

# Labor turnover in manufacturing: the survey in retrospect

*Discontinued Federal-State series shows level of hires, quits, and other job changes has remained relatively stable except for cyclical variations; analytical limitations include coverage of industries that have become less representative of the economy*

CAROL M. UTTER

With the compilation of data for December 1981, the Bureau of Labor Statistics has ended its survey of labor turnover, predominantly in manufacturing. The monthly survey, a key economic indicator, was discontinued because of severe budgetary cutbacks.

The labor turnover survey was initiated in 1926 by the Metropolitan Life Insurance Co. to provide personnel managers with a national benchmark of turnover rates in manufacturing plants. In 1929, the company turned the project over to BLS for further development, and BLS had been collecting data monthly since 1930. In the first 10 years, the Bureau expanded the original sample of 175 large establishments, which employed 25 percent of all manufacturing workers. In the meantime, a number of State employment security agencies affiliated with the U.S. Employment Service of the Department of Labor were collecting labor turnover information for use in local job market analysis and as a guide for the operations of the State employment services. Cooperative arrangements between these agencies and the Bureau of Labor Statistics for the joint collection of labor turnover data began with an agreement with Connecticut in 1954.

By 1964, the cooperative program had been extended to cover all 50 States and the District of Columbia, and the total sample comprised 40,000 reporting establish-

ments in manufacturing and mining. By the late 1960's, these agencies published about 8,000 labor turnover series of States and Standard Metropolitan Statistical Areas, while national rates were published for 221 industries. For many industries, separate rates were published for men and women between 1958 and 1968.

In 1969, the survey was expanded to include the collection of information on job openings. During the next 4 years, information on labor turnover and job openings was collected for all manufacturing and mining industries as well as for nonmanufacturing industries in about 20 selected standard metropolitan areas. The job openings portion of the survey was discontinued at the end of 1973 and with it the collection of turnover data for most nonmanufacturing industries.<sup>1</sup> Monthly turnover information continued to be collected for all mining and manufacturing industries, entailing 260 national series and nearly 11,000 State and area series.

## Uses of the data

These statistics have been used primarily for economic and labor market analysis and for research. In the private sector, employers have used the data on quits as a yardstick against which to measure the performance of their plants, with low quit rates considered an indication of efficient operations and good labor management relations. In the public sector, labor turnover rates were also widely used by State employment services to plan and appraise their operations. For example, the State employment security agencies compared the number of

---

Carol M. Utter is a statistician in the Office of Employment Structures and Trends, Bureau of Labor Statistics.

employees placed through their services with the total number of new hires reported by employers within the labor market served by a particular local employment service office. Thus, the number of job placements by each local office could be measured relative to the potential for placement in the local job market.

Over the years, the major use of the labor turnover rates was as an economic indicator. The layoff rate signaled changes in the economy several months before business turning points, particularly the starts of downturns. The Bureau of Economic Analysis included the layoff rate as one of the 12 components of its composite Index of Economic Leading Indicators. (See table 1.)

Analysts have also found the quit rate to be a particularly useful representation of the decision of individual employees regarding their perceptions of the availability of other job opportunities.

From 1950 through 1979, accessions (new hires, recalls, and transfers) ranged decennially between 4.5 percent and 4.1 percent, while separations (mainly quits and layoffs) ran about 4.3 percent. The average rate of new hires for each decade stood at 2.9 percent per month, while the average rate of quits was about 2 percent. For 1980 and 1981, turnover slowed as business conditions worsened. (See table 2.)

In general, one notes little evidence of increased job hopping or any particular change in employers' use of layoffs to adjust their work force to slackening business conditions. Of course, the manufacturing sector has not grown in employment during the postwar period and its share of the Nation's nonfarm jobs dropped from 34 percent in 1950 to 22 percent in 1981. Therefore, accessions have not exceeded separations as would have been the situation if labor turnover data for the total economy or the fast growing service sectors were included.

The foregoing is intended merely as a brief descrip-

**Table 2. Average monthly labor turnover rates in manufacturing, 1930-81**

Period	Total accessions	New hires	Total separations	Quits	Layoffs
1930-39	4.8	—	4.7	1.2	3.4
1940-49	6.9	—	6.6	4.1	1.7
1950-59	4.5	2.9	4.4	2.0	1.8
1960-69	4.3	2.9	4.3	1.9	1.7
1970-79	4.1	2.9	4.3	2.0	1.3
1980-81	3.4	2.1	3.8	1.4	1.6

tion of the behavior of the series. Many detailed analyses of the series have been published, including the *Monthly Labor Review* article, "Quits in manufacturing: a study of their causes."<sup>2</sup>

**Limitations of the series**

One of the major shortcomings of the terminated program has been its limited scope. The industry coverage—limited to manufacturing, mining, and telephone communications—has become less representative of overall economic behavior. In the last 30 years, while the number of full- and part-time workers on non-agricultural payrolls has doubled from 45 million to more than 90 million, only 1 out of every 9 jobs added went to manufacturing industries. Thus, the usefulness of the statistics in measuring the job mobility of the entire work force has diminished. The lack of data by occupation has also been considered a problem by many users and limited the usefulness of the series to aid in guiding development of occupational training programs.

There has also been an increasing concern over the low level of labor turnover recorded in the series.

In the mid-1970's, the Employment and Training Administration (ETA) began to investigate alternate sources of labor turnover information relating to all industries. Funded by ETA, several State employment security agencies derived labor turnover from administrative records maintained for the unemployment insurance system.<sup>3</sup>

The significantly higher new-hire rates derived from this source than those produced by the BLS survey for manufacturing industries pointed to problems in the design of the labor turnover sample. It was essentially a "size cutoff" sample directed at establishments with 50 or more employees. The new-hire rates of the few small establishments in the BLS sample were 2 or 3 times higher than corresponding rates of larger establishments. In addition, many of the larger establishments in the sample had cooperated in the program for a long time, were well established, and appeared to have less turnover than large establishments not in the sample. There was also a regional bias in the sample, with some of the fast growing States, particularly California, being underrepresented. The Bureau had been aware of these problems for some time, but funds had not been available to make the necessary improvements in the sample

**Table 1. Layoff rate in relation to the business cycle, November 1948 to July 1981**

Cyclical phase	Layoff low	Months leading	Layoff rate <sup>2</sup>
<b>Contraction<sup>1</sup></b>			
Nov. 1948	Dec. 1947	11	1.0
July 1953	Nov. 1952	8	.8
Aug. 1957	Nov. 1955	21	1.3
Apr. 1960	May 1959	11	1.7
Dec. 1969	Apr. 1969	8	1.1
Nov. 1973	Oct. 1973	1	.8
Jan. 1980	Mar. 1979	10	.9
July 1981	July 1981	0	1.0
<b>Expansion<sup>1</sup></b>			
	<b>Layoff peak</b>	<b>Months leading</b>	<b>Layoff rate<sup>2</sup></b>
Oct. 1949	May 1949	5	3.4
May 1954	Jan. 1954	4	2.9
Apr. 1958	Mar. 1958	1	3.5
Feb. 1961	Feb. 1961	0	3.0
Nov. 1970	Oct. 1970	1	2.2
Mar. 1975	Feb. 1975	1	3.0
July 1980	May 1980	2	3.2

<sup>1</sup> Beginning date as designated by the National Bureau of Economic Research.  
<sup>2</sup> Seasonally adjusted.

design and in the estimating methodology.

However, several studies have shown that the degree of bias in the survey results was considerably smaller for total separations. On this basis, the quit and layoff data retained validity as an economic indicator.

### Alternate sources

Although the labor turnover survey was the only source for current statistics by detailed industry categories for the manufacturing sector, there are a number of other sources that provide information which users may substitute for the BLS survey. The labor turnover rates derived through the operations of State unemployment insurance systems have the potential of providing quarterly rates of total separations, total accessions, and new hires by industry for previous quarters. These turnover rates are computed by comparing the social security numbers of employees working for a given employer in a given quarter, as reported on the employer's quarterly unemployment insurance tax report, with the social security numbers reported by the same employer in prior quarters. Unfortunately, this methodology cannot distinguish between the types of separations, such as quits and layoffs.

At present, 12 States do not have unemployment insurance systems which require regular reporting of quarterly wages for each employee identified by social security numbers, a requisite for using this methodology. Only 21 States are currently producing labor turnover rates with this methodology, and seven more are in the developmental stage of producing the rates.

As a one-time project, the methodology was applied to a special tabulation of a 1-percent sample of quarterly social security records made available by the Social Security Administration. This study provided, for the first time, information about the volume of accessions, new hires, and separations in all industries and all States for the second quarter of 1974.<sup>4</sup> Because of changes in the filing requirements for employer reports for social security taxes, this source is not available for years after 1976.

The best alternate source for current information on layoffs is the ETA's *Unemployment Insurance Weekly Claims Report*. Initial claims derived from that source will be used by the Bureau of Economic Analysis in

place of the layoff rate in manufacturing as one of the 12 components in calculating the Index of Leading Economic Indicators. The Current Population Survey is another source of statistics on labor turnover. Information on unemployed persons on layoff is collected each month, and data are published in *Employment and Earnings* by various characteristics, such as age, sex, race, and duration of unemployment. Unpublished data are available by other characteristics, including industry of last job, although the industry detail is limited. From time to time, the survey is also used to collect data on job tenure and mobility.

The Office of Personnel Management calculates labor turnover rates for Federal employees from its Central Personnel Data file. These data are published monthly for all Federal agencies. Separate rates are available for total accessions, total separations, new hires, transfers, quits, and all other separations.

There are several private organizations that collect and disseminate labor turnover information. The most important of these sources is the Bureau of National Affairs. Since 1974, this organization has been collecting labor turnover information from about 600 large companies in all industries. The data are collected quarterly and are published in a bulletin shortly thereafter.<sup>5</sup> The definitions and estimating methodology used by this organization are comparable to those that have been used by BLS. The limited sample size does not allow the production of any industry detail. The Administrative Management Society has been collecting annual data on separations of office employees approximately every other year since 1969. The results of this survey, derived from about 2,000 reporting companies in a wide spectrum of industries, are published in the Society's *Management World* journal.<sup>6</sup> The separations data are restricted to office employees only and do not include temporary layoffs and certain leaves of absence.

Historical data on the BLS national labor turnover series will be maintained in the BLS data base and will be provided to users who request all or part of the file. The data can be provided as listings or on tape. The Bureau does not maintain a data base for any of the State and area series, but some of the State agencies which had cooperated in the survey may be able to provide these data to interested users. □

### — FOOTNOTES —

<sup>1</sup> Paul A. Armknecht, "Job vacancies in manufacturing, 1969-73," *Monthly Labor Review*, August 1974, pp. 27-33.

<sup>2</sup> Paul A. Armknecht and John F. Early, "Quits in manufacturing: a study of their causes," *Monthly Labor Review*, November 1972, pp. 31-37. For a partial listing of the major studies using the series, see James L. Price, *The Study of Turnover* (The Iowa State University Press, 1977), 160 pp.

<sup>3</sup> Philip Hardiman and Marge Sugarman, "Employment Service Potential: The Dimensions of Labor Turnover", report prepared by the

Employment Development Department, State of California, Sept. 1, 1979.

<sup>4</sup> Malcolm Cohen and Arthur Schwartz, "U.S. labor turnover: analysis of a new measure," *Monthly Labor Review*, November 1980, pp. 9-13.

<sup>5</sup> Mary Green Miner, "Job absence and turnover: a new source of data," *Monthly Labor Review*, October 1977, pp. 24-31.

<sup>6</sup> Edward G. Thomas, "1978 AMS Office Turnover Survey," *Management World*, September 1979, pp. 19-21.