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# Introduction

John Haltiwanger, Marilyn E. Manser, and Robert Topel

Beginning in the 1970s, the American labor market experienced a number of important structural changes. Reversing previous trends, wage and income inequality steadily increased, and the wage premiums commanded by skilled workers rose sharply. While women's wages and labor force participation continued to rise, average wage growth among men stagnated and male labor force participation trended downward, especially among the least skilled. Some observers have argued that employment relations themselves have become less stable, so that the concept of a "lifetime job" no longer applies to American workers.

A variety of explanations have been offered for these changes, including the decline of unions, increased immigration of less skilled labor, and increased competition from foreign manufacturers. While these factors may yet prove important, most current evidence points to technological change as the main driver that has shifted labor demands—and thus changed wages and working conditions—over the past 20 years. Much remains unknown, however. For example, if technical change has raised the value of skilled labor, how have private sector training programs responded? Is it the case, as some allege, that human capital investment by American firms and workers has been inadequate? Is there any prospect that private sector training and other forms of human capital investment will reduce wage inequality in the near future?

Despite the importance of these and other labor market questions, there has been little work on the measurement issues involved. To focus greater profes-

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sional attention on these measurement issues, we organized a conference to bring together economic researchers, data providers, and policy analysts from academia, government, and the private sector. This conference, sponsored by the National Bureau of Economic Research (NBER) Conference on Research in Income and Wealth (CRIW), was held in Washington, D.C., 15–16 December 1994.

This volume contains 13 papers from the 1994 conference, broadly organized around the issues of measuring employment, unemployment, and wages and evaluating training and workplace practices. Some of the papers involve conceptual issues of what is meant, what is known or can be learned from existing data, and what needs have not been met by available data sources. Other papers make innovative uses of existing data to analyze these topics. Papers examining how answers to important questions are affected by alternative measures used and how these can be reconciled are also included.

### **Existing Data System and Overall Needs**

The volume begins with two overview papers. Marilyn Manser attempts to set the stage for considering needs and possibilities by reviewing existing government data on employment, unemployment, compensation, and other labor market topics and the major current purposes of these data. She analyzes the use of these data for one major purpose, academic research studies. Finally, she discusses recognized additional needs for data and other needs that could be addressed with existing data. Two major themes emerge: the need for microdata to address issues involving labor demand and the related need to provide greater accessibility to the microdata collected and processed by the statistical agencies.

Robert Topel distinguishes between two functions for data, description and the estimation of models of labor market behavior. He argues that empirical research has been very successful in describing labor markets, particularly on the household side, although he points to three areas in need of more data. With respect to model estimation, he argues that empirical research has been much less successful in calibrating economic behavior; what would be needed here is more information on real-world experiments.

### **Employment and Wages**

The second set of papers examines new dimensions in measuring and understanding employment, unemployment, and wages. Three of these provide new perspectives on the topic of labor market turbulence. Steven Davis and John Haltiwanger examine the connection between gross job flows and gross worker flows. It has long been recognized from analysis of household data that the pace of worker flows between labor force states is very high in the United States. However, based solely on household information it has been virtually

impossible to gauge the relative contribution of the reallocation of jobs versus the reallocation of workers across a given allocation of jobs. Using longitudinal establishment data, Davis and Haltiwanger develop measures of gross job creation and destruction that characterize the connection between worker and job flows. While considerable progress on measuring job flows has been made in the past decade, Davis and Haltiwanger emphasize that data limitations restrict this type of analysis on a timely, economy-wide basis. They review ongoing developments at statistical agencies to develop economy-wide longitudinal microeconomic databases and argue that development of matched employer-employee longitudinal data would be an especially useful research tool.

Henry Farber shows that existing data can shed considerable light on the durability of employment relations in the United States. Using the Current Population Survey (CPS) for the years 1973–93, he examines the evolution of job tenure of American workers and concludes that the length of the typical employment relationship did not change much over this period. While contrary to popular perception, this is generally in accord with related findings on gross job flows, which do not show an increase in job turnover. Farber, however, does find that job durations have declined for some demographic groups, particularly men with less than a high school education, while they have increased for others, especially women with at least a high school education, who are now more committed to the labor force.

Stephen Jones and Craig Riddell, using Canadian data, expand the usual treatment of worker flows between labor force states (for which official U.S. measures are not available) to examine whether those persons out of the labor force who are “marginally attached” are behaviorally distinct from those counted as unemployed or from the remainder of those persons classified as out of the labor force. While there are some notable differences across demographic groups, they conclude that marginally attached workers are behaviorally distinct from others not in the labor force and are closer in behavioral terms to the unemployed than to other nonworkers.

Anne Polivka and Steven Miller examine the impact of the major 1994 CPS redesign. An important practical contribution of their paper is the calculation of historical adjustment factors that allow researchers to compare pre- and post-redesign labor force series. They conclude that the pre-1994 CPS accurately measured labor force status for the vast majority of individuals who were working or looking for work. There was some mismeasurement for individuals on the “periphery” of the labor market.

As emphasized in the paper by Manser, data limitations mean that relatively little is known about certain aspects of firm behavior and employment and wages in the United States. Robert McGuckin, Sang Nguyen, and Arnold Reznick utilize data from the Census Bureau’s Longitudinal Research Database (LRD) and find that ownership change is positively associated with growth in productivity and wages. Focusing on the food-manufacturing industry, they also find that ownership change is associated with employment growth of the

firm and the likelihood that a plant survives. Their paper also illustrates many of the measurement difficulties in developing longitudinal establishment data for the investigation of labor market dynamics.

Even where data are available, important dimensions of labor markets may not be well understood. One major question concerns the trend of real wages. Katharine Abraham, James Spletzer, and Jay Stewart describe available wage series and their behavior and explore alternative hypotheses concerning their differing trends. Among other findings, they conclude that it is likely that Current Employment Statistics (CES) weekly earnings have diverged from CPS and National Income and Product Accounts weekly earnings measures because they apply to a different worker population, although this population may not be precisely the production and nonsupervisory group specified by the formal CES definitions.

### **Looking Inside the Firm**

The final set of papers looks inside the firm. Canice Prendergast takes a broad-ranging, nontraditional look at the question of how jobs are defined and when a workplace is well designed in terms of incentives and other factors. He examines the extent to which various types of data are available (quite limited) or might be developed to distinguish among alternative theories in this area. One of his main conclusions is that we need data on individual contracts within firms to understand the nature of incentive and compensation policies and in turn the distribution of wages.

John Abowd and Francis Kramarz utilize data from a large, representative matched firm-worker sample for France to analyze internal and external labor markets. They find that the majority of the firm size-wage differential in France is explained by the tendency of high-wage firms to employ individuals with high external wage opportunities. That is, the wage differential reflects skills, not rents that accrue to workers of large firms. The high quality of the French matched worker-firm data serves as a model for the potential development of analogous databases in the United States.

Kenneth Troske describes the Worker-Establishment Characteristic Database (WECD) that provides information from the 1990 decennial census long form for workers in manufacturing industries that could be matched to establishment data from the LRD. He assesses the quality of the match and provides examples of how these data can be used to increase understanding of the wage determination process. The WECD is one of the few matched employer-employee data sets available for the United States. This paper illustrates the many potential uses of this database but also notes its limitations given that it is based on a single cross section.

Lisa Lynch addresses the conceptual issue of defining both formal and informal training, assesses how analytic results using presently available information are affected by alternative measures, and considers the need for data on

training. She provides an excellent overview of available data sources, including a critical review of data limitations in this area. Her evaluation of available data yields one of the common conclusions from this conference: making progress on our understanding of these issues depends on the development of matched employer-employee data. This refrain is especially forceful in this context given the interrelated decisions of workers and firms on investments in training.

Following the theme of the need for matched employer-employee data, Stephen Bronars and Melissa Famulari utilize data from a small, special test of collecting information on worker demographics in the Bureau of Labor Statistics White Collar Pay Survey. They analyze the incidence of employer-provided training programs and the impact of these programs on wage-tenure profiles. In addition, by matching the data to the Compustat database they are able to examine the relationship between firm profitability, investment in capital equipment and R&D, provision of formal training programs, and returns to training.

### **Concluding Remarks**

In conclusion, a wide variety of rich data already exist on labor markets, particularly households, and major new research studies have continued to appear during the past 10 years, as detailed by Manser. The papers in this volume present interesting new findings as well as point to unmet needs. Although U.S. data are generally viewed as very limited for studying the dynamics of labor markets, papers by Davis and Haltiwanger and by Farber both report important new findings in this area based on various existing data sets. Bronars and Famulari and Troske show the importance of new results that can be obtained from the very limited, and less than ideal, matched worker-establishment data sets that exist for the United States, and Abowd and Kramarz demonstrate the importance of such information indirectly by providing informative analytic results using high-quality French data. Other papers explicitly address the great and continuing need for expanded matched worker-establishment data (Topel, Davis and Haltiwanger, and Lynch). Among important topics, needs for additional data on training and on incentives and compensation practices within firms were explicitly addressed by Lynch and Prendergast, respectively. Topel's and Prendergast's papers, as well as Meyer's discussion, point to the potential value of utilizing data other than large-scale government databases, especially personnel records for a few firms, to address topics for which the former are not well suited.

Although the papers in this volume address a wide variety of important measurement issues affecting understanding of labor markets, they by no means address all of them. For example, there has been substantial change over time in the proportion of employee compensation that takes the form of nonwage benefits. The questions of why this has occurred, how understanding of labor

markets is affected by the focus on money wages only, and how nonwage compensation is valued by employees are not addressed here. These issues have received surprisingly little attention since being the focus of the 1981 CRIW conference (Triplett 1983).

Another important omitted topic is the role of changes in the degree of outsourcing, contracting out, and the use of temporary help agency workers in the U.S. economy. These issues loom large in our measurement of labor input by sector and in turn our measurement of labor productivity by sector. Further, changes along these dimensions reflect broader changes in the way labor is used to produce goods and services in the economy. While we neglect the specific issues of contracting out and temporary workers, finding ways to measure and understand the underlying broader changes in the structure of U.S. labor markets motivates much of the analysis and discussion in this volume.

## Reference

Triplett, Jack E., ed. 1983. *The measurement of labor cost*. NBER Studies in Income and Wealth, vol. 48. Chicago: University of Chicago Press.