

The winner of the 2008 Rosen Prize is **David H. Autor**.

David is a full professor at MIT and a leader in labor economics, especially in the areas of technological change and wage inequality, training, temporary help industry, disability and more recently on testing and discrimination. His work is extremely highly cited (much more so than any other labor economist at his stage) and has been very influential. His work on inequality and skill bias of technology has had a fundamental effect on the literature, and is on every graduate labor reading list. His recent work in diverse areas including screening, new labor market institutions, evaluation of training programs, minimum wages, technological change and inequality continues the very high-quality track-record that David set with his early work.

David's most influential work to date is his work on the role of technological change and computer technology in accounting for the rise in inequality. His papers with Larry Katz, Alan Krueger, Frank Levy and Richard Murnane have made the case for the importance of skill-biased technological change in explaining wage inequality. Many of the classic papers that people turn to in this area are written by David.

Notable in this context is his joint paper in the *Quarterly Journal of Economics* with Larry Katz and Alan Krueger. This paper provided the most comprehensive evaluation of the role of technological change in the changes in the wage structure. It clarified the implications of various different hypotheses and provided a large body of evidence in favor and against the implications of many of these hypotheses. This paper is still one of the most important pieces of work among those that establish the role of technology in inequality and make the case for an acceleration in the demand for skills since the 1970s.

Potentially more important than David's contribution to the empirical literature is his contribution to the conceptual framework we now use for thinking about the role of technological change and computerization in the labor market. In a now highly-cited *Quarterly Journal of Economics* paper, David formulated the idea that computers affect the wage structure by substituting for workers performing routine tasks. This work, which is joint with Frank Levy and Richard Murnane, develops a simple but informative theory of the impact of information technology on the wage structure, showing how the substitution of computers for routine tasks affects equilibrium wages both at the bottom and the top of the wage distribution. The paper then constructs a new dataset on job characteristics designed to capture the key parameters of the theory and provides tests of the theory. This paper is unique in its attempt to measure job characteristics directly linked to the parameters of observable measures of technology in a large dataset (as opposed to case studies). It is arguably the strongest piece of evidence for the importance of skill-biased technological change. Many young economists now are basing their research on these ideas.

David has also been the key figure in the work on the implications of the rise in disability insurance recipients. In a number of papers with Mark Duggan, David has changed the views of the economics profession on the implications of disability insurance. This work substantiates the view that the rise in disability rolls is due to the fact that disability benefits are increasingly a form of early retirement for some workers. This paper is distinguished from much of the previous work in this area by its careful use of exogenous variation both in the supply and demand for disability benefits and the attention paid to the impact of the supply of disability benefits on the responses of low-skilled workers to adverse labor market shocks. The paper uses progressivity in the disability benefits formula to identify exogenous variation in the supply of disability benefits. The results suggest 60 percent of the increase in the fraction of non-elderly adults receiving disability insurance can be explained by growing program generosity (both in benefits and in screening stringency) and that low-skilled workers facing unemployment downturns are particularly likely to go on disability. The work is not only relevant for our understanding of how the labor market works, but has major policy implications. For example they show that once disability benefits and medical care costs incorporated into the calculation, the typical disability award implies a present value obligation from the government of almost amounting to \$250,000. David's work in this area has consequently done more than advancing our academic understanding of issues of disability and social insurance; it has already has an impact beyond economics and is starting to be widely cited in the law literature.

In addition, David has also established himself as the premier expert on "new labor market institutions." This is a theme that appeared in his Ph.D. work, which focused on the temporary help industry. His paper "Why Do Temporary Help Firms Provide Free General Skills Training?" in the *Quarterly Journal of Economics* shows that temporary help firms commonly provide their temps with general skills such as training in the use of word processors and spreadsheets. David then develops a theory based on asymmetric information to explain this pattern and tests many of the implications of this theory. This paper is still among the best work in the area of "new labor market institutions". David has continued to contribute to this area including a widely-cited piece in the *Journal of Economic Perspectives*.

David has also made important contributions to the area of labor supply. In the *Journal of Political Economy* paper "Women, War, and Wages: The Effect of Female Labor Supply on the Wage Structure at Mid-Century," jointly written with Daron Acemoglu and David Lyle, David investigates how increases in female labor force participation during World War II affected male wages, female wages, and male wage inequality. It also provides a novel look at the old question of the effect of World War II on female labor supply. The paper exploits exogenous variation in female labor supply arising from variation in state mobilization rates accounted for by differences in the age structure and German ethnicity percent by cohort and state. Contrary to the received wisdom in this area, the paper shows that WWII had a lasting impact on female labor supply and also finds that greater female labor supply reduced both female and male wages, increased the college wage premium and male inequality more generally. The data and identification strategy used in this paper have been employed by a number of subsequent papers.

In more recent work, now published in the *Quarterly Journal of Economics*, David investigates the implications of the introduction of electronic ability-testing of job-market candidates for unskilled jobs raises productivity in retail stores. The paper shows that even though minority applicants have lower scores (that is, the electronic test has a "disparate impact"), the use of electronic screening does not reduce minority hiring. The paper reconciles these two facts with a simple model where, in the absence of testing, employers use a form of statistical discrimination based on race. This is important evidence in favor of the statistical discrimination hypothesis. It also shows how screening devices with a significant disparate impact may improve minority outcomes if they increase the precision of the information employers use for screening.

In even more recent work, David has teamed up with Susan Houseman to evaluate the role of temporary-help jobs in the low-skilled labor market. This work carefully exploits the random assignment of welfare recipients to service providers with a track record of differing propensities to place clients in temp agencies but otherwise similar services. It shows that the gains from temporary employment are short-lived and that the best long-run results come from direct-hire placements. This is an important finding given the growing role temporary employment plays in the U.S. labor market. It is also relevant for the evaluation of short-term positions in Europe, where non-experimental evaluations paint an optimistic picture. The paper also makes a methodological contribution by showing that the observational evidence on temporary employment can be misleading.

Finally, David has also continued his influential work on inequality with new and important papers on documenting and interpreting the recent facts on inequality and reevaluating the effects of minimum wages on the wage structure. The body of work that David Autor has produced is of very high quality and has been extremely influential in the profession. This work is of sufficient stature to make David a very worthy recipient of the Rosen Award. In addition, it should be noted that David stands out from the rest of his cohort in terms of his broad contributions to labor, combined with careful empirical work and good use of basic microeconomic theory. He is an exemplary labor economist.

