

WORKPLACE PRODUCTIVITY AND MANAGEMENT PRACTICES

Edited by Solomon W. Polachek
and Konstantinos Tatsiramos

With

Guest Editors Giovanni Russo
and Gijs van Houten

I Z A Institute
of Labor Economics

Initiated by Deutsche Post Foundation

RESEARCH IN LABOR
ECONOMICS

VOLUME 49



CEDEFOP

European Centre
for the Development
of Vocational Training



Eurofound

**WORKPLACE PRODUCTIVITY
AND MANAGEMENT
PRACTICES**

RESEARCH IN LABOR ECONOMICS

Series Editor: Solomon W. Polachek

IZA Co-Editor: Konstantinos Tatsiramos

Recent Volumes:

- Volume 37: Labor Market Issues in China
Edited by Corrado Giuliatti, Konstantinos Tatsiramos and Klaus F. Zimmermann
- Volume 38: New Analyses in Worker Well-Being
Edited by Solomon W. Polachek and Konstantinos Tatsiramos
- Volume 39: Safety Nets and Benefit Dependence
Edited by Stephane Carcillo, Herwig Immervoll, Stephen P. Jenkins, Sebastian Konigs and Konstantinos Tatsiramos
- Volume 40: Factors Affecting Worker Well-Being: The Impact of Change in the Labor Market
Edited by Solomon W. Polachek and Konstantinos Tatsiramos
- Volume 41: Gender Convergence in the Labor Market
Edited by Solomon W. Polachek, Konstantinos Tatsiramos and Klaus F. Zimmermann
- Volume 42: Gender and the Labor Market
Edited by Solomon W. Polachek, Konstantinos Tatsiramos and Klaus F. Zimmermann
- Volume 43: Inequality: Causes and Consequences
Edited by Lorenzo Cappellari, Solomon W. Polachek and Konstantinos Tatsiramos
- Volume 44: Income Inequality Around the World
Edited by Lorenzo Cappellari, Solomon W. Polachek and Konstantinos Tatsiramos
- Volume 45: Skill Mismatch in Labor Markets
Edited by Solomon W. Polachek, Konstantinos Poulidakas, Giovanni Russo and Konstantinos Tatsiramos
- Volume 46: Transitions Through the Labor Market: Work, Occupation, Earnings and Retirement
Edited by Solomon W. Polachek and Konstantinos Tatsiramos
- Volume 47: Health and Labor Markets
Edited by Solomon W. Polachek and Konstantinos Tatsiramos
- Volume 48: Change at Home, in the Labor Market, and on the Job
Edited by Solomon W. Polachek and Konstantinos Tatsiramos

EDITORIAL ADVISORY BOARD

Orley C. Ashenfelter
Princeton University

Reuben Gronau
Bank of Israel

Francine D. Blau
Cornell University

Daniel S. Hamermesh
Barnard College

Alison L. Booth
Australian National University

James J. Heckman
University of Chicago

Richard Blundell
University College London

Christopher A. Pissarides
London School of Economics

David Card
University of California

Yoram Weiss
Tel-Aviv University

Ronald G. Ehrenberg
Cornell University

Klaus F. Zimmermann
UNU-MERIT, Maastricht University and GLO

Richard B. Freeman
Harvard University

This page intentionally left blank

RESEARCH IN LABOR ECONOMICS VOLUME 49

WORKPLACE PRODUCTIVITY AND MANAGEMENT PRACTICES

EDITED BY

SOLOMON W. POLACHEK

State University of New York at Binghamton, USA

And

KONSTANTINOS TATSIRAMOS

University of Luxembourg, Luxembourg

WITH GUEST EDITORS

GIOVANNI RUSSO

Cedefop, Greece

And

GIJS VAN HOUTEN

Eurofound, Ireland



United Kingdom – North America – Japan
India – Malaysia – China

Emerald Publishing Limited
Howard House, Wagon Lane, Bingley BD16 1WA, UK

First edition 2022

Editorial matter and selection © 2022 Solomon W. Polachek and Konstantinos Tatsiramos.
Published under exclusive licence by Emerald Publishing Limited.
Individual chapters © 2022 by Emerald Publishing Limited

Reprints and permissions service

Contact: permissions@emeraldinsight.com

No part of this book may be reproduced, stored in a retrieval system, transmitted in any form or by any means electronic, mechanical, photocopying, recording or otherwise without either the prior written permission of the publisher or a licence permitting restricted copying issued in the UK by The Copyright Licensing Agency and in the USA by The Copyright Clearance Center. Any opinions expressed in the chapters are those of the authors. Whilst Emerald makes every effort to ensure the quality and accuracy of its content, Emerald makes no representation implied or otherwise, as to the chapters' suitability and application and disclaims any warranties, express or implied, to their use.

British Library Cataloguing in Publication Data

A catalogue record for this book is available from the British Library

ISBN: 978-1-80117-675-0 (Print)
ISBN: 978-1-80117-674-3 (Online)
ISBN: 978-1-80117-676-7 (Epub)

ISSN: 0147-9121 (Series)



Certificate number1985.....

Awarded in recognition of Emerald's production department's adherence to quality systems and processes when preparing scholarly journals for print



INVESTOR IN PEOPLE

CONTENTS

<i>List of Contributors</i>	<i>ix</i>
<i>Preface</i>	<i>xi</i>
What Do Workers Want? The Representation Gap at the EU Establishment as Perceived by Their Workplace Representatives	1
<i>John T. Addison and Paulino Teixeira</i>	
Union Effects on Product and Technological Innovation	41
<i>Alex Bryson and Harald Dale-Olsen</i>	
A Simple Model of Holdup, Union Voice, and Firm Investments	67
<i>Fabio Berton, Stefano Dughera and Andrea Ricci</i>	
Complex Job Design and Layers of Hierarchy	85
<i>Giovanni Russo and Gijs van Houten</i>	
Internal Labor Market Dimensions and Labor Productivity	107
<i>Pedro S. Martins</i>	
Incentivizing Learning-by-Doing: The Role of Compensation Schemes	139
<i>Joshua Graff Zivin, Lisa B. Kahn and Matthew Neidell</i>	
Downsizing Announcements, Job Security Perceptions, and Worksite Performance	179
<i>Guido Friebel, Matthias Heinz, Ingo Weller and Nick Zubanov</i>	
The Returns to Entrepreneurship: Evidence from Matched Person-firm Data	207
<i>Mirjam van Praag and Arvid Raknerud</i>	

The Impact of Private Tutoring on Higher Education Outcomes: Evidence from South Korea	239
<i>Tiloka de Silva</i>	
Job Finding and Separation Rates in an Economy with High Labor Informality	277
<i>Nikita Céspedes Reynaga and Nelson R. Ramírez-Rondán</i>	

LIST OF CONTRIBUTORS

<i>John T. Addison</i>	University of South Carolina, USA; University of Durham, UK
<i>Fabio Berton</i>	University of Turin, Italy
<i>Alex Bryson</i>	University College London, UK
<i>Nikita Céspedes Reynaga</i>	Central Reserve Bank of Peru, and Pontifical Catholic University of Peru, Peru
<i>Harald Dale-Olsen</i>	Institutt for samfunnsforskning, Norway
<i>Tiloka de Silva</i>	University of Moratuwa, Sri Lanka
<i>Stefano Dughera</i>	University of Turin, Italy
<i>Guido Friebe</i>	Goethe University Frankfurt, Germany
<i>Joshua Graff Zivin</i>	University of California, San Diego, USA
<i>Matthias Heinz</i>	University of Cologne, Germany
<i>Lisa B. Kahn</i>	University of Rochester, USA
<i>Pedro S. Martins</i>	Nova School of Business and Economics, Portugal
<i>Matthew Neidell</i>	Columbia University, USA
<i>Arvid Raknerud</i>	Statistics Norway, Norway
<i>Nelson R. Ramírez-Rondán</i>	Center for Latin American Monetary Studies, Mexico
<i>Andrea Ricci</i>	National Institute for Public Policy Analysis INAPP, Italy
<i>Giovanni Russo</i>	Cedefop, Greece
<i>Paulino Teixeira</i>	University of Coimbra, Portugal
<i>Gijs van Houten</i>	Eurofound, Ireland
<i>Mirjam van Praag</i>	Copenhagen Business School, Denmark
<i>Ingo Weller</i>	Ludwig Maximilian University of Munich, Germany
<i>Nick Zubanov</i>	University of Konstanz, Germany, and HSE University St Petersburg, Russia

This page intentionally left blank

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.

Solomon W. Polachek
Giovanni Russo
Konstantinos Tatsiramos
Gijs van Houten
Volume Editors

WHAT DO WORKERS WANT? THE REPRESENTATION GAP AT THE EU ESTABLISHMENT AS PERCEIVED BY THEIR WORKPLACE REPRESENTATIVES

John T. Addison and Paulino Teixeira

ABSTRACT

Using data from the 2013 European Company Survey, this chapter operationalizes the representation gap as the desire for greater employee involvement in decision-making expressed by the representative of the leading employee representative body at the workplace. According to this measure, there is evidence of a substantial shortfall in employee involvement in the European Union, not dissimilar to that reported for the United States. The chapter proceeds to investigate how the size of this representation gap varies by type of representative structure, information provided by management, the resource base available to the representatives, and the status of trust between the parties. Perceived deficits are found to be smaller where workplace representation is via works councils rather than union bodies. Furthermore, the desire for greater involvement is reduced where information provided the employee representative on a range of establishment issues is judged satisfactory. A higher frequency of meetings with management also appears to mitigate the expressed desire for greater involvement. Each of these results is robust to estimation over different country clusters. However, unlike the other arguments, the conclusion that shortfalls in employee involvement representation are smaller under works councils than union bodies is nullified where trust in management is lacking.

Workplace Productivity and Management Practices

Research in Labor Economics, Volume 49, 1–39

Copyright © 2022 by Emerald Publishing Limited

All rights of reproduction in any form reserved

ISSN: 0147-9121/doi:[10.1108/S0147-912120210000049001](https://doi.org/10.1108/S0147-912120210000049001)

Keywords: Formal workplace employee representation; works councils; union agencies; information/consultation/participation deficits; union density; country heterogeneity; industrial relations quality

JEL Classification: J53; J58; J83

1. INTRODUCTION

The widespread decline in unionism has prompted fears of a deficiency in worker voice. Although the alarm bell has been sounded on a number of occasions since the 1980s, the case was first formally articulated for the United States. In charting the gap between the type and extent of workplace representation wanted by workers and that currently obtaining, [Freeman and Rogers \(1999\)](#) found that a very large majority of American workers – in the range 85–90% – desired greater collective voice at the workplace than they currently enjoyed and that, overall, some 44% of workers favored union representation.¹ Updated research for the United States seemed to suggest that workers wanted as much or more of a voice in their workplace, and that more than before (now a majority) would vote for unions ([Freeman & Rogers, 2006](#); [Freeman, 2007](#)). As we shall see, the most recent US research essentially confirms these results while raising new issues ([Kochan, Yang, Kimball, & Kelly, 2019](#)).

Evidence of a representation gap, albeit smaller in magnitude, has also been found for Australia, Canada, Ireland, New Zealand, and the United Kingdom ([Freeman, Boxall, & Haynes, 2007](#)). For the United Kingdom, in particular, surveys of worker perceptions of the problems they confront at the workplace and the effectiveness of unions (and management) in dealing with these problems offer a more nuanced view.² Thus, as reported by [Bryson and Freeman \(2007\)](#), although there is every indication that British workers value unions as sources of wage increases and protection against unfair treatment by management, a majority of them envisage no major workplace problems that would cause them to join unions. Bryson and Freeman further observe that workers want cooperation rather than confrontation, preferring bodies that cooperate with management to improve conditions than a more defensive organization offering protection against unfair treatment by management. Admittedly, there is a certain tension in all of this because cooperation as an equal partner requires power that can be used in a destructive manner and harm industrial relations, while the adoption by management of a cooperative stance may find that unions interpret this as a sign of weakness to be exploited (see below).

And what of the expression of worker voice in the European Union (EU), the subject of the present treatment? First of all, as a matter of principle, the EU has long sought to promote worker participation in member states based on the twin notions of industrial democracy and economic competitiveness.³ Indeed, Directive 2002 of the European Parliament and the Council of March 11, 2002, set down a general framework for informing and consulting workers at national level, and not only through union bodies ([Official Journal, 2002](#)). The Directive provides for a procedure of general, permanent, and effective information and

consultation of workers in respect of recent and probable development in an undertaking's activities and economic situation, the structure of employment, and decisions that might lead to material changes in work organization and contractual relations.⁴ As a practical matter, and reflecting the fact that worker participation rights at establishment/undertaking level vary considerably between the nations of the EU, the legislation allows member states considerable freedom of maneuver in policy design. We are unaware of any planned alignment/simplification of these practices or consolidation of the EU directives on the information and consultation of workers in the wake of the Commission's subsequent consultation with the social partners on the issue (European Commission, 2015).⁵ Second of all, however, apart from interesting descriptive information on the types of workplace representation (Fulton, 2015) and the facts of union decline *inter alia* charted in the Institutional Characteristics of Trade Unions, Wage Setting, State Intervention, and Social Pacts (ICTWSS),⁶ there has been a near void concerning the perceived adequacy of employee voice in the EU. That is, there has been no examination of EU workplace representation directly analogous to the individual worker, largely union-oriented worker surveys noted earlier.

Fortunately, this void has been partly filled by information contained in the Third European Company Survey (ECS). Specifically, the Employee Representative (ER) Questionnaire of the 2013 ECS solicits the views of the designated representative of the leading employee representation body at the workplace as to the involvement of employees and their representatives in the organization of work. The survey questions pertain to the characteristics of the ER body – works councils or kindred agencies on the one hand and union bodies on the other – including the manner of its functioning, the quality of the information provided to it by management, its degree of involvement in decision-making (as well as trust in management), and the work climate.

In the present chapter, we present the first formal analysis of the extent of the worker representation gap at the EU establishment.⁷ We operationalize the representation gap as the expressed desire for greater involvement in decision-making on the part of the representative of the leading employee representative body. A distinction is, therefore, drawn between prevalent work councils and prevalent union entities. It is predicted on the basis of theory and practice that perceived deficits will be smaller under works councils than union bodies. It is also anticipated that the desire for greater involvement will be reduced where the amount of information provided to the worker representation agency across a range of employment issues is judged satisfactory by the worker side. This may especially be the case in circumstances of major human resource (HR) decisions where the worker representation body is asked to give its views or be involved in joint decision-making with management. Certain aspects of the entity's resource base, such as a higher frequency of meetings with management, should also mitigate the desire for greater involvement. A penultimate issue is the vexed question of the trust placed in management by the worker side, and the effect such confidence or otherwise has on other expected relationships. The robustness of these results to reestimation over different clusters of countries is another hallmark of our approach.

The plan of the chapter is as follows. A theoretical backdrop to worker representation precedes a terse audit of the most recent ECS empirical literature on workplace representation to contextualize our analysis. There follows a description of the principal dataset used in this inquiry. Our modeling strategy is next addressed to establish the framework for the main hypotheses being tested. Our detailed findings are next reported. A discussion concludes.

2. LITERATURE

2.1 Theoretical Considerations

Prior to examining the relevant aspects of the empirical literature, we consider the economic factors that might be expected to underpin employee participation or representation gaps. Relatedly, what guidance does theory offer as to the relative efficacy of the two formal channels of workplace representation identified in the ECS (namely works councils and union bodies)? And, finally, what might be the contribution of other factors in the form of trust or the quality of the industrial relations climate to the effectiveness of workplace representation?

Market failure might be expected to produce suboptimal levels of employee representation and involvement. The imperfections in question would include externalities, prisoner's dilemma, adverse selection, opportunism, and principal-agent problems (Kaufman, 2000).⁸ For their part, externalities are spillover (i.e. third-party) benefits or costs not properly accounted for by decision-makers. When such externalities are present (at the margin), social benefits or costs diverge from private benefits or costs. A case in point would be the public goods aspects of shared working conditions, resulting in the underprovision of valued benefits as workers underinvest in making their preferences known. Another example might be joint safety committees; to the extent that these yield benefits to third parties in reduced health-care costs, employers will underinvest in them. Indeed, if the choice of work organization at one firm – for example, a participatory workplace with a compressed wage structure – benefits other employers by enabling them to hire its stars at a discount, the market may be said to be systematically biased against that form of work organization rendering such innovation unprofitable for the individual firm (Levine & Tyson, 1990).

Prisoner's dilemma is a special case of externalities and characterizes a situation in which individually rational behavior is nonetheless inefficient because it generates a result that is less preferred by all the parties to a cooperative albeit unstable outcome. Thus, employee representation may benefit firm performance by boosting worker morale and motivation but remain dormant because of an absence of trust and a lack of credible commitments.

Another source of market failure is adverse selection, typically associated with asymmetric information or an inability to distinguish among heterogeneous parties. Here, private contracting does not maximize the surplus because of the risks associated with worker/firm diversity. Thus, for example, a firm that voluntarily adopts a just cause dismissals policy as part and parcel of an employee participation exercise may be expected to attract a disproportionate share of

workers who will shirk but yet be difficult to dismiss with cause (Levine, 1991).

Opportunism may also militate against employee involvement or limit its exercise. Although participation may increase output and profitability, the superior access to information provided by management may be used opportunistically by workers to capture a bigger share of a rising joint surplus while profits fall both relatively and absolutely. As a result, employers may be expected to forgo employee involvement or invest too little in it from a socially optimal perspective.

Finally, the principal-agent problem arises from the informational edge of the employee agent over the employer principal stemming from asymmetric information. Employees are expected to leverage this private information for personal gain. Accordingly, attention has focused either on the use of financial incentives to derisk the principal agent problem or the creation of an organization with shared values. The former route can be conceptualized as inducing the employee agent to undertake an action that is costly to that agent because it involves more effort than a second action. The nature of the problem is that the principal is unable to detect which course of action has been taken and, moreover, cannot infer that action from an observation of the employee's output (though the employer can observe whether revenues are high or low). The issue becomes one of devising a payment contract that incentivizes the employee to select the action that is more costly to that agent. The conventional solution involves a contract that will optimally trade off the worker's wage against incentives for work. It is often thought that building a culture/creating shared values is a substitute strategy. However, if workers can be made to identify with the firm through firm investments in employee involvement and participation that transform workers from outsiders into insiders, such practices can actually lower the variation in compensation needed to motivate them to select the second route. That is, increased worker commitment flattens the optimal wage schedule, such that monetary incentives and motivation can be complements (Akerlof & Kranton, 2005; Brown, McHardy, McNabb, & Taylor, 2011).

All of the above arguments are encountered to varying degrees in justifying the two institutions of formal workplace representation. The crucial theoretical construct here is the notion of *collective voice*, which is to be contrasted with individualistic market mechanisms. In the model developed by Freeman and Medoff (1984), collective voice dominates individual voice (or exits) in continuity markets. A key reason is the public goods aspect of many working conditions. One solution to the resulting problems of an underprovision of information (and effort as well where there are complementarities in worker effort inputs) is unionism. Unions collect and aggregate individual worker preferences (and jointly determine effort inputs). No less important a function of collective voice is *governance* which refers to the policing or monitoring of incomplete contracts and mechanisms for ensuring that the parties to a contract are motivated to follow its terms without recourse to constant bargaining. Freeman and Medoff view unions as a commitment device: not only do unions provide workers with more accurate information about the state of nature but also prevent employers from engaging

in opportunistic behavior in the case of worker investments in firm-specific training or reliance investments (see also [Malcomson, 1983](#)).

An integral part of governance is union bargaining power as there must be some threat of credible punishment by the union of employer malfeasance. By the same token, rent seeking is the handmaiden of increased bargaining power. This threat of *union hold-up* was to stimulate interest in another form of collective voice. The next theoretical development was to argue that the institution of the works council offers improved prospects for an increase in the joint surplus of the enterprise by reason of its more thorough-going information exchange, consultation, and participation/codetermination powers than unions ([Freeman & Lazear, 1995](#)). In short, the works council has been portrayed as the potential exemplar of collective voice. Explicit recognition that changes in the distribution of the joint surplus in favor of workers can be expected to accompany increases in that surplus, however, requires that some means of legal containment be sought in order to facilitate the optimal social provision of works councils. For example, changes in the labor code (e.g. a peace obligation and formal limitations on bargaining) offer the prospect of decoupling the factors that determine the size of the surplus from those that determine its distribution.

A final issue, already addressed in part in our discussion of principal-agent considerations and prisoner's dilemma, is the role of trust. Our examination of the issue is perhaps best couched in terms of the dictum issued by the architects of collective voice themselves. Against the backdrop of disparate union productivity effects in underground US bituminous coal mining in the 1950s and 1960s, Freeman and Medoff (1984, p. 179) conclude: "The lesson is that unionism per se is neither a plus nor a minus to productivity. What matters is how unions and management interact at the workplace." Our approach to the question of trust will be to examine the sensitivity of the correlates of the representation gap to variations in the quality of industrial relations.

2.2 Studies with a Focus on Workplace Representation and Some Links to Extant ECS Analyses

We preface a statement of links between the present study and the themes of past research using the ECS with some US findings on *workplace committees* from the Worker Representation and Participation Survey (WRPS), augmented by surveys conducted by Peter D. Hart Associates and summarized by [Freeman \(2007\)](#). Freeman observes that workers desire a workplace committee form of representation, that is, the suggestion from the WRPS is that, given a choice between a union and a joint management employee committee that would meet and discuss problems, a little over one-half (52%) of workers selected the workplace committee option, and a little under one-quarter (23%) chose unions, the balance of opinion either being in favor of increased legal protection or opposing any independent organization at all. That said, when the union alternative was reworded in the survey as "an employee organization that would negotiate with management," support for this option rose by 8 percentage points, while that for the workplace

committee option fell by 6 percentage points. Moreover, the subsequent poll data pointed to no less than 76% of workers being desirous of material institutional change that would grant them voice at the workplace, either in the form of a workplace committee or union representation or both. Specifically, 39% of workers would vote for an employee association and a union, 35% for an association but not a union, and 2% would vote for unions and not an association. Some 14% were satisfied with the status quo ante and, hence, favored neither form of collective voice, and the residual 10% were undecided. Accordingly, it is concluded that the desire for workplace committees is to be seen as one component of general demand among US workers for a greater say at their workplace and not conflictual with the finding that more workers than ever before express a demand for union representation.

The most recent US study by [Kochan et al. \(2019\)](#) using the MIT 2017 Worker Choice Survey (2017) also considers the determinants of worker use of and satisfaction with joint employer–management committees and unions. The former entities are part of five “internal” mechanisms (e.g. filing grievances), and the latter one of seven “independent” mechanisms (that also include industrial action). It is reported that there is in practice considerable variation in the voice options open to workers. Moreover, there is also considerable variation in worker satisfaction with these mechanisms. Although the main takeaway from this study is the evidence of a large unmet demand for union representation, this phenomenon is shown to be accompanied by significant use of a variety of voice options (see also [Section 6](#)).

Turning to the ECS literature, emphasis has been upon the 2009 ECS. Force majeure, none of these studies examine the unmet demand for greater employee involvement at the workplace since that information is only contained in the 2013 ECS. The topics that have been investigated include the determinants of the incidence and type of workplace representation ([Forth, Bryson, & George, 2017](#)), the behavioral implications of the formal representative voice institutions ([Addison & Teixeira, 2019a](#); [Forth et al., 2017](#)), workplace representation and strikes ([Addison & Teixeira, 2019b](#); [Jansen, 2014](#)), and workplace representation and financial performance ([van den Berg, Grift, van Witteloostuijn, Boone, & Van der Brempt, 2013](#)). The present study is able to draw on this seemingly unrelated literature in four main ways. First, it builds on the distinction between works councils and union bodies made most explicit by [Forth et al. \(2017\)](#). Second, in common with [van den Berg et al. \(2013\)](#), it exploits country clusters, albeit in a *a posteriori* fashion to begin with. Third, it draws on the analysis of strikes, and the work of [Jansen \(2014\)](#) in particular, to address the issue of whether variations in union organization – as reflected in workplace union density – influence the representation gap. Finally, past research on behavioral outcomes using the ECS, and beginning with [Forth et al.’s \(2017\)](#) proxy indicator for industrial relations quality (viz. a “quite strained” or “very strained” work climate), again flags the potentially important role of trust in mediating perceptions of the representation gap.

3. THE DATASET

This study uses the Employee Representative (ER) Questionnaire of the Third ECS of 2013, sponsored by the European Foundation for the Improvement of Living and Working Conditions. The raw establishment-based inquiry was downloaded from the UK Data Service site at <https://www.ukdataservice.ac.uk/> and covers 32 European nations. The ER Questionnaire is the second component of the ECS Survey, the first being the Management (MM) Questionnaire. The MM Questionnaire is a representative survey covering 27,019 establishments with at least 10 employees in virtually all sectors of industrial activity from the private and public sectors, with the major exception of agriculture. In each country, the number of units being interviewed in the MM Questionnaire is around 500, 1,000, and 1,500 in small, medium, and large countries, respectively. MM interviews were conducted with the most senior official responsible for HR management, who identifies official structures for employee representation at the establishment. Based on the identification of the most important employee representation body, 7,629 ER valid interviews were subsequently conducted, which constitute around 50% of all those establishments in which the HR manager had flagged the presence of employee representation. By construction, the respondent to the ER Questionnaire (identified in the ER raw dataset by the variable `er_type_er`) is the person who is entitled to represent the opinions of the leading employee representation body at the workplace (see the *Third ECS Technical Report*, p. 16/82). As described in [Table A1](#), the corresponding `er_type_er` national codes allow us, therefore, to fully allocate formal workplace employee representation by country.⁹

For the purposes of our analysis, we focus on the 28 member countries of the EU, for which we have 6,919 interviews (i.e. Iceland, Montenegro, Macedonia, and Turkey are not included in our selected sample). Recall that the key question (Q42a.A) used in the present inquiry – inquiring of the ER respondent whether he/she agreed or disagreed with the statement that *the employee representation body should be involved more in the decision-making in this establishment* – is unique to the 2013 survey. That is, our dependent variable cannot, therefore, be observed in either of the two previous (2004 and 2009) ECS cross sections.

A second major aspect of our dataset construction concerns the resource base of worker representation and the method of management communication with that body. The resource base includes training provided for and time allotted to representation, while information provision focuses on the type of information provided and the manner of its provision. These variables are either directly extracted from the raw ER Questionnaire or generated by our Stata coding combining two or more survey questions. In the case of the resource base, we selected the following four qualitative variables from the survey: *employee representative is elected*; *employee representative receives training*; *frequency of meetings with management*; and *time allocated to employee representation is sufficient*. The first variable indicates whether the representative was elected as opposed to being appointed; the second, whether the representative had received