survey program. As described by the Bureau of Labor Statistics, the objectives of the response analysis survey were to: (1) determine how well the definition of a job vacancy was understood by employers; (2) measure how well the instructions were interpreted by employers; (3) provide information on job vacancy recordkeeping practices of employers; and (4) determine the reasons for nonresponse. In each of the six areas, BLS personnel interviewed a randomly selected sub-sample of the respondents to the job vacancy survey immediately after its completion. According to BLS, nearly 9 out of 10 establishments correctly reported their total number of job vacancies. Correct reporting was found to be slightly more prevalent among smaller establishments than among larger establishments. The interviews also revealed that only about 5 percent of the establishments erred in reporting their total number of job vacancies. The reported total number of vacancies was found to be understated by about 3 percent as a net result of the detected error in reporting by responding establishments. Under-reporting of vacancies predominated in larger establishments, whereas over-reporting was more usual in smaller establishments.

There may be some further undetected downward bias in reporting owing to the lack of employer records from which job vacancies can be reported. It was found that establishments which had complete or partial records on job vacancies were more prone to report vacancies than those which did not keep records.

Small random samples of the establishments which were nonrespondents in the area job vacancy surveys were also interviewed as part of each of the 11-followup surveys. The principal objective was to determine the extent and direction of any bias that might be introduced in the estimated total job-vacancies by assuming that the nonrespondent establishments had the same rate of job vacancies as the respondents. These interviews disclosed that the nonrespondent establishments had substantially higher levels of current job vacancies than did the respondent establishments. This was true for both larger and smaller establishments.

Despite the pioneering aspects and the magnitude of the fiscal year 1965 program, the actual conduct of the surveys revealed only a few technical flaws in the overall survey design and structure of the program. The most important of these was an apparent weakness in sampling procedures as they related to small firms. A new sampling design has been developed to correct this in the fiscal year 1966 surveys. Some changes have also been made in the employer collection form and instructions on the duration of the vacancies and also to provide for the collection of wage data in all areas.

The job vacancy program proposed for fiscal year 1966 will take account of the fact that available funds are the same as for the previous year.

Two rounds of job vacancy surveys will be conducted in fiscal year 1966, if time permits, in 16 areas, virtually all of which participated in the fiscal year 1965 experimental program. The first round of surveys will be in April and the other in June 1966. The second may be changed in scope and content, depending on the findings of the earlier survey.

Chairman PROXMIRE. In the first place, this is a very fine and helpful statement. You have indicated that nine-tenths of the job vacancies in Baltimore fell in the category of "hard to fill," and only a third of the vacancies in St. Paul-Minneapolis were in that category. That would suggest to me that maybe there was something different in the way the surveys were applied rather than a startling difference between two cities which are fundamentally fairly similar.

Mr. CHAVRID. Right. We recognize that. And it is conceivable that the kind of verbal explanations that were given to employers in one area could have been different from those in another area.

Chairman PROXMIRE. If this concept is going to be useful to us, it seems to us that that kind of discrepancy ought to be explored pretty carefully.

Mr. CHAVRID. It will be explored especially in terms of the current survey that is going on, that they are completing now. We will compare to see whether such large discrepancies exist. We must remember that this was the first attempt——

Chairman PROXMIRE. Yes. I appreciate your reporting on this.

Mr. CHAVRID (continuing). And there are lots of things that do not seem to make complete sense. And something has to be done in order to reconcile them.

Chairman PROXMIRE. In discussing Milwaukee, Wis., you said that a number of training programs were expanded so that some 3,000 underprivileged youths would have jobs in the next 2 years. Two questions in connection with that. Perhaps you did not have control over this program, but this seems to me to be a rather long period in view of the experience that Milwaukee has had, where we have had heavy unemployment in the last few years, and now labor shortages. What would lead one to conclude that you will need people in the next 2 years in a category in which the vacancies now exist?

I take it that most of those vacancies do not require training?

Mr. CHAVRID. No, they do not. We are faced in the training program with this kind of a problem. Here we have a significant number of unemployed workers on the one hand, and on the other, we have demands. So these represent short-range training requirements. These are not the long range, the kind that the vocational education normally gets.

Now, these data are not the only ones that are used in determining what the future outlook might be in occupations. The job vacancy information merely indicates that you are having shortages as of now. You take these data and go to pretty much the same employers, or to larger ones which reported these data, and you ascertain from them whether they expect expansion in this particular occupation before you start a training program. This training program, Mr. Chairman, must look forward. And they all do. It cannot be based entirely on the job vacancies as of now, unless you have this program going over a period of 4 or 5 years. Then you can be sure when the same occupation keeps reappearing as a shortage occupation.

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Chairman PROXMIRE. Was the survey there used to eliminate any particular training programs? You say there were 12 that were expanded. Did you find that there weren't job vacancies, and therefore you would not proceed with any of the training programs?

Mr. CHAVRID. I will have to check that out.

Chairman PROXMIRE. Did I understand you to say that the sample represented 50 percent of the employment in most areas?

Mr. CHAVRID. Yes, sir.

Chairman PROXMIRE. It was that large?

Mr. CHAVRID. Yes. Well, the reason why it was so large is because we took large employers with certainty. It is not 50 percent of employers. It is 50 percent of employment.

Chairman PROXMIRE. Probably a relatively small percentage of the smaller firms and the entire group of large establishments defined differently in different areas. At one point you said that you did not interrogate firms that employed four or less, and at another point I thought you said three or less. Which is the point which you don't serve?

Mr. CHAVRID. Three or less.

Chairman PROXMIRE. Have you had opportunity to determine what portion of total employment this would involve?

Mr. CHAVRID. This could be determined. I don't know offhand right now. It is a very small figure.

Chairman PROXMIRE. It may be a small figure. It can be small in manufacturing, but rather big in some service industries?

Mr. CHAVRID. Yes, by industry, it would vary, there is no question about it.

Chairman PROXMIRE. So this would not give you an accurate picture in some areas. It would not be a problem in many others?

Mr. CHAVRID. In most of the areas we have this would not present a serious problem. Perhaps in a few small ones it would. But in the large areas I do not feel that going to three or less would in any way change the results, the conclusions of the surveys.

One other problem that we have is that our unemployment insurance coverage is for employers of four or more workers. This is required by law now. We try to make the surveys uniform among the States. So we took as a cutoff four or more, which provided uniformity among all the States that were involved in the program.

Chairman PROXMIRE. Do you think it would be necessary to survey all areas and all groups four times a year? In other words, how rapidly does the structure of job vacancies shift as distinguished from the general level?

Mr. CHAVRID. This is something that I keep asking myself all the time. And if we had had more experience, at least one year doing it every quarter, we might be able to answer in some knowledgeable fashion. But anything that I would say now would really be guesswork and opinion.

Chairman PROXMIRE. You might even want to increase it and have it every month, I suppose, depending on what it shows. We do have unemployment data every month.

Mr. CHAVRID. Well, personally I do not see a need for a detailed survey of this kind every month. I think that our Employment Service unfilled job openings, which now represent something like thirty per cent of all the job vacancies, would be good enough for the

two months for which we would have no job vacancy survey to indicate any significant thing that might happen.

Chairman PROXMIRE. But the basic problem of data would be job listings of the Employment Service supplemented by separate surveys? In other words, you have the Employment Service data on the one hand, and then separate surveys to supplement it, would that be the way to proceed?

Mr. CHAVRID. This is a very good question. You are suggesting that the employers list jobs with us, we should not go to them and try to use that as the basic information. The problem here is that we don't know whether an employer who uses the Employment Service lists all his jobs with us or not.

Chairman PROXMIRE. But you eventually could?

Mr. CHAVRID. Eventually we might be able to do something like that.

Chairman PROXMIRE. So you could streamline it and reduce the cost that way?

Mr. CHAVRID. Right. If we had more experience with trying to see the relationships between the two sources of data; unfilled job openings and vacancies.

Chairman PROXMIRE. Could you indicate for the record now the ways in which job vacancies and unemployment data are not symmetrical? You have already indicated that they are not, inasmuch as the job vacancies definition begins from the first reporting, and unemployment as I understand it is seven or more days. But there may be other areas which are not symmetrical, and not comparable, and if there are, I would like to have them.

Mr. CHAVRID. Well, the job vacancies, as I have indicated, Mr. Chairman, are a single shot at whatever the employer has.

Chairman PROXMIRE. I have no particular objection on that.

Mr. CHAVRID. The other is a person that has a day's employment in a week is counted as employed and not unemployed. So to that extent this is not comparable.

I don't know that there are any other major differences, except one deals with the labor supply, and the other deals with labor demand.

I might point out this, and I think this is a very important factor, that job vacancies are not necessarily filled by unemployed people. When a new plant moves into a community it is not the unemployed that go to work at that plant. It is the employed that get the jobs in a plant, people who might not have had promotions——

Chairman PROXMIRE. They are not in the labor market, they are neither employed or unemployed?

Mr. CHAVRID. That is right, some are not in the labor force. The unemployed might get the jobs of those who quit one plant and go to a new plant because the wages and working conditions in the new plant are better.

So a direct comparison between the job vacancies and unemployed, unless it is through some administrative action would not have too much meaning, and especially in a very broad group. What I have mentioned was the case in Milwaukee and Portland, Oreg. And there was another area, I think, Birmingham, Ala. In one area there was a sort of balanced situation for a given occupation and the other was short. And the third was surplus. When you add up all these figures you solve your problems; by balancing shortages in one area, by

surpluses or unemployment in another. On paper you have solved the problem in Milwaukee and Portland. So that one must be very careful in aggregating these figures.

Chairman PROXMIRE. How much would a satisfactory national program of regular checks of job vacancies by industry, area, and occupation cost? I am assuming that the $2.5 million being requested does not do the full job.

Mr. CHAVRID. The $2.5 million requested was requested for some 80 or 90 areas, thereabouts. The total number of standard metropolitan areas is about 220. The number of what we call very large standard metropolitan areas is about 150. I do not know what it would cost, but it could well cost double the figure requested. But this will have to be examined very carefully.

Chairman PROXMIRE. Around $5 million. What additional benefit would the government derive and the public derive from this additional expenditure?

Mr. CHAVRID. One thing that we would have on tap would be information on job vacancies in all of our areas. It is possible that some system could be developed, or these things would be put in some national data bank, as has been suggested by the Automation Commission. And the same thing could be done with the unemployed in individual areas. This would all go into one bank. And then we would try to see what matches we could make as between the areas of surplus and shortage in individual occupations. But this recommendation has been made by the Automation Commission.

Chairman PROXMIRE. Just one more question. Will it be possible to specify the statistical accuracy of a series on job vacancies?

Mr. CHAVRID. Yes, I think it can be done.

Chairman PROXMIRE. Thank you very much, you did an excellent job of summarizing a long statement and giving it to us briefly.

Mr. Curtis?

Representative CURTIS. Do you attempt or have you been attempting to find out what has caused the vacancies?

Mr. CHAVRID. The vacancies are caused primarily by expanding employers in these individual areas, and also I think in part by inadequate in-migration of people from the outside. I say this——

Representative CURTIS. Let me interrupt. I was not asking really for a conclusion as much as I was to find out whether you attempt in your questions to identify what created the vacancy?

Mr. CHAVRID. No. We have not asked those questions from the individual employers.

Representative CURTIS. For instance, I was thinking of the fact that every company of any size has a regular turnover, retirement, and so forth. Now, the actual jobs that become vacant are not those held by the person retired or dead. Frequently, they open up at the lower end, but each company probably has a regular turnover rate. You have not attempted to develop that statistic, then?

Mr. CHAVRID. No. I think that this would be a very worthwhile special project, to select a number of establishments in certain manufacturing industries, in nonmanufacturing, and do it on a special basis rather than ask all of the employers, because this could be quite a bit of work for them.

Representative CURTIS. I was trying to find out whether you did, and then to get into whether it would be worthwhile. I suspect that

certain industries have a big turnover, and certain localities probably vary on this.

Well, thank you very much.

Chairman PROXMIRE. Thank you, Mr. Curtis.

And thank you very much, Mr. Chavrid.

I think these are very valuable hearings. There will be inserted in the record at this point a letter from John H. Aiken, Executive Director, Federal Statistics Users' Conference and the statement of the Conference.

(The material referred to is as follows:)

FEDERAL STATISTICS USERS' CONFERENCE,
Washington, D.C., May 17, 1966.

Hon. WILLIAM PROXMIRE,
Chairman, Subcommittee on Economic Statistics, Joint Economic Committee, New Senate Office Building, Washington, D.C.

DEAR SENATOR PROXMIRE: The Board of Trustees of the Federal Statistics Users' Conference was pleased to learn that the Subcommittee on Economic Statistics of the Joint Economic Committee decided to hold hearings on the feasibility of regular collection and reporting of job vacancy statistics and their potential usefulness in formulating manpower policy at the local and national levels.

Because of the increasing interest in the need for, and feasibility of, collecting and reporting this type of information, the Board of Trustees of the Conference wishes to file a written statement supporting the efforts of the Subcommittee to examine the problems involved and particularly the results of pilot studies made by the Bureau of Labor Statistics and the National Industrial Conference Board.

Enclosed is a copy of the written statement of the Conference which we respectfully request be included in the printed record of the hearings.

Respectfully submitted.

JOHN H. AIKEN, *Executive Director.*

STATEMENT SUBMITTED BY THE FEDERAL STATISTICS USERS' CONFERENCE ON FEASIBILITY OF REGULAR COLLECTION AND REPORTING OF JOB VACANCY STATISTICS

This statement is submitted on behalf of the Federal Statistics Users' Conference which is an association of 152 member companies and organizations comprised of business firms, labor unions, and nonprofit research groups. Conference members study and utilize all types of Federal statistics for many and diverse purposes, particularly in planning and in making operating and policy decisions. Thus, Conference members have a common interest in obtaining useful, adequate, timely, and reliable information from Federal statistical programs. Its members are representative of a broad segment of economy and are engaged in such activities as advertising, banking, insurance, manufacturing, retail trade, printing and publishing, economic and market research, etc.

The Board of Trustees of FSUC was pleased to learn that the Subcommittee on Economic Statistics of the Joint Economic Committee decided to hold hearings on the feasibility of regular collection and reporting of job vacancy statistics and their potential usefulness in formulating manpower policy at the local and national levels.

Our purpose in submitting this statement is: (1) to support the efforts of the Subcommittee in examining the results of pilot studies made by the Bureau of Labor Statistics and the National Industrial Conference Board, (2) to indicate to the Subcommittee our interest in, and concern with, developing information on the need, uses, limitations, proper use, feasibility and benefits of job vacancy statistics, and (3) to offer our cooperation in the future, if practical, in further studies or programs which may result from these hearings.

For some years now, the Conference has recognized the need for developing job vacancy statistics, but has been concerned with the feasibility, uses and limitations of such statistics—problems which the Subcommittee on Economic Statistics is now taking a look at in these hearings.

At the Eighth Annual Meeting of FSUC, held in October 1964, the Report of the Manpower Statistics Committee of the Conference said: "Some comparisons between characteristics of the unemployed and characteristics of vacant jobs is

needed. Attempts to measure vacancies have been unsuccessful in the past, but it would be worth exploring this field again."

Since the initiation of the exploratory studies undertaken by the Bureau of Labor Statistics and Bureau of Employment Security in Fiscal Year 1964, the Conference has supported budget requests of BLS-BES to continue exploratory studies at the same level. However, the Conference has been reluctant to support any proposals for inauguration of the program on a large scale until results of the exploratory work are made public and proper study and evaluation of the work can be made.

Members of the Conference have been well aware of the problems involved in developing adequate and useful job vacancy statistics and have been particularly concerned about resolving conceptual and definition problems. They are particularly anxious to learn what has been done about solving these problems.

Naturally, we are hopeful that these hearings will provide sufficient information to indicate the progress made, what problems have been solved, what problems remain unsolved, and the direction and course which should be taken in the future.

While the demands for job vacancy information have come from a number of theoreticians who study employment problems, there is no practical evidence yet available to the public as to the feasibility of collecting reliable information or whether or not such information would be of material assistance in the formulation of public policy.

Nothing herein, of course, should be taken as expressing any opposition to the expansion and improvement of the employment services from an operating standpoint. We recognize that there is a great need for a better matching of people and jobs. However, there is some doubt in the minds of many whether the collection and reporting of statistical data on job vacancies will help in this task. It may be that an expansion and improvement of employment service operations will bring forth additional operating statistics that will enable such services to gauge their efficiency and cast more light on the state of the labor market.

In conclusion, the position of the Conference on the problem of collecting job vacancy statistics was stated in our testimony given on March 24, 1966, before the Subcommittee on Labor, Health, Education, and Welfare of the House Committee on Appropriations. It reads:

"The Conference believes that continued and more intensive experimentation at the present level would be wise; it also believes that inauguration of the program on a large scale as contemplated would be unwise and a significant departure from past practice in dealing with statistical programs of like size and complexity.

"Further work on the resolution of conceptual and other problems should go forward. The effectiveness of a regular job vacancy program as a tool for promoting local labor market efficiency should be tested . . .

"This approach is consistent with the BLS approach to improving unemployment statistics, where proposed changes have been subject to experimentation on a large-scale over a period of years before introduction into the regular unemployment statistics program. It is consistent with the development of statistics of employment by occupation which is proceeding over a period of several years . . ."

Members of the Conference will be following these hearings with keen interest.

Chairman PROXMIRE. While it tends to cover some of the ground covered by other material, I think it would be well to include in the record an excellent summary article on the Labor Department's pilot studies presented at the conference held by the National Bureau of Economic Research last year. The report of the conference entitled "The Measurement and Interpretation of Job Vacancies," which covers some 600 pages contributed by a score of authorities, suggests, incidentally, the wide and thoughtful concern generated by the subject.

Since all observers and possible users of job vacancy statistics need to know everything that we can know about them before their collection and reporting is undertaken on a regular basis, I think that one article in particular out of this symposium is a useful summary of the techniques, collection methods and problems which have come up in the pilot studies conducted by the Bureau of Labor Statistics.

The article from the proceedings of the National Bureau Conference entitled "Experimental Job Vacancy Survey Program of the United States Department of Labor," by Irwin F. O. Wingeard of the Bureau of Labor Statistics follows.

Experimental Job Vacancy Survey Program of the U.S. Department of Labor

(By Irwin F. O. Wingeard, Bureau of Labor Statistics)

INTRODUCTION

The Department of Labor has been concerned about the need for job vacancy information for many years. Its Bureau of Employment Security has experimented with a number of pilot programs, some of which date back to World War II and the Korean conflict.

In 1956, the Bureau of Labor Statistics conducted a pilot feasibility study, which concluded that it was impractical to initiate a regular mail collection of statistical data on job vacancies. This conclusion was reached, at that time, because of the unavailability of employer records on job vacancies, and the inability of a large proportion of the employers to estimate their job vacancies.

Despite this earlier negative finding, the President's Committee to Appraise Employment and Unemployment Statistics (known as the Gordon Committee), was impressed by the widespread interest in and the potential uses of meaningful statistics on job vacancies. The Bureau of Labor Statistics was requested to prepare a report for the Committee that would take a fresh look at the possibility of setting up a national statistical program. The report submitted suggested a program of experimental research that might be followed in attempting to solve the technical problems involved and to assess the feasibility of developing such statistics.

The Gordon Committee recommended that the Department of Labor initiate the program of research suggested (which was published as Appendix B of the Committee report, "Measuring Employment and Unemployment").

This research was undertaken on a cooperative basis by the Department's Bureau of Employment Security and Bureau of Labor Statistics, beginning in fiscal 1964. The modest program included research on conceptual and definitional problems, pilot feasibility studies in the Chicago and Buffalo areas, and a survey of the nature and uses of job vacancy statistics being collected in foreign countries (on which Shelton will report in his paper).

OBJECTIVES

Following this preliminary research, the Department of Labor launched a more comprehensive experimental program for the collection of job vacancy information in the current fiscal year (1965). This program was conducted jointly by the Bureau of Employment Security and the Bureau of Labor Statistics and the analysis and evaluation of the results is their shared responsibility. However, the employment security agencies in the states involved are actually conducting the individual area surveys included in the program and are summarizing the results, under the administrative direction of the Bureau of Employment Security.

One of the program's two primary objectives is to evaluate the feasibility of collecting reliable and meaningful job vacancy data by occupation. The other is to assay the usefulness of the job vacancy information collected in furthering the operations of the public employment service, particularly in helping to place unemployed workers in available job openings and identify occupational training needs. Another long-run aim is to assess the value and practicability of eventually using the job vacancy data gathered for purposes of economic analysis and public policy.

PROBLEMS

In designing the experimental program, it was necessary to consider and resolve an appreciable number of difficult problems relating to the collection of job vacancy information. Some of the more important of these were the following:

1. To design a survey that would yield information to meet the needs of U.S. Employment Service operations, and at the same time provide reliable and meaningful data for general statistical and analytical uses. Although operational uses

were given predominant consideration, the opportunity was taken to experiment with approaches relevant for statistical and analytical purposes, keeping in mind the need for geographical and occupational detail.

2. The delineation of the scope of the industry and establishment coverage that should be included in the area samples. Special problems arise in attempting to attain complete coverage, because employer reports filed under state unemployment insurance programs are used as the primary source for universe listings of establishments, and certain coverage exclusions are common in those programs. Farms, private households, railroads, and nonprofit organizations are universally omitted, and small establishments with less than four employees and state and local governments are generally excluded. Special problems must be solved and different techniques developed with regard to sampling, collection, and estimation for farms, private households, and very small establishments.

3. To determine what size of sample would be required to obtain a reasonably accurate measure of job vacancies by occupation within a geographic area. This is a major problem because the variable being measured usually represents a very small segment of the total employment in any one occupation in the area, and generally occurs with widely scattered and highly fluctuating incidence among the different employing establishments. A sample spread thinly across all employing establishments may very well miss significant clusters of vacancies for some occupations, as well as all vacancies for other occupations.

4. To devise an appropriate mechanism for the collection of job vacancy information which would produce a high rate and quality of response and make timely vacancy information promptly available for administrative and analytical uses. There is a question whether job vacancy information can be collected by mail with the voluntary cooperation of employers. Another question is whether the collection system should be an independent one or tied in with an existing regular collection program, such as the BLS–BES–state agency cooperative program relating to labor turnover statistics. Another question is whether employers would respond more willingly and accurately if the collection was divorced from the local employment offices, or was made solely for statistical purposes and without follow-up job order development efforts by the local employment offices.

5. To draft a suitable instrument for the mail collection of job vacancy information by occupation which would yield accurate, reliable, and consistent responses, and give sufficient detail as to the characteristics of job vacancies for administrative and analytical purposes. The report form must not be so complex or overburdening as to discourage mail response, and its definitions, instructions, and format must be clearly understandable to all reporters to whom it is mailed. A problem exists as to how to identify and measure so called "hard-to-fill" vacancies which signify the existence of labor shortages. There is also a question as to whether a request for the rates of pay being offered for vacant jobs would strengthen the authenticity of reported job vacancies without damaging the response and statistical validity of the surveys.

6. To evolve a definition for a job vacancy measure which would be suitable for analytical purposes, as well as for Employment Service operating uses. For the former purposes, the job vacancy measure should be conceptually comparable with the unemployment measure used in the monthly labor force survey. For operational uses, a less restrictive concept might be more suitable. For both purposes, however, a vacancy must represent something more tangible than an unoccupied job slot appearing in an organizational chart or table, and something more concrete than mere intention or desire to recruit or hire a worker.

7. The establishment of procedures for the collection and classification of job vacancies by occupational detail. Difficulties are encountered because of the absence of standard job classification systems and uniform job title nomenclature in industry. For Employment Service placement purposes, detail by individual occupations would be preferable, whereas for analytical usage less refinement would be adequate. For comparison with vacancy data, total unemployment figures are available only by broad occupational groups, and insured unemployment data are compiled at an intermediate level of detail (three digits of the *Dictionary of Occupational Titles* coding structure).

8. The construction of a suitable technical methodology for inflating the area sample results to estimated area universe totals by occupation.

GEOGRAPHIC COVERAGE

Under the Department's experimental program, pilot job vacancy surveys are being conducted for two different time periods in each of the following sixteen Standard Metropolitan Statistical Areas: Baltimore, Birmingham, Charleston

(S.C.), Charleston (W.Va.), Chicago, Kansas City, Los Angles, Miami, Milwaukee, Minneapolis-St. Paul, New Orleans, New York, Philadelphia, Portland (Ore.) Providence, and Richmond. The areas were selected so as to include most of the country's largest employment centers and to give some range of representation to areas of different labor force sizes, geographic regions, industrial characteristics, and employment conditions. The areas were not selected as a representative sample of the nation nor of all Standard Metropolitan Statistical Areas. Accordingly, the results of the sixteen area surveys cannot be combined to derive any over-all estimates

An area approach was followed mainly because of the Department's primary interest in seeing the data used to help place unemployed workers in available job openings. In addition, however, it was thought that the use of selected areas was the most suitable and manageable way of testing collectibility and solving response, definitional, and estimation problems across a broad industry spectrum, as was desired under the experimental program. Moreover, it was recognized that geographic detail would sooner or later be essential under any system that might eventually be established for the collection of job vacancy data for any purpose.

ESTABLISHMENT SAMPLE AND INDUSTRY COVERAGE

A prescribed method for the selection of a probability sample of employers in each area was provided to the state agencies in order to make it possible to inflate the area sample results to estimated area universe totals. The universe from which the sample was selected included all establishments with four or more employees which were covered by the State Unemployment Insurance Law in the first quarter of 1964, supplemented by a list of known nonagricultural establishments employing 100 or more workers, which were not covered by the State Unemployment Insurance Law. The instructions permitted the inclusion of noncovered establishments with fewer than 100 employees where this was considered necessary to assure adequate representation in certain nonagricultural industries. The instructions also permitted the use of first quarter 1963 unemployment insurance records where those for the first quarter 1964 were not available. The universe, therefore, generally extended across all nonagricultural wage and salary payroll employment, except for the very small establishments.

The scope of the industry coverage was very broad and generally consistent with that covered by the establishment employment series published by the state agencies in cooperation with the Bureaus of Labor Statistics and Employment Security. This wide industry coverage was desired in order to gain experience in collecting job vacancy data from as many different industries as possible.

Establishments with fewer than four employees, as well as farms and private households were not included in this experimental program because they require the development of special techniques with regard to sampling, collection, and estimation. When a regular and full-scale program for collection of job vacancy data is launched, selecting a sample will present some problems because farms and private households are universally omitted, small establishments are generally excluded from state unemployment insurance coverage, and employer reports under the unemployment insurance program are used as the primary source for universe listing of establishments. This problem extends also to the inclusion of railroads, state and local governments, and nonprofit organizations that are usually not covered in state unemployment insurance programs, but a makeshift effort was made to include them in the sampling frames for the sixteen area experimental surveys. The eventual inclusion of adequate representation for all of these excluded places of employment would be important to an established full-scale system for the collection of job vacancy statistics, because they may have many of the job vacancies that are available to and suitable for unemployed workers. Recognizing the importance of moving forward with research on this front, the Department is conducting a separate one-time experiment to try to find out the extent and nature of vacancies for domestic workers in the private households and farms covered in the January 1965 labor force survey, conducted as part of the Current Population Survey. A major limitation of this kind of survey for use in a job vacancy statistical collection system, however, would be its inability to provide results for individual geographic areas.

The sample size in each of the sixteen area experimental surveys was rather large, since it included all of the larger establishments which, when arrayed by size in descending order, had a cumulative employment total equal to 50 per cent of the area employment universe. In addition to this rather large certainty stratum for larger establishments, the sample included a fixed number of smaller

establishments, amounting to 1,000 in each of the four largest areas and 500 in each of the remaining areas. In order to assure a good industry and size mixture among the smaller establishments, they were selected at random from a listing of all of the smaller establishments in the universe (comprising the remaining 50 per cent of the area employment universe) arrayed by employment size within each two-digit standard industrial classification. It is uncertain whether the rather substantial sample sizes established for the experimental area surveys are adequate to provide reasonably accurate results for the extensive occupational and other detail wanted for each area.

Several considerations entered into the decision on the sample size; cost, the aim for essentially equal precision in the results obtained for the various areas, variation in size of labor force among the areas, and the desire for results that would give considerable occupational detail in each area and be useful for job development and worker placement in most areas.

COLLECTION METHODS

The experimental character of this program afforded an opportunity to test various collection schedules and methods. One question to be tested was whether employers would be more willing to respond if the survey was made solely for statistical purposes and without follow-up calls by the local employment office to solicit job orders for vacancies reported. This issue appears to be one of the most controversial aspects of the Department's experimental program. Concern has been expressed from a number of quarters that the statistical results of the job vacancy survey would be biased because some employers, quite possibly including large and important ones, would withhold their cooperation or report incompletely on account of their dissatisfaction with the tie-in of Employment Service job order development efforts.

On the other hand, some employers welcome Employment Service assistance in filling their vacancies and appreciate being contracted for job orders. The Employment Service view is that, where there are job openings available which it can help to fill, it would be remiss in its obligations to both employers and workers it it did not call this fact to the attention of the employers. It is socially and economically desirable to improve mechanisms to speed the matching of workers and jobs and reduce "time-lag frictional unemployment."

A test was made to determine the effect on response of a solely statistical survey versus one directly related to Employment Service placement activities. In three areas—Charleston, S.C., Chicago, and Miami—data collection was handled by the central office of the state agency, and employers were assured, when asked to report their job vacancies, that they would not be asked for job orders unless they specifically requested that this be done. In most other areas, data collection was conducted by the Employment Service local offices, and job vacancies reported by individual employers were used as leads for possible solicitation of job orders from those employers.

In all areas except the three where no job order solicitation was attempted, personal visits were used to introduce and explain the significance of the survey, to appeal for voluntary cooperation, and to deliver the schedule to a substantial number of sample employers, particularly the larger ones. In addition, a letter for these same purposes was directed to all sample employers in the three areas without job order solicitation and to remaining establishments in all other areas. State agencies were requested to make a special effort to direct the schedule to the official in each establishment most likely to be able to complete it. They were also urged to publicize the survey and its timing in advance, through informational media and contracts with employers and civic organizations.

Two follow-up contacts with nonrespondents were to be made in all areas. In the three areas without job order solicitation, the first nonresponse follow-up contact was made entirely by mail, by the central office, and the second entirely by telephone by the central office, or by the local office where it was impractical for the central office to do so. In all other areas the first nonresponse follow-up contact was made entirely by telephone and the second by personal visit to the largest establishments and by telephone to all other establishments.

The initial surveys in the various areas were conducted at different times because of the lead time needed by the Department and the state agencies to develop plans and procedures for the variety of experiments included under the program. Accordingly, the month of reference was October 1964 for four areas, November 1964 for seven areas, December 1964 for four areas, and January 1965

for one area. The specific areas surveyed in each of these periods is shown below:

Month of reference:	*Areas surveyed*
October 1964	Birmingham, Milwaukee, Portland (Oreg.), and Providence
November 1964	Baltimore, Chicago, Charleston (S.C.), Miami, Minneapolis-St. Paul, New York, and Richmond
December 1964	Kansas City, New Orleans, Los Angeles, and Charleston (W. Va.)
January 1965	Philadelphia

It is planned to have each of the areas repeat their initial survey in April 1965. This repetition is desired to test the willingness and ability of employers to report and the consistency of responses that would be obtained under a continuing survey program.

COLLECTION SCHEDULES

To further the testing desired under this experimental program, a standard collection schedule and six different variant collection schedules were designed and used to collect job vacancy information (see example copy at end of this paper). All schedules requested that the total number of current job vacancies be reported by occupation, using establishment job titles. The schedules differed, however, in the extent of additional detail requested relative to the duration of the vacancies, the expected duration and part-time or full-time status of the jobs to which the vacancies related, and the rates of pay being offered for the vacancies.

The standard schedule called for reporting the number of current job vacancies existing one work week or longer and the number existing one month or longer, in addition to the total number of current job vacancies. All three items were to be reported by occupation. The first variant schedule asked for rates of pay being offered for the vacancies, in addition to all of the information requested on the standard schedule. The second variant was like the standard schedule in all respects, except that it excluded the breakdown for the number of vacancies existing one work week or longer. The third called for the reporting of only the total number of current job vacancies by occupation. The fourth asked how many of the total number of current job vacancies related to part-time jobs only, in addition to all of the information requested on the standard schedule. The fifth asked how many of the total number of current job vacancies related to short-term jobs that were expected to last not longer than three days and how many related to temporary jobs that were expected to last over three days but not more than four months, in addition to all of the information requested on the standard schedule. The sixth variant schedule requested the reporting of all of the detail called for on all of the other schedules, but in a different manner. It asked for a separate line-item descriptive entry for each individual job vacancy, rather than an aggregate count by occupation and other characterictics as all of the other schedules did.

Each of the items of information on the survey schedules was thought to be of considerable importance for meaningful interpretation, analysis, and use of job vacancy data for administrative or analytical purposes. They were not included on all schedules, however, because there was not enough experience to indicate whether they were collectible or what effect their inclusion might have on the rate and quality of employer response and on the level of job vacancies reported.

Vacancies existing one work week or longer were included primarily for analytical usage, because of the concept held by many persons that such a measure of job vacancies is most appropriate for making comparative analyses between job vacancies and the unemployed. This concept implies that a job vacancy must have been "in search of a worker" for one week or longer in order to be comparable to an unemployed worker who must have been without a job for one week or longer and looking for work. For administrative purposes, no particular importance is attached to vacancies existing one work week or longer because it alone does not denote the so called "hard-to-fill" openings which are of special significance for those ends. Information on job vacancies existing one work week or longer were requested from the entire sample in fourteen areas. It was omitted for the entire sample in New York, and in the Philadelphia area for the one-half of the sample that was asked to report total vacancies only.

Vacancies existing one month or longer were included as a means of obtaining a measure of so-called "hard-to-fill" vacancies. Knowledge about such vacancies was considered to be important for both administrative and analytical purposes,

because such vacancies are believed to signify the existence of labor shortages for particular occupations. Vacancy duration may not be entirely satisfactory as a means of identifying "hard-to-fill" job openings; other factors may influence the length of time needed to fill openings, such as the urgency of the employer's need for workers, the kind and intensity of recruitment efforts, and the level of wages offered. In addition, the customary length of time required to fill job openings varies considerably according to the kind and extent of occupational skill and training required. One month or longer may usually be required to fill technical, professional, or other job openings requiring specialized skills and training. Despite these limitations, it was decided to use a vacancy duration of one month or longer to indicate "hard-to-fill" vacancies because a suitable and reasonably simple alternative criterion was not available. Information on vacancies existing one month or longer was requested in fifteen areas from the entire area samples. In the one remaining area, Philadelphia, it was omitted for the one-half of the area sample which was asked to report total vacancies only.

Separate breakouts of vacancies for part-time and temporary jobs were included in order to measure the extent of their significance in the total vacancies reported. It was recognized that part-time and temporary work is of considerable importance, particularly in certain industries, such as trade and service. It was thought that information on the scope of vacancies for these kinds of jobs would be of value for both administrative and analytical uses because the character and significance of the demand for this kind of labor differs materially from that for full-time, permanent jobs. Information on vacancies for part-time jobs was asked from one-half of the area samples in Charleston, W. Va., and New Orleans. Similarly, data on vacancies for temporary jobs were requested from one-half of the area samples in Kansas City and New Orleans. In New Orleans, the line-item entry schedule was used to request both of these items, whereas in Charleston, W. Va., and Kansas City, respectively, the "part-time jobs" and "temporary jobs" schedule variants were employed.

Information on the rates of pay being offered was included primarily as a means of assuring the authenticity of the vacancies reported. Representatives of labor felt that the request for rates of pay might very well curb the reporting by employers of substandard and unauthentic vacancies, and might also permit some evaluation to be made of the extent of substandard wage offers among the reported vacancies. Others have voiced the fear that some employers might be unwilling to report their wage offers to Employment Service local offices, or possibly to any other agency, even though such offers are not suspected of being substandard. If the inclusion of a request for pay rates offered strengthens the authenticity of reported job vacancies without damaging the statistical surveys, it would contribute significantly to the value of the job vacancy data for both administrative and analytical purposes. Administratively, the specific wage offers quoted also would be useful in soliciting job orders and placing workers. Because of the special importance attached to the question on rates of pay offered for vacancies, it was asked in six areas. In Los Angeles and New Orleans, it was requested from only one-half of the area samples; for the former, by means of the pay-rate offered schedule; for the latter, the line-item entry schedule. In the other four areas in which this information was requested—Baltimore, Chicago, Miami, and Minneapolis-St. Paul, the pay-rate offered schedule was used for the entire area sample.

Testing so many variant approaches with only sixteen areas made it difficult to reach conclusions about the relative effectiveness of each variant, because employer response might also be affected by the industrial composition, size, or location of each area, or by attitudes toward the job vacancy survey, surveys and reports in general, or Employment Service local offices. It was therefore decided to control for differential general characteristics of areas by splitting the reporting sample within an area. This technique makes possible a more definitive assessment of the extent to which the degree and character of employer response would be affected by requesting varying kinds of information, and by using schedules of varying degrees of complexity. In five of the areas, Charleston, W. Va., Kansas City, Los Angeles, New Orleans, and Philadelphia, the standard schedule was used to collect information from one-half of the employer sample and one of the variant schedules was used to gether data from the other half. In each of the other eleven areas, only one type of schedule was used to collect information from the entire sample. The distribution of areas according to type of schedule used is shown in the following tabulation:

Schedule number	Type of schedule	Number of areas	Areas where schedule was used
JV-1	Standard	11	Birmingham, Charleston, S.C., Charleston, W. Va. (for ½ of area sample), Kansas City (for ½ of area sample), Los Angeles (for ½ of area sample), Milwaukee, New Orleans (for ½ of area sample), Philadelphia (for ½ of area sample), Portland, Oreg., Providence, Richmond.
JV-2	Pay-rate offered	5	Baltimore, Chicago, Los Angeles (for ½ of area sample), Miami, Minneapolis-St. Paul.
JV-3	Omits vacancies existing 1 workweek or longer.	1	New York.
JV-4	Total only	1	Philadelphia (for ½ of area sample).
JV-5	Part-time jobs	1	Charleston, W. Va. (for ½ of area sample).
JV-6	Temporary jobs	1	Kansas City (for ½ of area sample).
JV-7	Line-item entry	1	New Orleans (for ½ of area sample).

CONCEPTS AND DEFINITIONS

The same job vacancy and reference period concepts and definitions were used on all schedules. The specified reference period was as of the close of business on a given date, which in each instance was a Friday. The Friday of the calendar week which included the 12th of the month was generally used, because that week is the standard reference period used in the household labor force and establishment employment surveys. For the seven area surveys conducted in November, however, the Friday of the following calendar week was used because additional time was needed to prepare for those surveys. The definition of job vacancy, as used in all surveys, is shown at the end of this paper. The most important feature of this definition is that is spells out three conditions which must be met before a job vacancy can be counted. First, the job must be unoccupied; second, the job must be available for immediate occupancy by a new worker from outside the company; third, the job must be the object of management's active search for a new worker from outside the company. These requirements were stipulated to secure conceptual compatibility with the unemployment definition. Just as an individual has to be actively looking for a job to be considered as unemployed so a "bona fide" job vacancy must entail management's positive effort to find a new employee and not merely its intention or desire to hire one. Similarly, like an unemployed worker, a job vacancy must be unoccupied and available for immediate occupation.

For administrative purposes the definition used may be too restrictive in concept, since it excludes those situations in which new workers are currently being sought through positive efforts to fill jobs which, although not immediately available, are expected to become vacant or available in the future. The inclusion of those openings might be particularly useful in connection with employment service operations. To accommodate this use, it might be advantageous to collect data on those openings in the future, but as a separately identified item. A separate breakout would be essential because such expected openings would not be conceptually complemental to current unemployment.

Other questions may be raised in regard to the definition used for job vacancies. Should it include those jobs that are expected to be filled in the future by recall of employees on layoff, or by new workers, already hired, who have not yet started working? Rather convincing arguments can be made both for and against the inclusion of each of these.

SUMMARIZATION AND ESTIMATION OF RESULTS

The editing, coding, tabulation, and inflation of the survey results was done by the state agencies in accordance with procedures prepared jointly by the Bureau of Labor Statistics and the Bureau of Employment Security.

The job titles reported were classified and coded by occupation according to the *Dictionary of Occupational Titles* (*DOT*). This task was particularly troublesome because no standard terminology is universally used in industry. Some establishments, especially small ones, do not have formal job classification systems and may tailor the description of their jobs to suit the capabilities of particular applicants. Other establishments may use general job titles to cover broad ranges of occupational duties and responsibilities. For these, as well as other

reasons, some establishments might have been unable to use job titles which would permit appropriate classification by *DOT* code. Possibly for many of the reported vacancies the local personnel of the Employment Service were sufficiently well acquainted with the occupational requirements of the employers, or were able to obtain enough additional information from employers by telephone, to classify them properly by *DOT* code, at least to the three-digit level of specificity for which area estimates were required to be prepared. It is also quite probable that an appreciable number of reported vacancies were not classified with that degree of occupational precision. An evaluation of the precision of the occupational classification of reported vacancies will be made, with particular attention directed toward discovering possibilities for developing a sound system for reporting occupational detail. One possibility may be the development of a carefully worked out precoded list of occupations with accompanying brief descriptions that would be adapted to each industry but comparable among industries.

Estimated area totals of job vacancies were prepared for each three-digit occupational classification for which job vacancies were reported. This was done by inflating the area sample results to estimated area universe totals through the use of twenty-seven strata of industry categories and establishment size. Nine broad industry categories and three establishment size groups were used to form these strata. The inflation factor for each stratum was derived from the base period total employment of the universe of establishments and of the responding establishments falling into that stratum.

OPERATIONAL ANALYSIS

An analysis of the results of the local Employment Service operational aspects of the job vacancy surveys will be prepared for each area. In the thirteen areas in which follow-up job order development was undertaken, an examination and evaluation will be made of the effectiveness of the job order development and placement efforts of Employment Service local offices, by occupation, industry, and size of establishment. This investigation will be carried out for both regularly serviced establishments and establishments which have not placed job orders with the local offices during the past twelve months. As another part of the operational inquiry, applicants registered for work and unfilled job openings on hand in Employment Service local offices in each of the sixteen areas will be analyzed in comparison with the estimated total job vacancies for the area by occupation. This study will reveal the occupational correspondence between all job openings in the area and local office job openings and applicants. New training programs suggested or developed as a result of the job vacancy surveys will also be reported as part of the operational analysis in each of the sixteen areas.

FOLLOW-UP QUALITY CHECK SURVEY

Follow-up response analysis surveys are being conducted by the Bureau of Labor Statistics in six of the sixteen areas included in the experimental survey program. The primary purpose of these follow-up surveys is to check and evaluate the quality of the information reported by employers on the survey schedules with respect to its accuracy, completeness, relevance, and reliability. In addition, these response analysis surveys will probe into the feasibility of collecting meaningful job vacancy information by mail with the voluntary cooperation of employers. In this connection, inquiry will be directed toward the availability of records; the willingness and ability of business establishments to report with or without the benefit of records; the number of points or individuals in an establishment that must be contacted to account for all vacancies that may exist in the establishment; the ability of respondents to report information on certain additional characteristics for vacancies which might be requested in the future; the reliability and effectiveness with which respondents understood and interpreted the reporting forms, definitions, and instructions; and the efficiency of the various collection methods and instructions in obtaining the data desired.

Response analysis questionnaires are being completed by personal interview in randomly selected subsamples of respondents to the survey immediately after the initial area survey ends. Trained and experienced BLS regional office personnel are conducting the interviews.

Although rather comprehensive, the questionnaire is designed to facilitate the interview by grouping the questions in general subject areas and incorporating a skip pattern which avoids asking inappropriate and already answered questions. A narrative evaluation report is prepared for each interview and at the conclusion of the survey by each interviewer. The areas included in the response analysis

surveys are: Providence, Charleston, S.C., Chicago, Los Angeles, New Orleans, and Philadelphia.

A small random sample of nonrespondents to the job vacancy survey is also being interviewed in the response analysis survey in the six areas covered. These nonrespondents are being requested to complete a job vacancy schedule at the time of the interview in order that an assessment can be made of the difference or similarity in the level and nature of job vacancies as between nonrespondent and respondent establishments. After a completed job vacancy schedule is obtained, nonrespondents are asked the same questions as the respondents, plus additional queries aimed at finding out the reason for their failure to respolin, and the circumstances or conditions under which they might be able and wilngd to cooperate in the future.

Response analysis surveys will be continued following the completion of the second round of job vacancy surveys in the sixteen areas. It is expected that the information acquired through the response analysis surveys will be extremely valuable in evaluating the feasibility of collecting accurate and meaningful vacancy information, and in assessing the effectiveness of the various collection schedules and methods being tested under the Department of Labor's experimental job vacancy survey program.

JV-2
U.S. DEPARTMENT OF LABOR
Washington, D. C. 20210

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REPORT ON JOB VACANCIES

State of California
Department of Employment
Los Angeles Area Office
1525 So. Broadway
Los Angeles, California 90015

(Change Name and Mailing Address If Incorrect)

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below, by job title, all job vacancies (as defined in attached explanations) in your establishment as of the close of business on December 11. If this is not possible, report vacancies for the nearest possible day. A job vacancy is a job opening that was unfilled and immediately available to full-, part-time, or temporary workers which your firm was actively seeking from outside your company. If no vacancy, write "None" in Column 2, complete items B and C, and return the report.

Occupational Code (Leave Blank)	Job Vacancies				Rate of pay offered	
	Job Title	Total number	Number existing: One work week or longer	Number existing: One month or longer	Amount	Indicate whether per hour, week, or month
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(Continue on back of form if more space is needed.)

B. REFERENCE DATE: Job vacancies reported above were as of _____ (Date).

C. NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of December? _____

Signature _____ Title _____

(Firm representative responsible for this report.)

A. JOB VACANCIES, BY OCCUPATION (Continued)

Occupational Code (Leave Blank)	Job Vacancies				Rate of pay offered	
	Job Title	Total number	Number existing: One work week or longer	Number existing: One month or longer	Amount	Indicate whether per hour, week, or month
(1)	(2)	(3)	(4)	(5)	(6)	(7)

REMARKS: _____

Explanations for Report on Job Vacancies

(Please read before entering data on report form)

A. *Job vacancies* are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal and short-term job openings.

"*Actively seeking*" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate," "walk-in"

or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies 1) jobs held for employees who will be recalled; 2) jobs to be filled by transfer, promotion, or demotion; 3) jobs held for workers on paid or unpaid leave; 4) jobs filled by overtime work which are not intended to be filled by new workers; 5) job openings for which new workers were already hired and scheduled to start work at a later date; and 6) those jobs unoccupied because of labor-management disputes.

B. *Reference date:* Enter date for which vacancies are reported as Item B on page 1. Enter date even though you report no vacancies.

C. *Number of employees:* Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12 of December. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but *exclude* persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Enter this figure even though you report no vacancies.

Column 1: Leave blank. For office use only.

Column 2: List job titles for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each job title listed in Column 2, report the total number of job vacancies.

Column 4: For each job title enter the number of job vacancies included in Column 3 which have existed one work week or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 5: Of the numbers shown in Column 4, enter the number of job vacancies which have existed for 1 month or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 6: For each job vacancy listed in Column 2, enter on the line opposite that vacancy, the rate of pay offered for the job to which the job vacancy relates. The entry of a single rate of pay is preferred; however, where a range of pay rates is offered depending on the varying educational training and experience qualifications of prospective applicants, the entry of the offered pay rate range (that is, the low and high pay rates offered) will be acceptable. Wherever possible, please enter hourly pay rates. If the wage offered for the opening is on a piece work or commission incentive basis, please enter the estimated average full-time weekly earnings the new worker is expected to receive.

Column 7: For each pay rate (or pay rate range) entered in Column 6, enter the basis on which the offered pay rate is quoted in Column 6 (for example, indicate whether the pay rate given is per hour, per week, per month).

If you have any questions, please telephone 789–1124.

When form is completed, please return in the accompanying self-addressed stamped envelope by December 22. Please do so even though you report no vacancy.

Thank you for your cooperation.

Chairman PROXMIRE. This has all been very interesting. Since Mr. Cassell had to leave and in the interest of not prolonging this hearing unduly I am going to ask you to supply certain additional material for the record.

(A copy of the letter sent by the chairman to Mr. Cassell follows:)

MAY 20, 1966.

Mr. FRANK CASSELL,
Director, U.S. Employment Service,
Department of Labor, Washington, D.C.

DEAR MR. CASSELL: Thank you for your very excellent presentations before the Subcommittee on Economic Statistics on the feasibility and usefulness of job vacancy data. We were impressed with the significant progress that has been made in this area and with the operational uses that the data would serve.

63-947—66——8

The results of the pilot studies constitute very valuable pieces of information, and the accounts of these studies were highly informative. It is my feeling that the more that is known about the experience of these studies, the better will be the public understanding and the sooner the program can become operational on a large scale.

Could you please supply for the record the following information and any additional information that you think would be helpful:

(1) Schedules used in the surveys of 1964, 1965, and 1966;

(2) The number of vacancies by occupation and by industry for each area (and to the extent possible, cross-classified);

(3) The number of vacancies as a percent of the sum of employment plus vacancies by broad industry and occupation for each area;

(4) Rates of entrance pay by occupation and percent of vacancies offering compensation below this figure by area; and

(5) Examples attesting to the usefulness of the data, for example, from businesses or local community organizations.

This information would be of great interest and value both to the Subcommittee and to others interested in an effective job market.

Sincerely yours,

WILLIAM PROXMIRE.

(The material in response to the preceding questions, later supplied by the Department of Labor, appears at p. 172.)

Chairman PROXMIRE. The Committee will stand in recess until 10:00 o'clock tomorrow morning at which time we will hear from Mr. Nathaniel Goldfinger, Director, Research Department, AFL–CIO; and Mr. Daniel Creamer, Manager, and John G. Myers, Senior Economist, Special Projects Department, National Industrial Conference Board.

(Whereupon, at 12:33 p.m., the subcommittee recessed, to reconvene at 10:00 o'clock, Wednesday, May 18, 1966.)

JOB VACANCY STATISTICS

WEDNESDAY, MAY 18, 1966

CONGRESS OF THE UNITED STATES,
SUBCOMMITTEE ON ECONOMIC STATISTICS
OF THE JOINT ECONOMIC COMMITTEE,
Washington, D.C.

The subcommittee met, pursuant to recess, at 10 a.m., in room S–407, the Capitol, Hon. William Proxmire (chairman of the subcommittee), presiding.

Present: Senator Proxmire and Representative Curtis.

Also present: James W. Knowles, executive director; William H. Moore, senior economist; George R. Iden, economist; Donald A. Webster, minority economist; and, Hamilton D. Gewehr, administrative clerk.

Chairman PROXMIRE. The subcommittee will come to order.

Our first witness this morning is Mr. Nathaniel Goldfinger, director of research, American Federation of Labor and Congress of Industrial Organizations.

We are very pleased to have you, Mr. Goldfinger. You are an old friend of the committee. You may proceed in your own manner.

STATEMENT OF NATHANIEL GOLDFINGER, DIRECTOR, RESEARCH DEPARTMENT, AFL–CIO

Mr. GOLDFINGER. Thank you, Mr. Chairman.

I have a statement, which I might as well read.

At the outset, I should make it clear that while I obviously do not object to research in the area of job vacancies, I do have serious doubts concerning the state of our present knowledge about such data and their underlying concepts. There are real questions about the validity of job vacancy data—such as the basic issue of defining a vacancy. And there is a danger that the U.S. Department of Labor may be propelled into the collection and publication of a national series, long before the questions of concept, validity, meaning, and usefulness are adequately answered.

The fact that Western European countries and the United Kingdom collect and publish job vacancy data is not particularly relevant to the United States in 1966. It is my understanding that information on job vacancies in those countries comes from the government employment exchanges, with which the vast majority of employers list their specific job openings, in their search for appropriate workers, with the required skills, training, experience, and other qualifications. In the United States, we do not have a Government employment exchange similar to those in Western Europe and the United Kingdom.

As a result, there is the attempt to establish a job vacancy series in the United States, based upon surveys of a sample of employers. In a sense, I suppose it is hoped that such data, derived from sample surveys of employers, will somehow make up for the lack of an effective public employment service in the United States.

But it seems to me that the attempt to rush headlong into a national job vacancy index, as the obverse of the published unemployment rate, involves an effort to substitute employers' attitudes for the actions of workers. The unemployment data, derived from the monthly survey of a sample of households, is based on the reports of specific actions of workers: an unemployed worker must report that he is actively seeking work in order to be counted as unemployed. However, a report that an employer believes he has a job vacancy may be of questionable meaning—depending on such factors as whether or not he is actively seeking to fill the reported vacancy and what the wage rates and working conditions are in relation to those for similar job classifications in the area.

As I view it, there is little, if anything, to be gained from the simple addition of employer reports that x number of jobs are unfilled—without adequate information on the specific occupations involved, the skill requirements, and the wage rates and working conditions. For example, I do not believe that the report of an unfilled job for a 50-cents-an-hour carpenter should be considered an actual job vacancy. Moreover, the mere statistic—without information on occupation, skill, wages, et cetera—is hardly meaningful or useful.

In addition, I doubt that many employers keep records on job vacancies. As a result, reports may tend to be at least partly impressionistic and the impressions may vary from one month to another. They may also vary from one to another company executive. Furthermore, in the absence of records, information on the duration of job vacancies will be difficult to achieve. And there are serious doubts in my mind as to whether a report of a 1-day vacancy should be considered an actual vacancy, at all.

Some economists have also pointed out that we do not know enough, at present, about the durations of job vacancies and the movements in job markets from unemployment to employment, in order to ascertain some meaningful correspondence between unemployment statistics and job vacancy data. Yet the publication of a national job vacancy index will inevitably be compared with the unemployment statistics, with inevitable interpretations and misinterpretations.

With all of these and similar difficulties, in terms of our present knowledge about job vacancies, the construction and publication of a national job vacancy series would be unwise.

It seems to me that a lot of work is required, now, on concepts and definitions and on economic meaning, as well as local job market feasibility studies and careful evaluation of such experimental work.

However, I believe that some meaningful use can be made of job vacancy information on an occupational and local job market basis—for operational purposes, to improve the operations of the public employment service and the Government's training programs.

The inherent difficulties in collecting any job vacancy information would exist, even when developed as a working tool, on an occupational and job market basis. But the shortcomings of such information

would be of somewhat less significance than the great difficulties involved in a national statistical series.

For operational purposes on an occupational and job market basis, it should be possible to obtain and use meaningful details that could be lost in a national series, whose emphasis would be on statistics, rather than on improving the performance of the public employment service and training programs for the benefit of workers, employers, and the community. Details on occupations, skill and training requirements, and wage rate information for specific vacancies, in specific firms and industries, would be essential to improve the effectiveness of the public employment service and the Government's training programs. Moreover, such detail can be checked on a job market basis—particularly since detailed information would be essential for operational purposes.

It seems to me that the development of such job vacancy information—as an operational tool for improving the efficiency and effectiveness of the public employment service and the Government's training programs—should be tested. But I believe that the development of a national job vacancy statistical series—with its emphasis on some kind of statistical average—would be an unwise step.

As the Federal Statistics Users' Conference stated on March 24, 1966, before the Subcommittee on Labor, Health, Education, and Welfare of the House Committee on Appropriations:

> Further work on the resolution of conceptual and other problems should go forward. The effectiveness of a regular job vacancy program as a tool for promoting local labor market efficiency should be tested.
>
> This approach is consistent with the BLS approach to improving unemployment statistics, where proposed changes have been subject to experimentation on a large scale over a period of years before introduction into the regular unemployment statistics program. It is consistent with the development of statistics of employment by occupation which is proceeding over a period of several years.

Chairman PROXMIRE. I think it would be desirable, Mr. Creamer, in view of the fact that Mr. Goldfinger's testimony is not on precisely the same areas as yours—which I understand is largely a report on the Rochester experience—that I might question Mr. Goldfinger at this point and then proceed to hear your testimony, and that of Mr. Myers, and then question you gentlemen.

Mr. CREAMER. Yes, sir.

Chairman PROXMIRE. If Mr. Goldfinger would want to participate in the discussion of Mr. Creamer and Mr. Myers, that would be very helpful too.

Mr. Goldfinger, you are an extraordinary useful witness, not only because you are very competent, but because you give a viewpoint that we all too rarely have at this kind of hearing. So often at hearings we are scheduled to hear people who are unequivocally in favor of whatever the committee is considering without any kind of criticism, such as that which you so usefully and helpfully give us. I welcome your thoughtful and helpful testimony.

We had some very strong testimony, in my judgment, yesterday, from Mr. Cassell and Mr. Chavrid and Mr. Ross. Mr. Cassell who is the Director of the U.S. Employment Service indicated in some detail the great pains—and I think they are quite extraordinary—that the Department of Labor has gone into to make sure that this series is sound, valid, accurate, and honest. Let me just read a page or so from that testimony of yesterday.

Almost coincidentally with the release of the Gordon Committee report, the report of the Illinois Governor's Committee on Unemployment which I [Mr. Cassell] chaired was released in January, 1963. One of the recommendations of our report too, was for the initiation of a program to "measure volume and composition of job vacancies and to report such information on a regular basis." I understand that this recommendation was one of the major factors in the selection of the Chicago area for the first feasibility study made by the USES to test the possibility of collecting job vacancy data from employers.

This study was initiated in 1963, with the cooperation of the affiliated Illinois Employment Service. Another feasibility study was conducted in the spring of 1964 in Buffalo, sponsored locally by the New York Employment Service and the local Chamber of Commerce. The results of these preliminary studies were highly encouraging. At the same time, other research by the U.S. Employment Service and the Bureau of Labor Statistics helped to define technical concepts and methodology, and investigated the collection and uses of job vacancy information in other countries.

At the direction of Secretary of Labor W. Willard Wirtz, and with the endorsement of the President, we began an experimental job vacancy program in the fall of 1964 to test the possibility of collecting such data on a relatively wide scale, and their usefulness for manpower operations. Primary emphasis was upon the value of data for facilitating the operations of the job market, with a statistical program as a possible by-product. The USES, in cooperation with its affiliated State Employment Service agencies and the Bureau of Labor Statistics, conducted two comprehensive job vacancy surveys.

It seems to me that this kind of practice testing of pilot program operation represents a commendable effort on the part of the Department of Labor to determine whether or not this could be valid, whether or not it could be practical, whether it could be the kind of survey which would give you statistically meaningful results. And I think it is somewhat unusual that the Department can go to these pains and actually have pilot studies which can be examined and considered over a period of years before they begin to gather the data.

* * * in each of 16 metropolitan areas representing a broad cross section of American industry in terms of size, industrial characteristics, geographical location, and nature of unemployment. These areas include: Baltimore, Birmingham, Charleston (S.C.), Charleston (W. Va.), Chicago, Kansas City, Los Angeles, Miami, Milwaukee, Minneapolis-St. Paul, New Orleans, New York, Philadelphia, Portland (Oreg.), Providence, and Richmond. In the aggregate, these areas account for approximately one-fourth of the Nation's total nonfarm employment—

which indicates that it is not only a useful pilot study from the standpoint of sampling but also that it is fully comprehensive.

The first round of surveys was conducted during the last quarter of calendar year 1964 and the second survey took place in April, 1965.

And then Chavrid goes into a detailed discussion, and he made his presentation yesterday, and it is a detailed, and, I think, highly competent analysis of the problems that are very involved, and the results. And he comes to the conclusion that these statistics would be accurate, would be honest, would be valid.

I think it would be helpful to have your comment on Mr. Ross' reasons why this job vacancy information would be so helpful. He said, first, that it can be used to develop a picture of the size and characteristics of unfilled demand for labor. Then information could be analyzed in its own right.

Secondly, a trend in job vacancy especially if classified by occupation can be of considered value in throwing light on the ability of our economy to adjust to changes in demand for labor, which may serve as a lead indicator for changing economic conditions.

Third, job vacancy information used in conjunction with information on employment, unemployment, labor turnover, and hours of

work, can enhance our ability to analyze the current economic situation, for light on major policy decisions.

Fourth, in the present economic situation the question of labor shortage has become sufficiently critical, especially in relation to skilled manpower, that the President, as previously indicated, has asked the Department of Labor to watch the situation closely and to prepare regular reports. And, of course, the reports are much better if they are not based on this kind of a vacuum determination.

Fifth, job vacancy information will throw additional light on demand-supply conditions in the job market in relation to changing wage levels. And analyses of the effect of employment changes upon wage rates, although potentially very useful in appraising wage developments and policy, has not exhibited highly precise results when applied to data available for the United States. The additional dimension of job vacancies in the measurement of labor demand would contribute another powerful tool of analysis.

Also, job vacancy data can help us to sharpen the Bureau of Labor Statistics projections of manpower requirements by occupation which are so essential in developing estimates of training needs to guide in the planning of the many education and training programs supported by the Federal Government. These programs are the most immediate pragmatic and practical results of this kind of thing that we can organize our training programs in a way that is less wasteful and more efficient than it could be without it. Congressman Curtis yesterday estimated that the investment of $2.5 to $5 million in this program a year would bring back returns many, many times that every year in a more efficient training program based on a factual knowledge of what jobs would be available.

And then job vacancy information would be used by business firms to get an accurate, reliable picture of the area in which they are recruiting workers, and to help in developing more effective recruiting policies.

And finally—and this is the area that directly touches on our own area of interest—"Such information could be of equal value to labor organizations in evaluating the demand for the services of their members and in developing policies for training, apprenticeship, and collective bargaining."

I have asked a long question. But I see you had a chance to take some notes on it.

Mr. GOLDFINGER. I will attempt to comment on that, Senator Proxmire.

There are two different approaches at the outset. One is the statistical approach of moving immediately into some kind of national statistical series on job vacancies. We in organized labor have questioned the wisdom of moving now into such national statistical series, for the various reasons that I indicated in this brief paper. And there are many additional related reasons.

We simply do not know enough at this point about the basic concepts—about the definition and other related matters.

For example, such statistics would immediately be used for interpretation of economic trends and economic development.

And yet we do not know at this point, as many economists have pointed out, we do not know in terms of American society and the American economy what the proper relationship is between job

vacancy statistics and the unemployment rate. What is the meaning of a comparison between a 4-percent job-vacancy statistic and a 4-percent unemployment rate? Moreover, what is the meaning of a 4-percent job-vacancy statistic?

Chairman PROXMIRE. We cannot find out if we don't try it, so we can make the comparison.

Mr. GOLDFINGER. I was going to get to the other side, and that is to start on a job market basis, with the kind of detail that probably would get lost on a national statistical basis, where we could get occupational information, industry information, skill requirements, wage rate information, working conditions, and so forth, and test the job market approach over a period of time, and begin to refine concepts, definitions, and to begin to work out some of these numerous problems. Everybody admits that there loads of such problems that require a considerable amount of work.

Chairman PROXMIRE. There are problems. But is it not true that in the last 3 or 4 years there has been quite a bit of intensive work on these problems, and that some of them have been resolved? For example, you ask for a definition of job vacancy. And I think that is certainly an understandable demand. Mr. Chavrid and Mr. Ross and Mr. Cassell seem to feel that the definition was clear, and at least as valid as the definition of an unemployed person. If the employer indicates that he has a vacancy, that he wants to employ a person, they feel that that would be as valid as going around, as we do with our unemployment survey, and asking a person if he is looking for work.

Now, they have tried to check this in various ways over a period, as Mr. Cassell indicated, of a couple of years. And on the basis of their findings, they feel that there was an underestimate of job vacancies of 12 percent, which is a substantial error, perhaps. But they have been able to doublecheck it, work with it, discuss the concept, and to consider, for example, the legitimate point that you raised about a "50-cent-an-hour carpenter." It was your fear, and mine too, and I raised that question yesterday—if employers say they would like to hire a certain number of workers, but they will pay them far below the going wage, obviously the job vacancy would not be legitimate under any fair basis. The Government witnesses say that their study has convinced them that this is not a significant problem, that they were concerned about it, too. They have checked and found that vacancies are overwhelmingly in the going wage area, and that there is not any attempt on the part of anybody—and it would be very easy to determine if there were—to give phony statistics by indicating that you would like several thousand workers if you can get them for far less than the going wage.

So that these problems, I think, have been worked on. This area that you say should be developed, that is what they have been doing, as I understand it, last year.

Mr. GOLDFINGER. They have begun to do that, Senator. They did engage in a number of pilot studies. To my knowledge there has not yet been any careful outside evaluation of the results of those pilot studies. What they told you yesterday may well be true. But I have some doubts about that, because I am just not sure.

Furthermore, I wonder whether they have used the results of these pilot studies for operational purposes. To what extent have they

tested them? To what extent have they used them in connection with the operations of the Employment Service? To what extent have they used them in conjunction with the operations of the MDTA training programs?

Furthermore, Senator——

Chairman PROXMIRE. Let me say that I do think there have been some independent studies, the National Industrial Conference Board study, the Fisher and Ford study of 1963, independent studies.

Mr. GOLDFINGER. Yes. But these are all separate studies, independent studies. What I am referring to is a careful——

Chairman PROXMIRE. And also may I say that Mr. Creamer and Mr. Myers have been involved in what has won national recognition as almost a model study in Rochester on a foundation grant of job vacancies.

Mr. GOLDFINGER. Yes; all of this is true. But I am not aware of any careful outside evaluation, for example, of the Labor Department's pilot studies.

Perhaps they have been made, but I am unaware of any such evaluation.

Furthermore, they have had these pilot studies, I think you mentioned, of 16 areas. To what extent have they used the results of those pilot studies for operational purposes in connection with the operations of the Employment Service and the operations of the training programs?

Chairman PROXMIRE. I understand—and perhaps Mr. Knowles can correct me if I am wrong—as I understand it, job vacancy data could be used and evaluated in preparing the reports on labor shortages, which Commissioner Ross is asked to make regularly to the President of the United States. And this is an area in which they have to make estimates anyway. The pilot studies would permit them to refine this. And one of the things they have been able to do, for example, would determine that their USES estimates represented a fairly stable and quite accurate representation, although limited, of the amount of job vacancies, by making a more comprehensive study. They have also been able to find that they receive very good cooperation from employers, and a very high proportion of those who were requested to reply did, especially in Milwaukee and Portland, Oreg. And it was generally true.

Mr. GOLDFINGER. I am aware of the reports of the relative success of these pilot studies. And I have glanced through the NICB report, which Mr. Creamer kindly sent me some days ago. And I am aware of the various bits and pieces of work that have been done within the past number of years. However, I am suggesting that we are a long way from resolving a lot of these very basic questions which have been raised, including a lot of the basic questions which were raised on this subject in the book that you just picked up by the National Bureau of Economic Research Conference.

Chairman PROXMIRE. I think this book itself—"The Measurement and Interpretation of Job Vacancies," Conference of the National Bureau of Economic Research—is a most impressive book, because it has articles by a number of outstanding authorities, widely recognized economists and experts, and specialists in this area. And the whole 560 pages is devoted to an analysis of this problem, and an evaluation of it. And while there are not any joint collective recom-

mendations, the general tone of this, as I understand, as well as the conclusions of the three Government witnesses yesterday, is that we are ready to move. In fact, they asked for an appropriation last year, as you recall, and it was $2.5 million, and it was turned down by the House Appropriations Committee. So they were ready last year to move.

Mr. GOLDFINGER. That is a matter of judgment. It may be a matter of their judgment and our judgment differing. I might also indicate that the judgment of the Federal Statistics Users' Conference differs, to some extent, from the judgment of some of the people in Government and in the universities about our ability, at this point, to move rapidly into this area of job vacancy statistics.

Chairman PROXMIRE. Just one more point I would like to make with you.

I think you raised the question of the 1-day vacancy.

Mr. GOLDFINGER. Yes.

Chairman PROXMIRE. It seems to me that this is not symmetrical with unemployment, inasmuch as if a man has had a job within the preceding week he is not considered unemployed, so he has to be unemployed 7 days before he is counted as unemployed. And the job vacancy is counted on the basis of these pilot studies, at least, immediately. So you would not get a precise comparison. I think that is a legitimate complaint. The witnesses yesterday indicated that they would not make any difference in the statistics, because the overwhelming majority of job vacancies have been available for more than 7 days. I think if you are going to get symmetrical and comparative statistics you should have them on the same basis. And my own conclusion is that you ought to have a requirement of 7 days for job vacancies just as you have for unemployment.

Mr. GOLDFINGER. On this one I would agree with you, sir. But my interest here is not in the symmetry of the proposition. I think that what we should be trying to do is to get at the meaning of a job vacancy. If we are going to measure job vacancies, we should seek real genuine vacancies, whatever that means. We first have to define it. And there are difficulties in definition, as the NICB report indicates. Moreover, there certainly are great difficulties in getting information on the duration of job vacancies. Most companies do not have records on job vacancies. A lot of the information, unfortunately, at this point is impressionistic. Perhaps over a period of time it would be possible to get employers to keep some kind of records on job vacancies. I am not sure that this is possible, but perhaps it is.

But I think that there is some force that is pressing hard for the immediate movement into a national statistical series. And it is this that I believe is definitely unwise at this point in terms of the state of our knowledge.

Now, if you are talking about local job market studies, where we test out these various concepts and definitions and problems and attempt to work them out, and particularly work them out for operational purposes in conjunction with the MDTA and the public employment service, that is one thing; and that I think is worth doing. On the other hand, I do not think that we know enough at this point to move ahead headlong into a national statistical series.

Chairman PROXMIRE. Well, what concerns me is that unless we do move I am afraid that we are going to deny ourselves some accurate

and valid data which could help us in economic policy determination. I think we are always better off when we have more rather than less information. And it would seem to me that one of the ways that we can proceed to improve this concept is to give it a chance to work. And while you can argue that you have to improve it before you really gather it, or before you report it, it would seem that these very comprehensive studies that we have had have served that purpose.

Now, in addition, I think that we have had great improvement and refinement of our unemployment statistics, since we have been reporting the data. At the same time some legitimate questions have been raised about the legitimacy of unemployment by labor and management and by others. But we are always trying to refine it and improve it and get the additional reporting of unemployment so that we understand it better.

The same thing would be true in job vacancy. I would concur. And as I said yesterday, I would be very fearful that some uninformed people would argue that you can take the unemployment figure, subtract the job vacancy figure from it, and come up with something that would mean anything, or a net unemployment figure. It would not mean anything at all, and I think the experts yesterday all agreed that it would not mean anything, that you would be subtracting job vacancies—a demand for several thousand nurses, for example from unemployed—when perhaps none of the unemployed could ever qualify as nurses. You just cannot on that basis get anything that is valid.

But you can get something that would be of immense help in so many areas of our operations. And I would say that there is no single effort on the part of the Government which is more crucial than education and manpower training, and womanpower training.

And these data would help us so greatly to refine it, improve it, and make it more effective, that I would be very reluctant to see us delay because of a fear of misinterpretation—no matter when you put this into effect, it is going to take a few years before you develop a degree of sophistication and a degree of understanding on the part of the public. Admittedly, there would be some abuse of this, as there is abuse of all statistics. But it would seem to me that the best way to overcome that abuse is to try it, step in and use it, and then refine it further as you go along, recognizing that we have gone as far as we already have trying to come up with valid concepts and definitions.

Mr. GOLDFINGER. Why not do that, sir, over a period of time on a job market basis, and work out a lot of these problems before you move into the national statistical series? Furthermore, you mentioned that this would be very valuable information. Now, I agree that it would be valuable to get this kind of information if we had it. But there are losts of other kinds of economic data and economic information which are lacking.

For example, we in organized labor have been after the Bureau of Labor Statistics for years now to update and refine the city worker's family budget. I believe that at long last they are finally doing something on that.

We in organized labor have been after the Bureau of Labor Statistics for years, and probably for decades, to obtain information on the annual earnings of workers by industry and occupation. There is no such information available in the United States.

And there are all kinds of economic data which are needed. There are all kinds of economic information in which there are gaps. The lack of information on job vacancy statistics is not the only gap.

Chairman PROXMIRE. The Commissioner of Labor Statistics, Mr. Ross, I think we would agree, is a competent expert in the field. And he said yesterday:

> The lack of job vacancy information constitutes the most significant gap in our knowledge of labor market conditions. Statistics on job vacancies would give us a measure of unsatisfied demand for labor which, together with our data on employment, would provide a more complete measure of the demand for labor—something we have never had before.

Now this, coming from Mr. Ross, with the support of Mr. Wirtz, two extraordinarily able and thoughtful men with no ax to grind on any side that I know of, must carry a lot of weight.

Mr. GOLDFINGER. I agree that there is a gap in this area, Senator. There certainly is a gap. And I think we should begin to move toward filling it on a practical basis, of starting out in the development of this kind of information as an operational tool. We in organized labor, however, are much less interested in the statistics as such. We are less interested in the numbers. We are interested in the development of information that would be of assistance for the operation of the employment service, and for the effective operation of the training programs—information that could be used to help the unemployed.

Now, for example, if we wished to get the kind of information that you are talking about, for which there is this gap, there are other ways of doing it too. For example, we could develop an effective nationwide and computerized public employment service, and probably produce this kind of information as part of the operations of a computerized national public employment service. Why do we not do that?

Chairman PROXMIRE. It would cost more than $2.5 million, would it not?

Mr. CREAMER. Senator, would it be in order to enter the discussion at this point?

Chairman PROXMIRE. I think this would be a good time to have a transition to Mr. Creamer. I see that the lead subtopic of your testimony is "The Informational Gap." Why don't we move into your testimony. Mr. Goldfinger is free to comment any time he wishes. And you go ahead and answer any of the questions we have raised or go into the testimony, any way you wish.

STATEMENT OF DANIEL CREAMER, MANAGER, SPECIAL PROJECTS DEPARTMENT, NATIONAL INDUSTRIAL CONFERENCE BOARD, ACCOMPANIED BY JOHN G. MYERS, SENIOR ECONOMIST, SPECIAL PROJECTS DEPARTMENT, NATIONAL INDUSTRIAL CONFERENCE BOARD

Mr. CREAMER. I would like to start out by offering one comment on what I think is the main thrust of Mr. Goldfinger's objection to the Department of Labor's proposed program. He says it should be concerned—and I think Mr. Myers and I would concur in this—that it should deal with individual labor markets. But that is exactly the proposal of the Department of Labor. They have asked for an appropriation to extend their surveys from 16 to 75 or 80 labor areas.

And they want this by particular labor areas, for the very reasons Mr. Goldfinger enumerated.

Now, if it turns out that by adding up the figures for the 75 areas you get something that is representative for all urban United States, I am sure Mr. Goldfinger won't object to that addition.

But their primary interest, as we heard yesterday, is in these program units.

Chairman PROXMIRE. That is correct. But isn't it also true that the 75 labor market areas would be used as a national figure at least on the basis of a projection or estimate or something to provide for——

Mr. CREAMER. It may or it may not. But this would be a spillover. It is not the only use or the primary use.

Chairman PROXMIRE. But at any rate, what you are telling us is that this would not be reported as a national figure for job vacancies, this would be reported simply as a figure for the job vacancies in the 75 markets which represent a certain proportion of the Nation's population, and of the Nation's employment?

Mr. CREAMER. I would hope so. I cannot speak for them.

Chairman PROXMIRE. And if anybody wants to make a projection on the basis of that, they are free to do it, but they could also try to make a projection on the basis of the 16 areas from which they report now, is that right?

Mr. CREAMER. Yes.

I think Mr. Goldfinger does have a legitimate complaint on the point of not having seen the results of their surveys in 16 areas. To my knowledge the first time this would be made public is in Mr. Chavrid's testimony that he presented yesterday. They have been very cooperative with us. And they did make a summary available to us. But it has not been made public.

I suspect one reason—and this is a supposition—why they have not done this is that they have been a little fearful of what Mr. Goldfinger's organization would say about it, the doubts that he raises in the very beginning of his statement, of rushing headlong into a national series and not carrying out all this preliminary investigation carefully.

I think they have been overly timid in making this available for outside scrutiny.

Perhaps Mr. Goldfinger has now dispelled this fear.

Senator PROXMIRE. Intimidate the Secretary of Labor.

Mr. GOLDFINGER. I am all together unaware of that.

Furthermore, if I may break in at this point, which I already have done, I don't know of one single article that has appeared in the Monthly Labor Review, published by the Bureau of Labor Statistics on the concepts of job vacancies, on the definition of job vacancies, or on the possible meaning of such statistics. In fact, I do not know of any continuing work by the Bureau of Labor Statistics on concepts, definition, and evaluation of the pilot studies, in terms of concept and definition. Frankly, I do not believe that they have defined for themselves and explained to the public what they want in the area of job vacancy statistics.

These are some of the problems. As I see it, this is not merely a statistical issue. I have no interest—and organized labor does not have any interest—in the mere creation of another statistical series, another set of numbers. It is the meaning of the numbers which is

important, and the usefulness of the numbers. And unless we get a meaningful, useful series of figures—of tangible usefulness to workers, employers, and the community—then I think we are just wasting the taxpayers' money.

CHAIRMAN PROXMIRE. I do not think you and Mr. Creamer are very far apart.

Mr. CREAMER. No; we are not.

Is a question in order to Mr. Goldfinger?

Chairman PROXMIRE. Certainly, by all means.

Mr. CREAMER. In view of this understanding of what the Department of Labor is proposing, has organized labor given its endorsement to the House Appropriations Committee for this appropriation?

Mr. GOLDFINGER. We have neither endorsed it nor opposed it.

Mr. CREAMER. But in view of this further elaboration, is there a chance of endorsement?

Mr. GOLDFINGER. No, we neither endorse it nor oppose it. I have tried to indicate the numerous problems in this area of job vacancy statistics. In addition we have a real, vital interest and a vital stake in other kinds of economic information, and in other kinds of economic data which have not been forthcoming from the Bureau of Labor Statistics. Unfortunately we live in a world with limited resources and there are limited appropriations.

As I said, we have been knocking on the door of the Labor Department for years to update and refine the city worker's family budget, which I believe is at long last being done. But we have been at the door of the Labor Department for years, and perhaps decades, asking for information on annual earnings of workers, which we do not have. Job vacancy statistics are far from our top priority need in 1966.

Chairman PROXMIRE. You reject the argument that was made by Mr. Ross yesterday that this would be very useful to organized labor?

Mr. GOLDFINGER. It may be useful to some extent.

I can also see some bad results coming about as a result of misinterpretation. The probability of misinterpretation is very great, particularly in the absence of occupational, skill, educational, wage rate, and similar detail, on a job market basis. And I think that——

Chairman PROXMIRE. But labor has nothing to fear from the truth.

Mr. GOLDFINGER. No, we have nothing to fear from the truth.

Chairman PROXMIRE. To the extent that this is not an accurate series, I think the case for labor's objections is enormously strong. But everything I have seen in my public or private career has persuaded me that labor benefits from getting the fullest possible statistics and the fullest knowledge of what the job situation is, and employment and unemployment, and so forth.

Mr. GOLDFINGER. I agree with you, sir.

Chairman PROXMIRE. Why wouldn't the development of 75 instead of 16 markets, and the revealing of both these findings, so that there would be greater public knowledge, why wouldn't this——

Mr. GOLDFINGER. Well, for example, why haven't the results of the pilot studies to date been subject to a very careful evaluation before moving ahead onto a much bigger scale, to a national statistical index? It is this kind of rapid moving ahead into large-scale operations that we question, with the very great danger of misinterpretation

for the purpose of slowing down or cutting back Government expenditure programs.

Chairman PROXMIRE. Mr. Creamer, do you want to go ahead?

Mr. CREAMER. Yes, thank you, Mr. Chairman.

A. THE INFORMATIONAL GAP

Many of the economic problems of the first half of the current decade that have claimed the attention of economists and statisticians had their origin in the persistent high unemployment rate in a period of sustained business expansion. Measuring job vacancies is one of these.

As the evidence of high level unemployment accumulated some were prone to challenge the accuracy of the official count of the number unemployed. To evaluate these criticisms, President Kennedy appointed a Committee of eminent economists and statisticians not in the Government service to appraise employment and unemployment statistics. The Committee was organized in November 1961 and one year later submitted its report, "Measuring Employment and Unemployment" (usually referred to as the "Gordon Committee Report," after its chairman, Prof. Robert A. Gordon). While the Committee unanimously concluded that it "remains highly impressed by the professional qualification and the scientific integrity and objectivity of those responsible for the system of reporting the official data on employment and unemployment," [1] it also detailed ways of improving the information on employment and unemployment.

High on the list of recommendations was one for further research on the feasibility of initiating a program on the measurement of job vacancies. The Committee reached this conclusion after noting that—

> It is doubtful that 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.[2]

Why had the Department of Labor not previously responded to this interest? This is traceable in part to an experience of the Bureau of Labor Statistics (BLS) in the mid-fifties. In response to the urging of the then chairman of the Council of Economic Advisers, Prof. Arthur F. Burns, the BLS actually made a survey in 1956 to determine whether employers maintain records that would be adequate for reporting job vacancies. Of the 102 plants surveyed, 29 had formal records of the number of job vacancies and another 54, without formal records, could give an estimate based on personal knowledge. Although 80 percent of the respondents on the first inquiry could provide the information, the BLS staff members concluded that:

> . . . it would be impractical to initiate a regular mail collection of statistical data on job vacancies. Data resulting from such an attempt would certainly not be comparable in quality to that obtained in our related statistical programs in the manpower and employment field * * *. The principal difficulty is that employers do not keep records of vacancies comparable in accuracy or detail to their payroll records.[3]

With the benefit of hindsight, the conclusion seems based on inappropriate criteria and therefore unwarranted. That is, a statistical

[1] Op. cit., p. 3.
[2] Ibid., pp. 26 and 201-2.
[3] Ibid., p. 279.

series at the outset cannot be expected to meet the quality standards of a long-established series. Moreover, it seems to discount the lessons of previous survey experiences that employers do develop adequate records once they become aware of the usefulness of the information. Skepticism about the usefulness of job vacancy data on the part of some sections of organized labor probably also contributed to the Department's reluctance in recent years to take the lead in some exploratory fieldwork.[4]

At any rate, in fiscal year 1963–64 the BLS was committed only to study foreign experience in the collection and use of job vacancy statistics and to analyze the conceptual problems in defining a job vacancy. I might interpolate here that BLS had kindly made available to us a very fine and extended discussion of the conceptual and definitional problem. But here again—for what reason I do not know, Mr. Goldfinger is right, they have not published it—but they do have this material, and have gone through the analysis in a very competent and diligent way. The Department's Bureau of Employment Security (BES) had no concrete plans for survey work in this field for that year.

In these circumstances, the Conference Board took the view that more progress could be made by a direct attempt to measure job vacancies in a significant labor market.

And this proposal was first made by Mr. Gainsbrugh, the chief economist and senior vice president of the Conference Board, in testimony given to this subcommittee in the spring of 1963, when it was holding hearings on the Gordon Committee report. And it was as the result of Senator Proxmire's sympathetic interest to that proposal that the Conference Board did go ahead late in 1963 and submit an application to the Ford Foundation to support an effort of actual measurement in the labor area of Rochester, N.Y. The Ford Foundation acted favorably on the Board's request in the spring of 1964 and the exploratory project was begun in the second half of June 1964. At that time no other full sample survey was contemplated.[5]

This solitary position was soon overwhelmed by the mounting pressures on and in the Department of Labor for job vacancy data. In addition to the persistence of high level unemployment was the growing realization that the implementation of many parts of a fully articulated manpower program was severely handicapped by the lack of job vacancy data by occupation. Superimposed on the operational needs was the expectation that a continuing series on job vacancies would contribute to a resolution of a policy debate. This was between the "expansionists" and the "structuralists"—that is, between those who argued that excessive unemployment should be attacked by raising aggregate demand and those who argued that it should be reduced by correcting structural imbalances.

[4] For evidence of an essentially negative attitude, see discussions by Marvin Friedman, AFL-CIO Department of Research and Nat Weinberg, United Automobile, Aerospace & Agricultural Implement Workers of America, in "The Measurement and Interpretation of Job Vacancies," a conference of the National Bureau of Economic Research (Columbia University Press, 1966), pp. 132–137 and pp. 463–476 respectively.

[5] Late in 1963, Profs. Robert Ferber and Neil Ford of the University of Illinois initiated a pioneering survey of pilot proportions, in Champaign-Urbana, Ill. Job vacancy and related turnover data were collected monthly between October 1963 and May 1964 from 17 employers. The results have been presented in two articles: "The Collection of Job Vacancy Data Within a Labor Turnover Framework," in Employment Policy and the Labor Market, Arthur M. Ross, ed., Berkeley, 1965, pp. 162–190 and "The Time Dimension in the Collection of Job Vacancy Data" in the Measurement and Interpretation of Job Vacancies, op. cit., pp. 447–461.

Presumably these were some of the major considerations that persuaded the Secretary of Labor in August 1964 to instruct the appropriate agencies in his Department to make a start in measuring job vacancies. The Bureau of Employment Security and the Bureau of Labor Statistics jointly designed a survey and selected 16 labor areas for the experimental program. Thus the Conference Board's survey, which appeared to be a solo effort when it was launched, soon became 1 of 17 surveys. This much more solid experimental base, is, of course, most welcome.

B. POTENTIAL USES FOR ECONOMIC POLICY AND MANPOWER PROGRAMS

What are the potential uses of job vacancy statistics that persuade analysts to embark on the rather arduous task of exploring the feasibility of measurement?

The uses that should be considered are those that would follow from a continuing collection of job vacancy statistics. A single survey or one that is repeated only once or twice can do little more than serve to demonstrate whether a collection program is or is not feasible. Still another distinction is required. The uses of the statistical output of an on-going program will be of one sort if the statistical program is designed to provide only national totals with occupational detail; there will be other uses if the program yields job vacancies by occupations for each of the larger labor market areas as well as for the Nation. The former is examined first.

Analytical and policy uses of job vacancy statistics

The principal analytic problem for which job vacancy data are needed is the determination of the most appropriate policy, or balance between policies, to reduce unemployment without at the same time causing inflation. The balance between the demand for and the supply of labor, and particularly movements in this balance, will help to indicate whether aggregate expenditure can be increased to reduce unemployment without causing inflationary pressure from rising wage rates.

The demand for labor at a given level of wages and at a point in time can be conveniently divided into two parts, the "satisfied demand," represented by the number employed, and the "unsatisfied demand," represented by the number of persons employers wish to add to their payrolls but have not succeeded in doing so. Similarly, the supply of labor at the same wage level and instant is composed of the "satisfied supply," those employed, and the "unsatisfied supply," those seeking work. The "satisfied" portions of demand and supply are identical, by definition, since they are the number employed. We can therefore concentrate on the other components.

The number of job vacancies, appropriately defined, can furnish a measure of the unsatisfied, or excess demand for labor, while the number of unemployed can represent the unsatisfied, or excess supply. The extent to which the two measures offset one another indicates how smoothly the labor market is functioning. The greater the number of unfilled jobs matched by unemployed persons, the poorer the adjustment achieved by the labor market. The simultaneous existence of unfilled jobs and unemployed workers arises from a variety of reasons, such as the migration of industry and of persons,

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technological changes, demographic factors, et cetera. A convenient term to cover the problem is "maladjustment in the labor market." Without job vacancy data, neither the amount of maladjustment prevailing in the economy nor movements in this amount are easily determined.

While maladjustment is measured by the smaller of the number of vacancies and the number of unemployed, at a given level of prosperity,[6] the difference between the two indicates which factor is predominant, demand or supply. For clarity of discussion, let the difference be consistently measured by the number of vacancies less the number of unemployed, which can be positive or negative. If this measure is negative, that is, there are more unemployed than vacancies, and particularly if it is falling (i.e., toward larger negative values), this suggests that an increase in aggregate expenditure will reduce unemployment without undue inflationary pressure coming from wage rates. If the measure is positive and particularly if it is rising, the implication is that manpower policies, designed to increase mobility and to provide training, and increased efforts to improve the placement of unemployed persons are the more appropriate policies to reduce unemployment.

Chairman PROXMIRE. I hate to interrupt you, because there are a lot of things to discuss, but at this point I cannot resist. For my own clarification: you are not saying that you get anything if you subtract from the number of people out of work—the number of vacancies? Because if you say that, as I understand it, you are not making any discrimination as to the kind of vacancies. You might have an enormous number of vacancies for engineers, draftsmen, people in that particular category, and you might have a relatively modest unemployment, but none of the unemployment might be in any position to qualify as engineers unless they had more years of education than they are ever going to get—or as draftsmen. Or you might have a situation in which you have in one part of the country—if you are talking about a national survey here—in one part of the country you might have a vacancy, and in another part of the country you might have a surplus of labor. And you do not really get a very good picture of the situation if you are going to try to get a national figure, because you are just not going to get people to go from here to Oregon to work, or vice versa, or it will be very difficult.

Mr. CREAMER. But, Senator, isn't it important to know the size of this maladjustment? Now, if there is perfect mobility between regions and between occupations, and so on, presumably there would be this complete matching. But we know this does not happen.

Now, it seems to us that it is important to know the size of the maladjustment, and more particularly, is this maladjustment growing or diminishing? If it involves a small number of persons, well, then, perhaps in due course, the usual operations of the labor market will take care of it. If it involves large numbers, and it keeps growing rather than declining, then it seems to me that this may very well

[6] With the same degree of maladjustment, a rise in aggregate demand will draw persons into employment who were unemployed owing to friction, structural imbalances, etc. Thus the number of vacancies offset by unemployed will vary inversely with the level of aggregate demand. While the statement is correct that the degree of maladjustment is shown at the same level of prosperity (or aggregate demand) by the smaller of the number of vacancies and the number of unemployed, a practical measure requires some assumption about the substitution of unemployment for vacancies as aggregate demand is increased. Discussion of the concepts of maladjustment and excess demand may be found in J.C.R. Dow and L.A. Dicks-Mireaux, "The Excess Demand for Labour: A Study of Conditions in Great Britain, 1946-56," Oxford Economic Papers (N.S.), February 1958, pp. 1-33.

signify, or the legitimate inference is, that perhaps we need some new policies to deal with it. And this is, then, in our view a critical indicator of whether it is time to do something about it, and in a very broad way, whether you should act through raising aggregate demand, or through manpower policies, or both, which probably is frequently called for. And that is why we talk about balance between policies, there is a need for indication as to where the major emphasis needs to be.

Chairman PROXMIRE. Maybe you are right on this, I have not had a chance to think this through. But it seems to me the aggregations are not going to be useful on the national basis and the overall basis without having a very careful determination of precisely the kind of occupations you are talking about, and doing it in an area where you have at least a reasonable degree of labor mobility, an area where you have at least a reasonable correction between the supply of labor and the capacity of that labor to be trained, or to move into a particular job. In other words, the overall aggregate figure, without careful qualification, isn't going to be very useful in any way that I can immediately see that we do not already have now. And maybe I am being unfair.

Mr. CREAMER. Again, we do not have it in the sense that it is not quantified. We do not know with any approximate precision the magnitude of the maladjustment.

Chairman PROXMIRE. For example, we had a dispute before this committee a couple of years ago, and Mr. Martin of the Federal Reserve Board told us that in his judgment we could not get below 5-percent unemployment without inflation, because of the structural problems. And you feel that this kind of information would give us a clearer picture of whether or not this would be possible?

Mr. CREAMER. Well, it certainly could make a contribution to the debate. If at the time that Mr. Martin made this statement there were very few jobs going begging, that is, the employers were able to fill all the jobs they had, then it seems clear that something has to be done to increase aggregate demand, so the employers would want to put more people to work.

But if the other situation prevailed, that there were many more jobs that could not be filled, and employers were actively seeking to fill these jobs, and they could not be filled, despite a 5-percent unemployment rate, then this suggests, we would think, that you do need manpower programs to enable these unemployed to acquire the training that is needed to fill these jobs—or there could be quite a variety of programs, they may have to define or redefine the jobs, break them down, and so on. But this could serve as an alerting signal.

Now, I think you are completely right, Senator, when you say you need this other detail. Certainly when you move to particular manpower programs it seems to me you would be completely frustrated in shaping programs without this additional detail. But this detail, or some of this detail, can come out of the job vacancy surveys, plus matching it with information on unemployment.

Chairman PROXMIRE. Mr. Knowles. Mr. Goldfinger wanted to comment on it; Mr. Knowles and then Mr. Goldfinger.

Mr. KNOWLES. Let's go back in time to some actual situation that this Congress and this country faced, when we had to make some decisions, and ask ourselves what we would have done in that

situation if we had the information. Take, for example, 1961, when the Kennedy administration came in. I think if you had the data available then—and I am guessing, but I think this is a good scientific guess—you would have shown that unemployment was far in excess of vacancies for unskilled workers. For the most highly skilled occupation the reverse would have been true, you had more jobs than you had unemployment. And somewhere in between you would have spread all the other occupations. And some of them would have been about in balance. We don't know at the moment which ones of those would have been in which category, but in general this kind of a distribution up and down the skill category would probably have prevailed; if the labor market analysis of the last 50 years is worth anything, it ought to tell us that, though in broad terms you cannot say which would have been where. If you had the data, you would have known what occupations were where, and what skill was needed, and what the quantities were. My question is, would this additional information about which occupations were where on that scale, from one end to the other, plus a knowledge of the magnitude in each one of these steps in the schedule, have told you more for policy purposes than you knew at the time, and that you could do anything with? What could have been done in designing policy that you could not do without it?

Chairman PROXMIRE. You see, this is the kind of information, it seems to me, that is much more valuable in determining Government policy than the aggregate.

Mr. CREAMER. I agree, particularly when you come to programs. We are suggesting this only—why throw away information? You would be getting this information. And it is relevant to judging the magnitude of the maladjustment, and more particularly whether the maladjustment is growing or diminishing.

Mr. KNOWLES. But if you had all of this detail as to quantities and the identification of what occupations were where in that scale in 1961, would you have decided, recommended a different policy than what was recommended to the administration? Would there have been any difference in the recommendation of policy? This is a test of whether it is worth spending public funds.

Mr. CREAMER. Let me say one thing, that this is only one, and I think in our judgment a minor, use—as the statement indicates—of the job vacancies.

Chairman PROXMIRE. Why can't you give an emphatic yes to Mr. Knowles? It seems to me that you would certainly recommend sharply different policies, because you would know the precise area where you would move into manpower training, and the area where manpower training would be useful, and the amount of money you would want to spend on manpower training in a particular area, to a much more refined and useful degree than you would without it, isn't that true?

Mr. CREAMER. I think I have indicated that before, that when you move into any sort of manpower program this is what you need. But to indicate where the emphasis needs to be at a particular point, it seems to me you have to know something about the magnitude and the direction of change in the maladjustment.

Chairman PROXMIRE. Mr. Goldfinger?

Mr. GOLDFINGER. It is precisely the kind of excellent statement by Mr. Creamer that leads me to a negative attitude—much more nega-

tive than my prepared statement, by the way—toward the entire approach of aggregating job vacancy averages.

For example, Mr. Creamer says, the difference between the two aggregates, the job vacancies aggregate and the unemployment aggregate, indicates which factor is predominant, demand or supply. And then he goes on: This suggests that an increase in aggregate expenditure will reduce unemployment without undue inflationary pressure. In other words, the mere matching of these two aggregates should be used for determining our Nation's fiscal and monetary policies. Well, I seriously question this approach. And I am seriously bothered by this aggregate approach.

For example, as you stated or implied, Senator, labor is not substitutable. We are not dealing with numbers, here, of x and y and z and a lot of abstract numbers. We are dealing with real people, human beings with occupations and skill levels and educational levels, with people who may be unemployed and who live in one part of the country rather than in another part of the country. Mr. Creamer may wind up with an aggregate job vacancy statistic which is very large. Yet if we were to have the detail—the occupational, skill, educational, wage, and area detail we may find that, overwhelmingly, the job vacancies are for schoolteachers and engineers and technicians, whereas large numbers of people are unemployed and those unemployed are unskilled and semiskilled industrial and service workers.

However, if we determine our fiscal and monetary policies on the basis of the aggregate statistics, we may prolong the unemployment period and aggravate the unemplyment situation for the unskilled and semiskilled workers, while we do nothing about the shortages that may well exist for schoolteachers, engineers, and technicians. This is one of the problems that bothers me a good deal in this whole discussion of job vacancies.

Chairman PROXMIRE. It bothers me. And I think it is a very good point.

Mr. CREAMER. I think our statement is more careful than has been suggested here.

Whenever we talk about a balance of policies—and in the example that Mr. Goldfinger poses, it seems to me you need both, if you have people who cannot fit into the jobs, you have to have manpower programs that will create this supply. At the same time you may very well have to have fiscal and monetary policies to increase the demand for workers.

So we speak of a balance. And certainly we don't say that this would be the sole determinant of fiscal and monetary policy, we just say it could make a contribution to the sort of balance that seems to be appropriate. And I think that is all we claim, And I don't——

Chairman PROXMIRE. You think that this aggregate point is, as you say, a relatively minor point, in your judgment?

Mr. CREAMER. Yes.

Chairman PROXMIRE. And it is one that we have to guard against. And I am particularly concerned because a man as expert and as competent as you are in giving this weight to this, it seems to me, puts us on guard as to what very influential people of less competence might construe this to mean. If they use aggregates in a way which governs their use of fiscal and monetary policy, it could be quite disastrous.

Mr. MYERS. May I interject a word on the question of policy in 1961, raised by Mr. Knowles?

A decision on the most appropriate policies to reduce unemployment should depend not only on the numbers of vacancies and unemployed in individual occupations but also on the total numbers of vacancies and unemployed. A different combination of policies is appropriate, for example, when total unemployment is much greater than total vacancies than when the two are nearly equal. A tax cut may be the most desirable policy in one situation, an expansion of training and placement activities in another.

(Supplementary material appearing below was later supplied for the record by Mr. Myers:)

THE USES OF AGGREGATE STATISTICS ON JOB VACANCIES

This is an expansion of a portion of the statement "Feasibility and Uses of Job Vacancy Statistics" presented by Mr. Creamer and me. The discussion during the Committee hearings indicated that some clarification of the uses of aggregate job vacancy statistics may be helpful.

We shall begin by indicating some uses we are not proposing. We do not suggest that the total number of job vacancies in the United States be subtracted from the total number of unemployed to get a "corrected" unemployment total. We do not think that such a measure would be meaningful, and such an interpretation of our statement would be a distortion. Secondly, we are not proposing that measures derived from aggregate statistics on job vacancies should be used in automatic rules for policies of the government, such as "if 'X' falls two points, apply policy 'C'." Rather, we are suggesting that aggregate statistics on job vacancies be used as analytic tools to aid in obtaining a better understanding of the operation of the economy. They may serve, among many other measures, as indicators of the condition of the economy and of the direction of its movement, as reflected in the labor market. Finally, we do not suggest that the aggregates should be considered to the exclusion of job vacancy information on specific occupations, geographic areas, etc. We do suggest that the aggregates provide additional and potentially highly useful information to that which would be gained from detailed data alone.

What will aggregate statistics on job vacancies show? Properly defined, such aggregates will show the number of workers sought by employers at a point of time, the unsatisfied or unfilled demand for labor. Further, if an appropriate definition is used in collecting job vacancy statistics, one that is symmetrical to a definition of employment, then informative measures can be obtained by the joint use of the total number of unemployed and the total number of job vacancies.

Such measures will be more reliable, the more symmetrical are the definitions of vacancies and unemployment. The following considerations would go a long way toward obtainining symmetry.

(*a*) The definition should be comparable with respect to job occupancy and lack of employment. For example, a job might be required to be vacant, or unoccupied, to be counted as a vacancy. This would correspond to the requirement that a worker not be gainfully employed.

(*b*) Supplementing the first point, a job vacancy could be defined so as to include only those openings that had been vacant at least one week. This would be comparable to the requirement that a person had not been gainfully employed for the week preceding the survey in order to be counted as unemployed.

(*c*) The starting date of the vacancy should be comparable to the definition used for unemployment. For example, immediate occupancy might be a requirement corresponding to the definition of unemployment which includes only persons immediately available for work.

(*d*) Considerations of wages and working conditions might be included. For example, a job opening could be defined as a vacancy only if it offered *at least* the normal pay at the entrance level of the occupation in question. The corresponding requirement for unemployment would be that the person would demand a wage that would *at most* be the normal pay for the occupation sought.

As first approximations to measures using vacancies and unemployment, to be refined and qualified later in the discussion, two may be set forth. The first is "E," representing excess demand, measured as the total number of vacancies minus the total number of unemployed. The second is "M," representing mal-

adjustment, measured by the smaller of the total number of vacancies and the total number of unemployed, at the same level of aggregate demand. The first measure, E, is proposed as an indicator of cyclical movements in the economy, as reflected in the labor market. The second measure, M, is proposed as an indication of the amount of "friction" in the labor market, or the mismatching of persons and jobs. This mismatching can arise for a number of reasons, of course, some of which will be mentioned later.

Before proceeding to discuss these measures in detail, including qualifications and refinements, it is important to examine the following question: What meaning can be attached to comparisons of total vacancies with total unemployment when the content of the two totals differ with respect to skills and geographic location? Would it be meaningful, for example, to compare an aggregate number of jobs that represented mainly vacancies for engineers, nurses, and school teachers to an aggregate number of persons composed mainly of unemployed manual factory and construction workers, farm laborers, and unskilled service workers? The answer to both versions of the question is yes, when an appropriate interpretation is made.

A comparison between total vacancies and total employment would not imply, for example, that unskilled workers would don white caps and take over the duties of nurses. Rather, it is justified by clearly observable and closely related processes in the labor market: the mobility of workers between occupations, the flexibility of the content of jobs set up by employers, and the mobility of labor and capital between geographic regions.

The processes of labor mobility and flexibility of job content operate constantly in the labor market. The speeds at which they operate depend on the balance between supply and demand, in total and in detail. As workers in an occupation become scarce, the resulting rise in wages and in costs of hiring lead employers to reorganize their operations, changing the content of jobs, making it possible to employ workers with skills different from those associated with the occupation in short supply.

Similarly, workers who find that jobs are scarce in their usual occupation will look for jobs in other fields for which they are qualified or can become qualified. The two processes can be illustrated by the example of a "shortage" of professional nurses and a "surplus" of unskilled workers.

In response to a shortage of professional nurses, they are relieved of more and more unskilled or semi-skilled tasks—making beds, carrying bed pans, taking temperatures, cleaning, etc. Practical nurses, nurse's aides, and porters are hired, and if necessary trained, for these tasks. In this way (a) the care of patients is reorganized so as to need fewer professional nurses and (b) unskilled persons are brought into new occupations (nurse's aides, cleaning help, etc.) and trained to the extent necessary to make them productive.[1]

When job vacancies exist primarily in one geographic region while unemployment is concentrated in another, both workers and jobs migrate in response. The migration is not necessarily done by the unemployed workers nor the unfilled jobs. Some movement of workers from labor surplus to labor shortage areas usually takes place, however, as does some movement of factories, offices, and so forth, in the opposite direction.

The mobility of workers between occupations, the flexibility of job content and requirements, and the geographic mobility of both labor and capital bring meaning to a comparison of total vacancies to total unemployment.

Furthermore, an aid to the interpretation of detailed data on job vacancies by occupation and area, in conjunction with unemployment data, is suggested by a consideration of these processes. There is a danger of interpreting data on occupational structure and geographic location too rigidly, ignoring the mobility of labor, the flexibility of job content, and the like. Specific "shortages" or "surpluses" should always be studied within the larger context of the area or national labor market. Examination of the situation in the larger market may lead to a better solution of specific problems. It may also help to avoid mistakes such as a costly program undertaken to ameliorate a problem that "solves itself" by mobility, reorganization, or a similar process.

The original statement outlining the uses of aggregate measures of vacancies and unemployment stated that these measures could aid in determining the proper balance between two types of policies. The first type is fiscal and monetary policies, designed to bring about more or less rapid expansion of the Gross Na-

[1] See also "Reply" by Charles C. Holt and Martin H. David, in *The Measurement and Interpretation of Job Vacancies*, pp. 137–141.

tional Product, indicating the aggregate demand for goods and services in the economy. The second type is labor market policies designed to make that market operate more smoothly, by improving placement machinery, setting up training programs, and aiding workers to relocate.

It may be helpful at this point to review how a general rise in aggregate demand for goods and services affects the labor market. Employers respond to increased demand for their products and services at first by reducing inventories, to the extent that this is possible. Quickly, they respond by increasing production and thereby increasing their demand for labor input. The demand for labor is, of course, derived from the demand for the goods and services labor helps to produce. Labor employed can be increased in three ways, by increasing hours worked per employee, by hiring unemployed persons, and by hiring persons who were not in the labor force but enter it and take jobs in repsonse to attractive opportunities for employment. As unemployment falls (but less than the rise in total employment), prices, then wages, rise. The extent to which they rise depends upon the extent to which previously employed persons were working short weeks, i.e., were under-employed, the size of the pool of previously unemployed persons, and the number of persons readily drawn into the labor force. It also depends upon the ease with which the last two groups, newly hired, can be trained and put to work in newly-created jobs. This may require migration of labor and capital between geographic areas, as well. When a rise in aggregate demand affects an industry where there were already shortages in specific occupations, the last two considerations become critical.

The primary function of aggregate statistics on job vacancies is, again to provide helpful guides, along with other economic knowledge, to the solution of the question: How can unemployment be reduced and output of goods and services in the economy correspondingly increased in the most efficient manner? It is observably true that unemployment can be eliminated almost completely if the total demand for goods and services rises rapidly enough. In the United States during war time and today in many countries in Western Europe, unemployment has been practically eliminated. This did not occur without cost, however. In every case, rapid price and wage rises have accompanied the elimination of unemployment when this came about primarily through the expansion of aggregate demand. Programs to retrain workers, improve and speed up placement and otherwise increase labor mobility can smooth the reduction of unemployment, helping to achieve the desired goal without inflation.

A hypothetical example may help to clarify the problem. Let us consider two alternatives. In Case A, there are, simultaneously, four million job vacancies in the economy and four million unemployed persons. In B, there are one million job vacancies and four million unemployed. If fiscal and monetary policies were used to reduce unemployment through expansion of aggregate demand, these would be much more likely to lead to rapid price and wage increases in Case A than in Case B. While the number of unemployed in both situations is the same, the degree of maladjustment is much greater in Case A than in Case B. Further, the aggregate demand for and supply of labor are apparently in approximate balance in situation A, while there is a "labor surplus" in B, in the sense that supply exceeds demand by a large margin.

Comparisons of total vacancies and total unemployment lead to the conclusion that it would be better to rely more heavily on labor market policies in A and more heavily on general expansionary policies, fiscal and monetary, in B. A precise, analytic statement of the interpretation of total of unemployment and vacancies has been given by Jacob Mincer. [2] He states that the mix of policies should be that which yields the greatest excess of social returns over social cost. That is, apply labor market policies to the extent that a better allocation of resources is obtained through their use and similarly for fiscal and monetary policies. The knowledge required to translate that statement into a practical aid to the formation of public policy can only, of course, be obtained after much study and the collection of a large and continuing body of vacancy data.

The computation of the two aggregate measures suggested above requires a solution of the practical problem of measuring the degree of maladjustment in the economy, represented by "M." With the same degree of maladjustment, a rise in aggregate demand will draw persons into employment who were unemployed owing primarily to friction, structural imbalances, etc. Thus the number of vacancies offset by unemployed will vary inversely with the level of aggregate demand. While the statement is correct that the degree of maladjustment is

[2] "Comment," *The Measurement and Interpretation of Job Vacancies*, pages 120-127, especially page 125.

shown at the same level of prosperity (or aggregate demand) by the smaller of the number of vacancies and the number of unemployed, a practical measure requires some assumption about the substitution of unemployment for vacancies as aggregate demand is increased. Once an appropriate assumption has been adopted, we can estimate the number of employed that would exist if total vacancies and unemployment were equal, and use this number as our measure of the amount of maladjustment, M.[3] Different values of M will indicate more or less "mismatching" of jobs and persons, owing to structural causes (both skills and location), simple turnover, etc.[4] The adoption of a method of measuring maladjustment permits the computation of the excess demand for labor, E. A meaningful method of computation is as follows: When the total number of vacancies is greater than the total number of unemployed, E is the excess of total vacancies over maladjustment (a positive quantity); when the total number of vacancies is smaller than total unemployment, E is the excess of maladjustment over unemployment (a negative quantity). In this way we will have two measures that will show the following, at any given time: (a) the number of persons that are unemployed owing to the failure of the labor market to function perfectly when the supply of and demand for labor are in approximate balance, shown by M; (b) the degree to which the demand for labor exceeds or falls short of the amount needed to achieve an approximate equality of the demand for and supply of labor.

To return to the hypothetical example given above, we could deduce that maladjustment was 4 million in Case A but only 2 million in Case B, while the excess demand for labor was zero in Case A and minus 2 million in Case B.

Many of the ideas contained in this memorandum and in other writing on the subject, both in this country and abroad, were inspired by an article that appeared in 1956 by the British economists J. C. R. Dow and L. A. Dicks-Mireaux.[5] In their study a measure similar to E was proposed and computed for the British economy. It is regularly published in the *National Institute Economic Review*.[6]

Definitional problems in job vacancy data that are difficult to resolve arise when it is wished to obtain a high degree of symmetry with unemployment. Perhaps the most troublesome are the determination of whether or not a job is "unfilled" and the related question of job openings arising from search for and training of workers in anticipation of growth and turnover. These considerations lead to the suggestion that movements in E be given more attention than the level of E.[7]

The relationship between the variables and the implied policies is summarized in the following diagram.

Changes in vacancy and unemployment measures and public policies

	"E" rising (positive or negative)	"E" falling (positive or negative)
"M" rising	Policy of constraint plus manpower policies.	Policy of expansion plus manpower policies.
"M" falling	Policy of constraint	Policy of expansion.

There are problems in the interpretation of aggregate job vacancy statistics, as well as in the collection of appropriate data. These problems will not be solved in casual discussion nor in newspaper debate, but only by careful study.

[3] For a discussion of this measurement problem see the *Measurement and Interpretation of Job Vacancies*, p. 406, fn. 2.

[4] Robert Ferber has proposed a measure of maladjustment that is more restrictive than M. His measure excludes the frictional element within occupations, areas, or other classifications. It would thus more closely resemble a measure of structural imbalance. See "Introduction and Summary" in the *Measurement and Interpretation of Job Vacancies*, pp. 15 to 18.

[5] "The Excess Demand for Labour: A Study of Conditions in Great Britain, 1946–1956," *Oxford Economic Papers* (N.S.), February 1958, p. 1-33.

[6] The British index is derived from a rather elaborate computation of maladjustment and excess demand, industry by industry. This is necessitated by the British data. Vacancy statistics in Britain are collected through the public employment service and the coverage varies by industry and over time. Dow and Dicks-Mireaux corrected the data by industry, computed an index of excess demand for each industry group, and then combined these to obtain a national total. A published index is available for the period 1948 to date for study in conjunction with other measures of the operation of the British economy and should be of some aid in resolving questions of interpretation of U.S. job vacancy data.

[7] Compare the suggestion of Joan Robinson: "A growing or falling excess of vacancies over unemployed is quite a useful indication, over the short run of the movements of demand, and a drop in both would presumably indicate an improvement in the general conditions of mobility of labor or versatility of management. *Economic Philosophy*, p. 92.

Once a comprehensive body of data becomes available, covering a significant fraction of the U.S. labor market as well as a reasonable time span, we can determine the validity of job vacancy statistics in the uses mentioned above. The promise they hold for obtaining new, valuable information makes such study and the prerequisite collection of data appear to be worthwhile ventures.

Chairman PROXMIRE. Would you say that the suggestion of Mr. Goldfinger that we have a completely comprehensive employment service survey with computers, so that we have a more accurate and perhaps a more reliable basis for judging excess demand, or however you want to put it, would be preferable, disregarding for the moment the cost?

Mr. MYERS. I could offer one piece of evidence which suggests to me that it might not. In some Western European countries with comprehensive employment services, employer surveys are used to get better information on the demand for labor. I mention two countries, Sweden and the Netherlands, where this is done.

Chairman PROXMIRE. What is the relationship between the employer survey and the employment service? Does the employment service bring in 20 or 30 or 40 or 50 percent or is it simply a fringe, 5, 10 percent area? Or is it one checking the other?

Mr. MYERS. The employer surveys do bring in more vacancies than the employment services.

Chairman PROXMIRE. That is very interesting.

Mr. CREAMER. I would also like to suggest that you can bring the horse to the watering trough, but you cannot make him drink. It is all very well to envision a comprehensive employment service in this country. But at this point, and in the foreseeable future, there are many employers who—some for legitimate reasons and some for illegitimate reasons—won't use the employment service.

Chairman PROXMIRE. So in order to have one that is comprehensive you have to have a degree of compulsion?

Mr. CREAMER. Yes; and enforcement.

Chairman PROXMIRE. And how about the cost? Would the cost be very great or not?

Mr. CREAMER. You mean budgetary cost?

Chairman PROXMIRE. Yes.

Mr. CREAMER. I really do not know. But I think, judging by our experience in Rochester, if that is at all typical, there would be some serious social costs.

Chairman PROXMIRE. Your experience in Rochester would be that you feel you could proceed—I do not want to anticipate—you could proceed on the basis of voluntary responses which you think would be adequate and accurate?

Mr. CREAMER. Yes, I think for the next decade or so, if you want this information, that is how you have to get it.

Chairman PROXMIRE. Go ahead.

Mr. CREAMER. Another aspect of the same use is that the two series—job vacancies and unemployment—could serve as an early warning system for impending changes in wage rates as well as in prices because of the ramifying effect of the former. If prices of output and of labor input continue to be determined by the play of forces in unregulated markets, wage rates will tend to rise faster than the rate of productivity increase when the vacancy rate exceeds the unemployment rate and especially if the excess continues to expand. As the data accumulate, it should be possible to determine empirically

at what point the discrepancy between vacancy and unemployment rates signals extra upward pressure on wage rates and output prices. An early signal creates the possibility of invoking fiscal and monetary measures to counter the incipient inflationary pressures. This possibility takes on added importance whenever the U.S. economy has a deficit on its international account.

If the national sample is large enough to provide occupational detail, the series should be helpful to those in the Federal Government who have the responsibility for the formulation of a national manpower program which must include Federal support and general directives for vocational training, retraining, counseling and assisted geographic transfer. The greater the excess of job vacancies over unemployment, the greater is the need for these programs to assist the labor market to perform its function of allocation, so as to minimize inflationary pressures. If certain occupations are important in the roster of job vacancies over a period of time, in particular if they show high vacancy rates (relative to employment in those occupations), this would give some guidance for the selection of training programs. The guidance would be more sure for those programs that can be completed in 24 or fewer months.

Uses at the local level

Equally important in an understanding of what a national series would not accomplish. The Department of Labor, and especially the Bureau of Employment Security, rate placement use of job vacancy data equal to the policy uses. However, job vacancy data at the national level can contribute virtually nothing directly to the placement of the unemployed in the job openings. This required knowledge of a particular opening in a specific location together with knowledge of a qualified applicant. This suggests that implementation of the placement use requires job vacancy data for each important labor market. The national total required for policy uses would then be obtained by aggregating the job vacancies for all the labor markets surveyed.

Even at the level of the local labor market the usefulness of job vacancy information for placement will depend on the frequency of the reports, the speed with which the information is made available, and the efficiency of the placement agencies, both private and public. The first two considerations are organizational matters which surely can be mastered. While a more effective matching of jobs and applicants is more difficult to accomplish, certainly all parties to the matching process—employers, job seekers, and placement agencies—will gain from being better informed about the number and type of unfilled vacancies. This possibility of assisting the placement process constitutes one of the principal justifications for developing job vacancy statistics by local areas. It is, of course, a more costly program than one designed merely to provide national statistics.

Another important justification of local area statistics is the contribution these data could make to the development of guidelines for vocational guidance and counseling at all educational levels in the local area and for training and retraining programs. Since no one labor market is a replica of the national market, national statistics on job vacancies would provide little or no guidance to local authorities charged with these responsibilities. This can come only from the statistics that relate to a local area.

It is only local information moreover that will enable the employers in an area to appraise the outlook for wage rate changes and the outlook for the success of their own recruitment programs. Being forewarned at least creates the possibility of being forearmed. But with the current absence of local job vacancy statistics, few employers have comprehensive information on the number of workers that other employers are seeking for the same occupations he trying to fill. With this information each employer should be in a better position to devise recruiting strategies to accomplish his hiring objectives. This would also be true in the matter of pressure on wage rates in a particular labor market. The same information, of course, would also benefit job seekers.

If the availability of job vacancy statistics helps the formulator of economic policy, administrators of various manpower programs, placement agencies, and last but not least, individual employers and job seekers perform their respective tasks more effectively, the collection of these statistics on a continuing basis certainly deserves serious consideration and exploration. Moreover, experience in the past few decades with newly developed statistical series suggests that many significant but unanticipated uses emerge as the analysts make use of the new data. There is a high probability this would also happen with job vacancy statistics.

Let me say that in all relevant respects that we could determine—the Rochester area seems typical of other substantial labor market areas in the country. I say in summary, we feel that the Rochester area is not atypical of other metropolitan areas in the United States, except possibly in the degree of prosperity which existed there during 1965. The changes in the national employment situation in the succeeding 12 months have rendered Rochester more representative of other metropolitan areas today than it was when we carried out our survey—that is, the rest of the country has caught up with Rochester.

C. PRINCIPAL FINDINGS

Representativeness of the Rochester area

Monroe County, N.Y., was chosen for the NICB survey. The special characteristics or features of the Rochester area are important insofar as they affect the generality of the conclusions that may be drawn from the NICB study. The question is whether or not Rochester is sufficiently similar to other metropolitan areas to permit a judgment on the feasibility of nationwide job vacancy surveys, based on our experience. A search for a "typical" or "average" area is, of course, fruitless. Further, the structure of the labor market and specific vacancy data that may be collected are not pertinent to the question; only the conclusions on survey feasibility.

The county is heavily industrialized and urbanized. Manufacturing of durable goods, particularly in the "photographic, optical, and instruments" industry, is especially important and skilled workers represent a large fraction of employed workers. The area may be further characterized as very prosperous with low unemployment and high average incomes and educational attainment. A detailed comparison of these characteristics for Rochester with those of other metropolitan areas in New York State does not reveal any sharp contrasts, however. Rochester has the highest average family income in

the State and, currently the lowest unemployment rate, but the differences between Rochester and other metropolitan areas are not great and do not indicate that the area is unrepresentative. The occupational structure and the proportion of nonwhites in the population are reasonably typical of the State. The proportion of foreign born in the population is rather high but is the result, in large part, of migration during a period many years removed.

One special characteristic worthy of mention is the presence of a highly developed and effective employers' organization in the area, which aids in placement and other aspects of employment. In summary, we feel that the Rochester area is not atypical of other metropolitan areas in the United States, except possibly in the degree of prosperity that existed there during the first half of 1965. The changes in the national employment situation in the succeeding 12 months have produced a situation where Rochester is more representative of other metropolitan areas today.

HIGHLIGHTS OF STATISTICAL FINDINGS

In each of three surveys in Monroe County, about 400 employers were interviewed. The surveys collected information as of February 12, May 14, and August 13, 1965. Almost all data were collected by personal visits to the employers' offices; all interviews were completed in the 2 weeks following the reference date. This is one difference from the BES survey techniques that relied primarily on mail canvass.

The following findings are the ones most relevant, in our judgment, to the committee's discussion:

1. The definition of a job vacancy—an unfilled job that an employer is actively seeking to fill by hiring a person from outside his organization—is operational, is understood by employers, and elicits reasonably accurate responses. Equally important, the Rochester employers have clearly demonstrated their willingness to respond to a voluntary statistical reporting program on job vacancies—the response rate was 99 percent.

2. Total number of vacancies in the county was estimated at about 8,000—and there is little variation for the three dates—approximately 3 percent of all jobs, filled and unfilled. In the mid-May and mid-August survey this number and rate exceeded the unemployment rate.

3. A sample of 400 employers, selected from predetermined ratios of employers of different sizes, is adequate to provide reliable estimates of the total number of vacancies.

4. The vacancy rate, or proportion of jobs unfilled on the survey date, did not differ greatly between firms of different size.

5. The classification of the occupational titles supplied by employers into the standardized classifications of the Dictionary of Occupational Titles is practicable.

6. I might mention here—this is another difference in the survey schedule—the Conference Board schedule did ask for each employer to indicate on each unfilled job which he was seeking to fill the minimum acceptable education, and the minimum acceptable related job experience. This was not attempted on the BES schedules.

From 36 to 45 percent of all vacancies, depending upon the survey month, were open to those without a high school diploma.

7. From 14 to 25 percent of vacancies were available only to persons who were college graduates. (The rather wide range results from seasonal variation in vacancies for schoolteachers.)

Now, here is another difference in our schedule. We asked not only for job vacancies with immediate starting dates, but also job vacancies with future starting dates. The BES restricted theirs only to immediate starting dates.

And I am pleased to note in Mr. Ross' statement that in their proposal for new work they are planning to include future starting dates as well.

Chairman PROXMIRE. How much difference does this make?

Mr. CREAMER. Well, of the 8,000 I think roughly 1,000 were for future starting dates.

Is that about right, John?

Mr. MYERS. It varies widely. It was quite high in February, and low in August, because of schoolteachers, primarily.

Chairman PROXMIRE. But overall it is about 12 or 15 percent?

Mr. CREAMER. In Rochester for that year the percentages were 35, 16, and 14 for the 3 survey months.

What it catches in large part are those seeking to hire college graduates, university graduates, and high school seniors. And these would not be caught if the survey is restricted solely to immediate starting dates.

And of course, by tabulating these openings separately by immediate and future starting dates you can retain symmetry with the unemployment definition. If you do want symmetry for total vacancies (immediate and future starting dates combined), this calls for redefining the labor force. But this is aside——

Chairman PROXMIRE. I think it destroys your symmetry, doesn't it? If a college student expects to go to work after he graduates, he is not considered as part of the labor force or unemployed if he is in college or still in high school. On the other hand, if you are going to have future starting dates you exaggerate your vacancies, inasmuch as you do not expect to fill them, and they are not going to be available until the student has finished school.

Mr. CREAMER. That is correct. And therefore, we tabulate the two separately, so that you have job vacancies with immediate starting dates. Now, that is symmetrical at that point with the unemployment.

In addition, it seems to me you are needlessly throwing away information if you exclude job vacancies with a future starting date.

Chairman PROXMIRE. They are segregated?

Mr. CREAMER. Yes.

My only point is that for this total number of job vacancies, if you wanted symmetry, you would have to define the labor force concept. Now, this hiring for future starting dates is a form of pressure on the labor market, and it seems to me some count should be made of it.

Chairman PROXMIRE. Mr. Goldfinger.

Mr. GOLDFINGER. I have a question.

To what extent are these future job vacancies related to seasonal employment kinds of occupations and casual labor type of occupations?

Mr. CREAMER. Some of it is seasonal. We found in our February survey that there were a large number of workers that were needed in the construction industry. It seemed to us that the construction contractors were anticipating their labor needs for the spring pickup in construction.

Mr. GOLDFINGER. To what extent are those actual job vacancies? For example, if a building contractor says that he is going to have openings, let's say, for 10 pipefitters and 12 sheetmetal workers on July 1, is that a job vacancy, today, or isn't it?

Mr. CREAMER. If he is willing to enter into a commitment. He may know that he gets his contract with a certain starting date, and he has to prepare in advance to staff up. And if he is ready to enter into an employment commitment, we counted it as a vacancy, but with a future starting date.

Chairman PROXMIRE. If he is willing to, or he did enter into a contract?

Mr. CREAMER. If he did, it is not a vacancy. It is if he is willing to. He has already filled it if he has already entered into a contract.

Mr. GOLDFINGER. I would suggest that we have come upon an additional kind of problem, and that without some real depth and knowledge about the hiring and employment practices in a particular industry, we are in a kind of never-never land. In the case of the construction industry, is that a job vacancy or isn't it? This contractor who is going to have a need for 10 pipefitters on July 1 may have informed the union, or whatever other source he uses, that on July 1 he will need 10 pipefitters. He will probably get them on July 1. This is not an unfilled job today. It undoubtedly will not be a job vacancy on July 1. Or is it? How can you be so sure?

Representative CURTIS. Sure it is, people are unemployed, and these jobs are vacant, and will be available.

Mr. GOLDFINGER. But it is not vacant today, sir. And it probably will not be vacant on July 1. This is in the nature of the construction industry. What I am suggesting is that there is a problem here. Unless we know, in some kind of depth, the practices of the industry and of the occupation—particularly in seasonal and casual labor occupations—we may be getting numbers that are of questionable meaning. I have no interest in numbers for the mere purpose of having another statistical series.

Representative CURTIS. I agree that you have to go into depth in many of these things. And you are rightly pointing out some of the difficulties. But you have got a great deal that lies within the center here, which this paper is pointing up to. I think your remarks are quite appropriate.

Mr. CREAMER. Certainly more is needed. And this in a sense brings you to the seasonal correction factor. But to know how to develop a seasonal correction here you have to have surveys over many years. And in order to have surveys over many years you need a congressional appropriation that is adequate to the job.

8. About 50 percent required no related work experience. (However, a large proportion of these required the completion of at least 12 years of schooling.)

9. A large proportion of the openings with comparatively low educational requirements required related work experience.

10. From 16 to 22 percent of all vacancies required neither high school graduation nor related work experience. However, a large proportion—59 to 63 percent—of these were in unskilled and service occupations.

11. Of those job vacancies reported as of mid-August 1965, 27 percent had been open at least since mid-May, that is 3 months or

more, and 12 percent had been open at least since February, or 6 months or more. This is one possible measure of the magnitude of hard-to-fill jobs.

That is, from our preliminary conversations with several dozen employers in the Rochester area before we undertook our formal survey we tried to determine how accurately they could answer this question on the duration for which the vacancy had been unfilled. And we found that they could not give you very good answers without their doing a good deal of work on their own files. And we thought this might handicap the course of the survey if we asked for this information. So we did not.

But if you have what is known as a shuttle schedule, that is, the information for the preceding quarter for each particular job is given along with the information for the current schedule, you can determine, then, which jobs had remained open. And that is what we did in our August survey. After we got the information of the number of job vacancies on August 13 we then asked how many of these jobs had been open in May when we called on him, and in February. And the interviewer had the schedule with him. And he could check it out.

Representative CURTIS. You are now going on to the next topic?

Mr. CREAMER. Yes.

Representative CURTIS. Could I ask just this one point.

You didn't make any—this is not said in the way of criticism, I am just trying to find out—you didn't make any attempt to find out what had created the job vacancy?

Mr. CREAMER. No, we did not. But I might say that with the help of a research contract from what was called the Office of Manpower, Automation and Training a couple of weeks ago—I understand now it has another name—we are looking into that aspect of it this coming year. And Dr. Myers is engaged in trying to determine what analytical value job vacancy data have in analyzing the operations of a local labor market.

Representative CURTIS. These data that you have presented here are very intriguing, and suggest something that I have concluded. Let us say that company X—and this relates really to some of the problems that I think Mr. Goldfinger was directing our attention to—company X has a job vacancy created as a result of retirement, let's say.

Mr. CREAMER. Yes.

Representative CURTIS. Well, this is a higher skilled job, and probably what the company will do is promote from within. There will be a shift upward, so that the job vacancy is at the lower echelon. The statistics seem to indicate that there is this feeding in process. I do not know.

Mr. CREAMER. Very definitely.

Chairman PROXMIRE. As long as we are on this, did you have any chance to compare your findings with those of the study that was reported yesterday by Mr. Chavrid?

Mr. CREAMER. Yes, we have. And it does form part of chapter 4 of the full report that the committee has.

Chairman PROXMIRE. The reason I asked is because he has such a terrific disparity in some of these areas. For example, in Minneapolis-St. Paul, as I recall, only 30 percent of the jobs were hard to fill, and in other areas as high as 90 percent were, indicating to me that there was a great difference in the way the questions were asked, or

the way the responses were secured. With such a discrepancy you certainly could not take the Rochester findings and project anything on a national basis.

Mr. CREAMER. No.

Chairman PROXMIRE. All you could do was to say there is what the situation in Rochester was at the particular time.

Would you agree that this would apply to each of your findings here, each of your 10 points, that you cannot make a projection that 20 percent required new work experience?

Mr. CREAMER. No, this varies with the industry structure, which again determines the occupational structure, which again determines the relative difficulty of filling jobs.

Chairman PROXMIRE. Do you think your mail questionnaire approach instead of direct interview has resulted in any difference in your findings?

Mr. CREAMER. Yes; I think so, at the exploratory stage.

Chairman PROXMIRE. A direct interview would be more satisfactory?

Mr. CREAMER. Yes; and on this very point that you mentioned, one reason why they got this large variation in the percent—in the duration of jobs—I am sorry, did you mention the duration of jobs?

Chairman PROXMIRE. Yes; as hard to fill.

Mr. CREAMER. Yes; and they based that on the duration.

There is ambiguity in the way they put the question. Many employers didn't know whether they were referring to how long the job they were offering would be in being, that is, whether it was a temporary job, or a regular job from year to year.

Chairman PROXMIRE. If they make that kind of a mistake, it is really a distorted picture.

Mr. CREAMER. This certainly happened in the Buffalo survey that you mentioned. And for some reason or other they didn't improve the wording of that question in the 16-area survey. So I am very sure that this explains a good deal of that variation.

Well, my point is, with the interview it is easier to catch these misinterpretations of the questions and correct them, and therefore, eliminate that source of error, or come closer to eliminating it.

Representative CURTIS. Could I come back just a minute to the reasons for job vacancies? I was just jotting down for my own information the kind of things that would create a vacancy. Retirement is one. And I would probably include escalation, where you would not be filling the actual job from which the person retired. Quits, of course, would be the other. And we have national statistics on quits, which is very interesting.

Mr. CREAMER. Yes.

Representative CURTIS. And expansion of the particular industry could be a local expansion, or it could be in the nature of the national trend in that industry.

I included automation. Jobs are destroyed by automation all right, but new jobs are created. They take on more data processors, for example.

Am I missing some big categories of the cause of job vacancies?

This covers normal turnover. I do think that industries vary in the rate of turnover. There seems to be a turnover from normal

63-947—66——10

circumstances, and probably a rate to be reached at. But have I missed some major areas that cause job vacancies?

Mr. CREAMER. I think Mr. Myers ought to answer that, since that is what he is working on.

But I might just say that we try to subdivide the expansion into two parts, one which you might consider a cyclical pickup or recession, and sort of a longer term growth.

Representative CURTIS. Yes; during the period of a cyclical pickup you would have the same industry filling more job vacancies resulting from that kind of expansion. I have put down, of course, the expansion more in the nature of technological advancement, and then I have broken it down further on automation.

Mr. Myers, would you comment?

Mr. MYERS. I believe you covered all the categories we have, Mr. Curtis.

Representative CURTIS. If it is limited to that maybe it would not be too difficult to get information on what has created the vacancy, which I would think would be quite revealing.

Mr. CREAMER. Yes; that is why we applied for this assistance to carry out this particular project.

Representative CURTIS. Thank you, Mr. Chairman.

Mr. CREAMER. We have estimated the cost of a continuing, quarterly job vacancy survey from our experience in the Rochester area. The estimates are for the collection of data in the 146 major metropolitan areas of the United States with a labor force of at least 50,000 persons; the estimates assume that the survey has passed the initial stage of organization, planning, and training of personnel. For a mail survey we estimate an annual cost of $7.1 million.

Chairman PROXMIRE. I believe at one point I asked either Mr. Chavrid or Mr. Ross what would be their estimate of a comprehensive and adequate survey. And I think they said around $5 million.

Mr. CREAMER. I see.

Chairman PROXMIRE. That does not mean that it would have to be 146 major metropolitan areas, maybe this can be less than that.

And as I understand, the two and a half million would be for 75 to 80 labor markets.

Mr. CREAMER. Yes.

For an interview survey, $9.5 million. As stated in the section on recommendations for future surveys, we believe that it will always be necessary to visit some employers personally in order to obtain accurate data. An approximate estimate for the continuing collection of accurate data is thus $8 to $8.5 million per year. To get a basing point here, I might indicate that I am told that the budget for the current population survey on the unrevised basis, that is, the 35,000 household basis, is $3 million-plus a year for all the surveys, tabulating, and analysis.

Now, this, of course, provides a monthly reading of current employment status. But it yields only national totals. You have no regional or particular labor market totals. So this 7 or 8 million that we are estimating has to be read against the fact that you will be getting a fairly detailed count of unfilled jobs by occupations for 146 specific labor areas in addition to national and regional totals.

The uses of job vacancy statistics for analysis and policy decisions at the national level have already been mentioned above, as well as

the value of such data for indicating the national need for manpower and accelerated placement programs. Less publicized uses in local areas are for placement, manpower planning (both by community organizations and employers), and generally to increase the knowledge available in local communities on the state of the labor market. In an attempt to learn some of the dimensions of such uses, we asked all employers responding in our surveys, as well as about 60 schools and other community organizations in Rochester which had received summaries of each of the 3 surveys, about (*a*) the value of our surveys at the local level and (*b*) the specific uses to which the data might be put.

Slightly less than one-fifth of all employers (but nearly one-third of those employing 250 or more) stated that job vacancy data would be of direct use in their own operations. However, as many as 72 percent believe that it would be valuable to community organizations. That is, while the information was of direct use to a modest minority of employers, most thought that training, guidance, and other labor market functions could be accomplished more effectively with the aid of job vacancy data than without. The community organizations, including schools, concerned with manpower planning and training stated emphatically that job vacancy data were useful in carrying out some of their program objectives.

Chairman PROXMIRE. If it is useful to the community, is there any consideration given, or do you think Congress should give any consideration to sharing the cost, requiring the community to pay a third of the cost, or part of the cost?

Mr. CREAMER. I had not thought about it, Senator.

Chairman PROXMIRE. Are you recommending any particular amount? I take it that you support the $2.5 million appropriation that the Department is asking?

Mr. CREAMER. Definitely; yes.

Chairman PROXMIRE. And you feel that on the basis of what we discover here we should decide whether or not to go ahead with the more expensive program, the 146 market areas; is that right?

Mr. CREAMER. Yes, I would think so.

Chairman PROXMIRE. You are not recommending that at the moment, you are just giving us an estimate?

Mr. CREAMER. No. But I think a jump to 75 would certainly be a big step forward, and probably no more is called for at this time.

Chairman PROXMIRE. The 75–80 would be sufficient?

Mr. CREAMER. Yes.

Senator PROXMIRE. That would give us what proportion total employment? A big proportion, much more than half, wouldn't it?

Mr. CREAMER. Yes, I would think so. I have forgotten what proportion of the total the 16 areas represented.

Chairman PROXMIRE. Then we would be discriminating against the smaller markets, I suppose?

Mr. CREAMER. Not necessarily. The small markets could be represented in the selection of the 75 to 80 areas.

I would like to elaborate one point here, the fact that the percentage of employers finding it directly useful to them came to somewhat less than one-fifth. In this respect, I am sure Rochester is not typical. It has an organization called the Industrial Management Council to

which most of the large companies belong, and mostly the manufacturing companies.

Now, the personnel managers of all associated companies meet weekly to exchange information on layoffs and hiring needs. So that they have—they already have a good deal of this information from these weekly meetings. However, it seems that the Rochester employers have had some second thoughts on the usefulness of job vacancy data. And if it is agreeable, I would like to read into the record excerpts from two letters received from the manager of the Industrial Management Council of Rochester. He had written to us after receiving our preliminary draft of the report, saying—this is under date of May 3:

> You will be interested to know that we in the Industrial Management Council plan to continue job vacancy surveys on a quarterly basis among our member firms. This means, of course, that our surveys will be limited to manufacturing firms.

Chairman PROXMIRE. What area would this encompass? Do you think that while it might be of less use to Rochester to have this kind of study in Rochester, as long as they have this kind or organization it might be very useful if they would get a region-wide notion, so that the communities that are maybe 30 or 40 or 50 miles away, in computing distance, might provide information also, so that labor which might be available in one area could move into another, and vice versa?

Mr. CREAMER. Yes. Of course, this probably calls for intervention or coordination at the Federal level to achieve this.

Chairman PROXMIRE. One other question here. Is this one-fifth all employers? Employing what proportion of the labor force? You say one-third of those employing 250 or more. Would it be half or more of the labor force? In other words, the big employers in many towns—for instance, in Kenosha, Wis., one employer, American Motors, employs a very big proportion of all who work.

Mr. CREAMER. It is not that concentrated in Rochester, but Eastman Kodak is located there.

Chairman PROXMIRE. The very large employers, have they indicated that they would find it useful, or not?

Mr. CREAMER. The highest percentage of affirmative answers on this question came from the medium-sized companies. But as I say, this second thought seems to suggest that the large companies now think it worthwhile, and they want to continue it on their own.

Representative CURTIS. Could you give us an estimate of the Rochester labor market? What percent of the jobs are in manufacturing and how many are in, say, service and distribution, including education and Government employment?

Mr. CREAMER. We have that in our final report. And Mr. Myers is looking it up.

Representative CURTIS. It would be interesting to have that figure, because nationally the service and distributive area has been increasing much more rapidly than employment in manufacturing. And in manufacturing itself the national trend shows a shift from blue collar to white collar, which is another important trend.

Mr. CREAMER. Yes. Well, these trends have appeared in Rochester. If you compare the 1950 census of occupation with the 1960, you do find this.

Mr. MYERS. In August of last year 53 percent of the vacancies were in manufacturing.

Representative CURTIS. And what is manufacturing as a percentage of the employment in Rochester?

That would give us a pretty good indication.

Mr. MYERS. It is approximately the same.

Representative CURTIS. In other words, this conforms to the full labor market?

Mr. MYERS. Yes.

Representative CURTIS. That is very interesting.

Mr. CREAMER. On the point of usage, I would like to read from another letter from the manager of the industrial management council. On the receipt of its first letter, I asked his permission to present it to the committee if the occasion arose. He writes then on May 11:

> I was interested in the fact that John and you are to appear before the Subcommittee on Economic Statistics of the Joint Economic Committee relative to the feasibility and usefulness of job vacancy information. Certainly there should be no doubt as to the usefulness of such information.
>
> Since you completed your survey of the Rochester area we have had many occasions to use the statistical data that your survey provided. Such information has been particularly useful with our area educational institutions and with agencies and employers interested in manpower development programs. We would have no objection to your introducing our letter indicating that we intend to continue job vacancies surveys among our member firms.

Chairman PROXMIRE. It would be helpful if we could get some further and more specific information from the schools, and so forth. You raise a helpful point here, that it appears to be not the employer alone who would benefit, but the worker and the school which would train him.

Mr. MYERS. And then indirectly the employers.

Chairman PROXMIRE. However, we do not have the kind of evidence before us right now that supports that as much as I think the committee should have. So that if you can get a little more information, that might be helpful too—if the schools, in other words, could indicate why they say that, if they have instituted programs, and so forth.

Mr. CREAMER. Senator, we submitted a questionnaire to 60 community organizations. About 40 of them I think were schools. This is the same group to whom we sent a summary of each of our three surveys. So they had some idea as to what was in it, and presumably had found out what was useful to them in the 5 or 6 months over which this operation took place.

Now, as I said, we sent this opinion questionnaire to them.

This is analyzed in our final report. And we would be happy to submit for the record that part of the report that analyzes these answers.

(Material referred to follows:)

SUMMARY OF OPINIONS OF EMPLOYERS AND COMMUNITY ORGANIZATIONS ON LOCAL USES OF JOB VACANCY DATA

At the outset some of the potential uses of a continuing survey of job vacancies were mentioned. How much of these potentials can be realized must wait upon the experience with a regular reporting program. In the meantime, however, it has been possible to proceed a few paces beyond the speculations of the research analysts on certain of the hoped-for benefits. This is accomplished by reporting the opinions of those in Rochester who received the survey results.

These are several facets, at least, to the idea of usefulness of job vacancy statistics. One facet is its usefulness for manpower programs in specific labor areas—job placement, vocational guidance, counseling and training, and, for employers, short-run manpower planning. Still at the local level is the analytical usefulness of these statistics in furthering the understanding of how a specific labor area functions. At the national level its usefulness turns largely on what these data can contribute to the formulation of economic policy for promoting economic growth with minimal short-term fluctuations. Here the contribution might well be in matters relating to timing and direction of specific changes in monetary and fiscal policies as well as in the more precise articulation of a federal manpower program. Our own opinion survey was directed exclusively to the views on the usefulness of job vacancy data for local manpower programs—those of particular employers and community organizations. The opinions of employers and community organizations, mostly schools, are presented separately.

The results of each of the three surveys, as previously noted, were summarized and copies were sent to each of the respondents and to about 60 schools and community organizations in Rochester but not in the survey sample. Late in October 1965, after the results of the August survey had been circulated, this group of nearly 500 was sent a questionnaire entitled "Opinion Survey on Usefulness of Job Vacancy Statistics." The substantive paragraphs of the covering letter noted:

"By this date, you have received summary reports on three surveys of job vacancies (February, May, and August) in Monroe County. These surveys are part of an exploratory effort to determine the feasibility of a permanent reporting program. Because of its experimental character and national importance, our study has had the financial support of the Ford Foundation.

"The next stage is to prepare a report on our conclusions and recommendations on the feasibility of a permanent program. In this connection it would be most helpful to have your opinions, based on your reading of the three summary reports. We would be obliged therefore if you would be good enough to fill out the brief questionnaire that is enclosed. A stamped, addressed envelope is also included for your convenience.

"Needless to say, your frank views are being solicited. Please be assured we do not take offense at criticism."

OPINIONS OF EMPLOYERS IN JOB VACANCY SAMPLE

The questionnaire was mailed to 405 respondents and 183, or 45 per cent returned usable schedules with one follow-up effort. In general, the larger the company the higher was the percent returning the questionnaire. When the usable schedules are weighted by August 1965 employment, the replies cover two-thirds of total employment of sampled employers.

Number of employees	Number of questionnaires		Percent returned	Respondents employment [1] as a percent of total employment
	Mailed	Returned		
0 to 9	112	32	28.6	27.4
10 to 19	39	11	28.2	28.0
20 to 49	51	18	35.3	35.9
50 to 99	35	20	57.1	57.2
100 to 249	52	30	57.7	58.3
250 to 999	82	55	67.1	67.9
1,000 to 2,499	18	11	61.1	59.2
2,500 or more	14	6	42.9	68.4
Total	405	183	45.2	65.7

[1] Based on employment in mid-August 1965.

The first item attempted to determine how many read the reports and with what care. It was phrased as follows:

"1. You have participated in our surveys in Monroe County and received our reports summarizing the results of each survey. Please indicate, by checking the appropriate boxes, whether or not you have read the reports.

	1st report on February survey	*2d report on May survey*	*3d report on August survey*
Have not read the report	☐	☐	☐
Have read the report—			
Carefully	☐	☐	☐
Casually	☐	☐	☐

If the four respondents who failed to answer question No. 1 are excluded, 179 returned an answer. Since each employer received three reports, the maximum number of reports to be read was 537. Of this number, 53, or 10 per cent, were not read. Fifteen respondents, accounting for 45 of the 53 reports, said they read none of the three reports. About one-quarter of the reports were read carefully and nearly two-thirds casually. The answers classified by the size of the respondent (size measured by number employed in August 1965) is revealing. The per cent of respondents in each size-class that read at least one report carefully rises sharply as size of firm increases—from 10 per cent for those employing less than ten persons to 77 per cent for those employing 1,000 or more. Of the 15 who read none of the reports, 8 were firms employing less than 10 persons and no firm employed as many as 250.

Number of employees	Number of reports read			Number of respondents	Percent reporting at least 1 report read carefully
	None	At least 1 but none carefully	At least 1 carefully		
0 to 9	8	20	3	31	10
10 to 99	5	32	11	48	23
100 to 249	2	17	10	29	34
250 to 999	0	24	30	54	56
1,000 or more	0	4	13	17	77
Total	15	97	67	179	31

This suggests that the small employers, though they are characterized by the highest job vacancy rate, have little need for manpower planning because of the smallness of the absolute numbers of unfilled jobs. Having no felt need, they have little interest in, and probably still less time for, reading the results of a job vacancy survey. On the other hand, the larger employer—those with a labor force of 250 or more—are more apt to have a personnel office with a professionally trained staff with the need, interest, and time to acquire job vacancy information.

The employer's opinion on the usefulness of the survey data was given in response to the following set of three questions:

"2. If job vacancy information were collected each quarter on a continuing basis and statistics on job vacancies by occupation made public within 30 days following the survey date, do you think the information would be useful—

(*a*) to you in the day-to-day operations and planning of your organization?

Yes ☐ No ☐

If yes, please specify how:

(*b*) to community organizations concerned with manpower planning or training?

Yes ☐ No ☐

If yes, please specify how:

(*c*) for another purpose?

Yes ☐ No ☐

If yes, please specify:

(A) DIRECTLY USEFUL TO EMPLOYER

There is a clear and positive association between the per cent answering yes and the degree of care in reading the reports. For example, all fifteen who read none of the reports consistently replied that the survey would not be useful in their own operations or were undecided.[1] One-eighth of those who read at least one report, but none carefully, responded in the affirmative compared with slightly more than one-quarter of those who read at least one report with care.[2] Whether the reading persuaded some to answer with a yes or whether they read the reports because they had already reached this conclusion cannot be determined from these data. Of the 170 responding to this question, 18 per cent answered "yes," and 82 per cent "no." There is virtually no difference in the proportions when the yes and no answers are weighted by August 1965 employment.

Useful to employer	Reading of reports					
	None		At least 1 but none carefully		At least 1 carefully	
	Number	Percent	Number	Percent	Number	Percent
Yes	0	0	21	13	18	28
No	12	100	81	87	46	72

Nonetheless there is some association between size of firm and an affirmative answer. This was implicit from the other relationships between firm-size and care in reading and between care in reading and affirmative answer. No firm employing less than 20 persons reported a "yes;" 11 per cent of those employing 20 to 249 replied in the affirmative; and of those with 250 or more nearly one-third reported that the job vacancy data were directly useful in company operations. However, among the latter a relatively higher proportion were in the size-class 250 to 999 employees.

The distribution of affirmative replies by industry largely reflects the correlation between industry and size of firm. Thus nearly 30 per cent of the manufacturing firms returned a yes answer compared with 10 per cent of the trade firms, 8 per cent of the service employers, and none in construction.

Of the 30 employers answering yes, all except two responded to the request to specify how job vacancy data would be useful in the operations of their organization. Aside from a handful of miscellaneous uses, the specific uses may be grouped under two general headings:

1. *Better informed about labor market when seeking employees.*—Alternate phrasing of same general idea:
   - Indicate supply shortages
   - Show employment conditions
   - Indicate expected competition for particular jobs
   - Provide a "feel" of the labor market
   - Show trend
   - Estimate competition to be met in securing labor
2. *Planning and recruitment.*—Alternate phrasing of same general idea:
   - Adjust recruitment to conditions
   - Show need for developing alternative plans for filling vacancies
   - Would help decide how to fill vacancies
   - May show need to revise job qualifications
   - Provide a better idea of area needs
   - Training programs
   - Planning and timing of reductions and additions to staff
3. *Miscellaneous.*—
   - Indicate whether vacancies in one firm are common to others
   - Indicate occupations where automation should be considered
   - Union negotiations
   - Could assist in bringing workers in shortage occupations to Rochester

[1] Those returning a schedule but not answering this question are entered as n.a. and interpreted to be undecided.

[2] The undecided are excluded from the totals in computing these percentages.

With one or two exceptions, these appear to reflect genuine uses and can be taken to be fully responsive. Why then did not more employers, at least among the larger ones, report an affirmative answer? For some the exposure to this information may have been too brief for them to realize its possible uses in company operations. Others may be obtaining much the same information in another way. In this connection, it is relevant to recall the role of the Industrial Management Council (IMC) in the functioning of the Rochester job market.

In chapter 2, it was suggested that the weekly meeting of personnel managers under its auspices might render the job vacancy survey data of little use to these member companies. For this reason the opinions of members of the IMC and nonmembers are shown separately for the manufacturing companies who comprise the vast majority of IMC membership.

	Total	Percent answering	
		Yes	No
Manufacturing firms with membership in IMC	27	37	63
Other manufacturing firms	35	23	77

Actually a higher percentage of the IMC members returned an affirmative answer than did the non-members. However, the latter tend to be the much smaller firms. Even so, it is quite possible that most of the 17 IMC firms answering with a "no" may well have responded "yes" if the weekly meeting of personnel managers were not held.

(B) USEFULNESS TO COMMUNITY ORGANIZATIONS

The preponderance of employer opinion swings sharply in the other direction when the usefulness of job vacancy data to community organizations is the question.[3] Of the 179 respondents, 34, or 19 per cent, did not reply to this particular query but of the remainder of those that did reply, 72 per cent expressed the view that job vacancy data would be useful to community organizations for a variety of purposes.

The specific uses enumerated conform closely to the expected uses as set down in Chapter I. Seventeen respondents, for example, specified the use of these data "to indicate areas of continuing shortages as guides to programs." Another 15 expressed much the same view by saying this information would help "to adjust training programs to community needs," including programs for "unemployable" and dropouts. Some particularly stressed the use of these data in vocational planning in schools. Others emphasized the assist given to job placement: "helping high school students;" "show the individual where he may be needed;" "unemployment boards would know there are jobs available;" "indicate jobs requiring little education and experience" and this information would "help employment agencies, public and private."

Several noted administrative uses. The number of unfilled jobs and persistence of particular shortage occupations could serve to evaluate the effectiveness of current manpower programs. The same sort of data could also be used to support the need for expanded manpower programs. And one, obviously with training in economics, mentioned that such information could "show the need for higher pay in 'tight' occupations."

OPINIONS OF SCHOOLS AND COMMUNITY ORGANIZATIONS NOT IN JOB VACANCY SAMPLE

For the most part the opinions just summarized are those of employers in private business and reflect their views on how other organizations—schools and other community organizations—could use job vacancy information reported on a regular basis. Even more pertinent, however, are the opinions of the schools and organizations themselves. The articles that summarized each of the three surveys were mailed as each was published to 62 organizations in the Rochester area deemed to have an operational interest in this information. The same roster was asked to respond to the opinion questionnaire. Exactly half returned schedules and 25 of the 31 were from schools. As many as three-fourths read all three reports

[3] The responses to 2b and 2c are combined since the specified uses in both parts are similar. Apparently our distinction on the questionnaire between community organizations concerned with manpower planning or training and other purposes was not meaningful.

and all read at least one report, although two gave no answer to this particular question. Better than half reported reading at least one article with care and nearly 55 per cent of the 87 articles distributed were reported as being read with care. This suggests a greater interest in the material than the employers in the sample have reported.

The relevant question for this group is the usefulness of survey data on job vacancies for community organizations concerned with manpower planning and training, i.e., questions 2b and 2c of the questionnaire. Since three failed to answer this question, the number of usable replies is reduced to 28. All but one expressed the view that this information is useful in carrying out some part of their program objectives. The specific uses that underlay this virtual unanimity of opinion are those that had been anticipated. Aid in the placement of students, both graduates and dropouts, ranked high among the uses. Also frequently mentioned was the usefulness of these data fror determining the type of technical and vocational programs that are currently needed as well as providing guidelines for the long-term planning of high school curriculum, counseling and technical training.

WILLINGNESS TO PARTICIPATE IN A REGULAR REPORTING PROGRAM

Another test of employer interest is the willingness to participate in a continuing reporting program. To gauge this interest two questions were asked:

"4. Would you be willing to participate in a permanent job vacancy survey at quarterly intervals?

Yes_____ No_____

"5. Would you be willing to furnish the same basic information in response to a *mail* questionnaire?

Yes_____ No_____

With respect to the first of these two questions, all but 14 of the 183 respondents gave their answer. Of those replying, 104, or 62 per cent, answered "yes"—that is, as of the survey date, this number was willing to participate in a continuing reporting program on job vacancies. Perhaps even more impressive, employment in these 104 organizations accounted for about 85 per cent of all employment engaged by the 183 organizations.

The composition of the 104 employers who answered yes is worth noting.

	Number	Percent willing to participate in continuing survey
Useful in own operations:		
Yes	30	100
No	141	49
Useful for schools and community organizations:		
Yes	107	75
No	36	28
Not useful to either	35	40

Of those who consider the survey results useful, a large percentage, 80 per cent, are also interested in being a part of a continuing survey. This may be taken to mean they judge the benefits to themselves or to the community at least equal to the costs to themselves in supplying the data. As for the substantial fraction willing to participate in a continuing survey despite their reported opinion that the information is not useful, this may be interpreted as their being not sure of their own position and believe a longer experience is required.

Once again, the lack of interest of the small employers is evident:

Number employed	Number responding	Percent willing to participate in continuing survey
0 to 19	43	21
20 to 249	68	60
250 or more	72	76
Total	183	60

Perhaps more of the small organizations would be willing to participate if they were aware that their commitment would be limited in time since they would be members of a rotating sub-sample. In any case, there are sufficient numbers of small employers to provide a representative sub-sample. Of the larger organizations, those employing 250 or more who were included with certainty in the Rochester survey, about one-quarter, 10 by number, reported an unwillingness to participate. If this proved to be typical in most labor areas, it might pose some sampling problems but certainly abstentions of this proportion would not be crippling. Indeed, as experience with job vacancy data accumulates, many of these may reverse their opinion on participation.

The purpose of question 5 was to ascertain whether the employers, once the survey had been introduced, are willing to use a mail questionnaire in reporting the job vacancy information. This is of some importance since data collection by mail costs less than collection by personal call.[4] Of the 104 employers indicating a willingness to participate in a continuing reporting program, 101 were agreeable to using a mail reporting form. This is the evidence for assuming data collection by mail in the cost estimate presented earlier in this chapter.

To summarize, the results of the opinion survey make it clear beyond any doubt that the regular reporting of job vacancies with occupational detail for a particular labor area would be useful and valuable in the operations of schools and community organizations concerned with manpower planning, training, and placement. This is the view expressed by almost all the schools and organizations and by a large majority of private employers. However, when the issue is the usefulness of the same information to employers in the day-to-day operations and manpower planning of their own organizations only about 20 per cent answered in the affirmative. The affirmative view was most widespread among the medium-sized employers. It was suggested that many of the larger employers found the information superfluous because much the same information was obtained through the weekly meetings of personnel managers under the auspices of the Industrial Management Council. While this arrangement may not be unique to Rochester, neither is it widespread. The Rochester findings on this point therefore probably are not representative of how the larger employers think about this matter in most other labor areas.

Interest in a continuing survey is not necessarily equated to views on its usefulness, at least in the early stages of a new reporting program. Thus, while 45 per cent of 183 employers reporting considered the survey results either useful to themselves or to schools and community organizations as many as 60 per cent expressed their willingness to participate in a continuing survey. Moreover, since the negative attitude was most prevalent among the small employers we conclude, if the Rochester survey results are typical, that there is sufficient interest to support a statistically valid reporting program on job vacancies.

Before one passes judgment on whether the uses justify the estimated cost, it is important to remember that the uses that have been discussed—those in a local labor area and restricted there to employers, schools, and community organizations—do not cover the whole gamut of uses. Even at the local level mention must be made of the possibility that job vacancy data could significantly improve the effectiveness of the placement. At the national level one should remember the possible contribution these data can make to policy formulation. Finally, there is the area of labor market analysis. These data together with other data already available may well assist us to extend our understanding of how particular labor markets operate. The NICB has already embarked on one test of this possibility.

In our view the documented uses and the additional expected uses amply justify the estimated costs. Whether or not this sum would yield more benefits if it were expended on filling other informational gaps on the supply of and demand for labor requires a judgment which we are ill qualified to make. We therefore leave the decision to others with longer and deeper experience in this area of knowledge.

Chairman PROXMIRE. Do you think that would give us the kind of information that would document the desirability of this for educational institutions?

Mr. CREAMER. It would go some distance toward that.

Chairman PROXMIRE. Give us what you have.

[4] We note again our earlier reservation about possible deterioration in the quality of the survey results obtained by mail.

Mr. CREAMER. We did ask them how, in what way was it helpful to them. And we jotted down some of the phrases that they used, that sort of thing.

Chairman PROXMIRE. Mr. Goldfinger?

Mr. GOLDFINGER. A question, sir.

In that connection I wonder whether the Labor Department has used to any degree its own pilot studies in connection with vocational training, MDTA training programs, and so on.

Mr. KNOWLES. My understanding of this is yes, though not in every area they surveyed, Mr. Goldfinger. I think that this varied. I am not aware of the reason why it varied. But my impression from the testimony and the conversation was that in at least two that I can recall being mentioned—Minneapolis-St. Paul, or Milwaukee, and Portland—they actually used the information. They experimented with actually using the data that came in in the office itself, since the survey was done by the local employment service office.

Chairman PROXMIRE. I do not know if this is responsive to your question, but witnesses yesterday said in Milwaukee there are 3,000 young people who are being trained in 12 different occupations as a result of the specific survey that they made in Milwaukee.

Representative CURTIS. There was testimony along that line.

I raised the question, too, whether they used the data in implementing the new immigration laws, which are based on whether or not there is a job vacancy, or rather whether there is a need for these skills within our society. And the answer was "to some degree."

Mr. CREAMER. As part of the 16-area survey program each State agency was asked to report on what uses they had made of this information. And in the summary that I saw a number of State agencies said it was useful for the sort of programs you are referring to. But I do not think——

Chairman PROXMIRE. In connection with the Rochester study, were there any specific instances of the use, such as stepped up training programs in certain areas, or anything of that kind?

Mr. CREAMER. None has come to my attention as being that specific. But we did have letters from the vocational guidance counselors in the schools saying that it was very helpful to them.

Chairman PROXMIRE. You see, it is so much more useful if they can be specific and indicate how they used it, because people always like to be nice, and if you ask them, "Is our work helpful to you," they will say, "Sure."

Mr. CREAMER. This question was on our schedule, "Specify how." But we received rather general phrases in reply.

Representative CURTIS. The best test would be to ask if they would be willing to pay something for it.

Chairman PROXMIRE. Or share in it.

Feasibility of a continuing survey

Mr. CREAMER. The principal conclusion of this report is that accurate data on job vacancies can be obtained from sample surveys of employers. This is the consensus of the staff, both interviewers and analysts, concerned with the NICB surveys. The costs of data collection, outlined briefly in the preceding section, do not seem exorbitant compared to the possible benefits that may be derived, particularly in comparison to other data collection programs on the

current status of the labor force. Another dimension of feasibility is the willingness of employers to cooperate in a continuing data collection program. We have asked employers in the Rochester area about their willingness to furnish such data quarterly on a long-term basis. Of those responding to the question, 62 percent replied "yes"; these accounted for 85 percent of the total employment of those responding to the question.

There is more interest in job vacancy data among large than among small employers, as evidenced by attention paid to published reports and willingness to cooperate in the collection of the data. This is, in part at least, the result of the view more common among large than among small employers that the data are valuable either directly or to the community. Very few small employers said this was of use to them or to the community. Almost all of those who are willing to cooperate indicated that they would reply by mail, although this often takes more of an employer's time than does a personal interview. In summary, a nationwide data collection program appears to be a feasible operation—perhaps in view of Mr. Goldfinger's comments that is not a careful wording. When we say nationwide data collection we mean by the local areas. This appears to be a feasible operation—the costs seem to be within acceptable limits, and the benefits in terms of supporting placement activities, a variety of manpower programs, and formulation of economic policy are at least commensurate with the estimated cost.

Moreover, there seems to be no adequate substitute for job vacancy statistics to judge by our limited analysis of two sets of statistics considered by some as possible proxies. One is an index of help wanted advertising in newspapers, a continuing series now compiled by the NICB for 52 cities, including Rochester. This series is based on a count of the number of advertisements appearing in particular newspapers.

The Conference Board has a help wanted index for 12 of the 16 cities surveyed by the BES for job vacanacies. For these 12 cities we compared the percent change in job vacancies between survey rounds to the percent change in the help wanted index for the same period. In one-third of the cities there were increases in the help wanted index but decreases in job vacancies. That would have given you a completely wrong reading even as to direction of change. In four of the remaining eight cities the help wanted index would have substantially overstated and in one substantially understated the rise. Thus in only 3, or one-fourth of the 12 cities, would the relative change in the help wanted index have approximated that of job vacancies. Even in these three cities the index could not provide the number of job vacancies unless there were repeated job vacancy surveys to establish benchmark numbers.

In Rochester one would not expect a close relationship between the index and job vacancies because the larger employers, mostly engaged in manufacturing, are affiliated with the Industrial Management Council which requests its members not to advertise for employees in the Rochester newspapers. Accordingly, we tested the Rochester index as a predictor for job vacancies in the nonmanufacturing sector for two periods—mid-February to mid-May and mid-May to mid-August. In the first period it projected a 50-percent increase compared with an actual decrease of 7.6 percent in job vacan-

cies in the nonmanufacturing sector; in the second period the index was within acceptable range of the target—a projected decrease of 10.8 percent compared with an actual decrease of 12.3. However, a 50-percent probability of success in this matter is not acceptable. Moreover, should it ever prove to be an adequate predictor of the number of vacancies, essential information on occupations would be still lacking.

(The following additional material relating to the preceding testimony was later submitted:)

Help-wanted Advertising*

Placing a help-wanted advertisement in a newspaper entails an outlay of money by an employer. This action indicates active recruiting for a worker. An index of the total number of help-wanted advertisements for a given city or for certain occupations appears at first glance to be a possible proxy measure of job vacancies. This, indeed, will be the case if the ads placed in a newspaper for workers are representative of all efforts to secure workers. From our investigation, however, the representativeness of such an index as a proxy measure of job vacancies is poor.

The Conference Board maintains a series on help-wanted advertisting, hereafter referred to as the NICB index. This series is a monthly tally of the number of help-wanted ads placed in newspapers located in 52 cities in the United States.[1] As part of the job vacancy study, we undertook a detailed counting of help-wanted ads in the Sunday Rochester Democrat and Chronicle by occupation group, hereafter referred to as the Sunday index, to see if there was any promise in using this additional information to project job vacancies in the aggregate or by occupation.

A tally was made of only the Sunday papers for two reasons, the amount of time needed to prepare a tally (3 hours a paper) and the apparent representativeness of Sundays to the daily count.

Table A.1—*NICB and Sunday indexes, Rochester Democrat and Chronicle*

Index (September 1964=100)	September	October	November	December	January
NICB index (daily)	100	90	76	56	80
Sunday index (Sunday only)	100	90	76	58	84

Table A.1 shows the NICB index and the index for an average of the Sunday ads. While the period of comparison is short, the two indexes appear to move closely together.

We divide the ads into male and female, agency and non-agency. Our occupational breakdown conforms to the pattern of the Dictionary of Occupational Titles, Second Edition. Within each major group, detailed occupations are listed for those titles frequently mentioned in the Rochester newspaper (e.g. Drivers). Counting want-ads by occupation leads one to make many arbitrary decisions, owing to the nature of the ads. Agency ads are handled in a different manner than non-agency ads. Most agency ads do not mention a number sought, only a plural indication of job, for example, engineers, typists, etc. To be consistent, therefore, only one entry was made for each occupation group mentioned, regardless of the number of persons desired in the ad. For example, an ad stating that an agency wanted 34 typists, 2 stenographers, and 20 salesladies would be tallied as one clerical worker and one salesperson, since these are the only two major groups represented. For non-agency ads stating that more than one person was sought in the same occupation, the exact number was tallied and the excess over one entered in a "multiple job ads" column. Ads written in the plural not specifying the exact number sought are counted as ads for one person. While this system surely yields an incorrect measure, we could not devise a better substitute. All ads for part-time and temporary help are counted. Some ads clearly state that accepting a position will require a locational change; these are tallied as "Out-of-town" ads.

*Prepared by Richard Towber of the staff of The Conference Board.

[1] For a detailed account of the help-wanted index, see "The Conference Board's New Index of Help-wanted Advertising." Technical Paper Number Sixteen. National Industrial Conference Board, Inc. New York.

The Sunday index tally differs from the NICB tally in several respects. For the Sunday index we counted the actual number of persons sought in a non-agency ad. In the NICB index, each ad placed is counted once. To enable us to reconcile one tallying method with the other we have a "multiple job ads" column, which indicates the number of jobs we had, in excess of one per ad. This more elaborate scheme did not affect the changes in the number of ads placed over time, since both series moved closely together. The purpose of "multiple counting" of help-wanted ads is to obtain a better occupational distribution.

Help-wanted ads by occupational detail

	Total		Male		Female	
	Total	Agency	Total	Agency	Total	Agency
Total						
Professional						
Professional						
Semiprofessional						
Managerial and official						
Clerical and sales						
Clerical						
Secretary						
Sales						
Technical						
Service						
Domestic						
Babysitters						
Personal						
Waiters(resses)						
Protective						
Building service and porters						
Agricultural and horticultural						
Skilled						
Painters						
Carpenters						
Masons						
Plumbers						
Tool and die makers and machinists						
Mechanics, repairmen, maintenance and installation workers						
Welders						
Auto mechanics						
Semiskilled						
Auto doll-up men and metal polishers						
Gas station attendant						
Screw machine operators						
Sewing, stitching, mending, seamstress						
Drivers (truck, auto, etc.)						
Unskilled						
Unclassified						
Out-of-town ads						
Multiple job ads						

HELP-WANTED ADVERTISING AS A MEASURE OF AGGREGATE JOB VACANCIES

Help-wanted advertising as a measure of aggregate vacancies is restricted in Rochester because of an agreement among members of the Industrial Management Council of Rochester (an employer organization composed mainly of manufacturing companies) not to advertise for vacancies in the local newspapers. For that reason we would not expect newspaper advertising to be a good proxy for job vacancy data in all industries in this area.

A measure of the use of newspaper advertising to hire workers was collected in our preliminary job vacancy survey (September–October 1964).

TABLE A.2.—*Use of newspaper advertisements by occupation, 27 firms, September–October 1964*

Occupation group:	*Percent of total vacancies advertised in newspapers*
Professional, semiprofessional, and managerial workers	30.1
Clerical and sales workers	9.3
Service workers	84.6
Skilled workers	25.8
Semiskilled workers	10.6
Unskilled workers	8.6
Total	25.1

Source: Conceptual and Measurement Problems in Job Vacancies: A Progress Report on the NICB Study, table 3, op. cit.

Newspapers were used as one method of hiring for 25.1 per cent of vacancies existing at that time. The only occupation widely advertised in newspapers was service workers (84.6 per cent of total vacancies).

The NICB index, when it was used to project job vacancies from mid-February to mid-May, yielded unsatisfactory projections, judging by the estimated number of job vacancies based on the surveys. The predicted May vacancies were about 12,000 using the index, compared to a survey count of 8,700 for all employers.

TABLE A.3.—*Survey vacancies projected by NICB help-wanted advertising index*

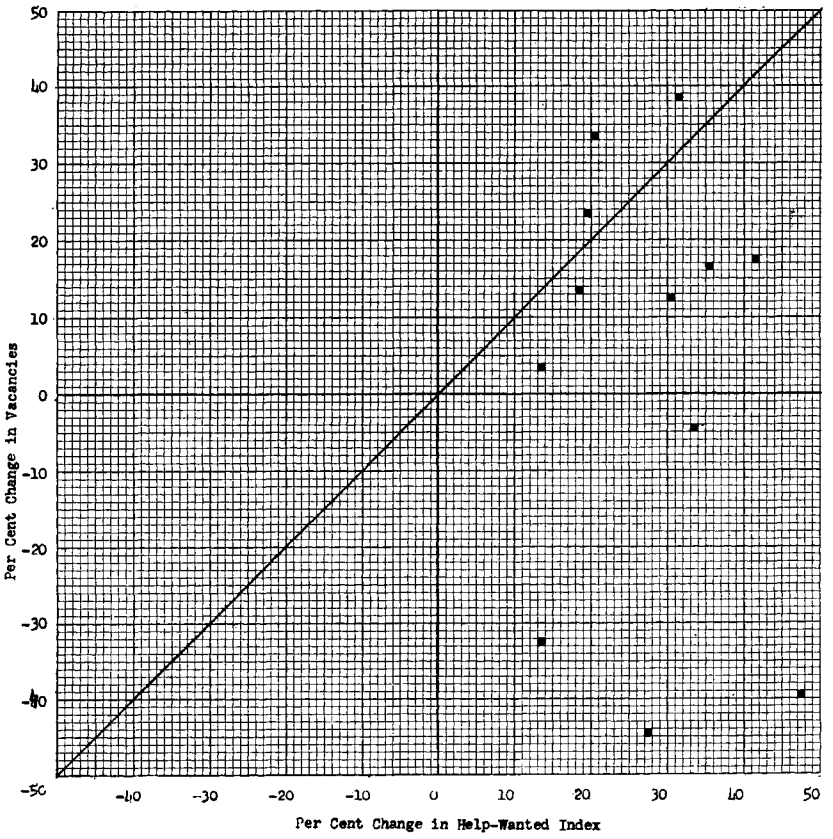
	Employers	
	All	Nonmanufacturing
Actual February vacancies	7,947	4,926
Predicted May vacancies	11,935	7,398
Actual May vacancies	8,776	4,554
Predicted August vacancies	7,828	4,062
Actual August vacancies	8,568	3,995

The predicted number of vacancies for August was 7,800; the survey result was 8,600 vacancies. While the index predicted the correct direction of change in vacancies, the magnitude was overstated by the index. For nonmanufacturing employers, survey vacancies decreased from February to May, while the index predicted a rise in vacancies. The May to August prediction is however, correct in both direction and magnitude. It may be of some value to look at these comparisons when more data are available. Our results suggest, however, that help-wanted advertising is a poor proxy for the aggregate number of job vacancies.

Further negative evidence on the use of a help-wanted index as a proxy measure is obtained by looking at similar sets of data for the cities surveyed by the Department of Labor. The Department of Labor conducted job vacancy surveys in 16 areas during the last quarter of 1964 and again in April 1965.

CHART A–1

Per Cent Change in Vacancies and Help-Wanted Index (Unadjusted)
12 Selected Cities—All Employers



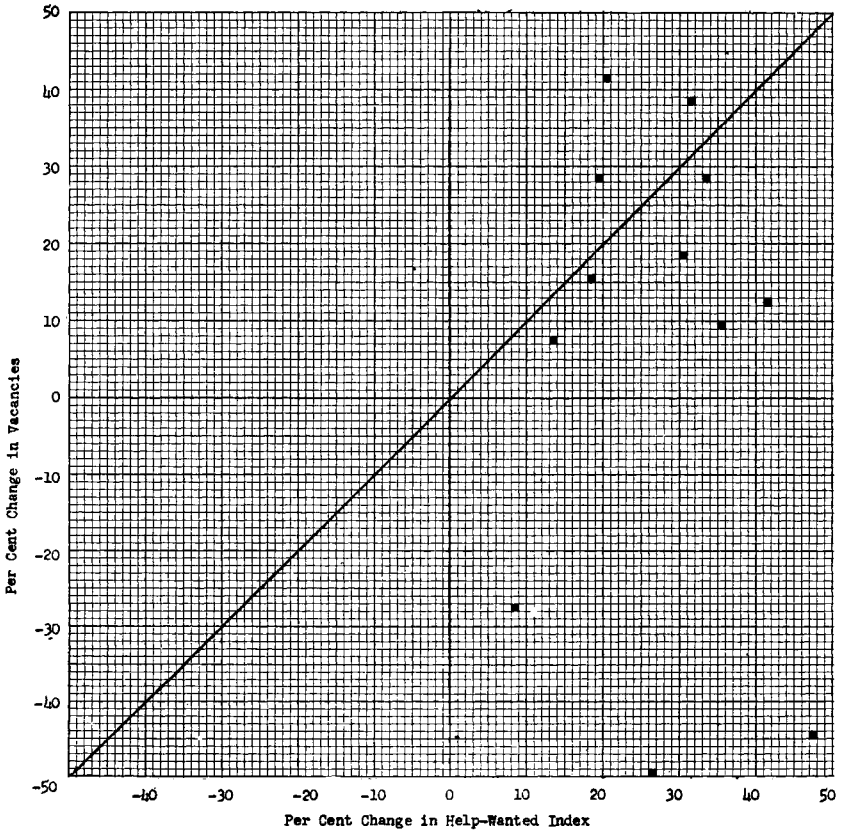
Percent change in vacancies and help-wanted index, all employers—12 selected cities

Area	Percent change	
	Vacancies	Help-wanted advertising
Providence	337	205
Kansas City	−444	269
Minneapolis	177	414
New York	77	307
Philadelphia	237	192
Miami	−324	84
Richmond	385	320
Chicago	163	359
Milwaukee	−42	338
Birmingham	−395	475
Los Angeles	31	131
Baltimore	136	187

63–947 O—66——11

CHART A–2

Per Cent Change in Vacancies and Help-Wanted Index
Non-Manufacturing Employers—12 Selected Cities



Percent change in nonmanufacturing job vacancies and help-wanted advertising—12 selected cities

Area	Percent change	
	Vacancies	Help-wanted advertising
Providence	413	205
Kansas City	−506	269
Minneapolis	121	414
New York	183	307
Philadelphia	287	192
Miami	−275	84
Richmond	382	302
Chicago	99	359
Milwaukee	282	338
Birmingham	−446	475
Los Angeles	76	131
Baltimore	153	187

Twelve of the areas are covered by the NICB index. For these twelve cities we have plotted the per cent change in vacancies, and the per cent change in the NICB index. The optimum points will lie along a 45° line, representing points where the per cent change in vacancies and the index are equal. There are four cities for which there was a positive change in the NICB index and a negative change in the number of vacancies (Chart A.1). For eight cities the change for the index and number of vacancies were both positive. Of these, the NICB index understated the changes in vacancies for five cities, and overstated the change for the remaining three.

On the assumption that manufacturers generally make little use of newspaper help-wanted ads we compared relative changes in nonmanufacturing job vacancies and the NICB index for the same twelve cities (Chart A.2). Three cities showed a positive change in the NICB index and a negative change in the number of job vacancies. For nine cities, both the NICB index and the number of vacancies showed positive changes between the two vacancy surveys. The NICB index overstated the change for six cities and understated it for three. However, the magnitudes were closer for nonmanufacturing employers than for all employers.

While at present our conclusion must be negative, some further testing may be called for when more data are available.

USE OF HELP-WANTED ADVERTISING FOR PREDICTING VACANCIES BY OCCUPATION

Although the use of help-wanted advertising as a proxy measure of total vacancies does not seem satisfactory, it is possible that it can be used to estimate the occupational distribution of the total. Yet another possibility is that relative changes in the number of job vacancies in a particular group can be projected by the per cent change in the want ads for that occupation group.

TABLE A.4.—*Occupational distribution, job vacancy surveys and NICB index, February and May 1965*

Occupation group	February		May	
	Sunday index	Job vacancy survey	Sunday index	Job vacancy survey
Professional	5.1	26.6	4.8	17.0
Semiprofessional	4.1	4.1	3.5	4.9
Managerial	5.1	2.3	3.7	1.8
Clerical	24.0	9.4	17.0	13.7
Sales	19.4	5.0	13.6	6.9
Service	18.0	7.0	22.0	9.2
Skilled	13.0	17.4	17.9	17.0
Semiskilled	7.9	21.6	11.5	18.7
Unskilled	3.1	6.3	6.1	10.9
Total	100.0	100.0	100.0	100.0

The differences in occupational distribution are substantial for professional, clerical, sales, service, and semiskilled workers, between want ads and survey findings. (Table A.4.) Professional and semiskilled workers are greatly underrepresented while clerical, sales, and service workers are overrepresented in newspaper advertising for both February and May. Substantial differences were also found between the occupational distributions of want ads and the survey findings for nonmanufacturing employers. The Rochester evidence suggests that estimates of the occupational distribution of total vacancies by want ads will be poor.

We have also projected the numbers of vacancies in each of the nine occupation groups by the per cent changes in want ads for the corresponding groups from February to May. In every case, the projected number differed considerably from the number found in the May survey.

CONCLUSION

The preceding analysis indicates that the use of a help-wanted advertising index as a proxy measure for job vacancies, in total or by occupation, will not prove satisfactory. While the data used for comparison purposes are limited, they show no relationship between help-wanted indexes (the NICB index, or

the Sunday index) and number of job vacancies, whether considered in the aggregate, for individual occupations, or for nonmanufacturing firms, except in Rochester between mid-May and mid-August. While further exploratories may be worthwhile when additional job vacancy data become available, the prospects are not bright for developing a useful proxy measure from help-wanted ads.

An interesting fact is that over several years the help-wanted advertising series has moved inversely but in close conformity to the unemployment rate.[2] Thus it appears that the index is more related to unemployment rates than to vacancies.

The second measure has the important advantage of providing occupational detail. It consists of the unfilled job orders on file with the public employment service on a given date. By means of a special tabulation provided by the offices of the employment service in Monroe County, comparisons of the number of unfilled job orders and the number of job vacancies as of mid-May and mid-August were made. On the first date, unfilled job orders amounted to 53 percent of estimated job vacancies and on the second date, only 36 percent. The comparable fraction for 14 of the areas surveyed by the BES was one-third. There is little reason for believing that this performance will appreciably improve in the foreseeable future. As to occupational composition, the record is no better. In the Rochester area, there were substantial differences in the occupational composition of unfilled job orders and job vacancies, even at the level of broad occupational classifications.

Now, this differs from the finding reported by Mr. Chavrid yesterday for—either 14 or 12 areas, it is not clear to me. His percentage distribution by occupation is an aggregate for all the areas combined. And I suspect that if we had available to us the distribution for each of the areas, you would find that there was much less conformity in the occupational distribution of the unfilled job orders on hand on a particular date and the number of job vacancies obtained from the survey. So I think it would be much closer to the Rochester finding than are the findings for all areas combined. There probably have been offsetting changes within the 14 areas that give you the rather close fit that Mr. Chavrid reported.

(Additional documentation of the preceding, later submitted, follows:)

Job Orders Outstanding With the Employment Service

The recently awakened interest in job vacancy statistics has led to a quickening of interest in some of the operating statistics of U.S. Employment Service and its State affiliated offices. Of particular interest is the possibility that the statistics on unfilled job orders on file with the local Employment Service offices would prove to be a good proxy for job vacancy data collected from a sample of employers. Wherever this proved to be the case, there would be no need to collect the data by survey—the resulting economy to the employer and the government would be considerable.

In an institutional setting that required that all unfilled jobs be registered with the public employment services and all placements required the intercession of the same offices, the number of unfilled jobs on a given date would constitute the universe of unfilled jobs, provided the requirements were effectively enforced. In these circumstances a sample survey of employers would be entirely redundant. This is an extreme case which probably does not exist in any nontotalitarian country even where compulsory registration of jobs is a statutory requirement as in France—usually the enforcement is lax.[3] The relevant question then

[2] The Conference Board; New Index of Help Wanted Advertising, op, cit., chart 5, p. 17.

[3] For evidence on this see Jacques Chazelle, "The Collection and Utilization of Job Vacancy Data in France," in *The Measurement and Interpretation of Job Vacancies*, A Conference Report of the National Bureau of Economic Research (1965), pp. 237–264.

becomes how wide a departure from this extreme can there be and still have the list of unfilled job orders be as complete and accurate as those derived from sample surveys of employers?

More specifically, does the system of voluntary notification of jobs with the Employment Service—the arrangement that prevails in the United States—result in a complete or even representative coverage of unfilled jobs. Obviously, this will depend on the employers' opinion on the effectiveness with which the Employment Service in a particular area fulfills the recruitment, screening and referral functions. To the extent that employers base their opinions on strictly business considerations, their attitude towards dealing with the local office of the Employment Service will depend on the competence and morale of the Employment Service personnel. Since the latter, of course, are bound to vary from area to area, adequacy of unfilled job orders as a proxy for job vacancy statistics can best be determined area by area. The following describes our effort to determine this for the Rochester Area.

It was part of the original design of the Rochester study to obtain information on unfilled job orders on file with the Employment Service offices in Monroe County for dates that coincided with the survey dates. Our request to the New York State Employment Service for these data was readily and graciously granted and the appropriate arrangements were made at the local level where the cooperation was equally gracious.

The offices of the Employment Service serving Monroe County provided a tabulation of unfilled job orders on file in mid-February to coincide with our survey of job vacancies on the same date. The comparison of two series was presented in the article summarizing the February survey findings which appeared in the May issue of The Conference Board *Record*. Subsequently we learned that the statistics on unfilled job orders owing to certain administrative practices were not the appropriate ones for comparison with the job vacancy statistics. The February comparison in the *Record* article, therefore, should be ignored. Unfortunately the appropriate figures for February could not be derived at a later date.

The source of the difficulty was the administrative practice of recording a specific job order calling for more than one person as 1+. In the February count these instances were recorded as one unfilled order. Other omissions resulted from the exclusion of job categories of job orders kept in separate files.

The realization of these omissions for purposes of statistical reporting led to a revision of recording and tabulating procedures. Technical guidance for the revision was provided by the Statistical Unit of the Rochester Bureau of Municipal Research. As a result of these efforts, the data on unfilled jobs on file with the Employment Service in Monroe County in mid-May and mid-August 1966 seem to be accurate. They probably are characterized, however, by some overstatement. This arises because a month may have elapsed between the tabulating date and date of the receipt of the order or a telephone confirmation that the order still remains unfilled. Thus a job order counted as unfilled may have been filled by an employer through another hiring channel. Another source of overstatement is the practice of counting as unfilled job orders for teachers with a future starting date who have not yet reported for duty but have signed a contract to do so. These would not be counted as a job vacancy according to the definitions used in the job vacancy surveys. To achieve comparability, therefore, it is necessary to eliminate these from the count of job orders outstanding in the files of the Employment Service.

Still another adjustment is required in the interest of industrial comparability—job orders filed by households and by employers engaged in agricultural, forestry, fishing and mining. These industry classifications were excluded from the job vacancy surveys.

When the official count of unfilled job orders as of mid-May 1965 are adjusted for the above differences the following comparison can be made:

	All	Present starting	Future starting
Unfilled job orders	4,660	4,315	347
Job vacancies	8,776	7,342	1,434
Unfilled job orders as percent of job vacancies	53.1	58.8	24.2

Thus, in mid-May 1965 the number of unfilled job orders in the files of the Employment Service in the Rochester Area amounted to only slightly more than

one half of the estimated number of job vacancies in our survey of a sample of employers. Clearly, at that particular point in time the number of unfilled job orders on file with the Employment Service would have given a under-count of the number of job vacancies employers were seeking to fill.

The record, however, worsens at the next point of comparison, mid-August 1965. On that date unfilled job orders numbered 3,113, compared with 8,568 job vacancies, or 36 per cent of the survey total. The Employment Service series recorded a decrease of 33 per cent between mid-May and mid-August while the survey series on job vacancies showed a decrease of only 2.5 per cent.

Once again, the Rochester experience appears to be typical of other labor areas. Thus, the Department of Labor in its unpublished summary of its own job vacancy surveys reports "On an overall basis, unfilled Employment Service job openings were equivalent to about one-third of the aggregate total of job vacancies." [4] Nothing is indicated about the extent of agreement with respect to direction and degree of change between the first and second surveys.

The conclusion seems inescapable that at the present time and for the foreseeable future the number of unfilled job orders in the files of the Employment Service will substantially understate the number of job vacancies. Moreover, as an index, unfilled job orders may overstate the relative change in job vacancies over time—at least this is the indication from the Rochester data.

There remains the possibility that the occupational composition of the unfilled job orders nevertheless may be representative of the composition of job vacancies. Wherever this might prove to be the case, it would not be necessary to ask the employer to report occupational details on his job vacancy schedule. The relative composition of the two series in terms of broad occupational groups for mid-May is shown in Table A–5. The broader the occupational groupings, the greater is the possibility that the two distributions will be similar. Despite this, there is considerable difference in the two distributions. The average difference amounts to 5.8 percentage points. The most substantial differences occur in the professional group, which was significantly understated by the job orders, and in the clerical sales group, which was appreciably over-represented.

The Rochester results on this point differ significantly from the findings of the Department of Labor in 12 labor areas. On a combined basis, the occupational composition by broad categories was similar for the ES unfilled job openings and the job vacancy totals.[5] The average difference amounted only to about 2.2 percentage points in both survey rounds. The distributions for individual labor areas are not shown. Undoubtedly, the similarity comes from the possibility of offsetting differences in combining the 12 to 14 areas into a single series. This evidence suggests that the unfilled job orders of the Employment Service may serve as an adequate proxy for the occupational composition of job vacancies at a regional or national level. There is a high probability, however, that it is not a satisfactory proxy for specific labor areas.

TABLE A–5.—*Unfilled job orders with the Employment Service and job vacancies, mid-May 1965, by broad occupation groups*

Occupation groups	Number		Percent of total	
	Unfilled job orders	Job vacancies	Unfilled job orders	Job vacancies
Professional	603	2,102	12.9	24.0
Clerical-sales	1,613	1,826	34.6	20.8
Service	455	823	9.8	9.4
Skilled	1,058	1,731	22.7	19.7
Semiskilled	561	1,261	12.0	14.4
Unskilled	370	1,033	7.9	11.8
All occupations	4,660	8,776	100.0	100.0

Source: Special tabulations of Rochester Employment Service for unfilled job orders and table E–10 of the final report on job vacancies.

Finally, the conclusion seems inescapable that if job vacancy data are worth having, they must be obtained by sample survey of employers.

[4] Op. cit., *Findings* p. 51. This statistic presumably is an average for 14 areas. The percentages for individual areas are not given. Nor is it stated whether this average is based on the first survey round, the second, or both.

[5] Op. cit. *Findings*, pp. 51 & 53.

Thank you.

Chairman PROXMIRE. You raise a very fascinating question to me by this last part of your presentation. I think it is a terrific indictment of the present methods of determining the demand for labor, and so serious that I would like your comment on the statement made yesterday by Mr. Ross. He said:

> In the present economic situation, the question of labor shortages has become sufficiently critical, especially in relation to skilled manpower, that the President, as previously indicated, has asked the Department of Labor to watch the situation closely and to prepare regular reports. I have already pointed out that much of our evidence on labor shortages is indirect and circumstantial. We could do a much better job if we had direct evidence on labor shortages through measures of job vacancies classified by occupation, industry and area.

Now, Mr. Ross indicated that he had to rely on what was available now, which is very spotty and erratic. And from what you have just told us, it might be somewhat inaccurate.

Am I wrong?

The National Industrial Conference Board materials, I suspect, are also spotty and incomplete so far as they depend upon classified advertising as a source.

Mr. CREAMER. The conference board index has no occupational breakdown at all.

Chairman PROXMIRE. I know that. It relies on classified advertising?

Mr. CREAMER. It just counts the number.

Chairman PROXMIRE. You say that goes in reverse directions, though, to Rochester?

Mr. CREAMER. In job vacancies in one-third of these 12 cities; yes. But I do not think that Dr. Ross was relying on that index to indicate which were the critical skill shortages.

Chairman PROXMIRE. What was he relying on?

Mr. CREAMER. I have not discussed this with him, and I have not seen any of the documents. But—again coming back to the Rochester area—I know that the Employment Service in each area has a labor market analyst who has this responsibility of keeping in touch with at least the large employers, and speaking with them about what sort of changes they expect in their——

Chairman PROXMIRE. Rochester has this, but is this common in the 146 labor market areas in the country?

Mr. CREAMER. I think so—certainly the larger ones; it must be.

Chairman PROXMIRE. And then they systematically report to the Bureau of Labor Statistics or the Secretary of Labor?

Mr. CREAMER. I guess to the Bureau of Employment Security, which in turn—in fact this is how they derive their estimates—or this person, let's say, is responsible for the estimates of local area unemployed.

Chairman PROXMIRE. Do you have any opportunity to check that estimate to determine the extent to which that is accurate?

Mr. CREAMER. The unemployment estimate?

Chairman PROXMIRE. No, the report of the personnel people.

Mr. CREAMER. No, we had no opportunity and my guess would be that such a person on that particular matter cannot be quantitative, but he could only indicate the area in which the employers are complaining about shortages.

Chairman PROXMIRE. Let me ask the fundamental question that Mr. Goldfinger has raised earlier.

The statistics users, as Mr. Goldfinger has properly said, raise a very serious question here. And I would like to read to you, Mr. Creamer and Mr. Myers, what they said and get your comments.

The Congress has been reluctant—

These are statistical users—

to support any proposal for initiation of the program on a large scale until results of the exploratory work are made public and proper study and evaluation of the work can be made. There is no practical evidence yet available to the public as to the feasibility of collecting reliable information or whether or not such information would be of material assistance in the formulation of public policy.

Now, these are competent people. They have appeared often before this committee. And they do not have any particular interest that would be adverse here, in fact they should have a very strong interest in getting this information. What is your comment?

Mr. CREAMER. I quite agree particularly with that part of it which says the evidence should be made public. And I am delighted——

Chairman PROXMIRE. How long would it take to get an evaluation from a number of experts who have had a chance to analyze it and discuss it, write about it, comment on it, so that Congress could act on the basis of knowledge, adequate knowledge of the situation?

Mr. CREAMER. Say 3 to 6 months, I should think.

Representative CURTIS. Mr. Chairman, may I say that if they will read the hearings of this committee, which I recommend, I think they will change this position.

Mr. CREAMER. Much of the evidence that was made available to us has now been made available to this committee. And I think that is among the many great functions——

Chairman PROXMIRE. Mr. Goldfinger, how long a period do you think it would take?

Mr. GOLDFINGER. I would agree with Mr. Creamer that it would take at least 3 to 6 months.

But I might add that while I was not here yesterday, and I have not read the testimony of yesterday, everything that I have heard today only strengthens my feeling that we need much better answers to various questions concerning concept and definition, and that there is great need for getting detail by occupation, skill, industry, education, wage rates, and working conditions, on a meaningful job-market basis.

Chairman PROXMIRE. So you think they must study it 3 to 6 months and then turn it down?

Mr. GOLDFINGER. I would think that they may; that is true. But what I am saying is that as far as I am concerned, on the basis of listening to Mr. Creamer today in a well-reasoned and excellent presentation of the NICB findings and point of view, it only strengthens my conviction that there are grave difficulties in this area, particularly in moving rapidly to a national statistical index. I am more wary of job vacancy statistics—more negative—than I was when the hearings opened this morning.

Chairman PROXMIRE. Mr. Myers.

Mr. MYERS. I have nothing particular to add to Mr. Creamer's statement.

Chairman PROXMIRE. At any rate this would mean, considering the way that Congress moves, that there would not be any action on this until next year? This is May, and if we took 3 to 6 months to make an analysis that would be adequate for Congress to be sure they knew what they were doing, and had the best and most competent and expert advice, this session would be through?

Mr. CREAMER. I would hate to——

Representative CURTIS. I would sure hate to think that.

Chairman PROXMIRE. That is just an opinion, I am not saying we should.

Representative CURTIS. I would sure hate to think it.

Mr. Ross said something that you emphasized. I was trying to remember where it was. He commented about what he felt was the great need for this. He said, if I remember right, something about the most important—and you emphasized it:

> The lack of job vacancy information constitutes the most significant gap in our knowledge of labor market conditions. Statistics on job vacancies would give us a measure of unsatisfied demand for labor which together with data on employment would provide a more efficient measure of the demand for labor, something we have never had before.

And, Mr. Goldfinger, he pointed to a caveat that you have rightly pointed to. He said he thought that some people would misuse these statistics. But he said he felt that that is what you are always up against. I myself can understand how people might misuse it. But the Ways and Means Committee has just been through some lengthy hearings extending over many months on unemployment insurance. And the lack of data that we have on the profile of the unemployed, let alone the other side of the coin, of job creation, and what jobs there are, indicates to me the great need to move forward on this. I had something to do with the development of the Manpower Training Act and feel that without job vacancy data we might just as well not have it. You do not train people unless you have a job in sight. That discipline is in the Manpower Training Act. It was a requirement of getting up to date the Dictionary of Occupational Titles. I was distressed, and expressed myself forcefully in those hearings in January, that the 1949 Dictionary of Occupational Titles had still not been updated. I am happy to say that as of January of this year the new edition is out. And I am not trying to evaluate it. But at the same time the Manpower Training Act had the requirement that they develop job vacancy statistics. And here we are in 1966, and the Department of Labor has still not complied with the law. I would have preferred, if they did not want to comply with the law, to have them report and say why they were not doing it. Instead, I got an answer from the Secretary of Labor, which was that the reason we have not done it is because Congress—blaming us—had not given the administration the $2.5 million. My answer to that was that if the administration had really felt that this was such an essential area to develop in the field of statistics, then certainly Congress, composed of leaders of its own party, would not have denied this. This is particularly true when the Republicans like myself, at any rate, were willing to get behind this, and were arguing for it.

So I really would be distressed, Mr. Chairman, if I felt that the administration was going to back away again, and not ask your leaders in the Congress to move forward with this program, which I think, rightly or wrongly, is according to law and is required.

Now, Congress can cut off the appropriations.

Chairman PROXMIRE. They asked for two and a half million dollars. They may not ask for it again.

Representative CURTIS. But there are ways of asking for it. You can ask for it in a footnote and then forget about it. But President Johnson has demonstrated that he can ask for things in a certain way and get them. I would like that kind of "ask."

Mr. CREAMER. If I may add to my last comment, I fully agree that these data, the results of the BES survey, should be made public. We were criticized in some quarters for releasing our findings on each of the surveys. But we took the position that this was the only way you get the validity of the findings tested. You have to make them available to others to work with.

So it is on that basis primarily which led me to say that certainly these findings of the BES survey should be made available.

Chairman PROXMIRE. By publishing the findings do you mean the kind of data that were released to this committee and reported to this committee yesterday, is that sufficient, will that do it, or is more required? What additional information is required to be released?

Mr. CREAMER. Probably what would be helpful would be more data by a particular area, rather than combined data. But also they have been unwilling to present any material on what is called the job vacancy rate, the reason being that they say this requires more analysis, more investigation to see how reliable it is. However, they do make available the number of jobs. And they do indicate the employment by area. And so they are in the position of saying the numerator and the denominator passed muster, they are going to make it public, but they won't divide one by the other and get a job vacancy rate.

Chairman PROXMIRE. You see, we do have a very real, practical problem here. Mr. Knowles tells me it will take a month or so for the report to be printed and published and made available by areas, which you say is necessary. That takes us to mid-June, then a minimum of 3 months, a maximum of 6 months, which would be between mid-September and mid-December, before objective outsider experts can analyze it and be prepared to report on it. That kills it for this year.

Mr. CREAMER. I did want to add also that I do not think that you need wait for the experts' recommendation here, at least I myself have enough faith in the competence of the technicians of the Department of Labor to go along with their recommendations in this matter.

Chairman PROXMIRE. Let me ask you one other question on this. Mr. Goldfinger raised a question of definition and concepts. Let me just ask you: Do you feel that there is any problem in determining what is a job vacancy? Do you think that they are sufficiently advanced so that they can determine this without much question, and without a great controversy?

Mr. CREAMER. Well, we found that this was understood by the employers in Rochester, that it is operational, and this need not—this does not invalidate the program.

Chairman PROXMIRE. What concepts do we have to clarify, then, in your judgment?

Mr. CREAMER. It is not perhaps so much concept as how much detail you think you need and can get on occupations, for example, on wage rates and working conditions. And this, I think, is a matter of

experimentation. We have found, for example, that you can get usable information on what we call the minimum acceptable educational requirements and related job experience. I would like to see, or hope that BES would try and get that in some of their areas.

But this all comes with further work in the field. And as I mentioned earlier, you have to have larger appropriations to extend the scope of the surveys—perhaps 75 to 80. If that is not manageable, I am sure they would settle for a smaller number. But I think it is important that there be an enlargement, and that there be scope for further experimentation, which the Bureau of Labor Statistics has in mind, of using the labor turnover approach.

Chairman PROXMIRE. You are all set to go ahead with this. You would, on the basis of your study in Rochester, on the basis of your competence in the field, your knowledge in the field, you would approve of Congress going ahead this session promptly. You would also urge, I understand, that the Labor Department do publish and make available just as soon as they possibly can the results of these area studies?

Mr. CREAMER. Yes, that would reflect our view, yes.

Chairman PROXMIRE. Mr. Goldfinger?

Mr. GOLDFINGER. Well, I still have these numerous questions about concept and definition. For example, the NICB study in Rochester used some definitions that I questioned, such as future openings. I think that there are real difficulties about that.

We discussed about half an hour ago or an hour ago whether a 1-day opening is a job vacancy, or whether a real job vacancy is something which has been unfilled for at least a week and in which the employer has followed through with an attempt to fill it.

I think that there are all of those kinds of questions which have to be answered which would require further experimentation and further work.

I think that there are loads of questions concerning concept, particularly in connection with a part of Mr. Creamer's paper that dealt with the aggregate area, of aggregating the data into some kind of aggregate averages and dropping the meaningful detail.

For all of those reasons, I see the need for a good deal of work in terms of concept and definition. And as I said, I do not remember seeing in the Bureau of Labor Statistics' publication, "The Monthly Labor Review," any articles dealing with the concept and definition. It may well be that they have done some preliminary work on this in BLS. But I am not aware of published materials along these lines. Why do they seek to rush ahead, without such careful and tested work?

I see the need for going ahead slowly in terms of experimentation and working out a lot of these problems on an area basis.

Moreover if there is any significant usefulness for this kind of data in the near future, it seems to me that it is in the sense of an operational tool, with available detail on occupation, industry, wage rate information, working conditions, and so on, for the purpose of improving the effectiveness of the public employment service, the training programs, the guidance and counselling programs, and vocational education. Why not move ahead on an area basis, developing an operational tool? I see no need to rush ahead into some kind of large-scale national program when we have all of these questions before

us that are unresolved. In addition, I question the meaningfulness of a national index, a statistical average, with no detail on occupation, skill, and so forth.

Chairman PROXMIRE. Mr. Knowles makes this point. He says we have not settled similar questions in regard to GNP and unemployment even after three decades of successfully running these programs.

Mr. GOLDFINGER. That is not quite true, because we have resolved some kind of consensus on basic concepts. I don't think——

Chairman PROXMIRE. But they are controversial, we disagree on them.

Mr. GOLDFINGER. There are disagreements. But the disagreements are more toward the periphery than toward the core. And I think that there are questions concerning the core in this area. Furthermore, changes in the unemployment statistics are made carefully and slowly, after considerable work, testing and evaluation.

I indicated very serious doubts particularly about the part of Mr. Creamer's paper which is entitled "Analytical and Policy Uses of Job Vacancy Statistics." In fact, as I mentioned before, after reading this section of Mr. Creamer's paper, I have graver doubts about the wisdom of moving in this direction than I stated in my prepared paper.

Chairman PROXMIRE. Mr. Curtis?

Representative CURTIS. I would like to say that many of these definitions that you are talking about have received considerable attention in the unemployment insurance program. I was just jotting down a few of these. This is empirical evidence based on the statutorial interpretation over 30 years. What is "attachment to labor market to qualify for benefits"? What is "available for work"? What are seasonal workers? The definition of an employer of one or more. What does that mean? Does he have a job of one man with him 1 day, 1 week, or one man for 20 days? The problem we get into—this has not been statutorily defined, but it has certainly been in the concept of the economists—is when we relate benefits to 50 percent of the person's wage. What is the wage base? Does it mean 1 hour a week or 26 weeks, or what does it mean?

In other words, I think there is a lot of work that has been done in this area that can easily be translated into some proper definitions when we move over to the positive side of the ledger, when we are talking about jobs to be filled as opposed to men who are unemployed.

Mr. GOLDFINGER. What I am suggesting, sir, is that this has not been done in the area of job vacancies as yet. We have just begun. And although I have not read the BES and BLS presentations of yesterday, I would suspect that a lot of the data, and a lot of their conclusions are broadly tentative rather than firm conclusions.

Representative CURTIS. When you deal with cardinal numbers and you put a minus sign in front of them, it is pretty easy to just put a plus sign, then you have got your definition. We have been defining in the negative area of unemployed people. But in making our definitions there we have created definitions that with very little adjustment are available when we turn over to the plus sign. That is my argument.

Mr. GOLDFINGER. For example, a question occurred to me during Mr. Creamer's presentation. I do not have the answer to it. But much of what Mr. Creamer presented is for the purpose of policy, in terms of interpretation of data for broad economic policy purposes. Here's what occurred to me.

In February, May, and August of 1965, the NICB study apparently found something that could be interpreted as full employment in the Rochester area, on the basis of a comparison of the aggregate job vacancy and unemployment figures. Yet something like 6 months before that first survey, there was a serious riot in the city of Rochester, involving unemployed, underemployed, low-wage Negro workers in the city of Rochester, which 6 months later is apparently reported to be a city of full employment.

Now, the question in my mind is, perhaps if the NICB study, on the basis of their concepts and definitions, had been done 1 year before, they may well have found on the basis of these statistics—and they are simply numbers and estimates that are based upon the NICB definitions and NICB concepts—they may well have found something very close to full employment. Such statistical averages would then have implied to policy makers—and some people would have shouted loudly—let's go easy on Government expenditure programs, on fiscal policy and monetary policy, whereas there were some very serious problems in that community that required Government job-creating programs for unskilled workers and training programs. I don't see that such problems and needs are pointed up here, in the absence of detailed occupational information, skill requirements, educational levels——

Representative CURTIS. Mr. Goldfinger, I think you are making the case for the need of this. I will tell you right now, where did this crazy—I call it "crazy"—concept that 4-percent unemployment is full employment come from?

Mr. GOLDFINGER. Well, I never accepted that.

Representative CURTIS. Well, I did not either. But this has come from the misuse of the unemployment statistics and the desire of some people to put forward the policy that you can solve structural and frictional unemployment through increasing aggregate demand or by heating up the economy. As I have observed, you can get roast pork by burning the barn down, but it is a poor way to get it.

Now, your theory—and I could not agree with it more—is that in Rochester the fact that you have your unemployed among Negroes and young Negroes clearly revealed that this was structural, particularly in the light of the fact that you had jobs going begging. Why is it that you can have unemployed in a society at the same time that you have a high rate of job vacancies? And I suggest that the data clearly reveal that we have structural problems. The Negro unemployment is structural.

Mr. GOLDFINGER. I agree that there are structural problems in the economy, and I felt that there were structural problems back in 1961 and 1962. But in the summer of 1964, in Rochester, there was an urgent need for jobs for unskilled workers, as well as for training programs.

It seems to me, sir, that when you rely on aggregates, and you get away from detail, you are losing the usefulness and importance of whatever usefulness and importance there may be in job vacancy data. To the extent that you have detail on occupations, on skill requirements, on wage rates and working conditions, on educational requirements, and all of that kind of detailed information on a job market basis, then I think that we are moving into a useful area of information that can and should be used by the local community in

terms of their education programs, vocational training, MDTA, and so forth. But the emphasis on aggregates for determining fiscal and monetary policy, I think, is moving into a dangerous area. And this is what bothers me. The NICB study shows nothing about the unemployment and underemployment of Negroes in Rochester. Yet it could be and probably would have been used to kill off the urgently needed Government programs to create jobs for unskilled workers.

Representative CURTIS. I have certainly hit the time that you are hitting right now. But to me it is ironic that people who are using the limited aggregate statistics we have now to make policy apparently don't want other statistics to be developed on an aggregate basis, even though this would make the aggregates we have a great deal more meaningful. They now use the argument that you do need the composition of that which makes the aggregates.

I happen to think you need both.

Mr. GOLDFINGER. I think we need both too.

Representative CURTIS. I certainly do agree that it is a very dangerous thing to start using aggregate statistics without regard to their limitations. And I have argued this for many years in regard to unemployment statistics. I know Senator Douglas has pointed out, and with good reason, that when we use unemployment statistics we tend to lose sight of the underemployed, those are in and out. And so I argue too, that without any concept of what jobs are going begging, the aggregate unemployment statistics are leading us astray. And I would argue that for a number of years we have been following very erroneous fiscal policies, because the aggregate economists have been able to use this unemployment statistic to support their case for liberal, as they call it, monetary and fiscal policy. For many years it has seemed clear to me that we have a problem of very serious structural and frictional unemployment.

That is why I helped create a group that got behind the development of the Manpower Training Act. The labor leaders were in there trying to say, oh, just extend unemployment benefits. But I said, let's look and see why these people are long-term unemployed. Are the coal mines really going to open up, or isn't this a problem that you don't really solve by giving unemployment benefits. Shouldn't you try to figure out what is the problem? And in my judgment we should have retraining and an early warning system to indicate where jobs and skills were going to become obsolete.

So we get into the structural problems. But we have not been making adequate progress. And this is the one thing that might alert us to these things, and help us to understand not only what is really structural and frictional unemployment, but that which can be cyclical. There is no question but what it is easier to solve structural and frictional unemployment in periods of economic upturn than in a period of economic downturn. That still does not get around the problem that much unemployment is structural. We are still forcing people into the hospitals to fill those skills, people who are not really skilled, and we are doing the best we can to train them on the job. And this is creating some serious safety and health problems, I would observe.

Yes, you can do on-the-job training, force it on in that way. But in my judgment it is not the best way.

Let me put two things on the record here. I have a fifth category of job creation, new enterprise, and particularly some new business coming into the community. And it is interesting to see how it affects the jobs already in existence. When a new enterprise comes in it frequently does not take new employees. It takes people already having jobs. But in the process other jobs open up elsewhere. So I think that is another category.

And then I want to put this on the record. I do not know that there is anything that can be done about it. But I am intrigued with this business of on-the-job training as it relates to the problem of job vacancies and unemployment and specifically to this thing of using the want ads. Many employers say they don't even advertise for this skill because it just isn't available. They say they know that there is only one way they are going to get it, and that is to actually train the man on the job.

I placed in the Congressional Record a couple of months ago a study by an economist who estimated that we are spending between $14 and $16 billion a year in the private sector on on-the-job training. This is a hard statistic to get. But I suspect if we could determine how much on-the-job training a company spends, particularly if we had benchmarks, it would be very revealing. The statistic on quits seems to indicate when the labor market is tight and when it eases up. I think maybe these kinds of additional data would indicate a similar thing.

Thank you, Mr. Chairman.

Chairman PROXMIRE. Thank you, Mr. Curtis.

Mr. Goldfinger?

Mr. GOLDFINGER. I wanted to complete my thought on the issue that I raised concerning the Rochester Negro problem.

It may well be that additional spending programs of a pinpointed nature, aimed at creating jobs for unskilled workers with low levels of education may be necessary, in addition to training and vocational education programs.

Chairman PROXMIRE. I see Mr. Creamer is nodding, and I think all of us would agree with that. I would think that the more information you get, the more data you get, the more detail you get, the more knowledge you get, the quicker we go ahead with this program, the more quickly we can persuade the House to appropriate this, and it seems to me the better we will be equipped.

Mr. GOLDFINGER. But there is a danger in the aggregate. The aggregate could tell us—or it would be misinterpreted to tell us—to halt any expansion in fiscal policy or to cut back on Government expenditure programs.

Representative CURTIS. But let me tell you what happened. The Manpower Training Act went in with the discipline that you cannot train a man unless there is a job in sight. And then the Secretary of Labor reported back and said that we are finding out that some of these people do not even have the ability to read and write, so they cannot be trained for a job in being unless they are taught to write and read. And the Congress in its wisdom—and it was wisdom, I felt—modified the Manpower Training Act so that we can take a person and teach him to read and write as long as it is tied in, still tied in with training for a job.

So this is an indication of how, when you get moving in this area of getting information on the structural and frictional problems, we come up with more correct answers.

Mr. GOLDFINGER. I agree with you. I think the Congress and the administration have done well in this area of moving ahead and getting modifications of MDTA.

Representative CURTIS. Thank you. I think it is a shame we have been so slow. And I still say we have not done the job.

Mr. GOLDFINGER. The tragedy is that we got started so late. But we have been moving ahead since 1961 and 1962.

Representative CURTIS. I would say on the contrary that that is when we slowed down. And it was because these aggregate economists thought they could solve these things by monetary and fiscal policy and avoid the harsh consequences of dealing with these microeconomics.

Chairman PROXMIRE. I want to thank you very much. This has been a most enjoyable, interesting, and educational morning. And I think that you gentlemen have all been very, very helpful.

I do not know if we have come to a definitive conclusion on the basis of this, but it has been mighty well discussed on all sides.

This will conclude the hearings of the subcommittee. The subcommittee will stand adjourned. And the record will be open for a week or so for correcting your remarks——

Representative CURTIS. And extending your remarks.

Let me say—I know the chairman agrees—that if you have thoughts or things that would help, please do extend your remarks, or if you think you can say it better, please do so.

(Whereupon, at 12:40 p.m., the committee adjourned, subject to the call of the Chair.)

(The material requested by the chairman during the proceedings and later supplied by the Department follows—see p. 110:)

Hon. WILLIAM PROXMIRE,
Chairman, Subcommittee on Economic Statistics, Joint Economic Committee, Congress of the United States, Washington, D.C.

DEAR SENATOR PROXMIRE: We are pleased to supply you with the information on job vacancies which you requested in your letter of May 20 as follows:

Enclosure 1: The schedules used in the 1964–1965 program.

Enclosure 2: The schedules used in the 1966 surveys.

Enclosure 3: A table classifying the number of vacancies in the April 1965 surveys by occupation and industry for each area.

Enclosure 4: A table on the number and percent of vacancies offering wages below the entry rates of pay in the area for the April 1965 surveys.

Because of the large number of individual occupations involved in the analysis of this wage data, we have combined the occupations into broad occupational groups. As a result of these groupings, however, we could not indicate the specific entry rates offered for the vacancies since these naturally varied over a wide range within each occupational group. Because of the survey design, the analysis of substandard vacancies was based only on actual vacancies rather than on an inflation of the vacancies to a universe total. If it were to be subsequently demonstrated that smaller firms pay lower wages than larger firms, it would have the effect of understating the percentage of substandard wage vacancies.

We have not enclosed the job vacancy rates which you requested in item 3 of your letter, since information on employment by occupation is not available. As for the rates by industry, the sample used in the fiscal year 1965 surveys was not designed to provide data in this detail for all industries. While for some industries such as manufacturing the data would be accurate, in others such as con-

struction and service it is subject to too large an error because of the smaller samples involved. We have improved the sampling design for our fiscal year 1966 surveys so that this type of detail can be provided. Therefore, we would prefer not to publish job vacancy rates by industry until we have had an opportunity at least to compare the second year's data with the results of the first.

Operational uses of the data were discussed in the testimony given by Mr. Cassell (pages 13–15) and Mr. Chavrid (pages 21–24) at the hearings held on May 17. The continued high rate of response in the April 1965 round of surveys attests to the fact that the surveys were well received. Not reported in the testimony was a letter by the Birmingham Chamber of Commerce supporting the Birmingham survey attached to all survey schedules sent to local employers. In this letter, the Chamber stated that it

". . . recognizes the costliness and wastefulness of this inability to match jobs with trained personnel who are out of work. As a first step in a solution to this problem your Chamber is supporting the Alabama State Employment Service in making a job vacancy survey in the Birmingham area. We believe it is in our best interest to lend a helping hand in solving, on the local level, this economic problem."

Thank you for the opportunity given us to furnish your Subcommittee with the additional job vacancy information and for your continued interest in the program.

Sincerely yours,

ROBERT C. GOODWIN, *Administrator.*

63-947 O—66——12

ENCLOSURE 1—STANDARD SCHEDULE FOLLOWED BY 6 VARIANT SCHEDULES USED IN 1964-65 SURVEYS

JV-1
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C. 20210

Please enter data requested and return in accompanying envelope by December 22.

1	2	3	4	5	6	7	8

REPORT ON JOB VACANCIES

Budget Bureau No. 44-R 1255
Approval Expires 6-30-65

(State Agency Name and Address)

(Change Name and Mailing Address If Incorrect)

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below, by job title, all job vacancies (as defined in attached explanations) in your establishment as of the close of business on December 11. If this is not possible, report vacancies for the nearest possible day. A job vacancy is a job opening that was unfilled and immediately available to full-, part-time, or temporary workers which your firm was actively seeking from outside your company. If no vacancy, write "None" in Column 2.

Occupational Code (Leave Blank)	Job Vacancies: Job Title	Total Number	Number existing: One work week or longer	Number existing: One month or longer	Comments
(1)	(2)	(3)	(4)	(5)	(6)

(Continue on back of form if more space is needed.)

B. REFERENCE DATE: Job vacancies reported above were as of _____ (Date).

C. NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of December? _____

Signature _____ Title _____
(Firm representative responsible for this report)

A. JOB VACANCIES, BY OCCUPATION (Continued)

Occupational Code (Leave Blank)	Job Vacancies: Job Title	Total Number	Number existing: One work week or longer	Number existing: One month or longer	Comments
(1)	(2)	(3)	(4)	(5)	(6)

REMARKS: _____

Note to State agency: This continuation of employer collection form should be printed back to back with page 1 of same form. Do same with "Explanations" attached to employer collection form. Reason: The employer should receive as few sheets of paper as possible.

EXPLANATIONS FOR REPORT ON JOB VACANCIES

(Please read before entering data on report form)

A. JOB VACANCIES are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are part-time, full-time, permanent, temporary, seasonal and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies 1) jobs held for employees who will be recalled; 2) jobs to be filled by transfer, promotion, or demotion; 3) jobs held for workers on paid or unpaid leave; 4) jobs filled by overtime work which are not intended to be filled by new workers; 5) job openings for which new workers were already hired and scheduled to start work at a later date; and 6) those jobs unoccupied because of labor-management disputes.

B. REFERENCE DATE: Enter date for which vacancies are reported as Item B on page 1.

C. NUMBER OF EMPLOYEES: Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of December. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period.

Column 1: Leave blank. For office use only.

Column 2: List job titles for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each job title listed in Column 2, report the total number of job vacancies.

Column 4: For each job title enter the number of job vacancies included in Column 3 which have existed one work week or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 5: Of the numbers shown in Column 4, enter the number of job vacancies which have existed for 1 month or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 6: Enter comments explaining why job vacancies are hard to fill. If additional space is needed, use "Remarks" section on back of form.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____.
(Name) (Phone No.)

When form is completed, please return in the accompanying self-addressed stamped envelope by December 22.

Thank you for your cooperation.

Note to State agency: This 2nd page of "Explanations" should be printed back to back with first page of "Explanations."

JV-2
U.S. DEPARTMENT OF LABOR
Washington, D.C. 20210

1	2	3	4	5	6	7	8

Budget Bureau No. 44-R 1255
Approval Expires 6-30-65

Please enter data requested and return in accompanying envelope by December 22.

REPORT ON JOB VACANCIES

(State Agency Name and Address)

(Change Name and Mailing Address If Incorrect)
/ /
/ /

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below, by job title, all job vacancies (as defined in attached explanations) in your establishment as of the close of business on December 11. If this is not possible, report vacancies for the nearest possible day. A job vacancy is a job opening that was unfilled and immediately available to full-, part-time, or temporary workers which your firm was actively seeking from outside your company. If no vacancy, write "None" in Column 2, complete items B and C, and return the report.

	Job Vacancies				Rate of pay offered	
			Number existing:			
Occupational Code (Leave Blank)	Job Title	Total Number	One work week or longer	One month or longer	Amount	Indicate whether per hour, week, or month
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(Continue on back of form if more space is needed.)

B. REFERENCE DATE: Job vacancies reported above were as of _____ (Date).

C. NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of December? _____

Signature _____ Title _____
(Firm representative responsible for this report.)

A. JOB VACANCIES, BY OCCUPATION (Continued)

Occupational Code (Leave Blank)	Job Vacancies				Rate of pay offered	
	Job Title	Total Number	Number existing: One work week or longer	Number existing: One month or longer	Amount	Indicate whether per hour, week, or month
(1)	(2)	(3)	(4)	(5)	(6)	(7)

REMARKS: _____

Note to State agency: This continuation of employer collection form should be printed back to back with page 1 of same form. Do same with "Explanations" attached to employer collection form. Reason: The employer should receive as few sheets of paper as possible.

EXPLANATIONS FOR REPORT ON JOB VACANCIES

(Please read before entering data on report form)

A. JOB VACANCIES are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies 1) jobs held for employees who will be recalled; 2) jobs to be filled by transfer, promotion, or demotion; 3) jobs held for workers on paid or unpaid leave; 4) jobs filled by overtime work which are not intended to be filled by new workers; 5) job openings for which new workers were already hired and scheduled to start work at a later date; and 6) those jobs unoccupied because of labor-management disputes.

B. REFERENCE DATE: Enter date for which vacancies are reported as Item B on page 1. Enter date even though you report no vacancies.

C. NUMBER OF EMPLOYEES: Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12 of December. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Enter this figure even though you report no vacancies.

Column 1: Leave blank. For office use only.

Column 2: List job titles for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each job title listed in Column 2, report the total number of job vacancies.

Column 4: For each job title enter the number of job vacancies included in Column 3 which have existed one work week or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 5: Of the numbers shown in Column 4, enter the number of job vacancies which have existed for 1 month or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 6: For each job vacancy listed in Column 2, enter on the line opposite that vacancy, the rate of pay offered for the job to which the job vacancy relates. The entry of a single rate of pay is preferred; however, where a range of pay rates is offered depending on the varying educational training and experience qualifications of prospective applicants, the entry of the offered pay rate range (that is, the low and high pay rates offered) will be acceptable. Wherever possible, please enter hourly pay rates. If the wage offered for the opening is on a piece work or commission incentive basis, please enter the estimated average full-time weekly earnings the new worker is expected to receive.

Column 7: For each pay rate (or pay rate range) entered in Column 6, enter the basis on which the offered pay rate is quoted in Column 6 (for example, indicate whether the pay rate given is per hour, per week, per month).

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) (Phone No.)

When form is completed, please return in the accompanying self-addressed stamped envelope by December 22. Please do so even though you report no vacancy.

Thank you for your cooperation.

Note to State agency: This 2nd page of "Explanations" should be printed back to back with first page of "Explanations."

DL
U.S. ~~DEPARTMENT OF LABOR~~
WASHINGTON, D.C. 20210

1	2	3	4	5	6	7	8

Budget Bureau No. 44-R 1255
Approval Expires 6-30-65

Please enter data requested and return in accompanying envelope by December 1.

REPORT ON JOB VACANCIES

(State Agency Name and Address)

(Change Name and Mailing Address If Incorrect)

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below, by job title, all job vacancies (as defined in attached explanations) in your establishment as of the close of business on November 20. If this is not possible, report vacancies for the nearest possible day. A job vacancy is a job opening that was unfilled and immediately available to full-, part-time, or temporary workers which your firm was actively seeking from outside your company. If no vacancy, write "None" in Column 2.

	Job Vacancies			
Occupational Code (Leave Blank)	Job Title	Total Number	Number existing one month or longer	Comments
(1)	(2)	(3)	(4)	(5)

(Continue on back of form if more space is needed)

B. REFERENCE DATE: Job vacancies reported above were as of _____ (Date).

C. NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of November? _____

Signature _____ Title _____
(Firm representative responsible for this report.)

A. JOB VACANCIES, BY OCCUPATION (Continued)

Occupational Code (Leave Blank)	Job Vacancies			Comments
	Job Title	Total Number	Number existing one month or longer	
(1)	(2)	(3)	(4)	(5)

REMARKS: _____

Note to State agency: This continuation of employer collection form should be printed back to back with page 1 of same form. Do same with "Explanations" attached to employer collection form. Reason: The employer should receive as few sheets of paper as possible.

EXPLANATIONS FOR REPORT ON JOB VACANCIES

(Please read before entering data on report form)

A. JOB VACANCIES are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or compaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies 1) jobs held for employees who will be recalled; 2) jobs to be filled by transfer, promotion, or demotion; 3) jobs held for workers on paid or unpaid leave; 4) jobs filled by overtime work which are not intended to be filled by new workers; 5) job openings for which new workers were already hired and scheduled to start work at a later date; and 6) those jobs unoccupied because of labor-management disputes.

B. REFERENCE DATE: Enter date for which vacancies are reported as Item B on page 1.

C. NUMBER OF EMPLOYEES: Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of November. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period.

Column 1: Leave blank. For office use only.

Column 2: List job titles for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each job title listed in Column 2, report the total number of job vacancies.

Column 4: Of the numbers shown in Column 3, enter the number of job vacancies which have existed for 1 month or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 5: Enter comments explaining why job vacancies are hard to fill. If additional space is needed, use "Remarks" section on back of form.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) (Phone No.)

When form is completed, please return in the accompanying self-addressed stamped envelope by December 1.

Thank you for your cooperation.

Note to State agency: This 2nd page of "Explanations" should be printed back to back with first page of "Explanations."

JV-4
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C. 20210

Please enter data requested and return in accompanying envelope by December 22.

1	2	3	4	5	6	7	8

REPORT ON JOB VACANCIES

Budget Bureau No. 44-R 1255
Approval Expires 6-30-65

(State Agency Name and Address)

(Change Name and Mailing Address If Incorrect)

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA, PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below, by job title, all job vacancies (as defined in attached explanations) in your establishment as of the close of business on December 11. If this is not possible, report vacancies for the nearest possible day. A job vacancy is a job opening that was unfilled and immediately available to full-, part-time, or temporary workers which your firm was actively seeking from outside your company. If no vacancy, write "None" in Column 2, complete items B and C, and return the report.

Occupational Code (Leave Blank)	Job Vacancies		Comments
	Job Title	Total Number	
(1)	(2)	(3)	(4)

(Continue on back of form if more space is needed)

B REFERENCE DATE: Job vacancies reported above were as of _____ (Date).

C NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of December? _____

Signature _____ Title _____
(Firm representative responsible for this report.)

A. JOB VACANCIES, BY OCCUPATION (Continued)

Occupational Code (Leave Blank)	Job Vacancies		Comments
	Job Title	Total Number	
(1)	(2)	(3)	(4)

REMARKS: _____

Note to State agency: This continuation of employer collection form should be printed back to back with page 1 of same form. Do same with "Explanations" attached to employer collection form. Reason: The employer should receive as few sheets of paper as possible.

EXPLANATIONS FOR REPORT ON JOB VACANCIES

(Please read before entering data on report form)

A. JOB VACANCIES are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, permanent, temporary, seasonal and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate", "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies (1) jobs held for employees who will be recalled; (2) jobs to be filled by transfer, promotion, or demotion; (3) jobs held for workers on paid or unpaid leave; (4) jobs filled by overtime work which are not intended to be filled by new workers; (5) job openings for which new workers were already hired and scheduled to start work at a later date; and (6) those jobs unoccupied because of labor-management disputes.

B. REFERENCE DATE: Enter date for which vacancies are reported as Item B on page 1. Enter date even though you report no vacancies.

C. NUMBER OF EMPLOYEES: Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of December. Include persons on vacation and sick leave for which they received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Enter this figure even though you report no vacancies.

Column 1: Leave blank. For office use only.
Column 2: List job titles for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.
Column 3: For each job title listed in Column 2, report the total number of job vacancies.

Column 4: Enter comments explaining why job vacancies are hard to fill. If additional space is needed, use "Remarks" section on back of form.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) (Phone No.)

When form is completed, please return in the accompanying self-addressed stamped envelope by December 22. Please do so even though you report no vacancies.

Thank you for your cooperation.

Note to State agency: This 2nd page of "Explanations" should be printed back to back with first page of "Explanations."

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JV-5
U.S. DEPARTMENT OF LABOR
Washington, D.C. 20210

1	2	3	4	5	6	7	8

Budget Bureau No. 44-R 1255
Approval Expires 6-30-65

(State Agency Name and Address)

Please enter data requested and return in accompanying envelope by December 22.

REPORT ON JOB VACANCIES

(Change Name and Mailing Address If Incorrect)

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below, by job title, all job vacancies (as defined in attached explanations) in your establishment as of the close of business on December 11. If this is not possible, report vacancies for the nearest possible day. A job vacancy is a job opening that was unfilled and immediately available to full-, part-time, or temporary workers which your firm was actively seeking from outside your company. If no vacancy, write "None" in Column 2, complete items B and C below, and return your report.

	Job Vacancies				
		Total		ALL Vacancies Existing	
D.O.T. Code (Leave Blank)	Job Title	Number	Part-time only	One work week or longer	One month or longer
(1)	(2)	(3)	(4)	(5)	(6)

(Continue on back of form if more space is needed.)

B. REFERENCE DATE: Job Vacancies reported above were as of _____ (Date).

C. NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of December? _____

Signature _____ Title _____
(Firm representative responsible for this report.)

A. JOB VACANCIES, BY OCCUPATION (Continued)

D.O.T. Code (Leave Blank)	Job Title	Job Vacancies			
		Total		ALL Vacancies Existing	
		Number	Part-time only	One work week or longer	One month or longer
(1)	(2)	(3)	(4)	(5)	(6)

REMARKS: _____

Note to State agency: This continuation of employer collection form should be printed back to back with page 1 of same form. Do same with "Explanations" attached to employer collection form. Reason: The employer should receive as few sheets of paper as possible.

EXPLANATIONS FOR REPORT ON JOB VACANCIES

(Please read before entering data on report form)

A. JOB VACANCIES are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking workers. Included are full-time, part-time, permanent, temporary, seasonal and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate", "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies 1) jobs held for employees who will be recalled; 2) jobs to be filled by transfer, promotion, or demotion; 3) jobs held for workers on paid or unpaid leave; 4) jobs filled by overtime work which are not intended to be filled by new workers; 5) job openings for which new workers were already hired and scheduled to start work at a later date; and 6) those jobs unoccupied because of labor-management disputes.

B. REFERENCE DATE: Enter date for which vacancies are reported as Item B on page 1. Enter date even though you report no vacancies.

C. NUMBER OF EMPLOYEES: Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of December. Include persons on vacation and sick leave for which they received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Enter this figure even though you report no vacancies.

Column 1: Leave blank. For office use only.

Column 2: List job titles for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal". Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each job title listed in Column 2, report the total number of job vacancies.

Column 4: For each job title enter the number of vacancies included in Column 3 which are for positions in which the weekly hours to be worked are less than the customary straight-time work week for the occupation. If the job vacancy is open to either full-time or part-time workers, please report it as a full-time vacancy in Column 3. If none, enter "None." If the information cannot be provided, enter "X". Do not leave blank.

Column 5: For each job title enter the number of job vacancies included in Column 3 which have existed one work week or longer. If none, enter "None." If information cannot be provided, enter "X". Do not leave blank.

Column 6: Of the numbers shown in Column 5, enter the number of job vacancies which have existed for 1 month or longer. If none, enter "None." If information cannot be provided, enter "X". Do not leave blank.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) (Phone No.)

When form is completed, please return in the accompanying self-addressed stamped envelope by December 22. Please do so even if you report no vacancies.

Thank you for your cooperation.

Note to State agency: This 2nd page of "Explanations" should be printed back to back with first page of "Explanations."

JV-6
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C. 20210

Budget Bureau No. 44-R 1255
Approval Expires 6-30-65

Please enter data requested and return in accompanying envelope by December 22.

1 2 3 4 5 6 7 8

REPORT ON JOB VACANCIES

(State Agency Name and Address)

(Change Name and Mailing Address If Incorrect)

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA, PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below, by job title, all job vacancies (as defined in attached explanations) in your establishment as of the close of business on December 11. If this is not possible, report vacancies for the nearest possible day. A job vacancy is a job opening that was unfilled and immediately available to full-, part-time, or temporary workers which your firm was actively seeking from outside your company. If no vacancy, write "None" in column 2, complete items B and C below and return your report.

D.O.T. Code (Leave Blank)	Job Title	Job Vacancies: Total Number	Temporary only: 3 days or less	Temporary only: over 3 days to 4 months	ALL Vacancies Existing: One week or longer	ALL Vacancies Existing: One month or longer
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(Continue on back of form if more space is needed).

B. REFERENCE DATE: Job vacancies reported above were as of _____ (Date).

C. NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of December? _____

Signature _____ Title _____
(Firm representative responsible for this report.)

A. JOB VACANCIES, BY OCCUPATION (Continued)

D.O.T. Code (Leave Blank)	Job Vacancies					
		Total	Temporary only		ALL Vacancies Existing	
	Job Title	Number	3 days or less	over 3 days to 4 months	One week or longer	One month or longer
(1)	(2)	(3)	(4)	(5)	(6)	(7)

REMARKS: _____

Note to State agency: This continuation of employer collection form should be printed back to back with page 1 of same form. Do same with "Explanations" attached to employer collection form. Reason: The employer should receive as few sheets of paper as possible.

EXPLANATIONS FOR REPORT ON JOB VACANCIES

A. JOB VACANCIES are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "Help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment program or campaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

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B. REFERENCE DATE: Enter data for which vacancies are reported as Item B on page 1. Enter date even though you report no vacancies.

C. NUMBER OF EMPLOYEES: Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of December. Include persons on vacation and sick leave for which they received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Enter this figure even though you report no vacancies.

Column 1: Leave blank. For office use only.

Column 2: List job titles for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each job title listed in Column 2, report the total number of job vacancies.

Column 4: Enter the number of job vacancies for short-time jobs, i.e., those expected to last for 3 days or less.

Column 5: For each job title, enter the number of job vacancies included in Column 3 which represent openings for temporary workers. A temporary job is a job expected to last more than 3 days but not longer than 4 months.

Column 6: For each job title, enter the number of job vacancies included in Column 3 which have existed one work week or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

Column 7: Of the numbers shown in Column 6, enter the number of job vacancies which have existed for 1 month or longer. If none, enter "None." If information cannot be provided, enter "X." Do not leave blank.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) (Phone No.)

When form is completed, please return in the accompanying self-addressed stamped envelope by December 22. Please do so even though you report no vacancy.

Thank you for your cooperation.

Note to State agency: This 2nd page of "Explanations" should be printed back to back with first page of "Explanations."

JV-7
U.S. DEPARTMENT OF LABOR
WASHINGTON, D.C. 20210

Please enter data requested and return in accompanying envelope by December 22.

1	2	3	4	5	6	7	8

REPORT ON JOB VACANCIES

Budget Bureau No. 44-R 1255
Approval Expires 6-30-65

(State Agency Name and Address)

(Change Name and Mailing Address If Incorrect)

Information reported on this form is strictly confidential, and will not be revealed to any unauthorized person nor published in such a manner that data relating to individual companies can be identified.

BEFORE ENTERING DATA, PLEASE READ EXPLANATIONS ATTACHED

A. JOB VACANCIES, BY OCCUPATION. List below each individual job vacancy (as defined in attached explanations) existing in your establishment as of the close of business on December 11. If it is not possible to report for that date, do so for the nearest possible date. Use a separate line for each individual job vacancy and enter on that line all information about the job vacancy requested in Columns 2 through 6b. A job vacancy is a job opening that was unfilled and immediately available to full-time, part-time, or temporary workers which your firm was actively seeking from outside your company. If you have no job vacancies, write "None" in Column 2, complete items B and C below, and return your report.

Occ. Code (Leave Blank)	Job Title	How long has job vacancy existed? (Check one)			How long is job expected to last? (Check one)			Is this a full-time or part-time job? (Check one)		What rate of pay is offered for this job?	
		Less than 1 week	1 week but less than 1 month	1 month or longer	3 days or less	Over 3 days to 4 mos., incl	Over 4 months	Full-time	Part-time	Amount	Indicate whether pay rate is per hour, week, month
(1)	(2)	(3a)	(3b)	(3c)	(4a)	(4b)	(4c)	(5a)	(5b)	(6a)	(6b)

(Continue on back of form if more space is needed).

B. REFERENCE DATE: Job vacancies reported above were as of _____ (date)

C. NUMBER OF EMPLOYEES: What was the total number of employees who worked during or received pay for any part of the pay period which includes the 12th of December? _____

Signature _____ Title _____
(Firm representative responsible for this report).

A. JOB VACANCIES, BY OCCUPATION (Continued)

Occ. Code (Leave Blank)	Job Title	How long has job vacancy existed? (Check one)			How long is job expected to last? (Check one)			Is this a full-time or part-time job? (Check one)		What rate of pay is offered for this job?	
		Less than 1 week	1 week but less than 1 month	1 month or longer	3 days or less	Over 3 days to 4 mos., incl.	Over 4 months	Full-time	Part-time	Amount	Indicate whether pay rate is per hour, week, month
(1)	(2)	(3a)	(3b)	(3c)	(4a)	(4b)	(4c)	(5a)	(5b)	(6a)	(6b)

REMARKS: _____

Note to State agency: This continuation of employer collection form should be printed back to back with page 1 of same form. Do same with "Explanations" attached to employer collection form. Reason: The employer should receive as few sheets of paper as possible. Also: Horizontal lines in item A should be reproduced as shown on schedule.

EXPLANATIONS FOR REPORT ON JOB VACANCIES

(Please read before entering data on report form)

A. JOB VACANCIES are defined as current, unfilled job openings in your establishment which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate", "walk-in" or "mail" applicants for workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies 1) jobs held for employees who will be recalled; 2) jobs to be filled by transfer, promotion, or demotion; 3) jobs held for workers on paid or unpaid leave; 4) jobs filled by overtime work which are not intended to be filled by new workers; 5) job openings for which new workers were already hired and scheduled to start work at a later date; and 6) those jobs unoccupied because of labor-management disputes.

B. REFERENCE DATE: Enter date for which vacancies are reported as Item B on page 1. Enter date even though you report no vacancies.

C. NUMBER OF EMPLOYEES: Enter the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of December. Include persons on vacation and sick leave for which they received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Enter this figure even though you report no vacancies.

Column 1: Leave blank. For office use only.

Column 2: Enter the job title for each individual job vacancy existing in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal". Use a separate line for each individual job vacancy. If job vacancies exist for several classes or grades within a specific job title, each class or grade should be separately identified and listed.

Columns 3a, b, c: For each job vacancy listed in Column 2, enter on the line opposite that vacancy a check mark in the appropriate one of these three columns to indicate how long that job vacancy (as defined above) has existed.

Columns 4a, b, c: For each job vacancy listed in Column 2, enter on the line opposite that vacancy a check mark in the appropriate one of these three columns to indicate how long the job to which that job vacancy relates is expected to last.

Columns 5a, b: For each job vacancy listed in Column 2, enter on the line opposite that vacancy a check mark in the appropriate one of these two columns to indicate whether the job to which that job vacancy relates is a full-time or part-time job. A part-time job is defined as one where the weekly hours to be worked are less than the customary straight-time work week for the occupation. If the job vacancy is open to either full-time or part-time workers, please report it as a full-time job.

Column 6a: For each job vacancy listed in Column 2, enter on the line opposite that vacancy the rate of pay offered for the job to which the job vacancy relates. The entry of a single rate of pay is preferred; however, where a range of pay rates is offered, depending on the varying educational, training and experience qualifications of prospective applicants, the entry of the offered pay rate range (that is, the low and high pay rates offered) will be acceptable. Wherever possible, please enter hourly pay rates. If the wage offered for the opening is on a piece work or commission incentive basis, please enter the estimated average full-time weekly earnings the new worker is expected to receive.

Column 6b: For each pay rate (or pay rate range) entered in Column 6a, enter the basis on which the offered pay rate is quoted in column 6a (for example, indicate whether the pay rate given is per hour, per week, per month).

REMARKS: On back of form enter comments explaining which of the job vacancies listed you consider hard to fill and reasons for difficulty. Add any other remarks that may be pertinent.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) (Phone No.)

When form is completed, please return in the accompanying self-addressed stamped envelope by December 22. Please do so even though you report no vacancies.

Thank you for your cooperation.

Note to State agency: This 2nd page of "Explanations" should be printed back to back with first page of "Explanations".

Enclosure 2—Standard Schedule Followed by 3 Variant Schedules Used in 1966 Program

U.S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
BUREAU OF EMPLOYMENT SECURITY
WASHINGTON, D.C. 20210

Budget Bureau No. 44-S809
Approval Expires: 8/31/66

Date:

REPORT ON JOB VACANCIES

INFORMATION FURNISHED ON THIS REPORT IS STRICTLY CONFIDENTIAL AND WILL NOT BE REVEALED TO ANY UNAUTHORIZED PERSON NOR PUBLISHED IN SUCH A MANNER THAT DATA RELATING TO INDIVIDUAL COMPANIES CAN BE IDENTIFIED. PLEASE READ THE INSTRUCTIONS ON THE BACK OF THIS FORM BEFORE ENTERING THE DATA ON THIS REPORT, AND RETURN THE REPORT IN THE ACCOMPANYING ENVELOPE BY APRIL 8, 1966 TO: (NAME AND ADDRESS OF AGENCY)

(CHANGE NAME OR ADDRESS IF INCORRECT)

DO NOT USE

State (1)	Date (2)	Area (3)	SIC (4)
ID (5)		Base (6)	

Size (7)	TC (8)	NC (9)	ORD (10)	ES (11)	Cards (12)	Wk (13)

1. TOTAL NUMBER OF EMPLOYEES: ENTER THE TOTAL NUMBER OF EMPLOYEES WHO WORKED OR RECEIVED PAY FOR ANY PART OF THE PAY PERIOD WHICH INCLUDES THE 12th OF MARCH (SEE INSTRUCTIONS ON BACK OF THIS FORM). →

2. JOB VACANCIES BY OCCUPATION: LIST BELOW, BY JOB TITLE, ALL JOB VACANCIES (AS DEFINED ON THE BACK OF THIS FORM) IN YOUR ESTABLISHMENT, AND THE RATE OF PAY OFFERED, AS OF THE CLOSE OF BUSINESS, APRIL 1, 1966 (OR THE NEAREST POSSIBLE DAY). A JOB VACANCY IS A JOB OPENING THAT IS UNFILLED AND IMMEDIATELY AVAILABLE TO FULL-, PART-TIME, OR TEMPORARY WORKERS WHICH YOUR FIRM IS ACTIVELY SEEKING FROM OUTSIDE YOUR COMPANY.

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR, DAY, WEEK, MONTH, ETC.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

(CONTINUE ON BACK OF FORM IF MORE SPACE IS NEEDED)

3. PLEASE CHECK THIS BOX IF YOU WOULD LIKE THE ASSISTANCE OF THE (NAME OF STATE AGENCY) IN FILLING ANY OF YOUR JOB VACANCIES →

SIGNATURE (Person responsible for this report) TITLE DATE FOR WHICH JOB VACANCIES WERE REPORTED

2. JOB VACANCIES BY OCCUPATION: (Continued)

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR, DAY, WEEK, MONTH, ETC.	
(1)	(2)	(3)	(4)	(5)	(6)	(7)

INSTRUCTIONS FOR REPORT ON JOB VACANCIES

1. **Number of Employees:** Enter in the box to the right of item 1 the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of March. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Please enter this figure even though you report no vacancies.

2. **Job Vacancies, by Occupation:** Enter the number of current, unfilled job openings in your establishment as of the close of business, April 1, 1966 which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal, and short-term job openings.

   "Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

   Do not include as vacancies (1) jobs held for employees who will be recalled; (2) jobs to be filled by transfer, promotion, or demotion; (3) jobs held for workers on paid or unpaid leave; (4) jobs filled by overtime work which are not intended to be filled by new workers; (5) job openings for which new workers were already hired and scheduled to start work at a later date; and (6) those jobs unoccupied because of labor-management disputes.

   Column 1: Leave blank. For office use only.

   Column 2: List the names of the occupations for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

   Column 3: For each occupation listed in column 2, report the total number of job vacancies.

   Column 4: For each occupation, enter the number of job vacancies included in column 3 which have been vacant for one month or longer. If none, enter "0". If information cannot be provided, enter "X." Do not leave blank.

   Column 5: For each occupation, enter in column 5 the rate of pay offered for the job to which the vacancy relates. Please enter a single rate of pay wherever possible. However, where a range of pay rates is offered, depending upon the education, training, and experience of the job applicant, the entry levels of the low and high pay rates offered will be acceptable. Please enter hourly pay rates in column 5 wherever possible.

   If the wage rate offered for the job vacancy is on a piece work or commission incentive basis, or if tips comprise part of the worker's earnings, please enter the average full-time earnings which a new worker can be expected to receive.

   Column 6: For each pay rate (or pay rate range) entered in column 5, please enter the basis on which the offered pay rate is quoted, that is, whether the pay rate given is per hour, per week, per month, etc.

   Column 7: Leave blank. For office use only.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) *(Telephone Number)*

When report is completed, please return it in the accompanying self-addressed stamped envelope by April 8, 1966. **PLEASE DO SO EVEN THOUGH YOU HAVE NO VACANCIES TO REPORT.** Thank you for your cooperation.

U.S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
BUREAU OF EMPLOYMENT SECURITY
WASHINGTON, D.C. 20210

Budget Bureau No. 44-R609
Approval Expires: 8/31/66

Date:

REPORT ON JOB VACANCIES

INFORMATION FURNISHED ON THIS REPORT IS STRICTLY CONFIDENTIAL AND WILL NOT BE REVEALED TO ANY UNAUTHORIZED PERSON NOR PUBLISHED IN SUCH A MANNER THAT DATA RELATING TO INDIVIDUAL COMPANIES CAN BE IDENTIFIED. PLEASE READ THE INSTRUCTIONS ON THE BACK OF THIS FORM BEFORE ENTERING THE DATA ON THIS REPORT, AND RETURN THE REPORT IN THE ACCOMPANYING ENVELOPE BY APRIL 8, 1966 TO: (NAME AND ADDRESS OF AGENCY)

(CHANGE NAME OR ADDRESS IF INCORRECT)

To:

DO NOT USE

State (1)	Data (2)	Area (3)	SIC (4)
TD (5)			Base (6)

Size (7)	TC (8)	RC (9)	ORD (10)	ES (11)	Cards (12)	WA (13)

1. TOTAL NUMBER OF EMPLOYEES: ENTER THE TOTAL NUMBER OF EMPLOYEES WHO WORKED OR RECEIVED PAY FOR ANY PART OF THE PAY PERIOD WHICH INCLUDES THE 12th OF MARCH (SEE INSTRUCTIONS ON THE BACK OF THIS FORM). →

2. JOB VACANCIES BY OCCUPATION: LIST BELOW, BY JOB TITLE, ALL JOB VACANCIES (AS DEFINED ON THE BACK OF THIS FORM) IN YOUR ESTABLISHMENT, AND THE RATE OF PAY OFFERED, AS OF THE CLOSE OF BUSINESS, APRIL 1, 1966 (OR THE NEAREST POSSIBLE DAY). A JOB VACANCY IS A JOB OPENING THAT IS UNFILLED AND IMMEDIATELY AVAILABLE TO FULL-, PART-TIME, OR TEMPORARY WORKERS WHICH YOUR FIRM IS ACTIVELY SEEKING FROM OUTSIDE YOUR COMPANY.

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)	NUMBER OF TEMPORARY JOB VACANCIES INCLUDED IN COLUMN (3)*
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR DAY, WEEK, MONTH, ETC.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(CONTINUE ON BACK OF FORM IF MORE SPACE IS NEEDED)

*VACANCIES FOR POSITIONS EXPECTED TO LAST NO LONGER THAN 4 MONTHS.

3. PLEASE CHECK THIS BOX IF YOU WOULD LIKE THE ASSISTANCE OF THE (NAME OF STATE AGENCY) IN FILLING ANY OF YOUR JOB VACANCIES →

SIGNATURE (Person responsible for this report) TITLE DATE FOR WHICH JOB VACANCIES WERE REPORTED

2. JOB VACANCIES BY OCCUPATION: (Continued)

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)	NUMBER OF TEMPORARY JOB VACANCIES INCLUDED IN COLUMN (3)*
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR DAY, WEEK, MONTH, ETC.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

INSTRUCTIONS FOR REPORT ON JOB VACANCIES

1. **Number of Employees:** Enter in the box to the right of item 1 the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of March. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Please enter this figure even though you report no vacancies.

2. **Job Vacancies, by Occupation:** Enter the number of current, unfilled job openings in your establishment as of the close of business, April 1, 1966 which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal, and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies (1) jobs held for employees who will be recalled; (2) jobs to be filled by transfer, promotion, or demotion; (3) jobs held for workers on paid or unpaid leave; (4) jobs filled by overtime work which are not intended to be filled by new workers; (5) job openings for which new workers were already hired and scheduled to start work at a later date; and (6) those jobs unoccupied because of labor-management disputes.

Column 1: Leave blank. For office use only.

Column 2: List the names of the occupations for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each occupation listed in column 2, report the total number of job vacancies.

Column 4: For each occupation, enter the number of job vacancies included in column 3 which have been vacant for one month or longer. If none, enter "0." If information cannot be provided, enter "X." Do not leave blank.

Column 5: For each occupation, enter in column 5 the rate of pay offered for the job to which the vacancy relates. Please enter a single rate of pay wherever possible. However, where a range of pay rates is offered, depending upon the education, training, and experience of the job applicant, the entry levels of the low and high pay rates offered will be acceptable. Please enter hourly pay rates in column 5 wherever possible.

If the wage rate offered for the job vacancy is on a piece work or commission incentive basis, or if tips comprise part of the worker's earnings, please enter the average full-time earnings which a new worker can be expected to receive.

Column 6: For each pay rate (or pay rate range) entered in column 5, please enter the basis on which the offered pay rate is quoted, that is, whether the pay rate given is per hour, per week, per month, etc.

Column 7: Leave blank. For office use only.

Column 8: For each occupation, enter in column 8 the number of vacancies included in column 3 which are for temporary positions. Temporary vacancies are defined as positions which are expected to last no longer than four months. If none, enter "0." If the information cannot be provided, enter "X." Do not leave blank.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) *(Telephone Number)*

When report is completed, please return it in the accompanying self-addressed stamped envelope by April 8, 1966. **PLEASE DO SO EVEN THOUGH YOU HAVE NO VACANCIES TO REPORT.** Thank you for your cooperation.

U.S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
BUREAU OF EMPLOYMENT SECURITY
WASHINGTON, D.C. 20210

Budget Bureau No. 44-6609
Approval Expires: 8/31/66

Date:

REPORT ON JOB VACANCIES

INFORMATION FURNISHED ON THIS REPORT IS STRICTLY CONFIDENTIAL AND WILL NOT BE REVEALED TO ANY UNAUTHORIZED PERSON NOR PUBLISHED IN SUCH A MANNER THAT DATA RELATING TO INDIVIDUAL COMPANIES CAN BE IDENTIFIED. PLEASE READ THE INSTRUCTIONS ON THE BACK OF THIS FORM BEFORE ENTERING THE DATA ON THIS REPORT, AND RETURN THE REPORT IN THE ACCOMPANYING ENVELOPE BY APRIL 8, 1966 TO: (NAME AND ADDRESS OF AGENCY)

(CHANGE NAME OR ADDRESS IF INCORRECT)

To:

DO NOT USE

State (1)	Cnty (2)	Area (3)	STC (4)
TD (5)		Case (6)	

Size (7)	TC (8)	NC (9)	ORO (10)	ES (11)	Cards (12)	Wk (13)

1. TOTAL NUMBER OF EMPLOYEES: ENTER THE TOTAL NUMBER OF EMPLOYEES WHO WORKED OR RECEIVED PAY FOR ANY PART OF THE PAY PERIOD WHICH INCLUDES THE 12th OF MARCH (SEE INSTRUCTIONS ON THE BACK OF THIS FORM). →

2. JOB VACANCIES BY OCCUPATION: LIST BELOW, BY JOB TITLE, ALL JOB VACANCIES (AS DEFINED ON THE BACK OF THIS FORM) IN YOUR ESTABLISHMENT, AND THE RATE OF PAY OFFERED, AS OF THE CLOSE OF BUSINESS, APRIL 1, 1966 (OR THE NEAREST POSSIBLE DAY). A JOB VACANCY IS A JOB OPENING THAT IS UNFILLED AND IMMEDIATELY AVAILABLE TO FULL-, PART-TIME, OR TEMPORARY WORKERS WHICH YOUR FIRM IS ACTIVELY SEEKING FROM OUTSIDE YOUR COMPANY.

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)	NUMBER OF PART-TIME JOB VACANCIES INCLUDED IN COLUMN (3)*
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR, DAY, WEEK, MONTH, ETC.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(CONTINUE ON BACK OF FORM IF MORE SPACE IS NEEDED)

*VACANCIES FOR POSITIONS IN WHICH THE WEEKLY HOURS TO BE WORKED ARE LESS THAN THE CUSTOMARY STRAIGHT TIME WORK WEEK FOR THE OCCUPATION.

3. PLEASE CHECK THIS BOX IF YOU WOULD LIKE THE ASSISTANCE OF THE (NAME OF STATE AGENCY) IN FILLING ANY OF YOUR JOB VACANCIES →

SIGNATURE (Person responsible for this report) TITLE DATE FOR WHICH JOB VACANCIES WERE REPORTED

2. JOB VACANCIES BY OCCUPATION: (Continued)

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)	NUMBER OF PART-TIME JOB VACANCIES INCLUDED IN COLUMN (3)*
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR, DAY, WEEK, MONTH, ETC.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

INSTRUCTIONS FOR REPORT ON JOB VACANCIES

1. **Number of Employees:** Enter in the box to the right of item 1 the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of March. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Please enter this figure even though you report no vacancies.

2. **Job Vacancies, by Occupation:** Enter the number of current, unfilled job openings in your establishment as of the close of business, April 1, 1966 which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal, and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies (1) jobs held for employees who will be recalled; (2) jobs to be filled by transfer, promotion, or demotion; (3) jobs held for workers on paid or unpaid leave; (4) jobs filled by overtime work which are not intended to be filled by new workers; (5) job openings for which new workers were already hired and scheduled to start work at a later date; and (6) those jobs unoccupied because of labor-management disputes.

Column 1: Leave blank. For office use only.

Column 2: List the names of the occupations for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, e.g., "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each occupation listed in column 2, report the total number of job vacancies.

Column 4: For each occupation, enter the number of job vacancies included in column 3 which have been vacant for one month or longer. If none, enter "0." If information cannot be provided, enter "X." Do not leave blank.

Column 5: For each occupation, enter in column 5 the rate of pay offered for the job to which the vacancy relates. Please enter a single rate of pay wherever possible. However, where a range of pay rates is offered, depending upon the education, training, and experience of the job applicant, the entry levels of the low and high pay rates offered will be acceptable. Please enter hourly pay rates in column 5 wherever possible.

If the wage rate offered for the job vacancy is on a piece work or commission incentive basis, or if tips comprise part of the worker's earnings, please enter the average full-time earnings which a new worker can be expected to receive.

Column 6: For each pay rate (or pay rate range) entered in column 5, please enter the basis on which the offered pay rate is quoted, that is, whether the pay rate given is per hour, per week, per month, etc.

Column 7: Leave blank. For office use only.

Column 8: For each occupation, enter in column 8 the number of vacancies included in column 3 which are for part-time positions. Part-time vacancies are defined as positions for which the weekly hours to be worked are less than the customary straight-time work week for the occupation. If the job vacancy is open to either full-time or part-time workers, please report it as a full-time vacancy. If none, enter "0." If the information cannot be provided, enter "X." Do not leave blank.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) *(Telephone Number)*

When report is completed, please return it in the accompanying self-addressed stamped envelope by April 8, 1966. **PLEASE DO SO EVEN THOUGH YOU HAVE NO VACANCIES TO REPORT.** Thank you for your cooperation.

U.S. DEPARTMENT OF LABOR
BUREAU OF LABOR STATISTICS
BUREAU OF EMPLOYMENT SECURITY
WASHINGTON, D.C. 20210

Budget Bureau No. 44-6609
Approval Expires: 8/31/66

Date:

REPORT ON JOB VACANCIES

INFORMATION FURNISHED ON THIS REPORT IS STRICTLY CONFIDENTIAL AND WILL NOT BE REVEALED TO ANY UNAUTHORIZED PERSON NOR PUBLISHED IN SUCH A MANNER THAT DATA RELATING TO INDIVIDUAL COMPANIES CAN BE IDENTIFIED. PLEASE READ THE INSTRUCTIONS ON THE BACK OF THIS FORM BEFORE ENTERING THE DATA ON THIS REPORT, AND RETURN THE REPORT IN THE ACCOMPANYING ENVELOPE BY APRIL 8, 1966 TO: (NAME AND ADDRESS OF AGENCY)

(CHANGE NAME OR ADDRESS IF INCORRECT)

To:

DO NOT USE

State (1)	Date (2)	Area (3)	SIC (4)
To (5)		Base (6)	

Size (7)	TC (8)	NC (9)	ORD (10)	ES (11)	Cards (12)	Wk (13)

1. **TOTAL NUMBER OF EMPLOYEES:** ENTER THE TOTAL NUMBER OF EMPLOYEES WHO WORKED OR RECEIVED PAY FOR ANY PART OF THE PAY PERIOD WHICH INCLUDES THE 12TH OF MARCH (SEE INSTRUCTIONS ON THE BACK OF THIS FORM).

2. **JOB VACANCIES BY OCCUPATION:** LIST BELOW, BY JOB TITLE, ALL JOB VACANCIES (AS DEFINED ON THE BACK OF THIS FORM) IN YOUR ESTABLISHMENT, AND THE RATE OF PAY OFFERED, AS OF THE CLOSE OF BUSINESS, APRIL 1, 1966 (OR THE NEAREST POSSIBLE DAY). A JOB VACANCY IS A JOB OPENING THAT IS UNFILLED AND IMMEDIATELY AVAILABLE TO FULL-, PART-TIME, OR TEMPORARY WORKERS WHICH YOUR FIRM IS ACTIVELY SEEKING FROM OUTSIDE YOUR COMPANY.

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)	OTHER JOB OPENINGS*
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR, DAY, WEEK, MONTH, ETC.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

(CONTINUE ON BACK OF FORM IF MORE SPACE IS NEEDED)

*OTHER JOB OPENINGS ARE OPENINGS NOT INCLUDED IN COLUMN 3 AND RELATING TO JOBS OCCUPIED OR NOT READY FOR FILLING IMMEDIATELY, BUT FOR WHICH YOU ARE ACTIVELY SEEKING NEW WORKERS.

3. PLEASE CHECK THIS BOX IF YOU WOULD LIKE THE ASSISTANCE OF THE (NAME OF STATE AGENCY) IN FILLING ANY OF YOUR JOB VACANCIES

SIGNATURE (Person responsible for this report) TITLE DATE FOR WHICH JOB VACANCIES WERE REPORTED

2. JOB VACANCIES BY OCCUPATION: (Continued)

OCCUPATIONAL CODE (LEAVE BLANK)	JOB TITLE	NUMBER OF JOB VACANCIES		RATE OF PAY OFFERED		(LEAVE BLANK)	OTHER JOB OPENINGS*
		TOTAL	NUMBER VACANT ONE MONTH OR LONGER	AMOUNT	PER HOUR DAY, WEEK, MONTH, ETC.		
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)

INSTRUCTIONS FOR REPORT ON JOB VACANCIES

1. **Number of Employees:** Enter in the box to the right of item 1 the total number of employees on all payrolls of your establishment who worked full-time or part-time or received pay for any part of the pay period which includes the 12th of March. Include persons on vacation and sick leave who received pay directly from your firm for the pay period reported, but exclude persons on leave without company pay the entire period, and pensioners and members of the Armed Forces carried on the rolls but not working during the pay period. Please enter this figure even though you report no vacancies.

2. **Job Vacancies, by Occupation:** Enter the number of current, unfilled job openings in your establishment as of the close of business, April 1, 1966 which are immediately available for occupancy by workers from outside your firm and for which your firm is actively seeking such workers. Included are full-time, part-time, permanent, temporary, seasonal, and short-term job openings.

"Actively seeking" is defined as current efforts to fill the job with a worker from outside your firm through: (1) soliciting assistance of public or private employment agencies, school or college placement offices, labor unions, employee groups, business or professional organizations, business associates, friends and employees in locating suitable candidates; (2) using "help wanted" advertising (newspaper, magazine, radio, television, direct mail, posted notice, etc.); (3) conducting recruitment programs or campaigns; (4) interviewing and selecting "gate," "walk-in" or "mail" applicants or workers searched out of applicant files; and (5) opening or reopening the acceptance of applications from prospective candidates.

Do not include as vacancies (1) jobs held for employees who will be recalled; (2) jobs to be filled by transfer, promotion, or demotion; (3) jobs held for workers on paid or unpaid leave; (4) jobs filled by overtime work which are not intended to be filled by new workers; (5) job openings for which new workers were already hired and scheduled to start work at a later date; and (6) those jobs unoccupied because of labor-management disputes.

Column 1: Leave blank. For office use only.

Column 2: List the names of the occupations for which job vacancies exist in your establishment. Where possible, add modifier denoting material, product, process or subject matter to make establishment title more specific, *e.g.*, "assembler, aircraft, wing parts" or "stenographer, legal." Use a single entry to report job vacancies with identical job titles where more than one vacancy exists. If there are several classes or grades for specific job titles, each class or grade should be listed separately.

Column 3: For each occupation listed in column 2, report the total number of job vacancies.

Column 4: For each occupation, enter the number of job vacancies included in column 3 which have been vacant for one month or longer. If none, enter "0". If information cannot be provided, enter "X." Do not leave blank.

Column 5: For each occupation, enter in column 5 the rate of pay offered for the job to which the vacancy relates. Please enter a single rate of pay wherever possible. However, where a range of pay rates is offered, depending upon the education, training, and experience of the job applicant, the entry levels of the low and high pay rates offered will be acceptable. Please enter hourly pay rates in column 5 wherever possible.

If the wage rate offered for the job vacancy is on a piece work or commission incentive basis, or if tips comprise part of the worker's earnings, please enter the average full-time earnings which a new worker can be expected to receive.

Column 6: For each pay rate (or pay rate range) entered in column 5, please enter the basis on which the offered pay rate is quoted, that is, whether the pay rate given is per hour, per week, per month, etc.

Column 7: Leave blank. For office use only.

Column 8: Enter in column 8, by occupation, the number of openings (not included in column 3) which are "other" openings. "Other" openings are defined as positions for which your firm is actively seeking new workers but which positions are currently occupied or unavailable for immediate occupancy for such reasons as: job unavailable until expected separation of present incumbent occurs; work will not start until some future date; new branch to be opened in future; or anticipated increase in business. If none, enter "0". If the information cannot be provided, enter "X". Do not leave blank.

IF YOU HAVE ANY QUESTIONS, PLEASE TELEPHONE:

_____ at _____
(Name) *(Telephone Number)*

When report is completed, please return it in the accompanying self-addressed stamped envelope by April 8, 1966. **PLEASE DO SO EVEN THOUGH YOU HAVE NO VACANCIES TO REPORT.** Thank you for your cooperation.

ENCLOSURE 3—NUMBER OF JOB VACANCIES BY OCCUPATION AND INDUSTRY AND BY AREA, APRIL 1965

Occupation	Total	INDUSTRY								
		Durable	Nondurable	Construction	T.C.P.U.[1]	Trade	F.I.R.E.[2]	Service	Government	Other
BALTIMORE										
Total	7,381	528	400	1,284	851	956	237	2,035	1,090	0
Professional and managerial	968	76	19	31	3	41	28	339	431	0
Clerical and sales	1,827	34	86	0	101	341	205	759	301	0
Service	910	1	2	0	0	234	4	396	273	0
Skilled	1,314	142	65	752	98	165	0	52	40	0
Semiskilled	1,553	45	198	344	444	111	0	404	7	0
Unskilled	790	229	30	157	202	64	0	83	25	0
Other	19	1	0	0	3	0	0	2	13	0
BIRMINGHAM										
Total	1,854	276	114	163	130	310	184	392	285	0
Professional and managerial	454	27	10	37	1	18	11	168	182	0
Clerical and sales	417	13	8	0	48	90	173	64	21	0
Service	255	0	0	0	4	95	0	96	60	0
Skilled	244	82	3	42	38	30	0	31	18	0
Semiskilled	219	16	64	0	27	75	0	33	4	0
Unskilled	262	138	29	84	9	2	0	0	0	0
Other	3	0	0	0	3	0	0	0	0	0
CHARLESTON, S.C.										
Total	1,413	57	79	140	53	166	47	104	767	0
Professional and managerial	238	9	4	0	1	1	0	29	194	0
Clerical and sales	216	3	3	0	4	66	47	6	87	0
Service	119	0	0	26	0	28	0	11	54	0
Skilled	459	21	33	76	6	38	0	0	285	0
Semiskilled	228	12	30	17	42	28	0	18	81	0
Unskilled	153	12	9	21	0	5	0	40	66	0
Other	0	0	0	0	0	0	0	0	0	0
CHARLESTON, W. VA.										
Total	655	34	7	0	1	166	64	108	266	9
Professional and managerial	288	2	2	0	0	10	5	67	202	0
Clerical and sales	224	3	5	0	1	90	59	6	60	0
Service	60	0	0	0	0	29	0	28	3	0
Skilled	29	23	0	0	0	4	0	1	1	0
Semiskilled	33	3	0	0	0	25	0	5	0	0
Unskilled	21	3	0	0	0	8	0	1	0	9
Other	0	0	0	0	0	0	0	0	0	0

Enclosure 3—Number of Job Vacancies E

Occupation
CHICAGO
Total
Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled
Unskilled
Other
KANSAS CITY
Total
Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled
Unskilled
Other
LOS ANGELES
Total
Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled
Unskilled
Other
MIAMI
Total
Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled

BY OCCUPATION AND INDUSTRY AND BY AREA, APRIL 1965—Continued

INDUSTRY

	Total	Durable	Nondurable	Construction	T.C.P.U.[1]	Trade	F.I.R.E.[2]	Service	Government	Other
	27,947	8,885	1,982	2	1,512	6,728	1,617	3,706	3,049	466
	5,805	626	401	0	30	1,249	175	1,919	1,363	42
	7,593	550	751	2	528	2,843	1,337	419	1,117	46
	2,398	87	22	0	49	932	105	1,030	167	6
	6,507	4,275	114	0	123	1,512	0	173	308	2
	4,287	2,871	453	0	735	58	0	12	10	148
	1,133	475	240	0	47	134	0	153	84	0
	224	1	1	0	0	0	0	0	0	222
	2,836	409	198	27	74	736	138	882	272	100
	562	45	8	7	4	39	4	393	62	0
	1,075	25	18	1	51	513	132	188	147	0
	126	3	1	0	1	4	2	104	11	0
	556	296	34	7	15	2	0	193	9	0
	378	23	127	0	1	173	0	2	19	33
	70	17	10	12	2	5	0	2	22	0
	69	0	0	0	0	0	0	0	2	67
	22,506	5,028	3,467	370	742	3,342	1,059	5,454	3,034	10
	6,061	1,872	77	340	69	53	48	2,306	1,294	2
	5,453	379	203	14	335	1,915	999	827	781	0
	2,435	8	2	0	12	715	8	1,172	518	0
	1,902	1,048	96	12	181	140	2	273	150	0
	5,546	1,276	3,065	0	129	418	2	528	128	0
	1,073	445	24	4	16	101	0	346	129	8
	36	0	0	0	0	0	0	2	34	0
	4,037	307	216	35	1,020	977	179	846	352	105
	432	9	15	0	19	17	26	303	41	2
	1,019	9	64	2	231	282	81	248	98	4
	672	0	1	0	0	385	1	153	121	11
	573	125	35	8	30	207	71	6	28	65
	1,057	116	30	1	740	59	0	71	17	23

Unskilled
Other

MILWAUKEE

Total

Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled
Unskilled
Other

MINNEAPOLIS-ST. PAUL

Total

Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled
Unskilled
Other

NEW YORK

Total

Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled
Unskilled
Other

PHILADELPHIA

Total

Professional and managerial
Clerical and sales
Service
Skilled
Semiskilled
Unskilled
Other

281	48	71	26	0	27	0	65	44	0
3	0	0	0	0	0	0	0	3	0
8,542	1,420	550	391	394	1,730	241	3,008	808	0
1,432	272	23	0	16	90	24	634	368	0
1,323	148	83	0	67	384	214	312	121	0
1,393	7	61	0	12	378	3	746	186	0
1,772	631	46	326	111	197	0	441	18	0
1,228	178	242	0	160	455	0	169	23	0
1,226	184	95	65	28	205	0	591	60	0
168	0	0	0	0	21	0	115	32	0
8,061	860	1,478	224	554	1,318	384	1,112	931	1,200
2,126	372	720	0	4	139	42	386	463	0
2,876	206	550	0	207	878	340	449	246	0
445	19	3	0	2	145	0	175	101	0
329	97	99	37	0	25	2	50	19	0
763	149	34	0	341	105	0	41	93	0
317	17	72	187	0	26	0	7	8	0
1,205	0	0	0	0	0	0	4	1	1,200
46,780	5,263	5,941	1,008	4,130	6,097	2,881	8,814	12,628	18
12,358	1,090	487	153	104	1,535	248	3,190	5,551	0
16.136	371	1,381	14	2,471	2,435	2,553	3,104	3,789	18
2,999	40	7	0	80	1,091	63	1,194	524	0
4,981	2,223	560	841	335	438	4	327	253	0
7,216	1,227	3,170	0	953	446	13	991	416	0
3,090	312	336	0	187	152	0	8	2,095	0
0	0	0	0	0	0	0	0	0	0
15,037	2,343	2,408	1,356	523	2,879	428	3,114	1,986	0
2,739	433	296	41	39	73	59	1,277	521	0
2,955	146	116	0	151	1,135	365	591	451	0
1,934	3	2	0	0	1,115	3	227	584	0
3,407	1,119	240	1,163	0	349	1	262	273	0
3,125	381	1,492	0	327	100	0	750	75	0
877	261	262	152	6	107	0	7	82	0
0	0	0	0	0	0	0	0	0	0

ENCLOSURE 3—NUMBER OF JOB VACANCIES BY OCCUPATION AND INDUSTRY AND BY AREA, APRIL 1965—Continued

Occupation	Total	Durable	Nondurable	Construction	T.C.P.U.[1]	Trade	F.I.R.E.[2]	Service	Government	Other
				INDUSTRY						
PORTLAND, OREG.										
Total	2,893	531	202	22	161	772	271	567	343	24
Professional and managerial	568	48	5	3	2	12	58	265	175	0
Clerical and sales	863	19	37	0	40	401	212	71	83	0
Service	521	0	1	0	36	254	1	204	25	0
Skilled	383	267	35	19	37	16	0	1	8	0
Semiskilled	304	101	75	0	44	57	0	25	2	0
Unskilled	229	96	49	0	2	32	0	0	50	0
Other	25	0	0	0	0	0	0	1	0	24
PROVIDENCE										
Total	5,661	1,750	1,778	125	135	411	144	814	386	118
Professional and managerial	196	20	35	0	0	2	4	16	103	16
Clerical and sales	623	60	11	0	4	89	108	258	71	22
Service	697	7	0	0	0	186	0	428	16	60
Skilled	1,028	491	270	100	0	34	16	23	86	8
Semiskilled	2,570	873	1,325	25	127	98	0	44	71	7
Unskilled	542	299	137	0	4	2	16	45	39	0
Other	5	0	0	0	0	0	0	0	0	5
RICHMOND										
Total	4,015	201	289	785	258	699	401	788	594	0
Professional and managerial	581	81	44	0	0	14	7	160	275	0
Clerical and sales	1,053	7	74	11	10	291	386	58	216	0
Service	379	0	1	0	3	166	4	161	44	0
Skilled	565	47	10	220	11	138	0	109	30	0
Semiskilled	670	32	123	53	234	57	2	143	26	0
Unskilled	755	34	36	501	0	25	0	157	2	0
Other	12	0	1	0	0	8	2	0	1	0

Source: U.S. Department of Labor, Manpower Administration, Bureau of Employment Security, U.S. Employment Service, Washington, D.C., May 31, 1966.

[1] Transportation, communications, and public utilities.
[2] Finance, insurance, and real estate.

ENCLOSURE 4—NUMBER OF VACANCIES FOR WHICH WAGE ANALYSIS COULD BE MADE AND NUMBER AND PERCENT OF THESE VACANCIES WHICH WERE SUBSTANDARD, BY AREA,[1] APRIL 1965

Occupational group	Total			Baltimore			Chicago			Los Angeles			Miami			Minneapolis-St. Paul		
	Number	Substandard		Number	Substandard [2]		Number	Substandard [3]		Number	Substandard [4]		Number	Substandard [5]		Number	Substandard [6]	
		Number	Percent		Number	Percent		Number	Percent		Number	Percent		Number	Percent		Number	Percent
Total, all groups	12,711	2,196	17.3	1,170	253	21.6	4,646	841	18.1	3,703	431	11.6	1,102	262	23.8	2,090	409	19.6
Professional and managerial	3,962	918	23.2	373	173	46.4	953	274	28.8	1,594	181	11.4	219	49	22.4	823	241	29.3
Clerical and Sales	3,901	507	13.0	277	31	11.2	1,628	177	10.9	921	131	14.2	316	52	16.5	759	116	15.3
Service	1,174	205	17.5	219	18	8.2	382	47	12.3	184	31	16.8	207	77	37.2	182	32	17.6
Skilled	1,504	272	18.1	133	26	19.5	696	150	21.6	417	39	9.4	165	43	26.1	93	14	15.1
Semiskilled	1,408	190	13.5	52	1	1.9	588	130	22.1	514	46	8.9	68	13	19.1	186	0	.0
Unskilled	762	104	13.6	116	4	3.4	399	63	15.8	73	3	4.1	127	28	22.0	47	6	12.8

Source: U.S. Department of Labor, Manpower Administration, Bureau of Employment Security, U.S. Employment Service, Washington, D.C., May 31, 1966.

[1] These data are based only on actual vacancies reported rather than on an inflation of vacancies to a universe total.

[2] Primarily draftsmen, registered nurses, laboratory technicians, and medical technicians.

[3] Primarily electrical engineers, registered nurses, electrical and mechanical draftsmen, nurses aids, and chassis assemblers.

[4] Primarily civil engineers and general office clerks.

[5] Primarily general office clerks and police officers.

[6] Primarily registered nurses, practical nurses, and highway technicians.