

**WORKPLACE PRODUCTIVITY  
AND MANAGEMENT  
PRACTICES**

# RESEARCH IN LABOR ECONOMICS

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# **WORKPLACE PRODUCTIVITY AND MANAGEMENT PRACTICES**

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## PREFACE

An economy's success is dependent on how resources are utilized. In the United States and likely other advanced economies over 50% of GDP emanates from larger organizations, often with complicated hierarchical employment structures, where the mechanism through which workers and managers interact is less understood. In August 2020, IZA in conjunction with Cedefop and Eurofound ran a conference on workplace management practices to better understand how to increase a workforce's productivity. This volume contains 10 articles, with three of them presented at the conference, all aimed at better understanding how worker productivity can be enhanced and overall economy-wide output can be boosted. Of these, three are related to unions and worker representation, two on workplace structure and personnel policies, two on employees' productivity, and one on return to entrepreneurship. In addition, the volume contains two papers, one related to parental investments in children and the other on movements in and out of the labor force.

No doubt job satisfaction and perhaps even productivity can be enhanced through employee voice in the workplace. Yet according to **John T. Addison** and **Paulino Teixeira**, the 2013 European Company Survey on 28 nations indicates an employee representation gap. Simply put, employees perceive a need for greater voice. This desire for greater involvement holds across all establishments and for firms undertaking major human resource decisions. Addison and Teixeira examine the circumstances in which workers most express this need. They find the call for greater representation is smaller when employees are kept satisfactorily informed on establishment issues and when employers seek employee opinions or involve employees in joint human resource decisions. This finding is robust across actual country workplace practices, but typically, this situation is more prevalent in work council compared to union settings.

A number of past studies claim unions hamper productivity. One reason is unions shy away from labor saving technologies, as these often lead to lower employment. However, in the next article **Alex Bryson** and **Harald Dale-Olsen** argue that instead unions likely favor product innovation. Such change possibly enhances worker wages and employment while also boosting firm revenue. As such, unions end up improving firm productivity. Bryson and Dale-Olsen utilize the 2011 British Workplace Relations Survey and the 2012 Norwegian workplace employment survey to test their hypothesis. In both, they find local bargaining, especially at the plant level, leads to product innovation. But, at the same time, they also find unions increase the probability of innovation. Clearly, the results challenge the notion that local union bargaining is detrimental to innovation.

Similar to Bryson and Dale-Olson, in the next article **Fabio Berton, Stefano Dughera** and **Andrea Ricci** argue that unions can lead to more firm investment. This is the case because unions, in essence, have two faces: First, is bargaining power, used to seek higher wages; but second is voice, used to raise job satisfaction and ease the displeasure of higher effort exertion. Whereas the first leads firms to inhibit capital investment, the second does the opposite. Thus, when union voice ability is strong compared to bargaining, the so-called hold-up power unions often exert is muted, thus motivating unionized firms to invest more than their nonunionized competitors.

As is well known, the production process in large companies is complex. They result in multilayered hierarchical structures, and for good reason. Hierarchical structures allow for monitoring worker effort via supervisor ratings. Hierarchical structures enable supervisors to coordinate with subordinates. Hierarchies exploit division of labor by assigning specific talents where they belong. Hierarchical structures also motivate workers by incentivizing them as they move up the job ladder. In the next article, **Giovanni Russo** and **Gijs van Houten** utilized the 2019 European Company Survey to concentrate on the tradeoff between job autonomy, including the ability to problem-solve, and hierarchical layers. They find a strong and consistent negative relationship between job autonomy and hierarchy. This inverse relation holds true using various regression models both in firms with high and low costs of knowledge acquisition, and is only weakened by highly interdependent coordination requirements in the production process. Thus, workplaces that offer autonomy in the job are less reliant on promotions through the hierarchical process as a motivating device.

One way to measure the impact of personnel policies is via their effect on firm performance. To do so, in the next article **Pedro S. Martins** utilizes employer-employee data from 4792 Portuguese firms from 1986 to 2004. These “Quadros de Pessoal” data administered by the Ministry of Employment contain firm-provided information about the firm itself as well as about each employee. Martins finds a considerable level of diversity in management practices across firms. These include the complexity of hierarchical structure, employee human capital, and resulting worker turnover. High turnover is associated with low sales per worker. Similarly, low sales per worker is associated with high wage dispersion at low job levels and an aging (more tenured more experienced) workforce. On the other hand, sales are higher in firms with well-educated workers. Foreign-owned firms and firms with high equity per worker also exhibit high performance. From a management perspective little wage dispersion at low and intermediate job levels, a tight relationship between human capital variables and wages, low worker turnover, and, possibly, a loose relationship between job levels and wages are significant positive predictors of firm performance.

Despite management tactics to raise productivity, workers can still game the system. In an innovative experiment among California fruit pickers **Joshua Graff Zivin, Lisa B. Kahn** and **Matthew Neidell** test this assertion. They exploit a unique panel data set on individual worker productivity under two distinct compensation structures. The first pays a fixed wage up to a productivity target, and a piece rate

thereafter. The second pays a fixed rate up to a productivity target, a bonus for reaching the target, and a piece rate thereafter. Their primary focus is on whether the stronger incentives yield faster learning on the job. And, indeed they find this to be the case. However, they also find significant bunching of performance just above the bonus threshold, which increases as workers gain experience. As such, workers distort their behavior in response to discrete bonuses. Despite this bunching, the positive effects of learning by doing outweigh the negative distortionary effects of gaming. As such, this finding helps explain the efficacy of discrete bonus compensation schemes.

Whereas an expanding economy often goes hand in hand with increased technology and augmented productivity, the opposite can occur with a decline. Using a unique sample of 193 bakery shops located within chain supermarkets, out of which 57 were downsized, **Guido Friebe**, **Matthias Heinz**, **Ingo Weller**, and **Nick Zubanov** test how job security relates to worker productivity. Given information before and after the downsizing announcements in each shop, they are able to determine how sales per worker are affected. They find for the interim between the announcement and the actual downsizing, contrary to expectations, a greater decrease in productivity in shops to be closed compared to shops simply to be shrunk. This decline is greater among employees with higher perceived job security, which according to the authors is consistent with psychology-based reciprocal effort withdrawal.

Clearly firms are interested in maximizing worker productivity through workplace practices, but at the same time employees are interested in maximizing, or at least enhancing, their own well-being. One way is to quit their wage and salary job and go into business for themselves. Much current literature tends to find negative returns to entrepreneurship, leading some to believe nonpecuniary factors must play a role. But assessing whether those who become entrepreneurs earn more than they would have done if they had remained salaried workers is difficult to answer because of data shortcomings making it difficult to isolate earnings of proprietorships and to fully account for endogeneity. In the next chapter **Mirjam van Praag** and **Arvid Raknerud** address these issues. First, they separate proprietorship into those becoming self-employed and those incorporating into new start-up businesses. Second, they utilize high-quality panel data from Norway for the years 2002–2013, containing sufficient information on potential confounders. And, third, they utilize three compelling econometric specifications. They find unambiguous evidence that the average returns to entrepreneurship are negative for individuals becoming self-employed, and positive but modest for those becoming incorporated startups. Further, while there are huge gender gaps in entrepreneurship rates, they find no significant difference between men and women in the average returns to entrepreneurship.

Of course, productivity can be enhanced through school investments far before one enters the labor market. In some countries the competition is so fierce that parents hire tutors to increase children's odds of getting into the best schools and universities. This is the case in South Korea, which has the highest rate of private tutoring in the world. Yet, virtually nothing is known about its success. In the next article, **Tiloka de Silva** exploits a 10 and 11 p.m. curfew on seven of 16

Korean provinces which exogenously limited the amount of tutoring. She finds tutoring expenditures significantly affected college attendance especially for children of less educated parents. Further, this effect is particularly strong in medicine and law. Nevertheless, she also found diminishing marginal returns to such expenditures.

Independent of management practices, looking at the big picture economy wide, the number of workers at any time depends to a large extent on the forces that create the impetus for the unemployed to find jobs and for the employed to leave the workforce. These inflows and outflows are often difficult to measure especially in less developed economies where data on labor market transitions are scarce, and the informal sector large. In this volume's final article, **Nikita Céspedes Reynaga** and **Nelson R. Ramírez-Rondán** utilize monthly surveys from the Peruvian National Statistical Institute Employment Survey to compare these transitions in the formal and informal sectors. For the formal sector, they find these movements to be comparable to those estimated in developed countries. However, in the informal sector they are twice as high as in the formal sector.

Lastly, *Research in Labor Economics* mourns the passing of Editorial Board member **Edward P. Lazear**. Eddie was a pioneer scholar often cited as the founder of personnel economics, the application of mathematical and econometric approaches to understand institutional aspects of human resource management, what this current volume deals with. As a trailblazer in this area, Eddie developed seminal insights into such topics as employee promotions, salary increases, compensation structures, pay compression, nonmonetary job attributes, and team production. But in addition, he developed important models spanning such diverse topics as classroom learning, policing practices, cultural assimilation, and more. He was a recipient of many prestigious awards including the Adam Smith Prize of the European Association of Labor Economists, the IZA Prize in Labor Economics, the Jacob Mincer Award for Lifetime Contributions to the Field of Labor Economics, and he was elected to be a Distinguished Fellow of the American Economic Association. In addition, Eddie served as Chairman of the US Council of Economic Advisors under President George W. Bush. He was the Morris Arnold and Nona Jean Cox Senior Fellow at the Hoover Institution, the Davies Family Professor of Economics at the Stanford Graduate School of Business, and Senior Fellow at the Stanford Institute for Economic Policy Research.

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