

## THE JOB OPENINGS AND LABOR TURNOVER SURVEY: PREPARING TO PUBLISH DATA FOR A NEW SURVEY

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*Any opinions expressed in this paper are those of the authors and do not constitute policy of the Bureau of Labor Statistics.*

In 1999, the Bureau of Labor Statistics (BLS) began developing an economic indicator to assess the excess demand for labor in the U.S. labor market. Staff from the Job Openings and Labor Turnover Survey (JOLTS) have been collecting, analyzing, and preparing data for publication beginning in early 2002. JOLTS collects the number of job openings and calculates a job openings, or vacancy, rate. The survey also collects job turnover data, hires and separations, to allow further insight into labor market flows.

This paper begins by briefly describing the survey, and then, as part of the survey development, recalls how the JOLTS staff researched prior and existing data series that estimate job openings and labor turnover-type information. This was done to guide where the new JOLTS estimates would fit into a national statistical framework and to assess the behavior of the JOLTS data elements, based on the trend in other similar series.

During the survey development, the JOLTS staff has been preparing for the eventual publication of estimates, and a large part of this effort has been focused on the press release and data tables. Although the BLS has guidelines to follow, the research and development of the press materials have been an on-going process of trial and error and of fine-tuning.

### DESCRIBING THE SURVEY

The Job Openings and Labor Turnover Survey involves the collection, processing, and dissemination of job openings and labor turnover data from a sample of 16,000 business establishments. The data elements collected monthly from each establishment include employment for the pay period that includes the 12<sup>th</sup> of the month, the number of job openings on the last business day of the month, and hires, quits, layoffs and discharges, and other separations for the

entire month. To encourage consistent and accurate reporting, respondents are given detailed definitions for each data element. For example, job openings require that the job could start within 30 days and that the employer is actively recruiting outside of the establishment to fill the position. Hires are all additions to the payroll during the month, and a layoff should be counted if it lasts or is expected to last more than seven days.

The universe for the JOLTS survey consists of approximately eight million establishments compiled as part of the operations of the Covered Employment and Wages, or ES-202, program. This includes all employers subject to State unemployment insurance (UI) laws and Federal agencies subject to the Unemployment Compensation for Federal Employees (UCFE) program. The frame is stratified by major industry division, census region, and size class. The sample is representative of private non-farm establishments as well as Federal, State, and local government entities in the 50 States and the District of Columbia. No occupational detail will be collected. The sample is rotated so that most establishments participate in the survey for 18 consecutive months. JOLTS total employment estimates are ratio-adjusted to the Current Employment Statistics (CES) monthly estimates, and this ratio is used to adjust the levels for all other JOLTS data elements. Rates are then computed from the levels.

BLS anticipates releasing monthly job openings and labor turnover rates beginning early in 2002. Estimates will be released for the nation as a whole and for four census regions. The national estimates for the private sector will be divided into nine industry divisions, based on the Standard Industrial Classification (SIC) system, and there will be breakouts for the Federal government and State and local government combined.

For additional information, a number of papers on the survey development were published in the proceedings from the 2000 Joint Statistical Meetings.<sup>1</sup>

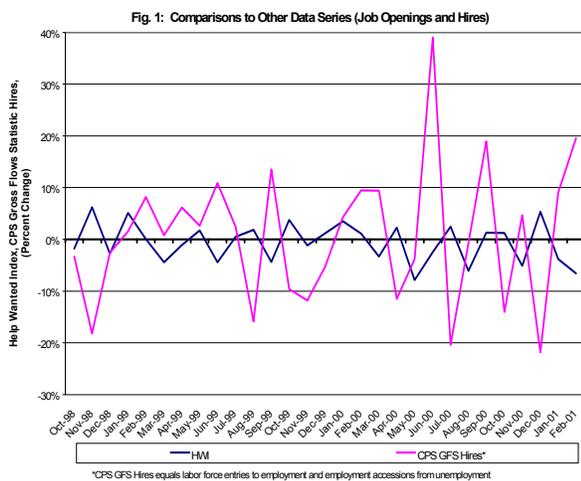
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<sup>1</sup> See Clark and Hyson, Mueller and Phillips, Mueller and Wohlford, and Crankshaw and Stamas for more details.

## COMPARISONS TO OTHER DATA SERIES

Presently there is no true economic indicator of the demand for labor with which to assess the underlying causes of unemployment in the U.S. labor market. There have been several attempts by BLS, other government agencies, and private organizations to collect job openings and labor turnover data, however, none of the size and scope of the current JOLTS program.

Described below are some of the most frequently used proxies for labor demand and turnover as indicators and in research. Each section describes the particular survey and compares it with JOLTS. See Figures 1 & 2 for a graphical representation of how these data series compare to one another. Although these data series are valuable, JOLTS collects information on job openings, hires, and separations, while the other series collect only one or two of these measures and collect data differently than JOLTS.

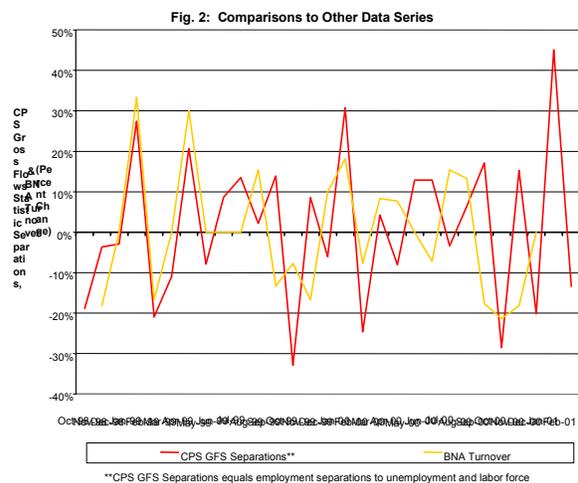


### The Help-Wanted Advertising Index

The Conference Board's Help-Wanted Advertising Index (HWI) has been a continuous and oft-cited indicator of labor demand since 1951. It is based on the premise that changes in the volume of newspaper employment want ads accurately reflect changes in labor market activity. The HWI is based on the volume of help-wanted advertisements printed in 51 major newspapers across the country each month. The metropolitan statistical areas (MSAs) of these cities account for approximately half of U.S. nonagricultural employment, or roughly 65 million people.

As an index, the HWI is a proxy for, rather than a direct measure of, unmet labor demand. The HWI measures the number of advertisements in a given month relative to the average monthly number of advertisements in the base year, 1987. JOLTS will provide more direct measures of labor demand. The JOLTS data series will include both a monthly count of job openings from surveyed establishments, and the job openings rate, defined as the number of job openings on the last business day of the month relative to the number of filled and unfilled jobs at the establishment that month.

JOLTS respondents report job openings based on specific conditions, as described earlier. Some help-wanted advertisements are resume-builders for establishments and not actual open positions. Many of the ads do not specify the starting date for the position or how many positions are open, and the Conference Board does not adjust for this. In addition, many employers advertise job openings outside of newspaper want ads, preferring the Internet or career fairs. Coverage of newspaper ads also will vary by industry, occupation, and education levels. Over time, changes in the HWI may reflect changes in the way employers recruit, rather than actual changes in the job market.



### The Job Absence and Turnover Report

The Bureau of National Affairs' (BNA) *Job Absence and Turnover Report* provides a data series to measure separations. It has been conducted quarterly since 1974, and turnover rates are based on responses from 190 to 300 BNA member establishments that represent a cross-section of U.S. employers. Total

employment of BNA's responding organizations varies between 350,000 and 500,000.

BNA turnover figures include all permanent separations, both voluntary and involuntary, but they do not include job eliminations, reductions in force, long-term leaves of absence, layoffs, or departures of temporary staff. The JOLTS definition of a separation is more inclusive by counting all separations, including layoffs lasting or expected to last more than seven days. BNA releases its data quarterly, while JOLTS will release monthly. The BNA respondents are not randomly selected and so are not necessarily representative of the national economy. In addition, JOLTS will provide more industry detail than BNA, publishing by 11 industry divisions, compared to the three published by BNA.

#### Data from the Current Population Survey

Since 1940, BLS has provided statistics on the labor force status of the civilian noninstitutional population 16 years of age and over from the Current Population Survey (CPS). The CPS is collected each month from a probability sample of approximately 50,000 occupied households. Although the CPS is not designed to measure labor turnover, the gross flows statistics and the Displaced Worker Survey have been used to create measures of hires and separations.<sup>2</sup>

*Gross Flows Statistics.* Three quarters of the CPS sample overlaps from month to month, which allows tracking of changes in the labor force status of respondents. However, not all survey responses in successive months can be matched, responses can vary over time even though the actual labor force status is unchanged, and an aging population and population growth make it difficult to relate changes in labor force statistics to gross flows statistics.<sup>3</sup> In addition, the CPS gross flows are limited by only being able to measure turnover involving an unemployment spell. For example, they cannot measure employment to employment flows, defined as workers who leave one job for another, without a spell of unemployment in between. Estimates put such transitions at 40 percent of all workers who quit their jobs (Bleakley and Fuhrer 1997, p. 10).

*The Displaced Worker Survey.* Since 1984, the Displaced Worker Survey (DWS) has been conducted as a supplement to the CPS and collects

information on workers who were displaced from their jobs. Displaced workers are defined as persons aged 20 and older who lost or left jobs because their plant or company closed or moved, there was insufficient work for them to do, or their position or shift was abolished. DWS obtains information on characteristics of the lost job, the unemployment spell, and the current job, if re-employed. DWS data have been used to determine the size and nature of the population affected by job displacements (Hipple 1999).

The biennial DWS concentrates on displacements, while JOLTS collects data on layoffs and discharges together. CPS displacements focus on workers 20 and older to avoid noise from teenage workers who frequently change jobs; JOLTS will collect information on employees of all ages. Workers who expect to be recalled to their jobs within six months are not counted as displaced in the DWS, but JOLTS will count employees on layoff lasting or expected to last more than seven days.

The CPS supplement is currently being revised to annually collect detailed information on all types of job separations. Its demographic and wage information can be used to characterize the experience of workers who lose their jobs or leave their employer. Although the CPS has been used to indirectly study turnover, the definitions of employment and displacement differ from JOLTS. The new JOLTS program is designed to be a more timely indicator on separations and labor demand at the macro level.

#### Health and Human Services New Hires Data

The Department of Health and Human Services (HHS) began collecting new hires data in 1997 as an administrative and enforcement tool for states to increase child support collections. Although HHS data are not published as a data series, JOLTS will be using this data internally to compare hiring trends. The HHS new hire reporting initiative requires all employers to report information about newly hired and rehired employees to state agencies. All hires must be reported within 20 days of the first day an employee reports to work. Hires include new hires, rehires, and recalls of workers who need to fill out a W-4 form. The definition and the length in lapse of pay required to be considered a rehire varies by state. A national figure is derived by summing each state's reported new hires for each month. JOLTS collects hires for the entire month, whereas HHS collects hires as they are reported. Since HHS does not mandate the actual date of hire, with the 20-day

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<sup>2</sup> Stewart (1999) has also constructed a measure of separations using the March CPS Supplement.

<sup>3</sup> See Barkume and Horvath (1995) and Bleakley, Ferris, and Fuhrer (1999) for more details.

reporting lag, some hires are reported in the month following the date of hire.

## **PREPARING FOR PUBLICATION**

The JOLTS data collection center began collecting data in March 2000. Every month, data are collected from sampled establishments and new sampled establishments are enrolled into the survey. In preparation for publication, every month, JOLTS staff in the national office produces estimates, analyzes data, and writes mock press releases. Also during this time, all aspects of the survey are monitored, including response rates, respondent comprehension of definitions and reference periods, and the production schedule. Changes to the sample design, survey questionnaire, definitions, reference periods, forms, and letters can be accommodated during this time.

### The Estimates

Although estimates are not yet being released to the public, the JOLTS staff at the national office and the data collection center follows a monthly collection schedule. The first two weeks of the month are devoted to data collection. On the closing date during the third week of the month, a file is pulled from the data collection system, and preliminary estimates are calculated for the current month and revised estimates are calculated for the prior month. During this time, the national office staff begins microdata review. When undocumented problems are found in the microdata, the national office staff contacts the data collection center for clarification. These undocumented problems usually are unexplained changes in the microdata. Interviewers use comment codes and notes to explain changes in an establishment's microdata, but occasionally, a case requiring explanation may not be caught until it reaches the monthly microdata review step. Problems found with the microdata need to be resolved as quickly as possible to ensure accurate estimates.

Once the BLS Statistical Methods Division (SMD) has completed estimation, the national office staff reviews all estimates. If a problem is found with the estimates, the national office communicates with SMD to review estimation procedures, including benchmarking, nonresponse adjustment factors, and imputation.

All materials for dissemination are independently fact checked for accuracy. The overarching goal of BLS

is to release timely and accurate information, and data users rely on BLS to consistently achieve these standards. With the complex survey operations that precede the final preparation of JOLTS data, careful fact checking of all materials for release, including the estimates themselves, is a critical final step.

### The Press Release and Tables

The JOLTS press release contains estimates for job openings, hires, and total separations (with the separations breakdowns: quits, layoffs and discharges, and other separations). As JOLTS will be an experimental series when it is first released, the estimates will not be sensitive to a particular release date, meaning that the estimates can be released at any time as soon as processing is complete by the national office. The press release and data tables will be drafted and ready for release when the Office of Publications and Special Studies (OPUBSS) finds a date that does not conflict with other predetermined BLS release dates. However, the JOLTS staff anticipates that data will be released sometime during the last week of every month with preliminary estimates for the prior month. This schedule will be refined as the program gets closer to publication.

It is BLS policy that all data included in a press release must be embargoed until the official release date and time. To ensure embargoed JOLTS data are not released prematurely, extra steps are taken to handle the data properly. All handling of data is done under BLS security guidelines. When the JOLTS estimates are officially released, the data also will be made available on LABSTAT, the BLS online database. The release of the data on the Internet will take place at the same time or just after the publication of the JOLTS press release.

In addition, it is the responsibility of the JOLTS staff to confirm that the estimates conform to the BLS confidentiality criteria. All respondents are assured their data will be held in confidence and the estimates will not reveal their establishment's participation in the survey. JOLTS staff monitors the monthly response for each estimate, and if the response for a particular estimate in a particular month does not meet BLS standards for protecting respondent confidentiality, the estimate will not be published.

Many BLS programs release data via a press release and accompanying data tables. The JOLTS staff is already in the process of refining the monthly press release and formatting the data tables. Every month, the program follows a production schedule, including drafting a press release once the microdata and

estimates are reviewed. The press release is circulated among the staff, SMD, OPUBSS, and others with experience in the final stages of a data release for their comments.

In drafting the press release and formatting the data tables, the JOLTS staff has consulted other BLS programs for advice on the language and tone to use in press releases. The staff has followed the BLS style guide in the development of the press release.

The press release is drafted in order to analyze what the current month estimates are in relation to the estimates from the same month in the previous year. The standard error for each estimate is used in this analysis, and although they are not published, standard error tables are available upon request. Current month to prior month comparisons cannot be made at this time, as the JOLTS estimates are not seasonally adjusted.

The JOLTS staff's goal is not to repeat what is already contained in the data tables, but rather to analyze the movements in each data element over time and how they move together. This will allow insight into the labor market and the U.S. economy as a whole. The JOLTS data series on job openings, hires, and separations will enable policymakers to address some fundamental questions about labor demand and movements in the labor market. These questions include understanding certain factors driving fluctuations in unemployment and the overall economy, determining the best policies to reduce unemployment, and studying how firms and workers are matched. From a policy perspective, analysis of the co-movement of the unemployment and job openings rates can indicate where the economy is in the business cycle and determine the most effective way to counter an increase in unemployment.

#### Requests from the Public

Based on the experience of previous JOLTS-type surveys and comments received during the development of the JOLTS survey, the JOLTS staff anticipated requests for data by occupation and finer geographic and industry detail. There are currently no plans to collect data by occupation, which would require a large increase in sample size and respondent burden. A decision on publishing finer geographic and industry detail will be made in the future, once the full sample is enrolled in the survey.

Especially while the survey is new, it is important for the JOLTS staff to be available to answer the public's questions and requests. JOLTS maintains a

telephone information request line (202/691-5870), an email group (joltsinfo@bls.gov), and a webpage on the BLS website (<http://stats.bls.gov/jlthome.htm>). In the time before JOLTS estimates are released, staff refers people to the other appropriate sources of job openings and turnover information detailed earlier in this paper. The website has been designed to give an overview of the survey as well as answer questions from the public and from establishments participating in the survey.

## CONCLUSION

JOLTS data has been collected since March 2000, and the JOLTS staff has spent that time examining other sources of JOLTS-type data, reviewing and analyzing data and estimates, and preparing to release data to the public. All of these steps have led to the anticipated release of JOLTS estimates in early 2002. In going through the process of building a survey from the ground up, the JOLTS staff has made decisions that will influence the way the public views and uses the JOLTS estimates. Once the estimates are officially released, there will be time to reflect on the process leading up to publication and make changes to the program to ensure its long-term usefulness. There also will be time to analyze the JOLTS estimates as a series, research how they fit into the labor market statistics framework, and discover what they say about the U.S. labor market and economy in general.

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