

# Future of Work Paper Series

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# **Domestic Outsourcing in the U.S.:**

## **A Research Agenda to Assess Trends and Effects on Job Quality**

by

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**Abstract:**

The goal of this paper is to develop a comprehensive research agenda to analyze trends in domestic outsourcing in the U.S. – firms’ use of contractors and independent contractors – and its effects on job quality and inequality. In the process, we review definitions of outsourcing, the available scant empirical research, and limitations of existing data sources. We also summarize theories that attempt to explain why firms contract out for certain functions and assess their predictions about likely impacts on job quality. We then lay out in detail a major research initiative on domestic outsourcing, discussing the questions it should answer and providing a menu of research methodologies and potential data sources. Such a research investment will be a critical resource for policymakers and other stakeholders as they seek solutions to problems arising from the changing nature of work.

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## 1. Introduction

Stagnant wages, growing inequality, and the deterioration of job quality are among the most important challenges facing the U.S. economy today. Although domestic outsourcing – firms' use of contractors, franchises, and independent contractors – is a potentially important mechanism through which companies reduce compensation and shift economic risk to workers, surprisingly little is known about the extent of this practice and its implications for wages and working conditions. Our review of the available research suggests that domestic outsourcing takes place on a much larger scale and affects many more workers than has been recognized – ranging from low-wage service workers such as janitors, security guards, warehouse workers, and hotel housekeepers to professional and technical workers such as programmers, health care technicians, and accountants. These trends are part of a structural change in the organization of production and work across firms that we suspect is profoundly affecting the quality of jobs and the nature of the employment contract for a significant portion of the American workforce (Weil 2014).

The goal of this paper is to develop a comprehensive research agenda to analyze trends in domestic outsourcing in the U.S. and its effects on the quality of jobs – including wages, benefits, employee skills and discretion at work, training and mobility opportunities, and job security – as well as inequality across jobs. In the process, we review definitions of outsourcing, the available scant empirical research, and limitations of existing data sources. We also summarize theories that attempt to explain why firms contract out for certain functions and assess their predictions about likely impacts on job quality. We then lay out in detail a major research initiative on domestic outsourcing, discussing the questions it should answer and providing a menu of research methodologies and potential data sources.

In our view, such a research investment will be a critical resource for policymakers and other stakeholders as they seek solutions to problems arising from the changing nature of work. Domestic outsourcing has potentially important implications for the adequacy of existing employment and labor laws; the provision of health, pension, and other workplace benefits; and workplace enforcement strategies – all topics of current debates that could be informed by better data and research.

### **The Problem**

Firms' choices regarding the organization of work and production play a critical role in shaping the skill requirements of jobs, the level and distribution of wages, and working conditions. This is well-documented in the sociological research on job quality (Kalleberg 2013), the industrial relations literature (Kochan, Katz, and McKersie 1986), and the management literature (Cappelli 1999). In particular, industry-based empirical research has documented how variation in

employer strategies between firms in the same industry has led to variation in the quality of jobs (Appelbaum, Bernhardt, and Murnane 2003; Gautie and Schmitt 2010). That research typically focused on comparing work restructuring *within* the establishments of primary firms and showed how managerial choices to pursue value-added or cost-focused strategies often lead to differences in the quality of jobs for workers in the same occupation or with the same skill level.

We believe that the next step for understanding how firm strategies affect the quality of jobs and inequality is to study more systematically the reallocation of labor *across* organizations, as a result of firms contracting with other firms (or independent contractors) for goods and services. We refer to this process as domestic outsourcing or contracting out. Based on existing research and imperfect datasets, we suspect that firms have increased their use of outsourcing and that the effects of the reallocation of jobs across firms are at least as salient as the reorganization of work within firms that has been more typically studied (Weil 2014). If we are correct, then this raises the possibility that the rise of domestic outsourcing may have contributed to growing wage inequality, which would help to explain recent research findings that the majority of the increase in inequality has occurred between firms (Barth et al. 2014; Handwerker and Spletzer 2015).<sup>1</sup> We also suspect that variation in firms' contracting decisions leads to quite different labor market outcomes, depending on such factors as ownership structures and market pressures, industry and occupation, motivation for contracting, and power relations between the primary firm and different tiers of contractors. For example, outsourcing overflow work in high or uncertain demand conditions or to take advantage of specialized expertise or technology may have different implications for worker outcomes than outsourcing of functions previously performed in-house in order to reduce labor costs.

Contracting out is difficult to define because, in the broadest sense, a large part of economic activity has always occurred through business-to-business transactions, as captured in macro-economic input-output models. Our observation, however, is that the scale and scope of contracting for goods and services production has changed in fundamental ways in recent decades, and that this change – and its implications for the quality of jobs – needs to be conceptualized more clearly and examined empirically. In the past, much of value creation occurred *within* large enterprises; in recent decades, however, the vertical disintegration of large corporations has led to more value creation through decentralized production networks, resulting in a larger proportion of productive activity occurring through business-to-business contracting.

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<sup>1</sup> Indeed, Goldschmidt and Schmieder (2015) show that the outsourcing of cleaning, food, security, and logistics services accounts for a sizable share of the growth in wage inequality in Germany since the 1980s.

While this transformation has been the focus of considerable research in its international form (the offshoring of work in global supply chains), until recently the domestic counterpart has received relatively little scholarly attention. This, despite some evidence suggesting that the growth in offshore outsourcing has been accompanied by growth in domestic outsourcing (Yuskavage, Strassner, and Medeiros 2008) and the fact that the majority of production in supply chains is still domestic or regional (Rugman, Li, and Oh 2009).

Specifically, we lack research on three fronts: the prevalence and different patterns of firm-level contracting within and across industries; the factors driving contracting out; and the relationship between these patterns and the quality of jobs at the workplace. First, inadequate and incomplete data mean that it is difficult to estimate the prevalence of domestic outsourcing of various business functions across sectors of the economy or the number of workers affected by it, though estimates are feasible for several specific industries and occupations (Dey, Houseman, and Polivka 2010). Similarly, our understanding of variation in contracting strategies within and across industries is thin, but initial research suggests that the stylized view of domestic outsourcing as a linear supply chain or a unidirectional process of economic fragmentation is inadequate (Gospel and Sako 2010).

Second, we lack a clear understanding of the factors that are driving domestic outsourcing – and by extension, whether firm decisions about what to retain in-house and what to outsource have changed over time. At a general level, market deregulation, heightened competition, technological change, and the rising influence of institutional investors and shareholders have put severe pressure on U.S. firms to reduce costs and headcount and increase quality and responsiveness to consumer demand. Some evidence suggests that firms have responded by focusing on their “core competencies” and outsourcing peripheral or low value-added tasks as well as higher value-added specialized functions. Advanced technologies have facilitated this process by allowing firms to outsource entire functions and more easily monitor contractors as well as employees who work virtually, leading to new forms of networked production and the rise of specialized firms. But few studies provide a more fine-grained empirical analysis of which factors are more salient for different industries or how these differences lead to distinct forms of outsourcing and contracting relationships – and in turn, differential outcomes for workers.

Third and most important, we lack robust research on how domestic outsourcing and the nature of the relationship between contracting firms affects wages and other dimensions of job quality, such as benefits, hours, workload, job stability, schedule stability, occupational safety and health, incidence of wage theft, and access to training and promotions. As we will see, some of the theoretical frameworks in this area predict that job quality and mobility



opportunities will suffer when jobs that do not require a college degree are contracted out. Predictions are less clear for other cases – for example, jobs requiring professional, technical, or specialized skills, or those that are outsourced to large and diversified contractors. The impacts of the rise of on-demand platforms – such as Uber, TaskRabbit, and Upwork – are especially difficult to study because the work constitutes a collection of micro jobs (“gigs”) that often supplement individuals’ income from a main job; as a result, government surveys of workers are likely to miss some portion of this work activity.

In sum, our review of existing research suggests a substantial lack of knowledge about domestic outsourcing in the U.S. – its prevalence and the various forms it takes, its causes, and its effects on job quality and inequality.

## 2. Defining Domestic Outsourcing

In producing goods and services for final demand, firms may choose to perform certain functions in-house or they may contract with other firms for those inputs. For example, companies may perform manufacturing, transportation, research and development, IT services, accounting, or cleaning functions in-house, or they may outsource those functions by contracting with another firm. Changes in the mix of this “make or buy” decision over time have been variously labeled the vertical disintegration of the firm, the changing boundary of the firm, the growth of networked production, and so forth. We review different academic approaches to this question in the next section.

*Specifically, we define domestic outsourcing as firms or governmental entities located in the U.S. contracting with other firms or individuals located in the U.S. for the provision of goods and services. In this definition, we include the outsourcing of functions that used to be performed in-house, new activities that have emerged as contract services from the start, and activities that have always been outsourced but where the scale or nature of the outsourcing has changed. Types of contractors include suppliers or vendors of goods (such as manufacturing inputs) or services (such as business services or staffing firms), franchisees, and independent contractors (such as freelancers, independent consultants, or on-demand platform workers).*<sup>2</sup>

In order to capture important changes in the organization of work across firms and its implications for workers, our definition of domestic outsourcing is broad in scope. Given that research on this topic is at an early stage, we think it is prudent to take an empirical approach to identifying the range of forms that outsourcing may take, rather than eliminating certain

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<sup>2</sup> We only include true independent contractors in this definition, though in practice, misclassification may be one of the strategies that accompany contracting out.

categories from the start. This will help ensure that we capture the full extent of change in the organization of production and its impact on workers. We do not, for example, limit the definition of domestic outsourcing to purchased services, as in Yuskavage, Strassner, and Medeiros (2008).<sup>3</sup> Note that while we include purchases of both goods and services in our definition, not all contracting for materials and services inputs are of interest. For example, firms have always purchased office supplies, and absent any indication that the scope or nature of contracting for these products has significantly changed, the contracting for office supplies would not be a good candidate for study. In contrast, there has been significant restructuring of domestic manufacturing supply chains with greater reliance on suppliers and subcontractors, and the changing relations of power between primary and contractor firms have important implications for the quality of jobs and inequality. In practice, researchers may choose to focus their analysis on a particular industry; certain types of outsourced functions, such as business support services; or one form of contracting, such as franchising.

Figure 1 distinguishes between several levels of analysis that research on domestic outsourcing should examine. A first distinction is between changes at the *firm level*, in the organization of production, and changes at the *job or workplace level*, in the organization of work (Grimshaw, Willmott, and Rubery 2005). Ultimately, we are interested in the effects of domestic outsourcing on job quality and workers, but this first distinction requires understanding changes in the *organization of production* at the firm level. Outsourcing is an action by a firm and should be defined and measured at that level; this is the first level of analysis. The empirical question then becomes, what is the impact of firm-level outsourcing decisions on the *organization of work* at the establishment level and, by extension, the quality of jobs. This is the second level of analysis. In addition, the potential growth of on-demand gig work as well as other forms of job fragmentation suggest a third level of analysis: *worker outcomes across jobs*. Here, the question is how workers are bundling multiple forms of income-generating work to achieve economic security, and how they are building careers across jobs and over time.

### **Relationship between Domestic Outsourcing and Nonstandard Work**

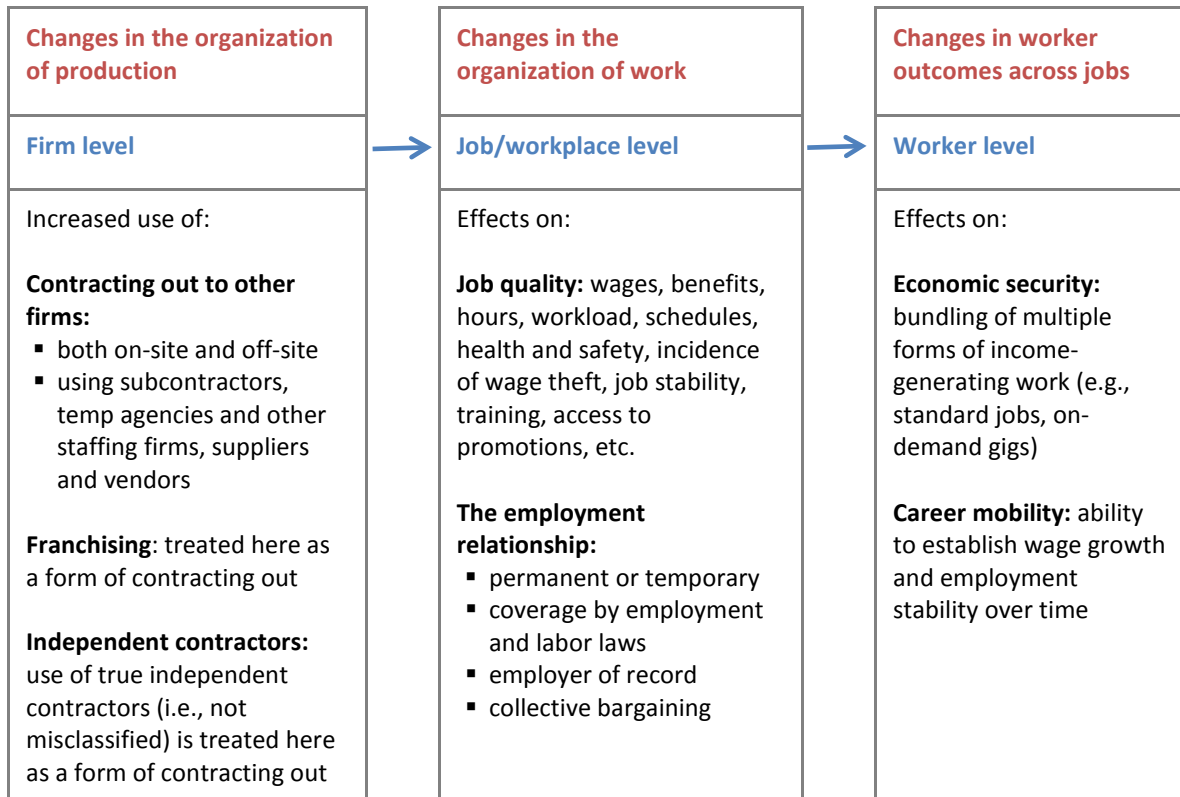
An important feature of our framework is that it clarifies the relationship between domestic outsourcing and contingent or nonstandard work. Although there is no consensus on what constitutes “nonstandard” employment, to illustrate how it differs from work that has been outsourced, we use the categories identified in the BLS CPS Supplement on Contingent and Alternative Work Arrangements: direct-hire temporaries, agency temporaries, on-call workers, day laborers, contract workers performing work at the client’s worksite, and independent

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<sup>3</sup> For other examples of related definitions, see Berlingieri (2014); Brown, Sturgeon, and Lane (2014); and Weil (2014).

contractors. By contrast, standard jobs follow the structure of the traditional employment relationship in the U.S.: workers are employees of the firm, and while employment in the U.S. is “at-will,” there is an implicit contract of permanent employment.

**Figure 1. Levels of Analysis for Understanding Domestic Outsourcing**



As shown in Figure 2, jobs at contractor firms may be standard or nonstandard; the same is true for in-house jobs. This point is critical: Contractor firms may be small fly-by-night shops offering spot employment or large multinational corporations – such as Aramark or Securitas – offering standard employment contracts. As a result, there is nothing inherently contingent or nonstandard about jobs at contractor firms, and outsourcing’s impact on the organization of work and job quality is not predetermined. We suspect that in some industries, nonstandard jobs may be more prevalent at contractor firms, as is the case in call centers (Batt, Holman, and Holtgrewe 2009), but establishing this relationship (and understanding its determinants) is an empirical question. Similarly, how other job quality outcomes (such as wages, benefits, hours, schedules, and workplace safety) map onto each of the employment relationships in the table is an empirical question.

**Figure 2. Relationship between Contracting Out and Employment Status**

	<b>In-house jobs</b>	<b>Contracted jobs (both on-site and off-site)</b>
<b>Standard jobs</b>	<ul style="list-style-type: none"> <li>▪ Permanent employees</li> </ul>	<ul style="list-style-type: none"> <li>▪ Permanent employees</li> </ul>
<b>Nonstandard jobs</b>	<ul style="list-style-type: none"> <li>▪ On-call</li> <li>▪ Direct-hire temporary</li> </ul>	<ul style="list-style-type: none"> <li>▪ Independent contractors, including on-demand platform workers</li> <li>▪ Temp agency workers</li> <li>▪ Leased/professional employer organization workers</li> </ul>

**Examples of Domestic Outsourcing**

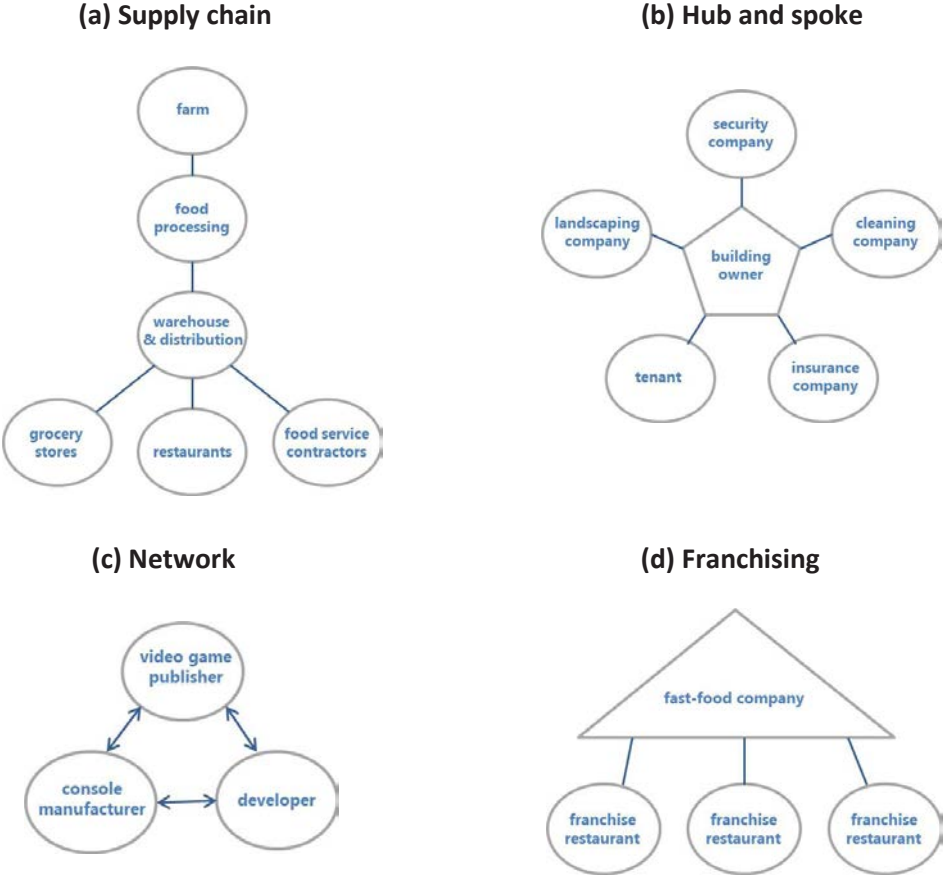
Firms in every sector of the economy contract with other firms as part of their production process, as do governmental entities. The functions that are outsourced vary widely, and even a cursory sampling shows considerable diversity: human resources and R&D functions, building services, recycling, regulation and compliance, accounting, credit card collections, call centers, mortgage and check processing, information technology and data processing, logistics and transportation, machine maintenance, cable installation, food services and food processing, parts manufacturing and assembly, laundry, housekeeping, diagnostic labs and MRI scans, and clinical research trials.

The structure of firm-level contracting relationships is similarly varied. Based on the existing research literature, we have identified several different examples, depicted in the figures below. The figures illustrate the variety and complexity of contracting structures and are meant to be suggestive, not exhaustive. Moreover, existing research does not document the prevalence of any of these forms; that is an empirical question for future research.

The archetypal image of firm-to-firm contracting is the linear supply chain. For example, in Figure 3a, we illustrate the food supply chain in the U.S., showing the classic line of contracting from agriculture all the way through to firms that sell food to consumers (which may be contractors themselves, as in the case of food services companies). But domestic contracting also includes a wide array of business-to-business transactions that are not well captured by the supply chain paradigm. In Figure 3b, we illustrate what Barenberg (2015) calls the “hub and spoke” model of contracting, where the lead firm (in this case a building owner) contracts with a number of other firms for on-site services such as cleaning and security and off-site services such as insurance. Note that one could flip this diagram and place a major business services

contract firm (such as Compass) at the hub and identify its contracts with a wide range of clients via the spokes. Figure 3c illustrates a non-hierarchical production network, featuring continuous collaboration between video game publishers, console manufacturers, and software developers and designers (Balland, De Vaan, and Boschma 2013). Figure 3d shows the classic pyramidal franchising structure that is prevalent in fast food and other industries (Weil 2014).

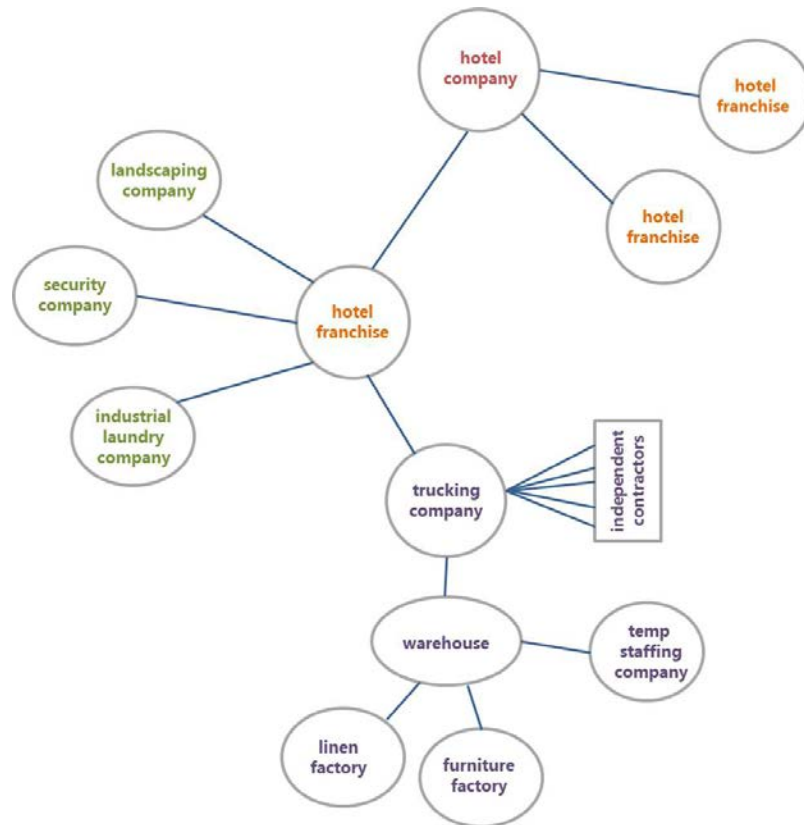
**Figure 3. Various Contracting Patterns**  
(modified from Barenberg [2015])



Finally, in Figure 4 we use the hotel industry to illustrate how several different contracting structures operate together to deliver a set of final services to the consumer (adapted from Barenberg [2015, Figure 7]; see also Weil [2014]). The figure shows the franchising structure of a hotel brand, the services contracting of a particular hotel, the logistics contracting chain for delivering furniture and linens, and the use of independent contractors in the case of trucking and temp staffing firms in the case of warehouses. Note that this diagram could be expanded to include many more nodes of contracting, such as the use of staffing firms by the manufacturers or the contracting by the security services company with other clients besides the hotel franchise.

These descriptive diagrams raise a host of important questions, both about the contracting relationships themselves and about their impact on workers. How prevalent is domestic contracting and how has it changed over time? What factors are driving it and how does it vary by industry, occupation, firm-level strategies, and other organizational characteristics? And how do these different models of contracting out affect the organization of work within and across firm boundaries and, by extension, the quality of jobs, inequality, and other labor market outcomes?

**Figure 4. Combination of Contractual Patterns**  
(modified from Barenberg [2015])



In the next three sections, we review existing theories and empirical research to identify what is known about the causes and consequences of outsourcing on labor market outcomes. In the final section, we propose a major research initiative designed to significantly strengthen the body of knowledge about this important but understudied economic trend.

### 3. Why Do Firms Contract Out, and What Explains Variation in Their Strategies?

Central to theories of the firm is why, or under what conditions, they choose to make versus buy goods and services. Social science research explained the vertical integration of firms over most of the 20<sup>th</sup> century by arguing that internal production was more efficient than contracting out. Today the challenge is to explain an observed shift towards outsourcing.

In this section, we review the recent literature on outsourcing from economics, management sciences, industrial relations, and sociology. Overall, we find that most scholars agree that domestic outsourcing has increased, albeit for different reasons. While some privilege the role of new technologies that facilitate outsourcing, others emphasize the role of heightened global competition or the role of deregulation of capital and labor markets that shift the balance of power from labor to capital. These changes have affected firms' make-or-buy calculations. This literature, however, does not provide sufficient fine-grained analyses about the factors driving change or why the use of outsourcing varies across specific industries, occupations, or business functions, and it largely fails to address the implications for workers.

#### **Economic and Management Perspectives**

To explain the make or buy decision, economic and management theories have focused primarily on the relative costs of internal versus external production. They explain recent changes in terms of technological advances that have reduced the relative costs of outsourcing.

Chandler, for example, focuses on relative *production* costs (Chandler 1977, 1990). He argues that advances in transportation and communications technologies at the end of the 19<sup>th</sup> century led to the rise of a mass market and to mass production. Firms achieved higher productivity via "economies of throughput" – by processing a large volume of inputs through dedicated, high fixed-cost machinery. From this perspective, vertical integration of the supply chain followed because firms needed a steady supply of inputs and stable consumer demand. In addition, managerial expertise was critical for internal coordination of processes and ongoing improvements in productivity, growth, and market share (Helper and Sako 2010, 403ff).

Mass production manufacturing was undermined in the 1980s, according to Chandler and others, by the rise of international competition and the availability of new production and management technologies. Flexible manufacturing technologies allowed factories to produce a greater variety of goods in small batches, enabling decentralized production in flexibly specialized firms (Piore and Sabel 1984). Japanese lean production, characterized by lead firms controlling manufacturing processes in a complex web of supplier firms (Dore 1986), achieved higher levels of innovation, lower time-to-market for new products, and higher quality and

productivity than mass production models (Jaikumar 1986, MacDuffie 1995). U.S. firms tried to emulate lean production by increasing their use of contracting out and reconfiguring their supply chains.

More broadly applicable across service as well as manufacturing industries is the transactions cost framework (Coase 1937), which explains the make or buy decision on the basis of relative *transaction* costs. Williamson (1975, 1985) argues that the vertically integrated firm emerged in the 20<sup>th</sup> century because hierarchies are more efficient than markets. Hierarchies minimize the costs of transactions between buyers and sellers because we live in a world of bounded rationality (limited ability to process information), asset specificity (nonstandard, idiosyncratic capital goods or skills that are especially valuable in the relationship), and individual opportunism (self-interested behavior with guile). Consequently, by retaining production in-house, firms minimize transaction costs and have more mechanisms to control or limit opportunism.

In this framework, supply-side changes that reduce the cost of market transactions relative to internal hierarchies explain the recent vertical disintegration of firms. New information and communications technologies (ICT) have facilitated outsourcing and the decentralization of producing goods and services because ICT lowers the costs of information processing and coordination of work across organizational boundaries, thereby reducing the cost advantages of internal production. ICT also enhances firms' capabilities to monitor and enforce contracts with external suppliers, thereby reducing the relative advantages of hierarchy. ICT allows firms to achieve control over productive activities – the advantages of vertical integration – without assuming the risks of actual ownership or the inflexibility of bureaucracy. Blois (1972) refers to this as “vertical quasi-integration,” and others as “virtual integration.”

These supply-side arguments are typically combined with demand-side arguments – that reductions in product market regulation have heightened cost competition and increased incentives to outsource based on cost. These changes include not only trade liberalization in global markets but also deregulation since the 1970s in service industries such as airlines, telecommunications, transportation, banking, and health care.

Academic scholars, however, have not only tried to *explain* changes in firm behavior, many have actively *promoted* new decentralized organizational models, especially advocates of agency theory and core competency theory. Inspired by Milton Friedman's (1970) argument that profit maximization is the sole purpose of the corporation – and reacting to the poor profitability of large conglomerates in the 1970s – a generation of agency theorists provided



the rationale for breaking up large corporations and selling off or outsourcing less-profitable operations.

Large publicly-traded firms, they reasoned, suffer from principal-agent problems because dispersed shareholders (the principals) are not able to hold opportunistic managers (the agents) sufficiently accountable -- allowing them to make decisions that favor their own interests at the expense of shareholders (Jensen and Meckling 1976; Jensen 1986). As a result, managers could engage in a variety of behaviors that are assumed to interfere with maximizing profits and shareholder value, such as building large conglomerates or negotiating better wages and working conditions.

As Weil (2014) and Goldschmidt and Schmieder (2015) have pointed out, these large companies tended to offer jobs with higher wages and employment security due to union contracts (Card, Lemieux, and Riddell 2004), internal equity concerns (Weil 2014), or efficiency wage considerations that higher wages and better treatment of workers would elicit greater labor productivity (Akerlof and Yellen 1990; Rees 1993). In the U.S., where the union-non-union wage gap is large, firms faced with increased competition or shareholder pressures have incentives to reduce costs by outsourcing work to lower-cost or non-union providers.

Agency theory provides the rationale for eliminating these uses of corporate earnings, including the rent sharing of firm profits with workers. In this view, retained earnings should be returned to shareholders rather than spent on business expansion or above-market wages. Less-profitable operations should be sold off, with returns going to shareholders. Thus, agency theory provided the rationale for breaking up corporations – as exemplified by corporate raiders in the 1980s – who bought up undervalued companies with poor stock market performance and sold off or closed divisions to increase shareholder value. These strategies soon became widespread.

While agency theory provided the overarching argument for maximizing shareholder value, it did not translate this theory into specific business strategies. That was taken up by management strategists who argued that firms could achieve “competitive advantage,” and hence higher profitability for shareholders, by focusing on their “core competency” – that is, what they do best. In this view, the diversified conglomerate of the 1960s and 1970s unraveled because it lacked sufficient focus and the competence to effectively manage diverse productive activities. Firms, it is argued, should compete by pursuing a single-minded business strategy – for example, as a low-cost producer or by providing differentiated products (Porter 1985). Firms become “best in class” by focusing resources and talent on their core competencies and eliminating other lines of business (Prahalad and Hamel 1990). Firms achieve competitive

advantage by capitalizing on their unique resources (Penrose 1959) and investing in difficult to imitate human resource (HR) systems that enhance human and social capital (Barney 1991).

The core competency argument justifies organizational restructuring at two levels: the business unit level and the operational or task level. At the business unit level, firms are admonished to sell off those businesses that are not best in class – hence, for example, hiving off entire product divisions or business functions. At the operational level, management scientists argue that firms should assess the “strategic value-added” of each task in their core business units and outsource lower valued-added activities as well as ancillary services, such as routine HR administration or customer service operations (Lepak and Snell 1999). This line of reasoning justifies a specialized division of labor, with more value-added or knowledge-producing activities retained in-house and less-value-added activities outsourced.

The knowledge-based view of the firm reaches similar conclusions (Kogut and Zander 1992). Firms should keep in-house those tasks or capabilities that are complex and difficult to codify or that the firm already has and believes will contribute to innovation or higher economic value. It will outsource tasks that are easily codifiable or tasks in which other firms have already developed expertise.

Again engineering and management scholars cited advances in technology and the digital revolution to explain why the ability to codify and standardize knowledge – and hence outsource it – has increased. They have elaborated the design principle of “modularity” – that is, the decomposition of complex systems into separable design elements. This enables firms to codify knowledge of a production process, identify separable parts, and standardize the interfaces. When done effectively, modularity reduces costs, increases the speed of innovation, and increases returns to specialization (Ulrich and Eppinger 1995; Fixson 2005). It also reduces the probability of contractor opportunism given the ability to standardize and specify product design features (Helper, MacDuffie, and Sabel 2000). While modularity has focused on goods production, codification of information and knowledge applies equally to business functions and service activities such as business process outsourcing, law, accounting, banking, and other customer-facing operations. Deblaere and Osborne (2010) argue that services have been broken into their components and optimized through automation and standardization. This, they contend, has created economies of scale that make external provision of inputs more efficient than internal production.

The rise of the computer industry and the digital revolution also help explain the rise of a new model of business organization – a horizontally specialized structure as opposed to a vertically integrated one. Saxenian’s (1996) research demonstrating the superior performance of

networked firms in Silicon Valley compared to hierarchical firms in the MIT corridor is illustrative, as are Powell and colleagues' (1996) study of the U.S. biotech industry and a number of studies of the ICT industry (Fine 1998; Kraemer and Dedrick 2002; Fields 2004). Firms in other industries have tried to apply this networked form to their own organizations.

### **Institutional and Political Explanations**

In contrast to the economics and management literatures, other scholars have advanced institutional and political explanations for the demise of the vertically integrated firm. From these perspectives, U.S. corporations grew and prospered during most of the 20<sup>th</sup> century based on a managerial business model in which experienced managers with industry-specific expertise were the source of on-going improvements in firm performance (Chandler 1977). Separation of ownership from organizational control ensured that managers could focus on long-term productivity growth rather than short-term shareholder profits, and long organizational careers reduced opportunism by tying managers' individual fortunes to firm outcomes (Lazonick 1992).

That model depended on banking and securities laws put in place in the New Deal, as well as on labor market regulation and union cooperation. Internal labor market theory argues that large employers established internal administrative rules and provided benefits and promotion opportunities to secure a loyal workforce and to ensure labor peace; unions negotiated seniority clauses and internal job ladders to enhance job and income security (Doeringer and Piore 1971; Jacoby 1985). Non-union firms mimicked union rules (Foulkes 1980).

That model began to unravel in the 1960s and 1970s due to a series of institutional changes both inside and outside of the firm (Davis 2009). Internally, U.S. corporations increasingly focused on growth through mergers and acquisitions, giving rise to diversified conglomerates. Under this "portfolio model of the corporation," the frequent buying and selling of businesses created a new norm of viewing companies as bundles of assets to be bought and sold (Hayes and Abernathy 1980). Decision-making power shifted from line managers with production expertise to chief financial officers, who bought and sold units based on their profitability (Fligstein 1990; Lazonick 1992; Zorn 2004).

This concept of the firm as akin to Lego pieces that can be assembled and reassembled based on short-term profit goals has received growing attention. Some scholars particularly emphasize the deregulation of capital markets and labor markets from the 1970s on to explain the vertical disintegration of the firm and the growth of outsourcing (Appelbaum and Batt 2014). In this line of reasoning, financial market deregulation gave investors and stockholders

more power to pressure firms to maximize shareholder value, and the lax enforcement of labor laws and the decline of union power freed them from prior constraints to do so.

The shift in the relative power of capital and labor encouraged firms to maximize profits in part by selling off business units or outsourcing less-profitable parts of the value chain. Firms exited low-margin activities and retained those with high margins to increase earnings that could be returned to shareholders via higher dividends or stock buybacks, which increased share price (Lazonick 2014). CEOs would implement these strategies because their own pay was increasingly tied to stock market performance (Jensen and Murphy 1990). Stock option pay represented 20 percent of CEO compensation in 1980 but 50 percent in 1994 (Hall and Liebman 1998).

Capital market deregulation occurred through a series of legislative changes. The power of institutional investors to influence corporate behavior increased with passage of the Employment Retirement Income Security Acts (ERISA) of 1974 and 1978, which allowed pension funds and insurance companies to invest in stock and high risk bonds for the first time (Useem 1996; Gompers and Metrick 2001; Zorn et al. 2005: 274). Some argue that the rise of institutional shareholders in the 1980s was critical in shifting the balance of power from corporate stakeholders (managers and workers) to shareholders (Donaldson 1994).

Similarly, in the 1980s, relaxed enforcement of antitrust and securities laws and the elimination of state antitakeover laws (Jarrell 1983) gave corporate raiders greater leeway to engage in hostile takeovers and sell unprofitable businesses or increase outsourcing to improve profit margins. To hedge against hostile takeovers, corporations themselves started engaging in these strategies (Holmstrom and Kaplan 2001: 132-4).

Further deregulation of banking since the 1990s facilitated the growth of financial intermediaries such as private equity firms that engage in leveraged buyouts and activist hedge funds that are able to overthrow CEOs or force changes in business strategies based on ownership of a relatively small percent of a company's stock. These actors often insist on the sell-off of assets, divestment of less-profitable establishments, and greater use of outsourcing (Appelbaum and Batt 2014; Brav, Jiang, and Kim 2015).

Labor market deregulation occurred as global labor markets expanded (Freeman 2005) and as U.S. labor laws went unenforced. The decline in union density and power allowed firms to outsource work either to rid themselves of expensive and time-consuming union contracts or to prevent unions from organizing new units. De-unionization in manufacturing also diminished those unions' resources for organizing new unions in emerging sectors within the U.S.

Similarly, deregulation of service industries with traditionally high union density also contributed to de-unionization, the intensification of competition from non-union competitors, and the ability of firms to shift work to contractors. Examples of this pattern have been documented in trucking (Belzer 1994; Milkman 2008), construction and building services (Milkman 2006), and call centers (Batt, Holman, and Holtgrewe 2009: 458ff). Organizing campaigns in service industries have yielded single-digit union density in almost all cases. Union administrative failure (Piore 1989) and inter-union conflicts have also led to the decline in union power. Beyond voiding or minimizing the power of unions, companies may use outsourcing to avoid accountability for other U.S. labor and employment laws, including wage and hour, prevailing wage, workers' compensation, health and safety, pension, and anti-discrimination statutes (Weil 2014).

In sum, academic theory and research points to an array of explanations for the vertical disintegration of firms across a wide range of industries, as well as why new forms of business organization based on interfirm networks are emerging and becoming institutionalized. While much of the research and theorizing has focused on globalization and the rise of global supply chains, none of the theories identified here are specific to that international process. Rather, they attribute outsourcing to heightened competitive pressures – whether in traded or nontraded goods – and to technological, organizational, regulatory, and political changes that affect how firms decide where to produce goods and services.

### **What Explains Variation in Outsourcing?**

While there is a growing consensus that more networked forms of business organization have emerged, academic research offers few insights into why the prevalence and forms of outsourcing vary across different industries, firms, or productive activities. Below we identify a few approaches that provide a starting point for thinking about how and why firms vary in their approaches to outsourcing.

Two frameworks take an economic or functionalist approach, arguing that variation in how firms use outsourcing depends on the product market in which they compete and their organizational capabilities. One framework identifies three functions of outsourcing (Holmes 1986). First, if firms operate in markets with high or uncertain demand fluctuation, they may outsource overflow work (capacity contracting) to meet increases in demand without investing in expensive equipment that may lie idle during economic downturns. Second, if the production of particular products requires specialized inputs, they may take advantage of contractors who have particular expertise or sophisticated technology (specialization subcontracting). Third, firms may choose, for a variety of reasons that are not clearly

understood, to turn over large parts of the production process to an independent supplier (supplier subcontracting). Each of these strategies shifts risks to contractors and has the potential to both improve revenues for the firm (via higher quantity or quality of production) and reduce costs (due to contractor efficiency, absorption of risk, investments in technology, or payment of lower wages in non-union settings). In this framework, variation in outsourcing depends on the particular characteristics of goods or services produced and differences in the competitive conditions of markets. Hypercompetitive and volatile markets or industries characterized by rapid innovation are more likely to use all three types of contracting.

A second framework for why firms vary in their use of outsourcing is based on specific product characteristics (Gereffi, Humphrey, and Sturgeon 2005). This framework integrates insights from transaction costs economics, production networks, and dynamic capabilities (organizational learning) to create a typology of five different types of networks – market, modular (turnkey), relational, captive, and integrated. Gereffi and colleagues argue that variation depends on three factors: the complexity of information and knowledge to be transferred across firm boundaries, the extent to which this information and knowledge can be codified and transferred, and the capabilities of contracting firms and individuals.

Variation also arises because industries and firms differ in the point at which they begin to outsource parts of production and how much they learn over time. Research on organizational learning and dynamic capabilities shows that firms may produce the same good with different production costs (Teece 1988; Teece, Pisano, and Shuen 1997; Kogut and Zander 1992), and as new technologies or capabilities change, firms' make or buy decisions can change as well (Langlois 1992). As suppliers learn over time, they can increase the scale and scope of what they do, develop greater sophistication, and take on increasingly complex processes or bundled services. As primary firms become more confident of the quality and reliability of their services, the use of suppliers is likely to become permanent or institutionalized (Sturgeon 2002; Saxenian 2005). Gereffi and colleagues argue more generally that this learning process is likely to lead to a permanent shift away from hierarchical and captive forms towards relational, modular, and market forms.

Other management scholars and sociologists argue that variation in supplier networks is shaped by the level of trust between partners. The repeated interactions of people in interfirm networks over time should create norms of trust that reduce the likelihood of individual opportunism (Powell 1990; Uzzi 1996). Higher trust leads to better performance outcomes (MacDuffie and Helper 2006), suggesting also that networked firms should become stable or institutionalized over time. The argument that trust matters in relational contracting contrasts

sharply with modularity arguments, in which trust is not essential (Helper, MacDuffie, and Sabel 2000; Sturgeon 2002).

The structure of governance may also help explain variation in interfirm networks and outcomes among contracting parties (Bair 2009). By governance we mean the set of rules and practices that establish the balance of power and control among the lead and contractor firms. This includes not only contractual obligations between the parties as set forth in legal agreements, but also the ways in which the various actors in the contracting network exert control over other participants. An analysis of who holds the power of decision-making and monitoring and enforcement of rules should help explain how value is created, appropriated, and distributed among actors in the production network. Variation in the governance structure, then, should also have important implications for the quality of jobs for workers, depending on where in the production network they are employed.

Industrial relations scholars also emphasize the importance of relationships of power to explain variation in contracting – whether, for example, regulations or unions constrain managerial choice of business strategy. Variation in labor institutions, regulations, and union power shape firm strategies for achieving labor flexibility, the extent of use of contingent or temporary workers, and the use of outsourcing (Houseman and Osawa 2003; Doellgast, Sarmiento-Mirwaldt, and Benassi 2016). Where unions have sufficient bargaining power, they are able to limit outsourcing and negotiate the terms and conditions of its use (Doellgast, Sarmiento-Mirwaldt, and Benassi 2016). Where unions have weak bargaining power, by contrast, firms may actually outsource more in order to rid themselves of union contractual requirements and costs, as in the case of Delphi Automotive Corporation, where 30,000 union jobs were offshored when private equity owners took control (Appelbaum and Batt 2014). Thus, union presence and power provide one explanation for why firms that compete in the same markets may nonetheless have different approaches to the use of outsourcing.

In sum, existing research points to several factors that have driven the overall growth in outsourcing, the break-up of vertically integrated firms, and the rise of new networked forms of production. Technological advances and management innovations have reduced the monitoring and coordination costs of arms-length transactions. New economic and management theories have promoted the alignment of managerial and shareholder interests to focus on profit maximization, leading firms to focus on high-value-added core activities and to sell off or outsource lower-value-added processes. And the growth of competitive pressures on firms has threatened margins and provided greater incentives to cut costs, in part via outsourcing. At the same time, specific research is thin regarding variation in the extent of outsourcing and the form it takes across industries, firms, and different productive activities.

These questions are at the cutting edge of new research on outsourcing and will require consideration of a variety of economic, political, and legal factors.

#### **4. The Impact of Domestic Outsourcing on the Quality of Jobs**

Empirical research on the effect of outsourcing on the quality of jobs is limited. In the literature reviewed in Section 3, the outcomes of interest are organizational performance, competitiveness, or firm survival. Clearly, however, changes in the organization of production at the firm level will spill over into changes in the organization of work, with implications for HR management and job quality (Rubery, Earnshaw, and Marchington 2005).

Theories about why firms choose to outsource do, however, offer implicit predictions for what is likely to happen to the quality of jobs, including pay, benefits, and working conditions such as health and safety. Most suggest that job quality will be lower in outsourced operations, although there is reason to expect variation as well. This section presents some working hypotheses about how outsourcing affects the quality of jobs and inequality, the causal mechanisms at work, and the scant empirical evidence on these questions.

The economic and management literatures – including transactions costs, core competency, resource-based theories, and global value chain literatures – suggest that firms will retain in-house more complex jobs and outsource those involving lower-value-added tasks with routine to mid-range skill requirements. Tasks that are complex and require firm-specific skills will be retained in-house, in this view, because of the challenge of monitoring and enforcing contracts. The more granular arguments in the modularity literature clarify that these tasks are not amenable to codification and standardization, and hence not easily outsourced without sacrificing cost and quality. The resource-based view argues that higher-value-added tasks associated with core competencies must be retained in-house to preserve the firm's source of competitive advantage, and the knowledge-based view argues that these unique resources are the firm's lifeline to innovation and sustainability.

In these scenarios, outsourcing changes the rules for determining wages for low-skilled workers, from internal administrative rules in large firms to market-based pricing across firms. Internal equity norms or efficiency wage considerations lead large primary firms to compress the wage structure. When low-skilled tasks are outsourced, internal equity norms are broken and workers in those jobs receive pay that more closely reflects the market wage for the specific tasks they do. Workers are sorted into higher-paying jobs in primary firms and lower-paying jobs in contractor firms according to differences in skill levels. Contractors supplying



low-valued-added or routine services also face tougher competitive conditions as barriers to entry are low and price-based competitive bidding is common.

Recent empirical studies provide some evidence that this process of outsourcing lower-skilled jobs results in substantial pay and benefit penalties in janitorial and guard services (Dube and Kaplan 2010). Similarly, in their study of logistics, cleaning, security, and food services functions using German administrative data, Goldschmidt and Schmieder (2015) document the dramatic rise in outsourcing of these functions and the substantial decline in wages relative to similar jobs that were not outsourced, contributing to the rise in German wage inequality since the 1980s. These studies attribute the lower wages for contractors to the loss of firm-specific rents and to primary firm strategies to lower labor costs.

Batt and colleagues examine the impact of outsourcing on call center jobs based on establishment-level survey research (Batt, Holman, and Holtgrewe 2009). Regression analyses show systematic differences between union, non-union in-house, and outsourced operations, with the latter scoring the lowest on virtually all dimensions of job quality, including substantially lower pay, benefits, and discretion at work; they also show greater use of electronic monitoring and part-time and contingent work (Batt, Doellgast, and Kwon 2006; Batt and Nohara 2009). Doellgast and colleagues (2016) find similar wage penalties in studies of call center outsourcing in Europe.

Weil (2014) argues that the quality of jobs and wages are likely to be worse in outsourced operations because small contractors are more likely to violate labor and employment laws. Typically they are less knowledgeable about what the law requires, have unsophisticated (or no) human resources function, and have greater incentives to violate the law because their profit margins are thinner. Small firms may also bargain contracts with lead firms that set unrealistic performance requirements. Ji and Weil (2015), for example, find that non-compliance with minimum wage and overtime regulations are much higher in franchisee than in company-operated outlets and attribute this to differences in the profit models of the two entities. Whereas franchisors earn their money through a royalty fee based on revenue volume, franchisees depend on profit margins and have greater incentives to squeeze labor costs.

Available evidence indicates that contracting out also is associated with a higher incidence of workplace injuries. For example, U.S. research has found much higher injury rates among contract workers in petroleum (Rebitzer 1995), mining (Muzaffar et al. 2013), and among staffing agency workers in a variety of occupations (Morris 1999; Foley et al. 2014; Smith et al. 2010). Particularly in triangulated employment relationships, responsibility for safety training

may be unclear and fall through the cracks. In addition, employers with unsafe workplaces may turn to independent contractors or contract companies for staffing in order to shed legal liabilities and high workers' compensation insurance costs, which are experience rated.<sup>4</sup>

Finally, reputational effects, even for large contractors, may be less important for franchisees or subcontractors than for primary firms that compete on their brand. And the lax enforcement of labor and employment laws in the 2000s created a permissive context for contractors to evade or violate labor regulation (Bernhardt, McGrath, and DeFilippis 2007; Bernhardt et al. 2008).

The question of whether these arguments also apply to outsourcing of higher skilled or “core” workers has not been tested. Weil argues that the downward pressures on wages and working conditions in outsourced operations should apply more generally, based on the assumption that the lead firm has asymmetric power relative to suppliers or contractors. This allows the lead firm to set the terms and conditions in contractual agreements and create a highly competitive bidding process that puts downward pressure on profit margins and, in turn, wages (Weil 2014: 15, 100). Compared to primary firms, small contractor firms also face higher costs of capital and have less control over contract duration or renewal; this contractual uncertainty may translate into greater job insecurity for workers and greater use of contingent labor by contractor firms. These arguments, it should be noted, do not take into account cases where contractor firms may be in a strong bargaining position due to their large size and the range of services they provide or because they supply specialized expertise or technology.

Where large lead firms dictate terms and conditions to smaller contractor firms, domestic outsourcing can lead to greater inequality in two ways. First, if it sorts higher-skilled and lower-skilled workers into (large) primary and (small) contractor firms, then inequality between different skill or occupational groups is accentuated because lower-skilled workers are removed from the internal wage structures of large firms. The resource-based view of the firm hints that inequality between in-house and outsourced jobs may be even greater than one would expect based on core competency and human capital arguments alone. In effect, the “human resources” retained in-house are quasi-fixed or valuable assets that require on-going investment. Core workers in primary firms benefit not only from higher pay but also training and participation in “high involvement work systems” that offer more opportunity (Appelbaum et al. 2000). By contrast, routine labor in outsourced firms will be viewed as a variable cost to be minimized and is unlikely to receive training investments. If outsourcing distributes workers with the *same* skills and abilities into primary (large) and contractor (small) firms, then it is also

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<sup>4</sup> See Boden, Spieler, and Wagner (2016) for an expanded discussion of the issues and empirical evidence on contracting out and workplace health and safety.

likely to increase within-group inequality by removing workers from internal labor markets in large firms (Cappelli 1999; Bernhardt, Dresser, and Hatton 2003).

Findings from several recent studies suggest a general relationship between increased domestic outsourcing and rising inequality, but do not provide enough detail to sort out the causal mechanisms. Davis and Cobb (2010) find that inequality is inversely related to the proportion of workers in the largest firms. A recent study using the Longitudinal Business Dynamics data base and the Longitudinal Employer-Household Data (LEHD) finds that much of the growth in earnings inequality in the United States since the 1970s is accounted for by increased dispersion in earnings across establishments (Barth et al. 2014). Similarly, Handwerker and Spletzer (2015) and Handwerker (2015) use data from the Occupational Employment Statistics program to show that growth in the occupational concentration of workers in establishments accounts for a large share of the growth in wage inequality.

In sum, these literatures provide economic, strategic, and political explanations for the existence of lower-quality jobs in outsourced operations as well as for increased inequality. Existing empirical findings are consistent with this argument for low-wage workers, but only a small number of empirical studies have been carried out, and much more research is needed.

### **Variation in Outsourcing and the Quality of Jobs**

Other lines of research question the association between outsourcing and low job quality. The literature on “strategic” or managerial choice has demonstrated that firms may compete successfully in the same market on the basis of radically different business and production strategies (Cappelli 1999; Berger 2005). Typologies of different types of contracting relations (Gereffi, Humphrey, and Sturgeon 2005) suggest that the labor conditions that result from each approach may be different. And a recent paper (Lakhani, Kuruvilla, and Avgar 2013) presents a straightforward linear mapping between contractor types and employment systems, with a market-based model (relying largely on contracting out) offering the lowest levels of skills and job stability and the hierarchical model (with internal labor markets) offering the highest. No empirical tests of this framework exist, although case studies of U.S. multinational firms show that closer and longer-term relations with offshore suppliers tend to produce fewer labor violations (Locke, Qin, and Brause 2007; Locke 2013). These types of studies are suggestive, but they provide little guidance regarding the impact of outsourcing in the United States on the quality of jobs and inequality.

The literature on trust and collaboration in supply chains similarly carries an implicit prediction that variation in contracting relations along these dimensions should lead to variation in

employment systems. Some research has shown that trust and collaboration are key to sustainability and high performance in supply chains (Dyer and Chu 2000; MacDuffie 2011); and arguably, greater stability among contractors may well benefit workers via enhanced employee training, autonomy, and employment stability. But no empirical research has tackled this question.

Research on organizational learning or dynamic capabilities also suggests that working conditions will vary in contractor firms, in this case based on their experience and development over time. As suppliers grow and become more sophisticated, the organizational capabilities in the supply chain can be redistributed (Jacobides 2005; Jacobides and Winter 2005; Gereffi, Humphrey, and Sturgeon 2005). As contractors take on more high-value-added tasks, the human capital requirements of jobs should increase and, in turn, lead to higher pay for workers. But again, these ideas are untested.

The specific terms of contractual agreements also matter. Lead firms set forth explicit and detailed specifications in legal agreements with their contractors, and these requirements and the incentive structures they create vary substantially across different types of contract or franchising agreements (Weil 2014: 63-79). Any theory of the impact of domestic contracting on the quality of jobs should examine the terms and conditions of vendor contracts; the relative asymmetry between the primary and contractor firms; the mechanisms for monitoring, enforcement, renewal, or termination of contracts; the duration and certainty of contract renewal; and the business model of contractors.

Finally, some studies show that the jobs and conditions for managerial and professional employees may improve when they move to specialized contractors. Dieticians and food service managers, for example, generally have better job promotion opportunities if they work for a contract food service company than if they are the direct-hire employee of an individual hospital, school, or other establishment with a cafeteria (Erickcek, Houseman, and Kalleberg 2003). By contrast, research on the unbundling of corporate functions (law, accounting, HR functions, shared services) provides no clear evidence regarding the quality of jobs in outsourced high-skilled occupations (Sako, Chondrakis, and Vaaler 2013). Where access to specialized services is the driving force in interfirm contracting, human capital theory suggests that pay and working conditions should depend on the degree of specialization in each node of the network.

In sum, the preponderance of theory predicts that workers in outsourced operations will experience lower wages and job quality, and a handful of empirical studies support this claim, but only for low-wage workers. But the causal mechanisms remain unclear or unspecified.

More broadly, there is a clear need for systematic empirical research that identifies a wider range of outsourcing models and documents the relationship between the type of outsourcing and the quality of jobs and inequality, specifies the causal mechanisms in this relationship, and identifies the institutional conditions under which these relationships hold.

## 5. The State of Data on the Prevalence of and Growth in Domestic Outsourcing

Most available data point to significant growth in domestic outsourcing in recent years. Nevertheless, there are substantial gaps and, likely, biases in these data. In this section, we review available evidence of the prevalence of and growth in domestic outsourcing, discuss the limitations of existing data, and argue for the urgent need for better information.

### Evidence on Prevalence and Growth

#### *Evidence from government establishment data*

One way to get a sense of the scope of the growth in domestic contracting out is to examine employment growth in industries that primarily contract services to businesses. The relative employment growth of professional and business services is especially notable because other businesses are the principal consumers of these services, and consequently employment trends in this sector are often used as a key indicator of outsourcing growth.<sup>5</sup> The share of payroll employment in professional and business services has nearly doubled from 7.3 to 13.9 percent since 1970. Within professional and business services, about half of the growth was accounted for by industries primarily employing workers in professional occupations (e.g., computer systems and management and technical consulting) and about half in industries primarily employing workers in nonprofessional occupations (e.g., security services, services to buildings and dwellings, and temporary help and other staffing services).

While employment growth in professional and business services provides a useful indicator of the growth of domestic outsourcing in the U.S., it is crude. Consumers account for some of the higher demand for professional and business services, such as legal services. Moreover, contract workers are employed in all sectors, and consequently a focus only on the professional and business services sector will miss important developments occurring in other segments of the economy.<sup>6</sup>

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<sup>5</sup> Data on payroll employment come from the Current Employment Statistics (CES) program, a monthly establishment survey conducted by the Bureau of Labor Statistics.

<sup>6</sup> For example, food services contractors and airport and airline contractors are not classified in the professional and business services sector, but instead are identified with their own codes under food services and support activities for transportation, respectively. In other cases, contractors are not identified by distinct codes and are

Input-output data developed by the U.S. Bureau of Economic Analysis (BEA), in contrast, provide a natural tool to comprehensively examine growth in domestic outsourcing. Input-output (I-O) tables show the dollar value of the intermediate inputs one industry uses from itself and from others, and any increase in outsourcing should appear as an increase in the use of intermediate inputs by the outsourcing industry.<sup>7</sup> By linking the industry providing the contract services with the user industry, input-output data show not only trends in outsourcing but also variations across industries in outsourcing patterns.<sup>8</sup> In addition, I-O data, in combination with employment data in the contract industry, permit estimation of the number of workers affected by outsourcing.

Several studies have relied on I-O data to document the growth of domestic outsourcing in the U.S. Using data on the input-output structure of the economy, Yuskavage, Strassner, and Medeiros (2008) report that the share of GDP accounted for by domestic providers of outsourcing services—which they defined as purchased services excluding telecommunications and financial services—rose from 7 percent to 12 percent between 1982 and 2006. Similarly, Berlingieri (2014) uses input-output data for the U.S. economy to examine the extent to which the shift in U.S. employment from manufacturing to services is the result of outsourcing. Controlling for changes over time in demand for manufactured products and services, he concludes that a substantial share of the increase in services employment and the decline in manufacturing employment is the consequence of outsourcing. Services previously housed in manufacturing firms have been outsourced to service firms, highlighting the importance of outsourcing to professional and business services as noted above. Other evidence supports this conclusion. Dey, Houseman, and Polivka (2012) estimate that by 2006, staffing services (primarily temporary agencies) added close to 10 percent to employment in manufacturing establishments, compared to just 2 percent in 1989. Currently about half of the workers needed for the production of manufactured goods are employed outside the manufacturing sector (Timmer, Los, and de Vries 2015; Houseman 2014).

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grouped with other establishments in a given industry (e.g., in mining and telecommunications, see Weil [2014]). In these cases, subcontracting will show up as own-industry inputs in the I-O data – i.e., inputs purchased by firms classified in the same industry. The increased share of employment in professional and business services also could reflect other compositional changes, such as an increase in the relative size of industries that outsource, and do not solely reflect changing staffing practices within industries.

<sup>7</sup> Dollar values in the annual I-O tables may be deflated by the appropriate price indexes to yield real growth in outsourcing.

<sup>8</sup> I-O data can show differences in outsourcing across industries but not across firms within industries. In Section 6 we propose industry studies that, among other things, will help us understand variation in outsourcing practices among firms.

### *Evidence from government household surveys*

While statistics on industry employment and input-output tables are derived from business surveys, government household surveys provide some additional evidence of the magnitude of the contract workforce. Most notably, the Supplement on Contingent and Alternative Work Arrangements (CWS) to the Current Population Survey (CPS), which was conducted five times between 1995 and 2005, asks individuals about their status as temporary help workers, independent contractors (including independent contractors and freelance workers), or contract company workers. With respect to the last category, the survey focuses only on individuals who work for a company that primarily contracts their services to one organization and who work at that client's worksite. This is a subset of contract company workers, many of whom work off-site or at multiple client sites. One valuable feature of the CWS is that it surveyed contract and temporary agency workers on the industry of the client firm, and so constitutes the only source in federal statistics on where these types of workers perform services.

In the 2005 survey, 7.4 percent of workers identified themselves as independent contractors, independent consultants, or freelance workers. Another 0.9 percent and 0.6 percent indicated that they worked, respectively, for temporary help agencies and other companies that contracted out their services to one client (BLS 2005). The estimated share of the workforce in temporary help agencies from the CWS, however, is roughly half the estimated share as measured from the BLS establishment, which, as we discuss below, raises questions about the accuracy of estimates from the CWS.

In 2015, the Rand American Life Panel Survey included many of the same questions asked on the CWS (last conducted in 2005), along with questions on workers' use of online platforms (Krueger 2016). This new survey evidence suggests significant growth over the last decade in various types of nonstandard employment arrangements, particularly in on-site contract workers. The share of respondents identifying themselves as contract workers who work at the client's worksite jumped by more than fivefold from 0.6 percent in the 2005 CWS to 3.1 percent in the 2015 American Life Panel Survey.<sup>9</sup> The share participating in on-line "gig" work is small, accounting for only 0.5 percent of employment, according to the survey estimates.

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<sup>9</sup> Although the survey results are intended to be comparable to those from the CWS, the American Life Panel's use of an on-line survey format and possibly other methodological differences could account for some of the apparent growth in contract and other nonstandard employment arrangements.

### *Evidence from employer surveys, industry research, and case studies*

Drawing on a combination of government data, private surveys, and other proprietary sources of information, researchers and analysts have been able to generate industry- or function-specific estimates of the prevalence of (and sometimes trends in) domestic outsourcing. In addition, case studies have provided detailed descriptions of the evolution of supply chains.

Academic researchers have conducted a number of employer surveys that, dating back to the late 1980s, have pointed to the high incidence of and growth in domestic outsourcing (e.g., Abraham 1990; Houseman 2001; Kalleberg, Reynolds, and Marsden 2003; Nielson and Sturgeon 2014). For example, using information from the 2010 National Organizations Survey, which included questions on private sector business use of contractors for various functions, Nielsen and Sturgeon (2014) summarize the percent of businesses using domestic contractors for facilities management (34 percent), IT systems (34 percent), transportation services (30 percent), sales and marketing (22 percent), R&D (20 percent), management, administration and back-office functions (14 percent), and customer service (12 percent). A 2003 establishment-level survey of U.S. call centers estimated that almost 15 percent of centers at the time were outsourced operations, but because they were larger in size they employed almost 50 percent of call center workers (Batt, Doellgast, and Kwon 2006: 336; additional Batt calculations of original data).

Information routinely collected by consulting firms and industry trade groups on outsourcing offers provides another source of nongovernmental data. Multiple surveys conducted by national consulting firms have found that a majority of firms contract out at least some of their HR functions, including payroll and benefits administration, background checks, training, and recruitment (Greer, Youngblood, and Gray 1999). IT services constitute an important share of services outsourcing, including data centers, help desk services, and training (Sharpe 2001). Industry-specific surveys show substantial rates of contracting out for a wide range of functions across many industries. One summary of proprietary data on insurance companies found high rates of contracting out for a diverse set of services (Greenwald 1999). Almost 90 percent of survey respondents reported that at least some use contractors for employee benefits administration. For other services, the comparable figures were 85 percent for legal services, 81 percent for cafeteria services, 77 percent for janitorial and housekeeping, 61 percent for security, 58 percent for payroll processing, and 47 percent for loss control. Similar surveys exist for air transportation, banking, communications, construction, health care, hospitality, manufacturing, mining, pharmaceuticals, and retail, among others (Bernhardt and Garrick 2013). Although the quality and representativeness of specific data from consulting firms and industry trade groups are often hard to assess, the evidence from these sources consistently points to a high incidence of contracting out of many business functions.



Researchers have also conducted industry case studies that yield detailed descriptions of the evolution of supply chains. The critically important logistics sector is a case in point. Deregulation of freight transportation in the 1980s, developments in information technology in the 1990s, and growth of complex global supply chains have resulted in significant growth of outsourcing in logistics (Bonacich and Wilson 2008). Examples include the shift to independent contractor drivers in trucking and the growth of delivery services such as FedEx based on that model; the contracting out of warehouses; and the rise of third-party logistics (3PL) companies to which businesses outsource the management, transportation, and storage of goods and information in their supply chains. Studies have described the dramatic rise during the 1990s and 2000s in U.S. manufacturers' outsourcing of transportation and warehousing, once core functions of manufacturing firms (Baker and Hubbard 2003; Lieb and Bentz 2005; Belzer 2002; Armbruster 2003). Use of 3PLs is common in all sectors, however, including retail, hospitality, food and beverage, construction, and energy (Langley and Capgemini Consulting 2015). Large companies commonly use multiple 3PLs and hire a firm to manage its outsourced logistics functions (so-called fourth-party logistics companies, or 4PLs). Recent survey evidence suggests that logistics outsourcing accounts for about half of business spending on transportation and close to 40 percent of spending on warehouse activities (Leuschner et al. 2014). Third- and fourth-party logistics companies are classified in various industries, including warehousing, transportation, and wholesale trade, making it difficult to observe trends in logistics contracting from published government statistics.<sup>10</sup>

### **Data Limitations**

While case studies have provided important insights into the growth of contracting out in various sectors, the information is inherently fragmented and of varying quality. In theory, surveys conducted by the U.S. statistical agencies should provide more systematic time-series data for understanding the extent of outsourcing, its growth, and implications for workers and public policy. But official statistics have substantial limitations.

BEA input-output data are useful for showing broad trends in domestic outsourcing in the national economy and for identifying which industries that provide intermediate goods and services are expanding. They are less useful, however, for identifying the user industries of specific intermediates because the data on which the I-O tables depend are often dated and suffer from significant gaps. Although annual industry surveys conducted by the census are used to update the I-O tables, the most detailed information for estimating the I-O structure of the economy comes from the Economic Census, conducted every five years. BEA uses

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<sup>10</sup> Other research has documented the growth in outsourcing of janitorial and security functions (Dube and Kaplan 2010), food services (Lane et al. 2003), and call centers (Batt, Holman, and Holtgrewe 2009; Batt, Doellgast, and Kwon 2006).

information from the Economic Census and other sources to revise the I-O tables (and other national accounts), and it typically takes 5 or more years to integrate the latest Economic Census data into the accounts. Thus, at any point in time, much of the information used to estimate the I-O structure of the economy is 5 to 10 years old.

More important, while the Economic Census collects detailed information on material input purchases, information in the Economic Census and annual census surveys on purchased services is generally collected for highly aggregated categories. For example, census surveys ask companies to report expenditures on all professional and technical services. In addition, the data reported combine expenditures on domestic and imported goods and services.<sup>11</sup> In sum, published estimates of industry input use are often derived from limited information, and researchers should use them with caution.<sup>12</sup>

Workers in contract arrangements are employees of the company contracting their services or are self-employed as independent contractors. Household and establishment surveys conducted by the Bureau of Labor Statistics (BLS) do not systematically provide information on the characteristics of workers in various contract arrangements or the organizations using the contract services (see Bernhardt 2014). The Supplement on Contingent and Alternative Employment Arrangements to the CPS was designed to help fill this information gap. Concerns have been raised, however, about the ability of individuals (or family members answering on their behalf) to properly identify themselves as employed in a contingent or alternative work arrangement. As noted, the share of workers reporting themselves as employed by temporary help agencies in the CWS is considerably lower than the share derived from the establishment survey (CES), fueling concerns about the quality of data on workers in alternative arrangements. The most recent CWS survey was conducted in 2005, and budget problems stalled efforts to replicate it. The 2016 announcement that it will be conducted again in May 2017 is a welcome development. The narrow coverage of contract workers and concerns about data quality in earlier rounds of the CWS have limited its usefulness for understanding the scope of domestic contracting out and its implications for workers. Researchers have begun providing input to BLS and the Census Bureau that may improve the usefulness of the new data to be collected in 2017 and that may involve supplementing information collected in the CWS with new information from establishment surveys.

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<sup>11</sup> To estimate imported and domestic intermediate goods and services separately, BEA makes the assumption that each industry uses imported inputs in proportion to its overall use of the input in the economy.

<sup>12</sup> In recent years, the Census Bureau has collected information on companies' expenditures on temporary help and professional employer organizations and has added questions to various surveys about whether companies use or provide contract manufacturing services. While the collection of such detailed data is currently piecemeal, it represents an important step toward improving data on outsourcing and will provide a more complete picture of the incidence across industries of certain types of contract arrangements.

In sum, available information points to rapid growth in domestic outsourcing in a wide range of industries since the 1980s. Yet, data gaps limit our ability to understand the magnitude of the phenomenon and its impact on job quality, and to fashion appropriate policy responses. In the next section we lay out a major initiative on domestic outsourcing, detailing the questions it should answer and providing a menu of research methodologies and potential data sources.

## 6. A Proposed Research Agenda and Research Network on Domestic Outsourcing

In what follows, we propose a comprehensive agenda to deepen our understanding of domestic outsourcing and the development of a network of researchers to study this important phenomenon. We first lay out three central questions to advance our knowledge of how and why domestic contracting has expanded and its effects on jobs, wages, and inequality. Then we propose that research proceed on two parallel tracks that will inform one another. One track is to conduct in-depth industry studies; the second is to develop systematic measures of domestic outsourcing in government data, which will be necessary to understand the scope and implications of domestic contracting economy-wide.

### Research Questions

We suggest that three broad questions should drive future research on domestic outsourcing. While no single study will be able to address all of these questions, they provide a conceptual roadmap for the knowledge base that needs to be created.

1. How common is domestic outsourcing, has it grown over time, and how many workers are affected?
  - a. At the firm (or establishment) level, what is the prevalence of outsourcing, and has it grown over time? Possible measures include percent of firms that contract for particular functions, and firms' purchases of goods and services from other firms (or independent contractors) as a share of economic output.
  - b. How many workers are employed by contractors, has that number grown over time, and do the workers differ in demographics from their in-house counterparts?
  - c. In which industries are contract workers employed? How have jobs been reallocated across sectors over time as a result of domestic outsourcing?
  
2. What are the drivers of domestic outsourcing in particular industries or production networks, and what are the different forms it takes?
  - a. What are the economic, political, and public policy forces that have shaped the prevalence of domestic outsourcing over time, and which functions are contracted out? Of particular interest is the impact of financialization as well as institutional factors (e.g.,

- labor market and product market regulation, unions and social movements, consumer demands, and political pressures).
- b. What is the role of technology in facilitating domestic outsourcing and the forms it takes?
  - c. Do contracting strategies vary by industry segment, ownership structure, business strategy, or other organizational characteristics? What explains variation in firms' contracting decisions within and across particular industries or product networks?
  - d. What are the important characteristics and types of firm-to-firm contracting relationships? In particular, how is bargaining power distributed, and which actors in a production network are setting the economic terms of contracts? How are contractor industries changing over time, in terms of the degree of consolidation or competitiveness?
  - e. Where relevant, what is the relationship between international outsourcing strategies and domestic outsourcing strategies? What determines the mix of the two strategies, and do they influence one another?
3. What is the effect of domestic outsourcing on job quality and the employment relationship?
    - a. Job quality measures include wages, benefits, hours, workload, job stability, schedule stability, occupational safety and health, incidence of wage theft, and access to training and promotions.
    - b. The employment relationship refers to the worker's status under employment and labor laws (e.g., whether the worker is covered by those laws, who the employer of record is, whether the job is permanent or temporary).
    - c. What is the effect of domestic outsourcing on unionization and other sources of worker leverage in the labor market?
    - d. Does the impact of outsourcing on jobs and workers differ, and if so, what are the sources of that variation? In particular, what is the role of specialized skills or skill requirements of jobs?

### **Industry Studies**

Few nationally representative datasets contain the types of measures and the detail needed to capture the outsourcing phenomenon and its effect on job quality. Aggregate data also does not lend itself to explaining the causal mechanisms linking changes in the organization of production to changes in the quality of jobs. Moreover, the characteristics of contracting (such as factors driving its use, its structure, and impacts on workers) vary substantially by industry and business function. A broad undertaking of industry and firm-based research that engages a cohort of researchers from diverse disciplines is needed to identify the factors that govern interfirm contractual relationships, including the important role of the lead firm's business

strategy, the relative bargaining power of lead and contractor firms, and the effects of variation in these factors on wages and working conditions. In addition, because businesses increasingly rely on contracting and supply chain management, trade associations and marketing and consulting firms have become important players and may be the source of proprietary data on a range of important industry trends. As a result, our assessment is that better data are often available at the industry level.

We therefore propose the type of multi-method research design that is frequently used in industry studies, combining analysis of (a) government data, including micro data from government household and business surveys or administrative data (e.g., state Unemployment Insurance wage records data available through Census Data Research Centers); (b) proprietary or novel datasets from industry trade groups or marketing/consulting firms; (c) structured case studies<sup>13</sup> of a number of firms and contractors, ideally chosen to understand different types of contracting relationships; (d) interviews with industry experts, including unions where present, and analysis of industry trade press and management publications; and (e) new data collection where feasible. The exact mix of these components will vary across studies.

Given the variation in contracting relationships across different industry contexts, researchers may decide to focus their studies in one of several ways:

- Contracting industries as the unit of analysis, such as financial services, retail, or hospitality.
- Contractor industries as the unit of analysis, such as professional and business services, including information technology services, third-party logistics companies, and online staffing platforms.
- Production networks as the unit of analysis, such as the health care sector, the logistics sector, or the food supply chain.
- Business functions as the unit of analysis (see Nielsen and Sturgeon [2014] for a well-developed categorization).

Examples of each of these approaches are found in the empirical studies we have cited in this paper. The contracting industry approach is illustrated in Weil (2014) and Ji and Weil (2015) on the hotel and other service industries. In this research, the authors combine extensive field research with proprietary data and government administrative data to capture the relationship between complex outsourcing structures, the quality of jobs, and labor law and safety and health violations. The contractor industry approach is represented in the extensive research on the temporary services industry, where the growth of the industry and its implications for workers compensation, job stability, and long-term employment and earnings trajectories were

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<sup>13</sup> See, for example, the controlled case study design used by some researchers in Appelbaum, Bernhardt, and Murnane (2003).

captured by combining government survey data (the Longitudinal Employer-Household Data and Occupational Employment Statistics), government administrative data, proprietary company data, and evidence from case studies and structured interviews.<sup>14</sup> Studies of the logistics industry draw on the production network approach; for example, Bonacich and Wilson (2008) combine industry data, interviews with industry experts, managers and workers, and archival research to map out and analyze the impact of the logistics revolution in the U.S., using southern California ports as their entry point. Finally, call center research has used the business function as the unit of analysis (Batt, Holman, and Holtgrewe 2009; Batt and Nohara 2009; Batt, Doellgast, and Kwon 2006). Given the lack of national data on business functions, that research combined extensive field work in companies with a nationally representative random survey of in-house and outsourced call centers whose frame drew on a database of 60,000 call center subscribers to a trade journal. Results showed systematic differences in the wages, benefits, job security, union coverage, and other job attributes of in-house and outsourced call center jobs.

Even at the level of a specific industry, developing a research design to document and analyze domestic outsourcing is conceptually difficult. One approach, developed by Gary Gereffi to analyze commodity chains, identifies four analytical dimensions to consider: an input-output structure, a geographical configuration, a governance structure, and an institutional context (see Bair 2009). This approach may be useful because it highlights the importance of integrating an analysis of changes in the economic structure as well power relations that shape the distribution of outcomes among different firms and groups of workers.

#### *Analyzing changes over time in domestic outsourcing*

In examining changes in outsourcing over time, it is also important to consider a number of different scenarios (see Berlingieri 2014). Contracting firms may outsource a function that was previously performed in-house – either eliminating the in-house function or continuing to perform it while adding capacity via contractors. Firms may also contract for new functions that were never performed in-house in order to access new skills and technologies – and again, they may either eliminate outdated in-house functions or continue to perform them while adding new capacity via contractors. These changes in contracting can differ substantially in their impact on the distribution of jobs across firms and on wages and job quality.

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<sup>14</sup> Studies include Andersson, Holzer, and Lane (2005); Autor and Houseman (2006, 2010); Benner, Leete, and Pastor (2007); Hamersma, Heinrich, and Mueser (2014); Heinrich, Mueser, and Troske (2005, 2009); Houseman (2001); Houseman and Heinrich (2015); Kalleberg, Reynolds, and Marsden (2003); and Lane et al. (2003).

Note also that firms' contracting decisions may change over time, with some functions being outsourced only to be brought back in-house later, as the circumstances specific to a firm change. More generally, in any industry at any point in time, some firms will outsource certain functions as others bring the same functions back in-house. In analyzing the effect of outsourcing over time in an industry or network, it will be important to identify the net changes that constitute trends, along with the drivers behind those trends and their implications for wages and working conditions.

In addition, important effects on wages and working conditions may originate from the contractor firms themselves. Contractor industries may consolidate or fragment; new business models and product markets may emerge; and regulatory or broader institutional contexts may change. Even if the prevalence of domestic outsourcing does not change, such shifts on the contractor side of the equation may have important implications for jobs and workers.

### *Candidates for study*

In selecting industries or production networks for study, researchers should have some *a priori* evidence that a) the level of domestic outsourcing has significantly increased or the nature of interfirm contracting relationships has changed, and b) these changes have potentially important implications for compensation and other aspects of job quality. Based on our review of the existing literature, some examples of important sectors for researchers to study include, but are not limited to, the following:

- Health care: hospitals, outpatient facilities, nursing homes, home health care<sup>15</sup>
- Logistics: transportation, warehousing, wholesale
- Professional and business services
- Computer and information technology
- Retail, restaurants, hotels, arts and entertainment
- Food supply chain
- Energy and utilities
- Finance, insurance, and real estate
- Pharmaceuticals, chemicals, and other bio-tech companies
- On-demand platforms: Uber, Upwork, TaskRabbit, etc.
- Public sector: federal, state, local

Beyond the choice of industry, we encourage researchers to focus on a range of occupations – from less-skilled to intermediate and higher-skilled groups. All are affected by the reorganization of production, and an important research task is to determine whether

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<sup>15</sup> A detailed discussion of health care restructuring as an illustrative example is available from the authors.

restructuring has similar or differential effects on distinct groups in the occupational hierarchy, potentially leading to greater or less inequality.

### **Economy-Wide Research and Data Development**

The industry studies proposed above would largely exploit available data from government surveys and proprietary sources, combined with interview evidence, to shed light on the causes and consequences of outsourcing in key industries. In addition, despite its weaknesses, valuable insights may still be gained from using economy-wide data to arrive at benchmark prevalence estimates. For example, to our knowledge, no recent analysis has comprehensively examined patterns of growth in domestic outsourcing and the number and types of workers affected using input-output data and industry employment matrixes for the U.S. economy.<sup>16</sup> Similarly, tax data could be better leveraged to help resolve debates about the size of the independent contractor workforce.

Nevertheless, a more complete understanding of domestic outsourcing in the economy will require the development of new, nationally representative data sources. We encourage work on two fronts. The first involves making better use of existing data by enabling the linking of both survey and administrative micro data collected by different government agencies. Plans to add micro data from BLS surveys in centers that currently house only census data offer great promise for research on domestic outsourcing. Linking data from the Occupational Employment Statistics program and the National Longitudinal Survey to existing data in these centers, for example, would give researchers a powerful tool for studying outsourcing and should be given high priority.

The second involves new data collection. Academic researchers and staff of government statistical agencies should join efforts to develop new measures and data sources that will allow precise estimates of domestic outsourcing and direct analysis of its impact on job quality. Given the significant budget constraints on federal agencies, the priority should be on identifying ways to leverage existing government surveys to gather more detailed data, add new measures, and expand sampling frames; private funding could help pilot such changes. Academic researchers could also develop and test new surveys – for example, of on-demand workers – that could serve as models for future government surveys.

Information will need to be collected through a combination of household/worker-level surveys and establishment/firm-level surveys. Each has strengths and weaknesses, and the optimal respondent type will vary with the information being collected. Even basic information on the

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<sup>16</sup> Clinton (1997) provides a useful example of triangulating trends in domestic contracting from employment, occupational, and industry output and input data.



number of contract workers and their distribution by client industry (in addition to the industry of their employer) may need to be collected from multiple surveys and estimates may need to be modeled. Household surveys, such as the CWS, may provide the best vehicle for estimating the number of on-site contract workers who typically work for one client and also the industry of the client firm, though improvements to existing survey instruments may be desirable to reduce reporting error. In contrast, it is unlikely that information on off-site contracting relationships, which are more complex, can be reliably obtained from respondents to household surveys. This information will need to be collected through establishment or firm surveys, and the information collected in such surveys will be limited to information that businesses typically maintain for tax and other accounting purposes. Because businesses that outsource work do not systematically record information on the number of workers hired through contractors—only their expenditures on contract services—contract services expenditure data must be collected from businesses, and the number of contract workers by client industry must be modeled.<sup>17</sup>

Finally, and equally important, rigorously studying the effects of outsourcing on job quality will often require the linking of data from various agencies at the federal and state level. This in turn will require greater cooperation among agencies and improved access for researchers to confidential government micro data. The planned addition of BLS data to existing census research data centers is a good start and should be expedited.

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<sup>17</sup> Similarly, contract companies cannot consistently and reliably allocate their workers by client industry.

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**SECTOR-BASED TRAINING STRATEGIES: THE CHALLENGES OF MATCHING  
WORKERS AND THEIR SKILLS TO WELL-PAYING JOBS**

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## **Abstract**

This paper reviews what we know about sector-based training strategies to date, and why they have become so popular with policymakers. It also reviews several major challenges to expanding them while trying to maintain their quality. These challenges include the fact that only workers with strong basic skills and employability are likely to benefit from these strategies; the likely tradeoffs between short- and long-term impacts and between general and more specific training; the difficulties of replicating and scaling the best models; and uncertain future labor demand. The paper concludes with a number of policy recommendations in light of the challenges sector-based strategies face.

In a labor market that rewards worker education and skills very heavily, and where employers frequently complain about their difficulties finding workers with appropriate skills, how can we provide less-educated workers the skills they need to attain well-paying jobs?

Increasingly, policy makers and labor market practitioners have turned to “demand-driven” or “sectoral” training to meet the skill needs of both workers and employers. This model has been used to train both for disadvantaged adults and youth, as well as workers dislocated from previous jobs. It has recently been embraced by the Obama Administration in its job training initiatives, by Congress in its recent reauthorization of federal job training programs, and by governors and mayors around the country.

Despite the apparent enthusiasm for demand-driven training, and its widespread adoption, there are some major challenges involved in bringing these programs to a scale sufficient to really improve outcomes for less-educated workers, while maintaining program quality. For instance, some workers might not have sufficient basic or employability skills to be able to master the training (often of a technical nature); and sometimes the training might be too narrow or specific to be portable to other firms and economic sectors when they change jobs. In addition, practitioners might have difficulty replicating and scaling the most successful models observed elsewhere; and identifying high-demand sectors and jobs over time while meeting their evolving skill needs might be difficult as well.

Below I briefly review what we know about demand-driven training, including the evaluation evidence. I will try to account for the enthusiasm with which these models have been embraced, as well as the challenges of expanding the best of them. I will then propose some solutions to these challenges, both specific and general in nature.

## **I. What are Demand-Driven Strategies and Why are They So Popular?**

Job-driven or sector-based training actively tries to match worker skills on the supply side of the labor market with what employers seek on the demand side of the market. While they need to engage with specific employers, they also target broader economic sectors, usually at the local or regional levels, with the following characteristics:

- Overall employment has grown and will likely continue to do so;
- employers seek at least moderately (or middle-) skilled employees, with some need for postsecondary education or training but below the level of a bachelor’s (BA) degree;
- employers have had some difficulty meeting their skill needs, and are therefore open to assistance with both hiring and training; and

- the sub-BA jobs pay well enough for workers in them to escape poverty and perhaps enter the middle class.

Sectoral training typically involves creating a “partnership” between several institutional actors – employers or their industry associations, training providers (often community colleges), workforce boards and an *intermediary* organization. The intermediary often takes the lead in recruiting the industry and educational partners, figuring out employer skill needs, establishing the training guidelines, recruiting low-income workers to these programs and providing them with supports, and ultimately making sure employers get job candidates who will perform well and meet their needs. A range of different organizations can play the intermediary role; some (like the Wisconsin Regional Training Partnership or Jewish Vocational Services) have traditionally focused on a few key industries like health care or manufacturing, while others (like the Chicago Jobs Council) have a broader focus on the sectors leading local or regional economic growth. Community-based organizations can also play the intermediary role.

The sectoral model first appeared in specific localities the 1980s, mostly in health and elder care, and then began spreading to other locations and sectors in the 1990s (Conway and Giloth, 2014).<sup>1</sup> Today they are most frequently found in health care, advanced manufacturing, information technology, construction, transportation/logistics, and hospitality to fill jobs with specific skill requirements that often fall short of BA degrees.

Closely related to sector strategies are “career pathway” models, which combine classroom training, work experience and credential attainment to move workers through a set of jobs and occupations within particular sectors, such as health care (Fein, 2012). As an example, a health career pathway could begin with a certified nurse assistant (CNA) credential and related employment while eventually leading to a licensed practical nurse (LPN) degree and perhaps ultimately a BS degree in nursing.

The pathways can begin in high school, as part of a district’s career and technical education (CTE) offerings, and involve certificate or AA (or AS) attainment in community or four-year colleges as well. The work experience components can be provided through apprenticeships or other forms of work-based learning. Programs often seek to provide “on and off ramps” between the labor market and educational institutions at various points along the pathways, to meet the needs of both younger and older students and workers, including those who are either disadvantaged or dislocated from earlier jobs.

Since most of the demand-driven training occurs at the local or regional level, many efforts to expand this training have focused there. The most important of these is the National Fund for Workforce Solutions, with financial support from several national foundations (Dyer, 2014). But

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<sup>1</sup> Among the earliest models in the 1980s were the Extended Care Career Ladder Initiative (ECCLI) in Massachusetts, the Paraprofessional Healthcare Institute (PHI) and its Cooperative Home Care Associates (CHCA) in New York, and Focus: Hope which helped trained machinists for the auto industry in Detroit.

important activity occurs at the state level too, often with encouragement from the federal Departments of Education and Labor.

Nearly a decade ago, Pennsylvania was one of the first states to begin organizing their workforce strategies around key economic sectors; since then, many others have followed suit. A range of competitive grant programs in the Bush (43) and Obama Administrations supported their expansion at the state and regional/local levels during this time period.<sup>2</sup> At this time, most states use sector strategies and career pathways as parts of their workforce strategies (National Governors Association, 2013). Various networks of states have been organized to support this development.<sup>3</sup> It is now also being encouraged by the newly reauthorized Workforce Innovation and Opportunity Act (WIOA), as well as by a set of workforce initiatives under by the Obama Administration (National Skills Coalition, 2014; White House, 2014).

What accounts for the rapid and widespread adoption of sector-based and pathways approaches in workforce development in the past decade? I would argue that several factors have contributed to this. For one thing, by the 1990s there was growing dissatisfaction with more traditional forms of job training for adults and youth that were more disconnected from the world of higher education, and from employers and labor demand as well. Evaluation evidence of programs funded by the Job Training Partnership Act (JTPA) showed modestly positive impacts on earnings for adults that tended to fade with time, while those for youth were zero or even negative (Heckman et al., 1999). Partly as a result of these findings, funding for training in JTPA and its successor, the Workforce Investment Act (WIA), has continually diminished over time (though worker use of services provided by One-Stop centers grew). Since the labor market returns to higher education credentials were rising over the same time period, and especially after Pell grant funding for higher education among the poor began rising as well, the focus of workforce development shifted to higher education and especially community colleges.<sup>4</sup>

Workforce practitioners and policy advocates also came to see the value of a “dual customer” approach in which employers as well as disadvantaged workers are seen as clients, whose interests need to be served. In such an approach, the training for workers would be more carefully tailored to existing jobs, which the trainees would now have much better chances of

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<sup>2</sup> These grant programs included the High Growth Job Training Initiative (HGJTI) and Workforce Innovation in Regional Economic Development (WIRED) grants during the Bush administration; as well as the Trade Adjustment Assistance Community College and Career Training (TAACCCT), Workforce Innovation Fund and Social Innovation Fund grants during the Obama years. See Haskins (2014) for an account for how evaluation evidence was used to structure the programs under President Obama.

<sup>3</sup> State networks that have been set up to help them develop systemic approaches with measured outcomes include the National Network of Sector Partnerships, the Alliance for Quality Career Pathways, and the Pathways to Prosperity Network.

<sup>4</sup> Heinrich et al. (2011) and Andersson et al. (2013) show nonexperimental evidence of significant positive impacts of WIA training on employment outcomes for disadvantaged adults but less so for displaced workers. The growth of Pell grants during the past decade and their use in workforce programs, especially for independent and older students, is documented in the College Board (2013).

obtaining (Conway and Giloth, 2014). If employers were pleased with the trainees whom intermediaries sent their way, they were more likely to participate in the future, perhaps expanding the numbers of such workers whom they hired. Other employers in the sector were then more likely to participate in the partnerships as well, and perhaps mold their workplace organizations and human resource (HR) functions accordingly.

And, very importantly, governors began to see sectoral training as part of their state economic development activities. For major employers whom they were recruiting to the state, or trying to retain, helping them meet their skill needs would come to play an important part of the benefits provided by the state as part of that process. Unlike other kinds of economic development activities – which often amount to a zero sum game nationally in which states bid against each other to lure major employers away from their competitor states – the sectoral training approach generates net new value added for the employers and their workers, and are therefore better from a national perspective (Bartik, 2012).

All of these considerations gained more weight as employers in key sectors also became increasingly and vocally dissatisfied with their own abilities to recruit and retain skilled workers, at either the BA level or below. At least in theory, this problem should not really exist in well-functioning labor markets – or at least not for very long. A rising demand for workers at a particular skill level should, all else equal, cause wages to rise for that skill; workers, in turn, should then invest more in obtaining those skills, so that shifts in the supply of the skill follow the shifts in demand (Becker, 1996).

There might be some temporary local shortages, during which workers obtain the necessary skills, and perhaps move geographically to areas of strong demand; but eventually the adjustment process should occur (Blanchard and Katz, 1992; Goldin and Katz, 2008). Indeed, the large relative wage increases associated with higher education, beginning around 1980 or so, kicked off such a process; in response, higher education enrollment soon began to rise. And, though there was a long time lag before adjustments in the supply of students with postsecondary credentials began to occur in sufficient quantities to meet the demand for them, this seems to finally be happening at the national level.<sup>5</sup>

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<sup>5</sup> Autor (2014) shows that the premium to workers with college degrees has finally flattened in the 2000s because the growth in the supply of college-educated workers has finally caught up with labor demand for them. Weakness in the aggregate labor market, especially in the aftermath of the Great Recession, contributed to flat or declining real earnings of workers at all education levels. But Beaudry and Sand (2013) argue that there has even been some reversal in the relative demand for higher education and cognitive skills in the labor market during this time period. Autor (2015) argues that the bursting of the technology bubble around 2000 and the housing/financial market bubbles in 2006-08 likely contributed to this reversal, while rising imports (especially from China) reduced labor demand at all levels.

Yet, employers in key sectors continue to complain about their inability to recruit and retain such workers; their complaints have now persisted, and grown more vocal, for years or even decades.<sup>6</sup> Some economists have been skeptical about these claims – arguing that employers always complain about their workers’ skill levels. Wage increases have failed to materialize in any such labor markets since 2000, and these economists infer that there must not be any real skill shortages in these markets (Rothstein, 2012). Others argue that on-the-job training appears to be shrinking nationwide, which also seems inconsistent with notions of skill shortage (Cappelli, 2014). Lengthy vacancy durations in manufacturing appear to be quite rare, despite the vocal complaints of employers in that sector (Osterman and Weaver, 2014). Separately, a body of research has shown that demand in the middle of the labor market – defined as employment and wage trends in occupations whose average wages have been in the middle deciles of the wage distribution – has been shrinking over time, and that therefore it should not be difficult to meet skill needs there (Autor, 2010; Naimovich and Siu, 2012).

At the same time, the claims about tight labor markets (if not full-fledged skill shortages) in particular sectors and regions might be at least partly legitimate. While part of the middle of the labor market is shrinking – specifically, the well-paying production and clerical jobs available to workers with high school or less education – other parts that require some postsecondary education or training, like health technicians or very skilled production workers, seem to be growing (Holzer, 2015a). And it is frequently in these sectors that employers complain the most about their ability to attract and retain skilled workers.

Given these difficulties, why aren’t real wages growing? Perhaps we will soon observe more such growth, especially in key labor market sectors, as we recover more fully from the Great Recession. On the other hand, such increases might continue to be limited in industries facing strong international competitive forces (like manufacturing) or other pressures to contain costs (health and elder care) or generate higher profits (From the capital markets); and this is especially true if employers feel that their relative wage increases in the past did little to resolve their skilled labor supply problems.<sup>7</sup> For these reasons, limited real wage growth alone is not sufficient to prove that firm difficulties with skilled labor aren’t real.

Regarding on-the-job training, some observers question whether it is declining in the aggregate (Lerman, 2015); and, in sectors like health care and advanced manufacturing where the supply of skills seems limited, employers are more engaged in newer efforts to generate more such supply (Ross, 2015). But it may not always be economically sensible for firms to invest in such training,

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<sup>6</sup> See Shemkus (2015) and the Manufacturing Institute (2014) for examples of press accounts and reports that claim a strong shortage of workers with middle-level skills in manufacturing and other key sectors of the economy.

<sup>7</sup> In conversations with private employers one often hears that the jobs they are trying to fill (like those for machinists and precision welders in advanced manufacturing) already pay quite well, after wage increases in earlier decades, but that the skills needed are still not being generated in sufficient quantity. Some discuss the inability of current high school graduates to master the technical nature of the training many now provide or employability skills as measured by drug tests. Many prefer to adjust to high and unfilled demand along other “margins” such as recruiting activity or outsourcing the work to other firms.



given its general nature and the limited skills of the potential trainees. A variety of market failures might also limit their willingness to provide such training, or to create high-paying (or “high road”) jobs, where their ability to be competitive is based on high worker productivity and low turnover rather than just low labor costs (Appelbaum et al., 2003; Ton, 2014).<sup>8</sup>

Overall, the validity of employers complaints about their hiring difficulties in the middle of the skill distribution, and especially on technical jobs, continue to be debated. But, in the meantime, employer concerns in this area resonate with many in the political and policy arenas, and they frequently turn to sectoral strategies to try to better meet these needs.<sup>9</sup>

And, finally, rigorous evaluation evidence on the impacts of sectoral training on the earnings of disadvantaged workers became available. These consistently show relatively large positive impacts of about 30 percent for both adults and youth within two years of the beginning of training.<sup>10</sup> These impacts are much larger than those that have been observed for JTPA or WIA more generally. Given the strong earnings premium associated with attaining at least some postsecondary credentials – particularly those with technical content – any efforts that help disadvantaged workers gain more such credentials (above what they would obtain anyway) should generate similarly large effects on their earnings as well.<sup>11</sup>

This combination of vocal employer concerns, consistency with economic development strategies and strong evidence of successful impacts has propelled demand-driven strategies to the forefront of the workforce development field.

## **II. What are the Major Challenges that Limit Expansion of Demand-Driven Strategies?**

Despite the popularity of job-driven/sector training strategies, and the widespread efforts to expand their use, we face some significant challenges in trying to do so.

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<sup>8</sup> Labor market failures that inhibit additional training include lack of information among employers about how to provide more of it, wage rigidities that prevent them from paying lower wages to trainees for general training, and coordination failures that keep small firms from sharing the fixed costs of setting up and managing training. Unions often played the latter role in construction or manufacturing in earlier decades. Employer investment in training their workers will also be limited if they think their basic skills are weak or that they will have high turnover, which might explain why American employers tend to provide much more training to their professional and managerial employees than to others.

<sup>9</sup> See the National Research Council (2015) for a recent report highlighting the difficulties of generating employees with middle-level technical skills relative to employer demand for them.

<sup>10</sup> See Maguire et al (2010) for rigorous evidence on impacts from three well-known sector programs and Roder and Elliott (2011) for evidence from a program called Year Up for youth. Popovich (2014) reviews data on inputs and outcomes of National Fund sites while Michaelides et al. (2015) provides quasi-experimental evidence on impacts of programs supported by the National Fund in Ohio.

<sup>11</sup> Backes et al (2015) and Stevens et al. (2015) show strong labor market returns to a range of more technical certificate and associate degree programs in Florida and California very recently.

## **A. Job-Driven Training: For Whom?**

Job-driven training seems to constitute an effective anti-poverty strategy while, at the same time, it meets the needs and concerns of employers in the hiring process. Yet there can sometimes be tensions between these two policy goals.

Simply put, to maintain the confidence of employers, the workforce intermediaries must only send them workers whose skills and pending performance are not in doubt. This, in turn, requires the intermediaries to screen out any candidates whom they view as potentially weak along these dimensions – either sooner or later in the process. In addition, the frequently technical nature of the training requires that trainees have fairly strong basic academic (or “foundational”) skills, with reading and math abilities at least at the 9<sup>th</sup> or 10<sup>th</sup> grade levels.

In other words, job-driven strategies can be successful antipoverty efforts for those who currently are among the working poor, with solid workforce attachment and good basic skills, but not among the hard-to-employ with poor reading/math skills and perhaps other barriers to steady employment like substance abuse or depression (Zedlewski and Loprest, 2001). James Heckman’s notion that “skill begets skill” (Heckman, 2008) has some strong support in this context. And the percentages of Americans whose basic skills are deficient are quite high, relative to residents of other countries (OECD, 2013).

This tension between who can benefit from sectoral training and who most needs the help constitutes a real barrier to attempts to expand such training on community college campuses, where most such training now occurs. Community colleges around the country are largely open-access institutions, with few admissions requirements beyond having a high school diploma or general equivalency degree (GED). Yet, before students can take courses for academic credit in many places, they must demonstrate proficiency in reading and in math (usually at the level of Algebra 1). Because of their inability to do so, as many as 60 percent of community college entrants are assigned to “developmental education” (or remediation) classes from which most never successfully emerge (Bailey et al., 2015).

For this and other reasons, the completion rates of students who enter community college AA or AS programs are very low. Without counting those who transfer to four-year colleges to pursue BAs, only about 20 percent in associate’s programs overall and somewhat higher in certificate ones.<sup>12</sup> The completion rates for older students are below these averages and for younger students right out of high school they are higher. But, while many of the younger ones plan on transferring to a four-year college for a BA, only 25 percent actually transfer and only 15 percent get the BA.

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<sup>12</sup> Completion rates in AA programs for students out of high school are about 30 percent (Backes et al., op. cit; Holzer and Dunlop, 2012) but much lower among older, independent students. Completion rates in certificate programs are in the 40-50 percent range.

Reforms in the academic requirements for admission to for-credit classes, and in how “developmental education” is administered, could potentially improve the ability of many students to enter and complete job-driven training programs. Successful “bridge” programs and other efforts in the K-12 years might also help address student deficiencies before they arrive at community college.<sup>13</sup>

But, even among those who can avoid remediation or for whom it is successful, an inability to pass important “gateway” classes – like anatomy in health technology programs – likely limits success for others. (Goldrick-Rab, 2010). To become a machinist, or even a precision welder, math requirements are not trivial. The degree programs in these cases are often for AS rather than AA degrees; the market value of the former very often exceeds that of the latter (Backes et al., 2015; Stevens et al., 2015), but with higher math and science requirements along the way.

Of course, not all health technology or manufacturing programs are quite as academically rigorous as these. Some of the less rigorous ones require individuals to complete certificates, rather than AA or AS degrees. And these can frequently have greater labor market value than AA degrees (though less than AS ones, as noted by Backes et al., op. cit.).

At the same time, the certificate programs do not always provide academic credit, which might limit their appeal and their usefulness in a “career pathway,” since they cannot count towards higher degree attainment. Indeed, whether a certificate program has academic credit or not can often be fairly arbitrary, with similar programs in adjacent districts or states being treated differently (McCarthy, 2014). But those that do not confer credit, or are short-term in nature, cannot currently be paid for with Pell grants, thus limiting their usefulness to many low-income students.

## **B. Short- and Long-Term Impacts: General v. Specific Training**

Another source of tension in demand-driven training strategies involves the extent to which training is specific to certain occupations and sectors or more general. Part of the appeal of sectoral training, and likely part of its effectiveness in raising earnings of disadvantaged workers, is the direct participation of employers in devising it, and the availability of good-paying jobs with those employers when workers finish it. Such training is often quite specific to an industry and an occupation (or a set of occupations on a career pathway). In some cases, community colleges even obtain contracts to provide “customized” training to individual employers.

So what happens when workers change jobs and employers, and perhaps industry sectors? We currently have little evidence on this, since the rigorous evaluations went out only 2 years after the point of “random assignment” to the treatment and control groups. Furthermore, the dynamic

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<sup>13</sup> See Long (2014) and Bettinger et al. (2013) for reviews of evidence on development programs and their impacts. Martin and Broadus (2013) show significant impacts on GED attainment and college enrollment of the LaGuardia Community College Bridge program, though success rates remain quite low.

nature of US labor markets imply that high-demand sectors today might not be the same ones tomorrow, as we will note further below, which could increase involuntary turnover over time.

There might well be some tradeoff between the amount and quality of general training these individuals receive, which might be better for their longer-term earnings prospects, and the specific training which is clearly better in the shorter term. As noted earlier, employers will be less interested in the former, and will invest fewer of their own resources, the more general the training is. The firm might still be willing to provide some training, but it would have to be paid for out of worker wages; and if these wages are downwardly rigid, the training will not occur.

Accordingly, there is a stronger argument for investment of public resources in such training when the latter is at least partly general; President Obama and others have frequently said that the training must be “portable” to merit public support. This needn’t always be absolutely true – there might be equity-based reasons to support relatively specific training, if that training goes to workers who would not be hired and trained by employers in the absence of government efforts. But, on average, more general training is somewhat better in the long run, given the frequency with which workers change jobs, and the dynamic and uncertain nature of future labor demand.

Of course, there are also key worker benefits to the more specific parts of the training. For one thing, it helps them accumulate the work experience that the labor market rewards. And there is some reason to be hopeful that the sector-specific training has some valuable general content. For instance, there has been strong evaluation evidence that Career Academies, which provide sector-specific education and training to high school students within broader high schools, have large impacts on their earnings. For at-risk young men, these earnings increases are nearly 20 percent in magnitude. And quite importantly for this discussion, they last for eight years after the assignment to treatment and control groups, with little sign of erosion, despite the fact that many students change employers and industry sectors. Evidently, students learn something about the labor market from their training and work experience that seems portable across employers and sectors. And there has also been some evidence that apprenticeships with particular employers have some lasting effects after workers switch occupations or industries, at least in other countries.<sup>14</sup>

Clearly, getting the right balance between specific and general training should be a high priority for those building demand-driven programs. For instance, when workers obtain an AA or certificate from their training, the credential should signal to other employers the potential breadth of the worker’s skill-building. A new trend in this work towards smaller, “stackable” credentials along the career pathway could make these signals even more apparent, as would

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<sup>14</sup> See Kemple (2008) for evidence on the long-term effects of Career Academies while Geel and Backes-Gellner (2011) show that vocational training in Europe generates general skills with lasting impacts even after workers change jobs and sectors.

other reforms in the credentialing process in the US to make the process easier for workers and firms to navigate and less fractured and duplicative while making the credentials themselves more transparent (Lumina Foundation, 2015).

And, in a world where demand shifts will always cause some amount of worker displacement and therefore obsolescence of specific skills, strengthening the potential availability of high-quality “lifelong learning” to all who need it is critical as well. In addition, workers trained in the past in particular high-demand occupations, like welding, might have few of the more technical skills employers now seek in those same occupations (Uchitelle, 2009); making it easier for them to upgrade those occupational skills would be helpful to them and to employers who seek those skills and have difficulty finding them.<sup>15</sup>

### **C. Replicating and Scaling the Best Models**

Current efforts to scale demand-driven training programs in states around the country, and federal support of those efforts, have been at least partly driven by the strong impacts that were found in the rigorous evaluations of sector programs cited above. But the three or four programs in question had each been in the field for years and had developed reputations for high quality. Can these be easily replicated in newer efforts? And can we scale these successful efforts, building job-driven workforce systems rather than isolated training programs?

The problem of replicating and scaling successful but small model programs has vexed social and educational policy efforts for years in many contexts.<sup>16</sup> A particular effort to do so in the context of demand-driven training occurred around efforts to replicate the Center for Employment and Training (CET) in San Jose CA. While not a specifically sectoral program, CET had some other elements common to such efforts – particularly the close relationships between intermediaries who ran the program and employers in the community who often hired the trainees afterwards. The strong program impacts on worker earnings observed in the evaluation of the original program excited the field and led to desires to replicate and scale the approach elsewhere. But subsequent efforts to do so by the Department of Labor were difficult, and ultimately not successful.<sup>17</sup> Indeed, the close relationships between employers and intermediaries in San Jose (mostly within a fairly tight-knit Hispanic community) proved one of the most difficult aspects of CET in San Jose to replicate elsewhere.

Some analysts, like Mark Elliott of the Economic Mobility Corporation, have argued strongly that it takes years to build these successful programs and relationships. Intermediaries must gain experience in what works and what doesn’t, and they must prove to employers that they are trustworthy; in other words, the program and relationships need time to mature, and this process

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<sup>15</sup> For evidence on within-occupations skill upgrading see Autor and Handel (2009).

<sup>16</sup> For instance, very large impacts of pre-school in programs like Perry and Abecedarian from the 1960s and 1970s have been difficult to replicate in larger programs at the state level. See Cascio and Schanzenbach (2014).

<sup>17</sup> See Melendez (1996) for evidence of large impacts in the San Jose cite but Miller et al. (2005) for disappointing impacts in the replication study conducted by the Department of Labor.

should not necessarily be rushed in efforts to scale these programs, or to rigorously evaluate them (Elliott and Roder, 2015).

Even where successful programs are replicated at the firm level, we often find dozens or even hundreds of partnerships at the state level (National Governors Association), but the scale of each in terms of numbers of students trained and hired can be very small. Still, a few recent efforts to achieve scale in building demand-driven programs seem to be bearing fruit in this regard and are noteworthy. The National Fund described above has built sectoral training programs in over thirty localities and regions around the country, and it has learned many lessons in the process that are likely benefitting their newer efforts (Dedrick, 2014). Other efforts to scale sector programs at the local or state level have similarly borne fruit.<sup>18</sup> It might still take years to build the partnerships and successful efforts, but we are no longer doing so in a knowledge vacuum.

Another prominent effort to watch is the Health Professions Opportunity Grants (HPOG), run by the US Department of Health and Human Services (HHS). Beginning as part of the federal American Recovery and Reconstruction Act (ARRA) in 2009-10, over 30 sites were given HPOG grants to build health care training programs in the one sector where rising demand over time is virtually a certainty, due to the ongoing process of Baby Boomer retirements. HPOG is an effort to build a systemic approach across many localities and states that can perhaps be replicated in other industries, if it proves successful.<sup>19</sup>

While these efforts are encouraging, there are some other structural problems that might limit successful scaling – and these reside in the community college system. These 2-year colleges remain the primary training providers in sectoral efforts around the country. In many ways, this makes sense – as noted above, the role of community colleges in workforce development has steadily grown for decades, as higher education plays a more and more important role in the US labor market. Many low-income students earn certificates or associate degrees in order to increase their earnings with jobs in health care, IT, manufacturing and other parts of the service sector; and the experience that the colleges have gained in providing this service remains very important as we seek to scale up their involvement in sector-specific strategies.

At the same time, some major problems remain. The over 1200 community colleges around the country vary a great deal in their abilities to carry out the workforce functions we now expect from them. Traditionally, their primary missions have been more academic than workforce-related – and that continues to be the case for most. Preparing workers for academic transfer to four-year colleges remains what most focus on – even if the percentages who actually transfer, and who ultimately complete a BA, remain quite low.

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<sup>18</sup> See Leung (2014) for a description of SkillWorks in Boston as an example of a sectoral approach that achieved some scale at the municipal level.

<sup>19</sup> For a description of HPOG see the Administration for Children and Families (2015).

For students who expect a certificate or an associate's degree as their final product, and who want to enter the workforce quickly thereafter and earn a strong return, the overall statistics are grim, as we noted earlier. But, in addition to the problems associated with low academic preparation for many students, the institutions themselves generate difficulties. Very little academic or career counseling of any kind is provided in many places, and too little structure exists for many students to be correctly guided along to their careers (Bailey et al., 2015). This might be less true of new sectoral workforce programs developed with industry input than it is more generally at these colleges, but it remains a broad concern.

Furthermore, the colleges face other disincentives in trying to scale up sector-specific efforts. Most of their (often tenured) faculty are trained to teach liberal arts, not health care or IT; the latter instructors need to be hired as adjunct faculty from the private sector. The costs of providing such instruction are often higher per student in technical classes than in the liberal arts – due to high costs of equipment and labs (as well as the salaries needed to be paid to nursing or engineering teachers).

But colleges get the same tuition payments and the same subsidies from the state, regardless of the classes students take, and regardless of whether they complete the coursework and obtain a well-paying job afterwards. As a result, the incentives and limited resources facing the colleges limit their ability or willingness to expand the very courses that offer the greatest labor market rewards. This is particularly true in an era of very tight budgets, and given the multitude of roles we expect community colleges to play.

Engaging employers at scale can also be very challenging. American employers are extremely heterogeneous in terms of exactly what and how they produce, their human resource (HR) activities, their size and locations, and overall attitudes. Small- and medium-sized employers frequently know very little about workforce development outside their current approaches; and the fixed costs of engaging them in partnerships can be very high. Efforts to engage them in partnerships are necessarily very “retail” in nature. Among larger employers there is more knowledge among their HR staffs but less so among top executives who often have other priorities.

Many employers are also quite skeptical about participating directly in publicly-funded activities of any kind. Though this is somewhat less true today than in earlier periods, policy activities at the state and federal levels remain fairly “siloed” within their respective agencies, as are funding sources. For instance, federal workforce development funding is available through WIOA, the Perkins Act (for CTE), the Higher Education Act, Temporary Assistance to Needy Families (TANF) and even Supplemental Nutrition Assistance Programs (SNAP, or Food Stamps). State and local authorities have often learned to “braid” the many sources, and common performance rules and measures (especially under WIOA) are helping. “Alignment” across agencies is growing. But many funding sources are also temporary – especially competitive grants – and a

lack of permanent sources makes it harder for partnerships to become sustainable over time, as well as scalable.

As long as the structural problems remain, and incentives to expand expensive workforce instruction remain limited, scaling up successful efforts will remain problematic, in my view.

#### **D. Uncertain Future Demand**

How do we know when demands for certain skills are sufficiently strong, relative to their supply, that it makes sense to build sectoral training programs and career pathways in those areas? And how do we build demand-driven training systems in a dynamic labor market when future demand itself is so uncertain?

The answer to the first question has been made somewhat easier by the enormous growth in the availability of and access to employment data in the past several years (Zinn and Van Klunen, 2014; Reamers, 2015). Inferences about the levels of and trends in employment demand in any particular state can be made from a variety of sources.

The best of these are often the administrative education and earnings data in the state longitudinal data systems (SLDS) which the Obama administration has urged them to make public and to analyze themselves. The educational data contain records on each individual student who has participated in public education in the state, including at all public postsecondary institutions. These data are frequently linked to those on individual quarterly earnings from the Unemployment Insurance system, which can be broken down by industry. As a result, state analysts can identify trends in employment in higher- v. lower-earning sectors, and the educational preparation needed to attain it. Variance in these trends across regions within a state can be analyzed. Though the data have some limitations – such as the absence of workers who have moved out of state for education and/or work – the benefits of the data are still enormous.<sup>20</sup>

In addition, real-time data on job vacancies are now becoming more available and more complete from sources that scrape the internet for such information, both public and private.<sup>21</sup> Though these are shorter-term in nature, they give us a sense over time of the set of jobs which employers have had some greater difficulty filling. Finally, these data can be merged with O\*NET data on occupational tasks from the Department of Labor to give researchers and state

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<sup>20</sup> The National Student Clearinghouse data can track students who went to college out of state and often enable researchers using state-specific administrative data to get some handle on the problem of student outmigration for higher education. But these data do not cover subsequent earnings. The Longitudinal Employer Household Dynamics (LEHD) program at the US Census Bureau can track worker movements across states but access to the microdata are very restricted.

<sup>21</sup> Private data on real-time job vacancies based on internet coverage are held by the National Association of State Workforce Agencies (NASWA) and Burning Glass.



analysts some sense of the tasks that need to be performed on the jobs in high demand, which in turn give us some sense of the skills that need to be provided in these sectors.

While encouraging, the data also have their limitations. It is far more difficult to identify “labor shortages,” even in the short run, than one might think (Barnow et al., 2013). The existence of vacancies alone does not do so, as some vacant jobs always exist (along with unemployed workers). A rise in the job vacancy rate, relative to unemployed workers, also does not prove that a shortage or “mismatch” between workers and jobs exists, as the recent debate about rising aggregate job vacancy rates suggests.<sup>22</sup>

On the other hand, combining data on employment trends over time and current vacancies with evidence on the flow of trained workers in an occupation or industry, coupled with conversations with employers in any industry, can likely give us a good sense of the tightness of a labor market today and for the next few years. This can also help state and local determine whether and what kind of a flow of trained workers might be sufficient to meet a given level of demand without creating a glut of these workers.

But it takes years to set up a partnership between employers, training providers and intermediaries, and even more years to establish the pathways needed for training and to work out glitches in that process. By time all of this is accomplished, the industry (and particular occupations) might no longer be high in demand (especially relative to the supply of skilled workers now being generated). New technologies and their applications often change the product and labor market environments in which companies operate; they need to be nimble in response to these changes. Yet the partnerships set up so painstakingly over time usually lack this characteristic.

Of course, demand fluctuations are an economic fact of life in modern capitalist economies, as so many Americans painfully learned in the Great Recession. In the weak labor markets that accompanied our recovery from the recession, there were often fears that jobs would not be available to those who had taken time and resources to train for new work (Watson, 2014). As the labor market continues to recover and to tighten up, these particular fears should be less worrisome to workers who seek training.

But how can we deal with the possibility (or likelihood) that high-demand sectors and occupations today may not be so tomorrow (or in a few years)? Structural changes in product and labor markets will continue to occur, and may even pick up speed. Some computer scientists, such as Eric Brynjolffson and Andrew McAfee of MIT, argue that the pace of such structural change in the labor market will quicken over time, as new applications of “artificial intelligence” and other digital capabilities will grow. For instance, driverless cars and trucks might mean much

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<sup>22</sup> Analysis of movements in the job vacancy rate over time, relative to the unemployment rate, suggest some possible increase in the “natural rate” of unemployment (Daly et al., 2012), but further analysis suggests that vacancy durations have gotten longer as employer pressure to fill them has declined (Davis et al., 2013).

less demand for transportation workers; or digital implants might generate much more data on individual health that might reduce the demand for health care workers who currently help generate such data and diagnose illnesses.

Labor economists are often skeptical of fears that technological change will render huge numbers of workers unemployed, and note that the employment fears of Luddites and others regarding automation has existed for decades or even centuries, as have almost always been proven wrong (Autor, 2015).<sup>23</sup> Economies and labor markets adjust to these dislocations. For instance, the new technologies make production cheaper, so lower prices result in higher real income among consumers that generates more demand for products and labor either in the industry or outside it. Many kinds of employment are complementary with the new technologies – and not just those requiring technical skills. For instance, those who can master web design skills can prosper in the new environment, as do many in the arts communities facing new demand from newly prosperous citizens.

Yet the fears remain, and some might be reasonable. The pace and scope of technological changes might simply be larger and faster than anything in the past, perhaps overwhelming the traditional adjustment mechanisms. And the adjustments themselves might leave more “middle-skill” workers facing reduced demand. In recent years, employers have begun demanding BAs or higher for many jobs that historically have required “middle-skill” credentials like certificates and AAs – often without the corresponding increases in earnings that the BAs should attract (Modestino et al., 2015; Hershbein and Kahn, 2015). Whether this is primarily a temporary result of the Great Recession, or something more structural (and thus more permanent) remains unclear at the moment.

One additional source of uncertainty exists with regards to future demand. We often think of labor demand as being something determined “exogenously,” by technological and market forces that occur separately from decisions taken by policymakers and practitioners. Indeed, this assumption is very strongly implicit in future employment projections by occupation or industry, whether these are generated by the Bureau of Labor Statistics or private sources (like the Georgetown Center on Education and the Workforce).<sup>24</sup>

But, over the long term, labor demand decisions by employers are likely very endogenous to our workforce system and its (in)ability to meet their skill needs. In many European countries, where high school graduates often have strong technical skills which are further honed by apprenticeships, employers can create middle-skilled and middle-wage jobs and have them filled by such high school graduates and apprentices; in the U.S., where high-quality CTE has never been widely available and most high school graduates have little in the way of analytical or

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<sup>23</sup> While most economists do not expect a large increase in unemployment over time associated with rapid technological change, there is now a broad consensus that digital technologies have contributed to higher inequality through “skill-biased technical change” (e.g., Goldin and Katz, 2008; Autor, 2015).

<sup>24</sup> See Carnevale et al. (2013).

communication skills that employers value – much less specific occupational skills – employers create fewer of these jobs.<sup>25</sup> As another example, when German manufacturers began relocating their advanced manufacturing facilities to the US – often drawn by lower energy costs and less regulation – they are frequently shocked at the very weak nature of our occupational training systems, and will hesitate to build plants here until they generate a reliable flow of trained technicians and engineers.<sup>26</sup>

If the quantity and quality of US jobs at the sub-BA level depends on the quality and flow of skilled workers to employers, then it is possible that generating such supply will lead to more demand. Public policies that help or incentivize firms to improve job quality might be rendered more effective by strong sectoral skills-building systems. Indeed, there have been sectoral training effort whose explicit goal has also been to upgrade job quality and skill needs on the demand side of the labor market.<sup>27</sup>

But, overall, sufficient uncertainty may exist on the future directions of skill demands in any particular sector to undermine our confidence in the ability of greater supplies of skills to generate them.

### **III. Addressing the Challenges of Building Demand-Driven Training Systems**

Given the widespread interest in developing more and better demand-drive training systems for workers, and also given the strong impacts of such programs in evaluation evidence, it is inevitable that we should, and will, continue to do so in the U.S. How, then, can we respond to the challenges listed in the previous section, when doing so?

For each of these challenges, the specific policies and programs needed to address them have been discussed above. Regarding the access of very unskilled workers to sectoral training at community colleges, we need reforms in “developmental education” (Long, 2014) and also in accreditation processes, to make sure that less-demanding certificate programs with labor market value are accessible to Pell grant recipients. Effective “bridge” programs for students can also help them prepare before they arrive on campus, thus mitigating the need for developmental education.

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<sup>25</sup> In the framework of labor economists, improving the supply of skills in high-demand sectors would reduce the cost to employers of generating them, which in turn could raise employer demand and job creation. In other words, such outward supply shifts would move employers along their demand functions.

<sup>26</sup> See Nelson Schwartz’ article (2013) on how German manufacturers in the US have adapted their apprenticeship models to generate more skilled workers here. The well-known example of the gas turbine engine plant built by Siemens in North Carolina – and their decision to build it only after making arrangements with local community and four-year colleges for a steady stream of technicians and engineers - highlights the extent to which labor demand decisions can depend on the supply of skills.

<sup>27</sup> ECCLI and PHI (both described above) are examples of sectoral programs in health care which explicitly worked to improve job quality decisions by employers. The Restaurant Opportunities Center (ROC) has tried to improve job quality and worker skills in the restaurant industry (Jayaraman, 2014).

Improving academic preparation and its links to the job market in the K-12 years are also very important in this regard. Providing more high-quality CTE is critical. The best of these options do not “track” students away from higher education; instead, they provide a range of “pathways” to college and/or careers for all students (Symonds et al., 2011). Indeed, perhaps some career exploration should be universal, and should start earlier – to inform students about the usefulness of various kinds of skill development and better motivate them in the process. Making CTE universal would reduce the stigma currently associated with CTE. Contextualized instruction through work-based or project-based learning might also make skill acquisition more effective for students who have not performed as well academically in the traditional classroom setting.

To better prepare workforce trainees for long-term and general labor market skill needs we should expand apprenticeships and other forms of work-based learning, while also making sure that they provide a broad mix of general and sector-specific skills. Encouraging them to be combined with certificate and AA or AS programs in community colleges would help. Making better sense of and rationalizing the many forms of postsecondary credentials in the US, from private industry as well as the full range of educational institutions, would also be helpful, so both employers and workers would better understand the supply of and demand for credentials and which skills they signal to each other. And creating more and better opportunities for individuals to obtain “lifelong learning” when their specific skills become obsolete or need upgrading could be extremely important in a dynamic labor market with lots of technological change and restructuring.

Replicating and scaling the best job-driven models requires that we encourage reforms in community colleges, perhaps along the lines suggested by Tom Bailey and his colleagues that would encourage more structured and “guided” pathways to credentials and the labor market. But more likely needs to be done to encourage this process, and to make sure colleges build sufficient instructional capacity in the pathways they create in high-demand fields.

This likely requires a combination of carefully targeted resources to community colleges – to be spent only on expanding high-demand instruction and supports for disadvantaged students (like better career and academic counseling) while strengthening the incentives and accountability that these colleges face to improve both academic and employment outcomes of students (Holzer, 2014).<sup>28</sup> Specifically, more states should engage in performance-based funding for higher education, with both academic and subsequent employment outcomes defining such performance.

Care must be taken to structure the incentives in ways that do not simply award the colleges for “cream-skimming” the best applicants while avoiding disadvantaged ones. While for-profit colleges already face market incentives to respond, they need further regulation to improve the

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<sup>28</sup> For instance, career counseling at community colleges could likely be improved by colocating more American Jobs Center (One Stop) sites on their campuses.

outcomes they provide to students in return for the high tuition levels they charge and the debts student incur in the process (Cellini and Chaudhury, 2014).

And governments at the federal, state and local levels should do more to engage employers in training partnerships, and perhaps to more frequently take the “high road” to competition by investing more in upgrading their workers’ skills (Holzer, 2015b). A range of methods, using both financial incentives (like grants and tax credits as well as preferences in receiving government procurement contracts) and technical assistance might help them do so. South Carolina, among other states, provides tax credits to employers for every apprenticeship created, and they market the apprenticeships to employers quite effectively. In a few short years they have convinced 700 employers to create apprenticeships (Lerman, 2014).

Some states have been exploring how to achieve scale in their partnerships, by encouraging participation in various consortia or networks of employers through various incentives. This moves them towards systemic efforts rather than individualized programs. For instance, Minnesota now allocates its Perkins funds only to such consortia of schools and employers. Kentucky’s Federation for Advanced Manufacturing Education (FAME) is a systemic model for advanced manufacturing training that might be replicable for other industries. But, given how little we know about what works or doesn’t work cost-effectively in this area, a great deal of experimentation and evaluation needs to be done to learn that.

Broadly speaking, all of the specific ideas above could be categorized into the following broader recommendations for moving forward:

- A wide range of public efforts should be made to incentivize and assist community colleges and employers – on both the supply and demand sides of the market – to create both better-paying jobs and the workers with the skills to fill them;
- Efforts to scale these approaches and make them systemic, by encouraging participation in a range of partnerships and consortia, remain high priorities;
- We should experiment with and rigorously evaluate a range of such efforts at the state and local levels, while continuously providing feedback to both on “best practices” based on these evaluations;
- All such efforts should work to create a mix of general and specific skills and credentials that the labor market rewards over the short-term and long-term;
- Workforce preparation efforts should begin earlier, with high-quality and universal career and technical education in middle schools and high schools, while also providing much better opportunities for adults to update their skills later in their lives through “lifelong learning” options; and
- Innovative efforts of states to forecast the demand for and supply of skills in fast-changing economic environments, and to adjust their partnerships accordingly, should be encouraged and evaluated as well.

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U.S. DEPARTMENT OF LABOR  
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SOME IMPLICATIONS OF THE CHANGING STRUCTURE OF WORK FOR WORKER  
RETIREMENT SECURITY, PENSIONS AND HEALTHCARE

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## 1. INTRODUCTION

In 2014, Dr. David Weil published an important book in which he discusses the “fissured workplace” and its consequences for workers:

The fissured workplace reflects competitive responses to the realities of modern capital and product markets. The boundaries of firms have been redrawn as a result of new technology and the falling costs of information. As detailed in Part II, the consequences of the fissured workplace are profound. Wage determination changes dramatically, often to the detriment of workers whose work has been shifted outward. Blurring lines of responsibility increase the risks for bad health and safety outcomes. And the pressure to cut corners and not comply with basic labor standards intensifies.<sup>1</sup>

Anne-Marie Slaughter, among others, has written of the problems women face in the “toxic workplace”:

The problem is even more acute for the 42 million women in America on the brink of poverty. Not showing up for work because a child has an ear infection, schools close for a snow day, or an elderly parent must go to the doctor puts their jobs at risk, and losing their jobs means that they can no longer care properly for their children -- some 28 million -- and other relatives who depend on them. They are often suffering not only from too little flexibility but also too much, as many low-wage service jobs no longer have a guaranteed number of hours a week.

THE problem is with the workplace, or more precisely, with a workplace designed for the “Mad Men” era, for “Leave It to Beaver” families in which one partner does all the work of earning an income and the other partner does all the work of turning that income into care - the care that is indispensable for our children, our sick and disabled, our elderly. Our families and our responsibilities don’t look like that anymore, but our workplaces do not fit the realities of our lives.<sup>2</sup>

Add to this the continuing effects of the recession (unemployment, underemployment, stagnating wages, uncertain work schedules) and the picture for many, if not most, working families is not encouraging.

Qualified employer retirement plans have been regulated under the Internal Revenue Code (the “Code”) since the 1920s. The Social Security Act and the National Labor Relations Act were enacted in 1935. The Fair Labor Standards Act was enacted in 1938. Medicare and Medicaid were enacted in 1965. The Employee Retirement Income Security Act (“ERISA”), which regulates employee benefit plans (including both retirement plans and health and welfare plans), was enacted in 1974. These statutes were enacted at times when, by comparison to today, the

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<sup>1</sup> David Weil *The Fissured Workplace: Why Work Became So Bad for So Many and What Can be Done to Improve It* (hereafter, “Weil”), Harvard Univ. Press, 2014, at 180.

<sup>2</sup> Anne-Marie Slaughter, *A Toxic Work World*, New York Times, Sept. 20, 2015, at SR 1.

labor market was vastly different, employers were less fixated on quarterly earnings, income inequality was less pronounced and life expectancies were generally shorter.

In contrast, the Affordable Care Act<sup>3</sup> is only 5 years old: though it has already significantly increased access to health care, eliminated many questionable insurance practices and reduced the number of uninsured Americans, it has been subjected to incessant attacks and threats of repeal. If one looked only at statements made by our elected representatives, one could conclude that Americans do not want retirement security or access to good health care (at least, not for other people). I believe that this is incorrect, but people must make their voices heard to convince employers and politicians that these are vital issues for the survival of America as a great, prosperous and compassionate society.

## 2. SOCIAL SECURITY

Social Security continues to be the largest single source of income for elderly Americans. In 2012, Americans aged 65 or older received 38% of their income from Social Security, with another 18.4% coming from pensions and annuities.<sup>4</sup>

According to the Social Security Administration:

“Social Security is the major source of income for most of the elderly.

Nine out of ten individuals age 65 and older receive Social Security benefits.

Social Security benefits represent about 39% of the income of the elderly.

Among elderly Social Security beneficiaries, 53% of married couples and 74% of unmarried persons receive 50% or more of their income from Social Security.

Among elderly Social Security beneficiaries, 22% of married couples and about 47% of unmarried persons rely on Social Security for 90% or more of their income.”<sup>5</sup>

The following shows estimated Social Security benefits for workers reaching retirement age (age 66) in 2015 at different earnings levels and illustrates the downward gradation in Social Security replacement levels, that occurs as earnings levels increase. Low earnings 44.5%; medium earnings 32.9%; high earnings 27.3%. These replacement ratios will decline over the next 20 to 30 years. Reasons for this decline include the legislated increase in the “full-benefit age” for

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<sup>3</sup> The Affordable Care Act (or ACA) is a shorthand name for two separate statutes, the Patient Protection and Affordable Care Act, P.L. 111-148, signed on March 23, 2010, and the Health Care and Education Reconciliation Act, P.L. 111-152, signed on March 30, 2010.

<sup>4</sup> Employee Benefit Research Institute, Databook on Employee Benefits, chapter 3, chart 3.1b, updated July 2014. For 1974, the corresponding percentages were 42% and 14%. Id., chart 3.1a. See also Social Security Administration, Income of the Population 55 or Older, 2012, available at [www.ssa.gov](http://www.ssa.gov).

<sup>5</sup> Social Security Basic Facts, October 13, 2015, <https://www.socialsecurity.gov/news/press/basicfact.html>. See also Ke Bin Wu, Sources of Income for Older Americans, 2012, AARP Public Policy Institute, [www.aarp.org](http://www.aarp.org), finding that “Social Security accounts for about four out of every five dollars of income for older people with low to moderate incomes” and that “In 2012, Social Security benefits kept about 15 million people aged 65 and older out of poverty. Without Social Security income, the poverty rate for this group would rise from 9.1 percent to 44.4 percent.”

receiving Social Security benefits, increased income taxation of Social Security benefits, and rising Medicare premiums that are deducted directly from Social Security benefits.<sup>6</sup>

It is clear that the financing of Social Security needs to be recalibrated, but the situation is nowhere near as dire as the alarmists suggest. And one solution advocated by many, including several Presidential candidates, raising the retirement age across the board, would affect lower income retirees drastically:

Advocates of the idea usually argue the reform makes sense because life spans are rising. If we leave the Social Security retirement age unchanged, the increase in life expectancy means payments from the program must cover more years, even though the number of years we expect workers to remain employed will remain unchanged. This argument would be more convincing if increases in life expectancy were spread evenly across the workforce. They are not. Workers who earn low wages throughout their careers have seen little or no improvement in life expectancy. It seems unfair to ask low-earners to take a benefit cut to pay for the added benefits high-earners enjoy because of longer life spans....Researchers in the Social Security Administration and elsewhere have found that men near the bottom of the earnings distribution and women with below-average schooling and in families with low incomes have seen little or none of the improvement in life expectancy that higher income groups have enjoyed.

Low income workers always had shorter life expectancies than workers with higher incomes. New research shows that the gaps in life expectancy are growing.... These new estimates [from the National Academy of Sciences] indicate that life expectancies are typically higher for men and women with higher incomes, but that remaining life expectancy at age 50 has remained almost unchanged or fallen at the bottom of the distribution, whereas it has increased substantially at the top.<sup>7</sup>

In fact, there is a strong argument that Social Security should be expanded: it is the most efficient part of the overall retirement system, it protects beneficiaries against inflation, investment risk, longevity risk and cognitive risk, and by redistributing (to some extent) resources to lower-earning beneficiaries it can fill some of the gaps in the private retirement system.<sup>8</sup>

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<sup>6</sup> Social Security Administration, Office of the Chief Actuary, Actuarial Note Number 2014.9, July 2014, <http://www.socialsecurity.gov/OACT/NOTES/ran9/an2014-9.pdf>.

<sup>7</sup> Gary Burtless, Raising everyone's retirement age undercuts a key goal of Social Security, Oct. 22, 2015, <http://www.brookings.edu/research/opinions/2015/10/22-raising-everyones-retirement-age-undercuts-key-goal-of-social-security-burtless>. See also Esmé E Deprez, Margarte Newkirk, Republican Plans to Raise Retirement Age Fall Heavily on Poor: "In wealthy Fairfax County, just outside Washington, the average woman can expect to celebrate her 84th birthday, and men their 81st. Travel 130 miles (210 kilometers) south to Petersburg, a poor, majority-black city near Richmond, and those figures plummet by 11 years for women and 14 for men. In 2010, a 50-year-old man in the poorest quintile could expect to die 13 years earlier than his counterpart in the richest, according to a report last month by the National Academies of Sciences, Engineering and Medicine. In 1980, the difference was just five years. Life expectancy for the least educated white people (education is often used as a proxy for income) has actually fallen since 1990, according to a 2012 study by the journal Health Affairs."

<sup>8</sup> See, e.g., Monique Morrissey, The State of U.S. Retirement Security: Can the Middle Class Afford to Retire?, March 12, 2014, testifying before the U.S. Senate Committee on Banking, Housing and Urban Affairs Subcommittee on Economic Policy,

Why is Social Security the subject of such virulent attacks? According to Paul Krugman, “The decline of private pensions has left working Americans more reliant on Social Security than ever.... By a very wide margin, ordinary Americans want to see Social Security expanded. But by an even wider margin, Americans in the top 1 percent want to see it cut.”<sup>9</sup>

### 3. PRIVATE SECTOR RETIREMENT PLANS<sup>10</sup>

#### 3.1 The Decline of Defined Benefit Plans

In 1974, when ERISA was enacted, the defined benefit plan still dominated the landscape. Since then, the number of defined benefit plans, and the number of participants accruing benefits under defined benefit plans, have declined sharply. According to the Employee Benefit Research Institute (EBRI), in 1974-1975 43.7% of private nonfarm wage and salary workers were participating in a defined benefit plan and there were 103,346 defined benefit plans: by 2003-2004, these numbers had declined to 16.8% and 26,000, respectively.<sup>11</sup>

In 1974, it would have seemed inconceivable that iconic companies like IBM and General Electric would cease providing defined benefit plans to new employees. However, they have done so, along with other household names, including Boeing, Honda, Chrysler, General Motors, Bank of America, Disney and Anheuser Busch.<sup>12</sup>

As of January, 2013, the number of single employer defined benefit plans covered by the Pension Benefit Guaranty Corporation (“PBGC”) insurance program fell to 22,697, an all-time low. In 1985, PBGC insured more than 112,000 single employer plans. “Only 11 Fortune 100 companies offered traditional defined benefit plans to new employees as of June 30, down from

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<http://www.epi.org/publication/morrissey-senate-panel-retirement-security/>, and stating that “Our first priority should be expanding Social Security benefits as proposed by Sen. Tom Harkin, Rep. Linda Sánchez, and others. Such measures could replace some of the benefits cut in 1983 and restore the progressivity of lifetime benefits as life expectancy grows more unequal. The Harkin-Sánchez bill would also better protect seniors and other beneficiaries from the rising cost of health care and other increases in the cost of living that erode the value of their benefits.”

<sup>9</sup> Paul Krugman, *Republicans Against Retirement*, New York Times, August 17, 2015, A 19.

<sup>10</sup> This paper does not discuss public sector retirement plans or multiemployer, collectively bargained plans as, in each case, the issues are complex and an adequate discussion would take more time and space than I have available. Suffice it to say that the funding issues surrounding public sector plans, though significant, have generally been overstated. The funding problems in involving multiemployer plans have proved intractable and there is little cause for optimism that this will improve significantly in the near future.

<sup>11</sup> EBRI, *Benefit Statistics, 1974-1978-2003*, [www.ebri.org](http://www.ebri.org). Similar declines have occurred in the U.K. and other countries. “The decline in defined benefit plans has varied considerably across countries, Defined benefit plans have declined to a greater extent in the United Kingdom and the United States than in Canada and Ireland.” John A. Turner and Gerard Hughes, *Large Declines in Defined Benefit Plans Are Not Inevitable: The Experience of Canada, Ireland, the United Kingdom, and the United States*, April, 2008, Pensions Institute Discussion Paper PI-0821, [www.pensions-institute.org/](http://www.pensions-institute.org/).

<sup>12</sup> See the list of companies on the Pension Rights Center website, [www.prc.org](http://www.prc.org).



19 in 2009.” 19 more companies offered hybrid plans, down from 35 in 2004.<sup>13</sup> In 1998, 90 percent of Fortune 100 companies offered defined benefit plans to new salaried employees.<sup>14</sup>

The percentage of workers covered by a traditional defined benefit (DB) pension plan that pays a lifetime annuity, often based on years of service and final salary, has been steadily declining over the past 25 years. From 1980 through 2008, the proportion of private wage and salary workers participating in DB pension plans fell from 38 percent to 20 percent. In contrast, the percentage of workers covered by a defined contribution (DC) pension plan—that is, an investment account established and often subsidized by employers, but owned and controlled by employees—has been increasing over time. From 1980 through 2008, the proportion of private wage and salary workers participating in only DC pension plans increased from 8 percent to 31 percent. More recently, many employers have frozen their DB plans.<sup>15</sup>

In 2011, defined benefit plans covered 67 percent of union employees but only 13 percent of nonunion workers, and covered 22 percent of full-time workers but only 8 percent of part-timers.<sup>16</sup>

Commentators have advanced many reasons for the decline of defined benefit plans. One major reason, for both large and small employers, has been the volatility and unpredictability of the required minimum contributions. Around 2000, the combination of historically low interest rates and stock market volatility caused a “perfect storm”.

Recent legislative and regulatory developments have not encouraged employers to look more kindly on defined benefit plans. The Pension Protection Act of 2006 tightened the funding requirements significantly. More recently, the budget agreement, HR 1314, signed by the President on November 2, 2015, includes the third PBGC premium hike for single employer plans since 2012. The flat rate premium increases from \$64 in 2016 to \$80 after 2018. The variable rate premium is \$30 per \$1,000 of unfunded vested benefits in 2016 and increases to \$41 in 2019.

In response to concerns that information regarding pension obligations and assets should be more useful and transparent for investors, the Financial Accounting Standards Board (FASB) changed the balance sheet rules. Under Statement of Financial Accounting Standards (SFAS) 158, “Employers’ Accounting for Defined Benefit Pension and Other Postretirement Plans,” adopted

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<sup>13</sup> Jerry Geisel, Number of defined benefit plans hit all-time low, *Business Insurance*, Feb. 28, 2013.

<sup>14</sup> Jerry Geisel, Fewer Employers Offering Defined Benefit Pension Plans to New Salaried Employees, *Workplace*, October 3, 2012.

<sup>15</sup> Barbara A. Butrica, Howard M. Iams, Karen E. Smith, and Eric J. Toder, The Disappearing Defined Benefit Pension and Its Potential Impact on the Retirement Incomes of Baby Boomers, *Social Security Bulletin*, Vol. 69, No. 3, 2009 at 1. See also William J. Wiatrowski, The last private industry pension plans: a visual essay, *Monthly Labor Review*, December 2012, pp. 3-18, stating that “In 2011, only 10 percent of all private sector establishments provided defined benefit plans, covering 18 percent of private industry employees.... 78 percent of state and local government workers had such coverage in 2011.” and noting that 35 percent of private industry workers had such coverage in the early 1990s. “Among establishments with fewer than 50 workers, 8 percent offered a defined benefit plan. In contrast, among establishments with 500 or more workers, 48 percent offered a plan.” *Id.*

<sup>16</sup> Wiatrowski, note 15 above, at 7.

in 2006, plan sponsors must now recognize plan assets and obligations in their balance sheets. SFAS 158 made no change in the way net pension expense is included in the plan sponsor's income statement, but FASB is reviewing those rules as well.<sup>17</sup> SFAS 158 makes balance sheets much more volatile.

### 3.2 Retirement Inequality

David Weil points out that

In the period from 1993 to 2010, real income grew by 13.8%. For the bottom 99% of the income distribution, the real growth rate was 6.4%, while for the top 1% the real growth rate was 58%.... Between 1979 and 2009, productivity rose by 80%. Over the same period, however, average hourly wages increased by only 7%, and average hourly compensation (wages plus benefits) increased by 8%.<sup>18</sup>

The average male worker's real earnings have declined: "The typical man with a full-time job—the one at the statistical middle of the middle—earned \$50,383 last year, the Census Bureau reported this week. The typical man with a full-time job in 1973 earned \$53,294, measured in 2014 dollars to adjust for inflation."<sup>19</sup> According to one recent report, "Out of a total of 160.1 million full-time and part-time American workers with earnings, 115.2 million workers (72%) make less than the U.S. mean (average) income of \$54,964."<sup>20</sup>

According to Harvard economist Larry Katz, "Economists differ over how much of this [wage inequality] is the result of globalization, technological change, changing social mores, and government policies, but there is no longer much dispute about the fact that inequality is increasing."<sup>21</sup>

Wage stagnation, unemployment, underemployment and unstable work patterns result in lower Social Security benefits and make it more difficult for individuals to save for long-term needs, such as retirement, when they are having difficulty paying their bills.<sup>22</sup> Defined benefit plans are not inherently superior to defined contribution plans. However, they do have some characteristics that provide important safeguards to plan participants, particularly those who have lower incomes and/or are financially unsophisticated. In the private sector, defined benefit plans are almost always funded entirely by the employer and participation is automatic. Defined benefit

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<sup>17</sup> See Denise Lugo, FASB Approves Proposal on Presentation of Net Benefit Cost, BNA Pension and Benefits Reporter, Nov. 2, 2015, 42 BPR 1952.

<sup>18</sup> Weil, note 1 above. at 281.

<sup>19</sup> David Wessel, The typical male U.S. worker earned less in 2014 than in 1973, <http://www.brookings.edu/research/opinions/2015/09/17-male-us-worker-earned-less-in-2014-than-in-1973-wessel>.

<sup>20</sup> Chuck Vollmer, Jobonomics U.S. Unemployment Analysis, Q3 2015, Nov. 10, 2015, [www.jobonomics.com](http://www.jobonomics.com).

<sup>21</sup> Wessel, note 19, citing Larry Katz.

<sup>22</sup> "Lower income employees cannot be expected to provide for the future when current income is barely adequate for a minimum standard of living." Daniel I. Halperin, Special Tax Treatment for Employer-Based Retirement Programs: Is It 'Still' Viable as a Means of Increasing Retirement Income? Should It Continue?, 49 Tax L. Rev. 1 (1993), at 14.

plans also protect individuals against investment risk, longevity risk, and cognitive risk (the risk that your assets will last longer than your wits).

Numerous studies establish that most individuals are not saving enough for retirement, including those aged 55 to 64:

Retirement savings are unequally distributed across and within income fifths. Among middle-income households, for example, only half (52 percent) had savings in these accounts in 2010. The average among all households was \$34,981, which means those with positive savings averaged around \$67,000 (\$34,981/52 percent). The median (50th percentile) balance in these accounts was much lower (\$23,000) than the mean, reflecting an unequal distribution of retirement savings even for middle-income households with positive balances. In 2010, households in the top income-fifth accounted for 72 percent of total savings in retirement accounts. Disparities in retirement savings, part of a larger problem of rising wealth inequality, are only partly explained by income inequality.

The trends exhibited in these figures paint a picture of increasingly inadequate savings and retirement income for successive cohorts and growing disparities by income, race, ethnicity, education, and marital status. Even women, who by some measures appear to be narrowing gaps with men (in large part because men are faring worse than they did before) are ill-served by an inefficient retirement system that shifts risk onto workers, including the risk of outliving one's retirement savings. The existence of retirement system (sic) that does not work for most workers underscores the importance of preserving and strengthening Social Security, defending defined-benefit pensions for workers who have them, and seeking solutions for those who do not.<sup>23</sup>

In order for a 401(k) plan to provide adequate retirement savings for an employee, the employee should (1) start to contribute at the earliest possible date; (2) contribute each year, without interruption,<sup>24</sup> at least the amount required to obtain the maximum available match, and increase

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<sup>23</sup> Natalie Sabadish and Monique Morrissey, Retirement Inequality Chartbook: How the 401(k) revolution created a few big winners and many losers, September 6, 2013, [www.epi.org/publication/retirement-inequality-chartbook/](http://www.epi.org/publication/retirement-inequality-chartbook/). See also the studies published by, among others, the Employee Benefit Research Institute, available at [www.ebri.org](http://www.ebri.org), and the Center for Retirement Research at Boston College, <http://crr.bc.edu/>. The Government Accountability Office found that about half of households age 55 and older have no retirement savings in a 401(k) plan or IRA. About 29 percent have neither retirement savings nor a defined benefit plan. Among the 48 percent of households with some retirement savings, the median amount is approximately \$109,000, equivalent at current rates to an inflation-protected annuity of \$405 per month for a 65-year-old. About 55 percent of households age 55-64 have less than \$25,000 in retirement savings, including 41 percent who have zero. 27 percent of this age group have neither retirement savings nor a DB plan. For the 59 percent of households age 55-64 with some retirement savings, the estimated median amount is about \$104,000. While about 15 percent of these households have retirement savings over \$500,000, 11 percent have retirement savings below \$10,000 and 24 percent have savings of less than \$25,000. GAO, Most Households Approaching Retirement Have Low Savings, GAO-15-419, May 12, 2015. For comments on the report, see Jack VanDerhei, GAO Report on Retirement Savings: Overall Gaps Identified, but the Focus of Retirement Security Reform Should be on the Uncovered Population, June 4, 2015. See also Retirement Savings Shortfalls: Evidence from EBRI's Retirement Security Projection Model, February 2015, EBRI Issue Brief #410, available at [www.ebri.org](http://www.ebri.org), noting "the extreme importance of longevity risk and nursing home and home health care costs in simulating Retirement Savings Shortfalls."

<sup>24</sup> This is difficult for the vast majority of employees who have several jobs during their lifetimes, as each employer's plan will typically require satisfaction of a waiting period.

the rate of contributions as he or she ages; (3) consistently make good investment choices and avoid paying excessive fees;<sup>25</sup> and (4) avoid depleting the account by taking in-service distributions (e.g., for hardship) or failing to keep accumulated savings in an employer plan or IRA. After retirement, the individual must continue to manage the fund astutely for life and be able to respond to changing financial needs (e.g., for health care or long term care) and declines in cognitive ability. Where did we get the idea that this was within the capacity of every American worker?

If we assume, as we must, that 401(k) plans will continue to be the lynchpin of the private pension system in the USA for the foreseeable future, then we must increase the level of plan participation; increase the amounts contributed by employers and employees; ensure that those contributions are invested successfully; reduce the amount of pre-retirement leakage; provide more effective lifetime income options; and do all this at an acceptable cost in terms of tax incentives. In addition, simplification would help to make plans more attractive to employers and reduce the cost of compliance.

A report by the Center for Effective Government and the Institute of Policy Studies found that the 100 largest U.S. CEO retirement packages are worth \$ 4.9 billion, equal to the entire retirement savings of 41% of American families.<sup>26</sup> “In contrast, nearly half of all working age Americans do not have access to a retirement plan at work. The median 401(k) balance was \$18,433 at the end of 2013, enough to generate a \$104 monthly retirement check for life, the report said.”<sup>27</sup>

Corporate executives have strong incentives to increase profits to boost stock prices (and thus the value of stock options) by reducing expenses (including workers’ wages and benefits). “And since more than half of executive compensation is tied to the company’s stock price, every dollar not spent on employee retirement security is money in the CEO’s pocket. YUM Brands former CEO David Novak is sitting on the largest retirement nest egg in the Fortune 500, with \$234 million, while hundreds of thousands of his Taco Bell, Pizza Hut, and KFC employees have no company retirement assets whatsoever.”<sup>28</sup>

Past attempts to restrain executive compensation through the tax law<sup>29</sup> have not been very successful. However, there is no doubt that executives do derive substantial current economic benefits from deferring compensation, and that some attempt should be made to tax this benefit

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<sup>25</sup> See, e.g., The Effects of Conflicted Investment Advice on Retirement Savings, Council of Economic Advisers, Feb. 2015; Christian E. Weller and Teresa Ghilarducci, The Inefficiencies of Existing Retirement Savings Incentives, Center for American Progress, Oct. 29, 2015; Matthew O’Brien, The Crushing Expensive Mistake Killing Your Retirement, The Atlantic, Feb. 15, 2004; John Chalmers and Jonathan Reuter, Is Conflicted Investment Advice Better Than No Advice, Sept. 24, 2015 (concluding that the answer is no).

<sup>26</sup> A Tale of Two Retirements, <http://www.foreffectivegov.org/two-retirements>.

<sup>27</sup> Meaghan Kilroy, 100 largest CEO retirement accounts equal 41% of American families' retirement savings-report, October 28, 2015, <http://www.pionline.com/article/20151028/ONLINE/151029838/100-largest-ceo-retirement-accounts-equal-41-of-american-families-retirement-savings-8212-report>.

<sup>28</sup> Kilroy, note 27 above. The percentage of executive pay represented by performance based compensation, such as stock options, has increased dramatically since the enactment of Code section 162(m), which places a \$1 million annual cap on the deductibility by public companies of compensation of “covered employees” but provides an exception for “performance-based compensation”.

<sup>29</sup> Primarily, Code sections 162(m), 280G and 409A.

currently. The basic argument for imposing special lower limits on employees of governmental and non-profit employers is that those employers do not lose a current tax deduction as the price for providing deferred compensation. Perhaps there should be annual limits on the amount deferred by an employee of any employer, even if the limit for businesses is higher than for governments and non-profits. In any event, the current regime under Code sections 409A, 457 and 457A is unnecessarily complex, and cries out for simplification.

### 3.3 Retirement Plan Coverage and Participation

The Bureau of Labor standards (“BLS”) found that “Retirement benefits were available to 66 percent of private industry workers in the United States in March 2015.... Employer-provided retirement benefits were available to 31 percent of private industry workers in the lowest wage category (the 10<sup>th</sup> percentile). By contrast 88 percent of workers in the highest wage category (the 90<sup>th</sup> percentile) had access to retirement benefits. In state and local government, 61 percent of workers in the lowest wage category had access to retirement benefits, compared with 98 percent of workers in the highest wage category. (See chart 1 and table 1.)”<sup>30</sup> However, because participation in 401(k) plans is voluntary, unlike most defined benefit plans, the take up rate was 74% so the actual percentage of workers who were participating was only 49%.<sup>31</sup> Among full-time workers, the access and participation rates were 76% and 59%, respectively: for part-time workers, the rates were only 37% and 19%. For union workers, the access and participation rates were 92% and 82%: for non-union workers, they were only 63% and 46%.<sup>32</sup> Firm size also had a significant effect: for firms with 1 to 99 workers, the access and participation rates were 51% and 35%: for firms with 100 or more workers they were 84% and 65%.<sup>33</sup>

The evidence is clear: retirement plan access and participation are strongly correlated with higher incomes; full-time status; union membership; and larger employers. As discussed in section 4.1 below, the same patterns apply to employer-provided health plan access and coverage.

“Many employees who are offered a plan do not participate, generally because they do not wish to, or feel that they cannot afford to, contribute. Other workers are excluded, temporarily or permanently, by the plan’s eligibility rules: they have not completed a year of service, or are under the age of 21, work too few hours, are in an ineligible class of employees, or are classified as independent contractors. In America, we generally have a strong preference for voluntary programs rather than government mandates: however, it is unrealistic to expect that a system where employer sponsorship of a plan, employer contributions to a plan and employee contributions to a plan are all voluntary will succeed in providing adequate retirement income for most Americans, even when supplemented by Social Security.”<sup>34</sup>

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<sup>30</sup> BLS News Release, July 24, 2015, Employee Benefits In The United States—March 2015. [www.bls.gov/ebs](http://www.bls.gov/ebs).

<sup>31</sup> *Id.*, Table 1.

<sup>32</sup> *Id.*

<sup>33</sup> *Id.*

<sup>34</sup> David Pratt, Private Pension Reform, New York University Review of Employee Benefits and Executive Compensation, forthcoming, 2015.

Part of the problem results from unemployment and underemployment: “the low participation rates of lower-income respondents are driven primarily by weak labor force attachment and working for a firm without a pension. Only about half of the lower-income individuals are working and, among those who are working, only about 60 per-cent work for firms that offer a pension. These figures indicate serious trouble spots for participation. Eligibility and take-up rates among the lower income also help to explain their low participation, but these factors are considerably less important as both are between 85-90 percent. Of course, providing universal pension coverage in the workplace would still leave a large fraction of lower-income individuals without coverage due to their low employment rates. Thus, the only way to further expand participation would be through measures to boost employment.”<sup>35</sup>

Why don't small employers offer retirement plans? According to the 2002 Small Employer Retirement Survey (SERS) (involving employers with 5 to 100 full-time workers), the most commonly cited “most important” reasons for not having a plan were: employees prefer wages and/or other benefits; revenue is too uncertain to commit to a plan; a large portion of workers are seasonal, part time or high turnover; required company contributions are too expensive; and it costs too much to set up and administer a plan.<sup>36</sup> According to a 2001 U.S. Department of Labor Working Group Report, “Significant reasons why more employers do not sponsor pension plans for any or some of their employees include: concerns over the business realities of revenues and profit; the nature of the employer’s workforce; employee preferences for cash and health insurance; the decline in unionization; the cost of setting-up and administering a plan; concerns about government regulation and liability; and a lack of information or knowledge among employers and employees.”<sup>37</sup>

In February, 2012, Phyllis C. Borzi, assistant secretary of labor for the Employee Benefits Security Administration, said that unless pensions and retirement savings plans are more attractive to employers, efforts to expand coverage and participation will fall short of what is necessary.<sup>38</sup> One recent study noted that “Legal reforms now offer employers tax credits for sponsoring a plan, special plans with little or no discrimination tests like the auto-enrollment safe harbor 401(k) plan, and reduced fiduciary liability through participant investment discretion and the use of Qualified Default Investment Alternatives as investment options. Yet there has been no appreciable increase in the percentage of employers, particularly small to mid-size employers, willing to offer plans.”<sup>39</sup>

Under a defined benefit (DB) plan, employees are automatically enrolled and (in the private sector) rarely have to contribute. With most DC plans, the majority of which are now 401(k)-type plans, workers are responsible for their own financial security. Barbara Butrica and her coauthors wrote that if plans don't “include automatic features, workers have to actively decide to participate, how much to contribute, which investments to put their money in, and how to

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<sup>35</sup> April Yanyuan Wu, Matthew S. Rutledge, and Jacob Penglase, Why Don't Lower-Income Individuals Have Pensions?, Center for Retirement Research, April 2014.

<sup>36</sup> 2002 Small Employer Retirement Survey, Summary of Findings, [www.ebri.org](http://www.ebri.org).

<sup>37</sup> U.S. Department of Labor, Report of the Working Group on Increasing Pension Coverage, Participation and Benefits, November 13, 2001.

<sup>38</sup> BNA Pension & Benefits Reporter, 39 BPR 396, Feb. 28, 2012.

<sup>39</sup> C. Eugene Steuerle, Benjamin H. Harris and Pamela J. Perun, Entitlement Reform and the Future of Pensions, September 2014, PRC WP2014-08, Pension Research Council.

manage their benefits through retirement.”<sup>40</sup> Consequently, in 2013 the participation rates of “private wage-and-salary workers who were offered an employer retirement plan were 87 percent in defined benefit pensions but only 71 percent in DC plans.” DC plans with automatic enrollment features, in which employees must opt out of participating in the plan instead of affirmatively enrolling, see higher participation rates, around 80 percent or more.<sup>41</sup>

Ideally, employees would begin to save for retirement as soon as they enter the workforce and contribute continuously throughout their working lives. The current eligibility rules impede that goal:

A plan may require the completion of a year of service before an employee is eligible. Most workers have several jobs during their lives, and thus have to satisfy several separate waiting periods during which they are not covered by a plan.

A plan may exclude permanently workers who are part time, are in an ineligible job category or are not classified as employees of the sponsoring employer.

The administration’s 2016 budget proposal would require retirement plans to allow long-term part-time workers to participate, by permitting an employee to make salary reduction contributions if the employee has worked at least 500 hours per year with the employer for at least three consecutive years. The proposal would not require them to receive any employer contributions. The proposal would also require a plan to credit, for each year in which such an employee worked at least 500 hours, a year of service for purposes of vesting. With respect to employees newly covered under the proposed change, employers would receive nondiscrimination testing relief (similar to current-law relief for plans covering otherwise excludable employees), including permission to exclude these employees from top-heavy vesting and benefit requirements.<sup>42</sup>

“This proposal is a start, but it does not go far enough. The one year waiting period should be reduced to no more than 90 days (the permissible waiting period for health plan coverage under the Affordable Care Act); part-time employees should be covered; and the ability of employers to exclude classes of employees (other than union employees and non-resident aliens) should be severely curtailed, possibly by increasing the 70% coverage threshold.”<sup>43</sup>

The Obama administration is monitoring the automatic enrollment strategies being adopted in other countries: “Mark Iwry, the Treasury Department’s deputy assistant secretary for retirement and health policy, recently told a conference audience that “the administration is monitoring retirement innovations around the globe and is particularly interested in the approach being developed in the U.K. In October 2012, the U.K. launched a broad retirement savings initiative, which included the creation of a low-cost savings platform known as the National Employment

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<sup>40</sup> Barbara A. Butrica et al., “Flattening Tax Incentives for Retirement,” Urban-Brookings Tax Policy Center (June 30, 2014), available at <http://www.brookings.edu>.

<sup>41</sup> Harris et al., “Tax Subsidies for Asset Development: An Overview and Distributional Analysis,” at 13 (the Urban Institute, 2014), available at <http://www.taxpolicycenter.org>.

<sup>42</sup> General Explanations of the Administration’s Fiscal Year 2016 Revenue Proposals (the “Green Book”), pp. 140-141.

<sup>43</sup> Pratt, note 34 above; Code section 410(b).

Savings Trust (NEST). By statute, all employers in the U.K. must automatically enroll eligible employees in an approved retirement savings system, a NEST product, or a traditional pension and make annual contributions. Iwry conceded that the administration's myRA program—launched nationwide Nov. 4 (see related article in this issue)—is modest compared with the U.K. model. Unlike the U.K. model, the myRA program doesn't require employers to make contributions to the accounts.”<sup>44</sup>

In addition to the myRA program, there is a push to enable States to enact coverage expansion laws that would not be preempted by ERISA. DOL issued a proposed rule on November 18, 2015.<sup>45</sup>

## 4 HEALTH PLANS

### 4.1 Introduction

The patterns of health plan coverage are similar to those of retirement plan coverage: large employers are significantly more likely to offer coverage to at least some of their employees; coverage is also closely correlated with higher income, union membership and full-time rather than part-time status. There are two additional factors. First, the cost of health coverage has increased for many years at a rate significantly higher than the general inflation rate, putting increased financial strain on both employers and employees. “Health care costs at current levels override the incentives that have historically supported employer-based health insurance. Now that health costs loom so large, companies that provide generous benefits are in effect paying some of their workers much more than the going wage—or, more to the point, more than competitors pay similar workers. Inevitably, this creates pressure to reduce or eliminate health benefits. And companies that can't cut benefits enough to stay competitive—such as GM—find their very existence at risk.”<sup>46</sup>

Second, the Affordable Care Act, while improving access and coverage generally, caused employers to question whether they should continue to offer coverage. The most recent evidence is encouraging: “While Mercer's surveys have consistently shown that large employers remain committed to offering health coverage, in the early days of the health reform debate sizable numbers of small employers thought it was likely that they would drop their plans and send employees to the public exchange. In 2013, 21% of employers with 50-499 employees said they were likely to drop their plans within the next five years; this number fell to 15% in 2014 and to

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<sup>44</sup> Michael J. Bologna, Administration Looks to U.K. for Retirement Savings Model, *Pension & Benefits Daily* (BNA), Nov. 4, 2015.

<sup>45</sup> 80 Fed. Reg. 72,006, Nov. 18, 2015. See also the DOL Fact Sheet, State Savings Programs for Non-Governmental Employees, Nov. 16, 2015, available at [www.dol.gov/ebsa/newsroom/](http://www.dol.gov/ebsa/newsroom/).

<sup>46</sup> Paul Krugman & Robin Wells, *The Health Care Crisis and What To Do About It*, *The N.Y. Review of Books* 38, 39 (Mar. 23, 2006) (reviewing Henry J. Aaron et al., *Can We Say No?* (2005), Julius Richmond & Rashi Fein, *The Health Care Mess* (2006), John F. Cogan, et al., *Healthy, Wealthy, and Wise* (2005)).



just 7% this year. Among employers with 500 or more employees, just 5% say they are likely to drop their plans, essentially unchanged from 4% last year.”<sup>47</sup>

## 4.2 Access and Coverage

In March, 2015, according to BLS, “For private industry, 87 percent of workers in management, professional, and related occupations had access to medical care, compared with 41 percent in service occupations. In state and local government, the corresponding figures were 89 percent and 82 percent, respectively. (See table 2.) For civilian workers, access rates to medical care ranged from 53 percent for the smallest establishments (those with fewer than 50 workers) to 90 percent for the largest establishments (those employing 500 workers or more).... Access to medical care benefits for private industry workers was 86 percent in goods-producing industries, compared with 66 percent for workers in service-providing industries.”<sup>48</sup>

Health benefits were available to 86% of full-time private sector workers but only 21% of part-time private sector workers: the participation rates were 64% and 12%.<sup>49</sup> The access and participation rates for union workers were 95% and 79%, compared to 67% and 47% for non-union workers. The access rates for workers in the lowest 25% and the lowest 10% of average wages were only 34% and 23%, and the participation rates were 20% and 11%.<sup>50</sup> Private sector employers with fewer than 50 employees offered coverage to 53% of their workers and 38% participated. For firms with 100 or more employees, the rates were 84% and 62%.<sup>51</sup>

Most plans impose a waiting period, and in 2015 the average waiting period is 2 months. “Before eligible employees may enroll, almost three-quarters (74%) of covered workers face a waiting period, although the average length of waiting periods for covered workers with waiting periods has decreased in each of the last two years.”<sup>52</sup>

These coverage patterns matter because of the large number of part-time and other contingent workers; the continuing decline in, and state level attacks on, union membership; and the large number of workers who work for small employers or other firms that are at or near the bottom of the fissured workplace pyramid described by David Weil.

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<sup>47</sup> Mercer, *With the Excise Tax in their Sights, Employers Hold Health Benefits Cost Growth to 3.8% in 2015*, Nov. 19, 2015, available at [www.mercer.com/newsroom](http://www.mercer.com/newsroom), discussing the Mercer National Survey of Employer-Sponsored Health Plans.

<sup>48</sup> Bureau of Labor Standards, News Release, *Employee Benefits in the United States-March, 2015*, [www.bls.gov/ebs](http://www.bls.gov/ebs).

<sup>49</sup> *Id.* See also Kaiser Family Foundation, *2015 Employer Health Benefits Survey, Section 2*: “Among firms offering health benefits, relatively few offer benefits to their part-time and temporary workers.... In 2015, 19% of all firms that offer health benefits offer them to part-time workers (Exhibit 2.6). Firms with 200 or more workers are more likely to offer health benefits to part-time employees than firms with 3 to 199 workers (35% vs. 18%) (Exhibit 2.9). Among firms offering health benefits to at least some employees, relatively few report that they stopped offering benefits to part-time workers in the last year (2%) (Exhibit 2.7). A small percentage (3%) of firms offering health benefits offer them to temporary workers (Exhibit 2.8). More large firms (200 or more workers) offering health benefits elect to offer temporary workers coverage than small firms (11% vs. 3%) (Exhibit 2.10).”

<sup>50</sup> BLS, note 48, Table 2.

<sup>51</sup> *Id.*

<sup>52</sup> Kaiser Family Foundation, note 49, Section 3.

### 4.3 Employee Costs for Health Insurance Coverage

According to BLS, “The share of premiums workers were required to pay for their medical coverage [in March, 2015] varied by bargaining status. Private industry nonunion workers were responsible for 23 percent of the total single coverage medical premium, whereas the share of premiums for union workers was 13 percent. The share of premiums for family coverage was 35 percent for nonunion workers and 16 percent for union workers. (See chart 2 and tables 3 and 4.).... The employee share of family medical premiums was 27 percent for workers in goods-producing industries and 33 percent for workers in service-providing industries. (See tables 2 and 4.)”<sup>53</sup>

The share of the premium paid by the worker also varied by full-time or part-time status (21% for full-timers, 27% for part-timers) and by average wages (20% for the highest paid 10% but 30% for the lowest paid 10%).<sup>54</sup>

For family coverage, employers paid 68% of the premium for full-time workers, and 63% for part-timers; 84% for union workers and 65% for non-union workers; 72% for the 10% of workers with the highest average wages and 57% for the 10% with the lowest wages. Firms with 500 or more workers paid 76% of the family premium; firms with fewer than 50 employees paid 62%.<sup>55</sup>

According to the Kaiser Family Foundation 2015 Employer Health Benefits Survey,<sup>56</sup> “Annual premiums for employer-sponsored family health coverage reached \$17,545 this year, up 4 percent from last year, with workers paying on average \$4,955 towards the cost of their coverage. Employer-sponsored insurance covers over half of the non-elderly population, 147 million people in total. The average annual single coverage premium is \$6,251.”

With respect to responses to the ACA, “Relatively small percentages of employers with 50 or more full-time equivalent employees reported switching full-time employees to part time status (4%), changing part-time workers to full-time workers (10%), reducing the number of full-time employees they intended to hire (5%) or increasing waiting periods (2%) in response to the employer shared responsibility provision which took effect for some firms this year.”<sup>57</sup>

Between 2005 and 2015, “total premiums for family coverage increased by 61%. The worker contribution increased by 83% and the employer contribution by 54%. As with total premiums, the share of the premium contributed by workers varies considerably.... the average annual premium contributions in 2015 are \$1,071 for single coverage and \$4,955 for family coverage.”<sup>58</sup>

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<sup>53</sup> BLS, note 48 above.

<sup>54</sup> Id., Table 3.

<sup>55</sup> Id., Table 4.

<sup>56</sup> Kaiser Family Foundation 2015 Employer Health Benefits Survey, Sep. 22, 2015, [www.kff.org](http://www.kff.org), Summary of Findings.

<sup>57</sup> Id.

<sup>58</sup> Id. See also Exhibit 1.12 Average Annual Premiums for Covered Workers with Family Coverage, by Firm Size, 1999-2005

There has been a significant increase in participation in high deductible plans. “Almost a quarter (24%) of covered workers are enrolled in HDHP/SOs in 2015; enrollment in these plans has increased over time from 13% of covered workers in 2010.”<sup>59</sup> This trend raises policy concerns, particularly with respect to lower income workers. “Enrollment in HDHP/SOs is higher for covered workers employed at firms with many low-wage workers (at least 35% of workers earn \$23,000 per year or less) than firms with fewer low-wage workers.”<sup>60</sup> This suggests that at least some workers are enrolling in high deductible plans because their share of the premium is less than it would be under another type of plan. “The average worker contribution in HDHP/SOs is lower than the overall average worker contributions for single coverage (\$868 vs. \$1,071) and family coverage (\$3,917 vs. \$4,955) (Exhibit 6.5).”<sup>61</sup> However, these individuals may incur much higher out of pocket medical expenses. “The average annual out-of-pocket maximum for single coverage is \$3,866 for HDHP/HRAs and \$4,085 for HSA-qualified HDHPs (Exhibit 8.7).”<sup>62</sup>

Not surprisingly, “The cost of health insurance remains the primary reason cited by firms for not offering health benefits. Among small firms (3-199 workers) not offering health benefits, 41% cite high cost as “the most important reason” for not doing so, followed by “employees are generally covered under another plan” (26%) (Exhibit 2.14). Relatively few employers indicate that they did not offer because they believe that employees will get a better deal on the health insurance exchanges (4%).”<sup>63</sup>

#### 4.4 Retiree Health Benefits

Retiree health benefits are an important part of retirement security in view of the substantial, and increasing, out of pocket medical costs incurred by the elderly, including Medicare premiums, deductibles and co-payments. According to EBRI, “In 2015, a 65-year-old man needs \$68,000 in savings and a 65-year-old woman needs \$89,000 if each has a goal of having a 50 percent chance of having enough money saved to cover health care expenses in retirement. If either instead wants a 90 percent chance of having enough savings, \$124,000 is needed for a man and \$140,000 is needed for a woman. This analysis does not factor in the savings needed to cover long-term care expenses. Savings targets increased between 6 percent and 21 percent between 2014 and 2015. For a married couple both with drug expenses at the 90th percentile throughout retirement who want a 90 percent chance of having enough money saved for health care

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	All Small Firms (3-199 Workers)	All Large Firms (200 or More Workers)
1999	\$5,683	\$5,845
2005	\$10,587	\$11,025
2014	\$15,849	\$17,265
2015	\$16,625	\$17,938

<sup>59</sup> Id. See also Mercer Signal, 2015 A Milestone Year for Consumer-Directed Health Plans, Dec. 2, 2015, [www.ushealthnews.mercer.com](http://www.ushealthnews.mercer.com).

<sup>60</sup> Id., Section 5.

<sup>61</sup> Id., Section 6.

<sup>62</sup> Id., Section 8.

<sup>63</sup> Id., Section 2.

expenses in retirement by age 65, targeted savings increased from \$326,000 in 2014 to \$392,000 in 2015.”<sup>64</sup>

According to the Kaiser Family Foundation, “Twenty-three percent of large firms that offer health benefits in 2015 also offer retiree health benefits, similar to the percentage in 2014 (25%). Among large firms that offer retiree health benefits, 92% offer health benefits to early retirees (workers retiring before age 65), 73% offer health benefits to Medicare-age retirees, and 2% offer a plan that covers only prescription drugs. Employers offering retiree benefits report interest in new ways of delivering them. Among large firms offering retiree benefits, seven percent offer them through a private exchange and 26% are considering changing the way they offer retiree coverage because of the new health insurance exchanges established by the ACA....There has been a downward trend in the percentage of firms offering retirees coverage, from 34% in 2006 and 66% in 1988 (Exhibit 11.1)... Large firms with at least some union workers are more likely to offer retiree health benefits than large firms without any union workers (37% vs. 18%) (Exhibit 11.3).”<sup>65</sup>

#### **4.5 The “Cadillac” Tax**

Beginning in 2020, employer health plans will be assessed a non-deductible 40% excise tax on the value of the total cost of their plans, on a per-employee basis, above indexed dollar thresholds. [Note that, since this paper was written, the effective date was postponed from 2018 to 2020 by the Consolidated Appropriations Act, enacted on December 18, 2015] The total cost includes any FSA contributions made by the employee on a salary reduction basis, premium costs, and employer HRA contributions. Some employers have already begun making changes to their health benefits. “Among firms who have conducted an analysis to determine their liability under the high-cost plan tax, 12% believe their plan with the largest enrollment will exceed the thresholds in 2018 (Exhibit 14.14). Some employers have already taken action to mitigate the anticipated impacts of the high-plan excise tax; 13% of large firms (200 or more employers) and 7% of small firms have made changes to their plans’ coverage or cost sharing to avoid exceeding the limits. Eight percent of both large and small firms have switched to a lower cost plan. Looking at firms that took one of these two actions, 11% of small firms (3-199 workers) and 16% of large firms reported either changing their plan or switching carriers to reduce the cost of their plan in anticipation of the assessment. Among large firms (200 or more workers) who indicated changing their plan or switching carriers to reduce the cost of their plan, 64% have increased cost sharing, 10% have reduced the scope of covered services, 34% have moved benefit options to account-based plans such as an HRA or HSA, 18% have increased incentives to use less costly providers, and 16% have considered offering health insurance through a private exchange in anticipation of the excise tax (Exhibit 14.15).”<sup>66</sup>

### **5 WHO IS AN “EMPLOYEE” OR “EMPLOYER”?**

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<sup>64</sup> EBRI Notes, Oct. 2015, Amount of Savings Needed for Health Expenses for People Eligible for Medicare: Unlike the Last Few Years, the News Is Not Good, [www.ebri.org](http://www.ebri.org).

<sup>65</sup> Kaiser Family Foundation, 2015 Employer Health Benefits Survey, section 11, [www.kff.org](http://www.kff.org).

<sup>66</sup> Id. Section 14.

Amazingly, for a system that revolves around identifying employers, employees, and employee benefit plans, the fundamental definitions are woefully inadequate, and have become more so over time as workplace conditions have changed dramatically since ERISA was enacted in 1974. Under ERISA, “The term ‘employer’ means any person acting directly as an employer, or indirectly in the interest of an employer, in relation to an employee benefit plan, and includes a group or association of employers acting for an employer in such capacity.”<sup>67</sup> The definition of ‘employee’ is equally unilluminating: “The term ‘employee’ means any individual employed by an employer”.<sup>68</sup> As David Weil has written, “A positive path forward requires revisions of existing workplace laws so that they adequately recognize the far more complex nature of the modern workplace and the growing presence of multiple organizations with roles in employment decisions.”<sup>69</sup>

In its most recent ERISA decision directly addressing this issue, which itself is more than 20 years old, the Supreme Court pointed out that the ERISA definition of employee “is completely circular and explains nothing.”<sup>70</sup> The Court decided unanimously to “adopt a common-law test for determining who qualifies as an ‘employee’ under [ERISA].” The Court relied on its earlier opinion in a case interpreting the term “employee” as used in the Copyright Act of 1976, identifying “the hiring party’s right to control the manner and means by which the product is accomplished” as the proper test, and listing factors that bear on whether the purported employer exercised sufficient control to make the other party an employee.<sup>71</sup>

Although the Court’s decision is supported by precedent,<sup>72</sup> relying on a test that dates back to 18<sup>th</sup> century master and servant rules, intended primarily to determine when the master was

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<sup>67</sup> ERISA section 3(5).

<sup>68</sup> ERISA section 3(6).

<sup>69</sup> Weil, note 1 above, at 289. He has also pointed out that “Defining who is the employer and who is the employee turns out to be a far less straightforward task than one might imagine. The definitions differ across federal, state, and common law. Federal workplace statutes (the focus of this discussion) do not use a single definition, but rather multiple ones, from fairly expansive definitions that acknowledge the range of relationships that may actually arise in the workplace (as in the Fair Labor Standards Act [FLSA]) to narrow descriptions built around the archetypical large employer (think General Motors) with thousands of employees (as in the National Labor Relations Act [NLR]). . . . For many decades following passage of the FLSA and other federal statutes, subtle differences in definitions of employment were less consequential for much of the economy: it was relatively clear who the employer and the employee were, just as were the boundaries of the firm. The more the workplace has fissured, the more the subtleties raised by definitions of employment matter.” Weil, note 1 above, at 184-185.

<sup>70</sup> *Nationwide Mutual Ins. Co. v. Darden*, 503 U.S. 318 (1992).

<sup>71</sup> *Community for Creative Non Violence v. Reid*, 490 U.S. 730 (1989).

<sup>72</sup> In *Darden*, the United States Court of Appeals for the Fourth Circuit observed that “Darden most probably would not qualify as an employee” under traditional principles of agency law but found the traditional definition inconsistent with the “declared policy and purpose” of ERISA. The Supreme Court said that “In taking its different tack, the Court of Appeals cited *NLRB v. Hearst Publications, Inc.*, 322 U.S. at 120-129, and *United States v. Silk*, 331 U.S. at 713, for the proposition that “the content of the term ‘employee’ in the context of a particular federal statute is ‘to be construed “in the light of the mischief to be corrected and the end to be attained.”” *Darden*, 796 F.2d at 706, quoting *Silk*, supra, at 713, in turn quoting *Hearst*, supra, at 124. But *Hearst* and *Silk*, which interpreted “employee” for purposes of the National Labor Relations Act and Social Security Act, respectively, are feeble precedents for unmooring the term from the common law. In each case, the Court read “employee,” which neither statute helpfully defined, to imply something broader than the common-law definition; after each opinion, Congress amended the statute so construed to demonstrate that the usual common-law principles were the keys to meaning. See *United Ins. Co.*, supra, at 256 (“Congressional reaction to [*Hearst*] was adverse and Congress passed an amendment . . . the obvious purpose of [which] “as to have the . . . courts apply general agency principles in

responsible for acts of the servant, makes no sense in interpreting employment legislation in the 21<sup>st</sup> century.<sup>73</sup>

Darden also involved an issue simpler than most that arise in this area: it was clear that the key relationship was between Darden and Nationwide, so the only question was whether he was an employee or an independent contractor. In today's workplace, there are often several different entities with some control over the worker. The question is which one or more of them should be responsible for complying with labor and employment laws, and the answer is not necessarily the entity that gives the worker a W 2 or 1099 tax form.

Other countries have recognized that not all service-provider/service-recipient relationships fit neatly within the traditional employee/independent contractor dichotomy by establishing a third category, a dependent contractor, who receives some of the protections afforded to employees.<sup>74</sup>

The drafters of ERISA recognized that the minimum coverage and nondiscrimination rules for qualified retirement plans could easily be circumvented by splitting employees among a number of employers related by common ownership. ERISA and subsequent legislation broadened the employee group that must be taken into account, by enacting the controlled group, affiliated service group and leased employee rules, and giving the Treasury Department broad regulatory authority to prevent the avoidance of employee benefit requirements through the use of separate organizations, employee leasing or other arrangements.<sup>75</sup> It is time for these anti-avoidance concepts to be broadened, to reflect the realities of the 21<sup>st</sup> century economy in which control can be exercised without common ownership.

## **6 WORKER (MIS)CLASSIFICATION**

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distinguishing between employees and independent contractors under the Act"); Social Security Act of 1948, ch. 468, § 1(a), 62 Stat. 438 (1948) (amending statute to provide that term "employee" "does not include . . . any individual who, under the usual common-law rules applicable in determining the employer-employee relationship, has the status of an independent contractor") (emphasis added); see also *United States v. W. M. Webb, Inc.*, 397 U.S. 179, 183-188, 25 L. Ed. 2d 207, 90 S. Ct. 850 (1970) (discussing congressional reaction to *Silk*).... To be sure, Congress did not, strictly speaking, "overrule" our interpretation of those statutes, since the Constitution invests the Judiciary, not the Legislature, with the final power to construe the law. But a principle of statutory construction can endure just so many legislative revisitations, and Reid's presumption that Congress means an agency law definition for "employee" unless it clearly indicates otherwise signaled our abandonment of *Silk*'s emphasis on construing that term "in the light of the mischief to be corrected and the end to be attained." *Silk*, supra, at 713, quoting *Hearst*, supra, at 124. The definition of "employee" in the FLSA evidently derives from the child labor statutes, see *Rutherford Food*, supra, at 728, and, on its face, goes beyond its ERISA counterpart. While the FLSA, like ERISA, defines an "employee" to include "any individual employed by an employer," it defines the verb "employ" expansively to mean "suffer or permit to work." 52 Stat. 1060, § 3, codified at 29 U. S. C. §§ 203(e), (g). This latter definition, whose striking breadth we have previously noted, *Rutherford Food*, supra, at 728, stretches the meaning of "employee" to cover some parties who might not qualify as such under a strict application of traditional agency law principles. ERISA lacks any such provision, however, and the textual asymmetry between the two statutes precludes reliance on FLSA cases when construing ERISA's concept of "employee."

<sup>73</sup> Second 220 of the Restatement of the Law, Second, Agency, cited by the Court in *Darden*, is part of Chapter 7, Liability of Principal to Third Person; Torts.

<sup>74</sup> See also NLRB Member Wilma B. Liebman's dissent in *St. Joseph News-Press and Teamsters Union Local 460*, National Labor Relations Board, 345 N.L.R.B. 474 (2005), where she argued that the newspaper's substantial economic advantage over carriers resulted in a relationship of economic dependence on the newspaper, and was persuasive evidence that the carriers were employees, not independent contractors.

<sup>75</sup> Code sections 414(b), (c), (m), (n), (o) and (t). See also the separate line of business rules under section 414(r).

Subject to special rules for statutorily defined “leased employees,”<sup>76</sup> an employer who allows individuals other than employees or owners (e.g., partners in the employer) to participate in a qualified retirement plan would jeopardize the plan’s qualification, as a plan is required to be for the exclusive benefit of the employees or their beneficiaries.<sup>77</sup> This issue has two separate aspects: misclassification of workers, and whether it would be feasible to allow participation by other individuals within the present framework, which is based on the assumption that all participants will either be employees or owners of the business.

Worker misclassification has been a serious issue for many years. Employers have an incentive to classify workers as independent contractors, not only to avoid providing retirement and other benefits, but also to avoid having to pay Social Security taxes, unemployment compensation premiums and worker’s compensation premiums.<sup>78</sup> “It is common for employers to inaccurately and illegally declare employees to be contractors. A 2000 study by the U.S. Department of Labor, for instance, found that 10–30 percent of audited employers misclassified workers.... In many states, there is no mechanism for workers to challenge their bosses’ designation except for filing unemployment or workers’ compensation claims—meaning one must be fired or injured before there is any legal avenue for contesting one’s status.... In some industries, misclassification has become so commonplace that well-meaning employers are under pressure to wrongly classify their employees in order to not be undercut by less ethical competitors.... At the federal level, a 2009 report from the Government Accountability Office estimated that misclassification costs the federal government nearly \$3 billion per year.”<sup>79</sup> Françoise Carre notes that “Numerous state-level studies show that between 10 and 20 percent of employers misclassify at least one worker as an independent contractor.”<sup>80</sup>

This results in a large loss of income and employment tax revenue. The misclassified employees typically do not pay the full self-employment taxes and are wrongly left uninsured or underinsured, without benefits and without job security.<sup>81</sup>

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<sup>76</sup> Under IRC § 414(n), a “leased employee” who performs services for any person (the “recipient”) pursuant to an agreement between the recipient and any other person (the “leasing organization”) is treated for certain purposes, including discrimination testing, as an employee of the recipient. A “leased employee” is defined as any person who provides services to the recipient but who is not an employee of the recipient, if such services (1) have been performed on a substantially fulltime basis for a period of at least one year, and (2) are performed “under primary direction or control by the recipient.” There is a limited safe harbor exception for leased employees who are covered by a sufficiently generous money purchase pension plan of the leasing organization, provided that leased employees do not constitute more than 20 percent of the recipient’s nonhighly compensated work force. IRC § 414(n)(5).

<sup>77</sup> Code section 401(a).

<sup>78</sup> “Unfortunately, current tax, labor and employment law gives employers and employees incentives to create contingent relationships not for the sake of flexibility or efficiency but in order to evade their legal obligations. For example, an employer and a worker may see advantages wholly unrelated to efficiency or flexibility in treating the worker as an independent contractor rather than an employee. The employer will not have to make contributions to Social Security, unemployment insurance, workers’ compensation, and health insurance, will save the administrative expense of withholding, and will be relieved of responsibility to the worker under labor and employment laws. The worker will lose the protection of those laws and benefits and the employer’s contribution to Social Security, but may accept the arrangement nonetheless because it gives him or her an opportunity for immediate and even illegitimate financial gains through underpayment of taxes. Many low-wage workers have no practical choice in the matter.” DOL, Contingent Workers, [www.dol.gov/\\_sec/media/reports/dunlop/section5.htm](http://www.dol.gov/_sec/media/reports/dunlop/section5.htm).

<sup>79</sup> Weil, note 1 above, at 212-215.

<sup>80</sup> Françoise Carré, (In)dependent Contractor Misclassification, June 8, 2015 <http://www.epi.org/publication/independent-contractor-misclassification/>.

IRS enforcement has been hampered by section 530 of the Revenue Act of 1978, which allows a service recipient to treat a worker as an independent contractor for employment tax purposes, even though the worker may be an employee under the common law rules, if the service recipient has a reasonable basis for so doing and certain other requirements are met. If a service recipient meets these requirements, the IRS is prohibited from reclassifying the worker as an employee. The classification may continue indefinitely, even if it is incorrect. This section also prohibits the IRS from issuing generally applicable guidance addressing worker classification.

The administration's 2016 budget proposal would allow the IRS to require prospective reclassification of workers who are misclassified.<sup>82</sup> Treasury and the IRS also would be permitted to issue generally applicable guidance on the proper classification of workers under common law standards. Service recipients would be required to give notice to independent contractors, when they first begin performing services for the service recipient, that explains how they will be classified and the consequences. The IRS would be permitted to disclose to the Department of Labor information about service recipients whose workers are reclassified.

## **7 WHO IS THE EMPLOYER IN THE FISSURED WORKPLACE?**

It is time for a detailed review of the affiliated service group and leased employee rules. Also, if the separate line of business rules are to be retained, the Treasury and the IRS should issue new, more workable regulations that take into account changes in business organization and structure over the last 30 years. The affiliated service group and leased employee rules were enacted in the early 1980s to address specific, and relatively narrow, abuses. Both provisions are far broader than is required to deal with the abuse, guidance is sparse, and the regulations do not address recent developments in the workplace. A detailed review of these rules is long overdue.

Congress enacted the separate line of business (“SLOB”) rules in 1986 to provide relief for organizations that, while connected by common ownership, were in fact separate. The regulations add highly detailed and restrictive requirements that make the SLOB rules available to only very few employers. IRS should issue new, more workable regulations

A major problem today is the opposite situation: organizations that are not connected by common ownership, but are not truly separate (e.g., many franchisor-franchisee relationships).<sup>83</sup>

Many of the industries in which fissured workplaces are common (e.g., as a result of franchising or supply chain management) “account for a disproportionate share of low-wage workers. For example, while food services and drinking places employed about 6.4% of the workforce, it comprised about 12.4% of all low-wage workers in 2010; retail workers comprised 10.2% of the workforce but 18.9% of low-wage workers; and the roughly 1.8 million workers in the hotel and motel industry accounted for 1.2% of employment but twice that percentage of low-wage workers.”<sup>84</sup>

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<sup>81</sup> Id.

<sup>82</sup> Green Book, pp. 223 et seq.

<sup>83</sup> See Weil, note 1 above, passim.

<sup>84</sup> Id. at 269-270.



Weil points out that the definition of “employee” under the Fair Labor Standards Act (FLSA) is broader than under other federal statutes, such as ERISA: “The FLSA defines an employee as “any individual who is employed by an employer” and that “employer includes to suffer or permit to work.” This obscure phrase offers the broadest definition of “employee” of any federal statute. It goes beyond the definition offered by common law focus on the degree of actual control of the employee. Instead, courts have noted that the phrase “to suffer or permit” implies that even broad knowledge of work being done on an employer’s behalf is sufficient to establish a relationship. Given the wide latitude implied by this definition, courts have applied an economic realities test to evaluate the particular economic situation surrounding a worker and his or her employer or employers. The broad definition of “employer” under the FLSA (and under most state minimum wage laws) provides the potential for interpretations that capture the complexities of the fissured workplace even though courts have historically tended to hew to relatively narrow definitions of employment.”<sup>85</sup>

As Weil argues, “Reform of existing workplace legislation and new policy initiatives could broaden the responsibility of lead organizations in the realm of employment so that it is consistent with the roles played in their other relationships with subordinate businesses. The principle here is one of parallelism: if a company exerts minute control over aspects of quality, production, and delivery of services, that control should extend more fully to the domain of employment as well those aspects of business that are directly valuable to the company.”<sup>86</sup>

A similar argument is made by Matthew Bodie: “The critical insight is that employment is defined not by control, but by participation-participation in team production. Although the notion of control has dominated the common law test, most of the other factors in that test reflect the degree of participation in the enterprise. Within the common boundaries of the firm, employers have an obligation to pay minimum wage and overtime; provide family and medical leave; avoid discrimination; bargain with collective representatives; adhere to certain requirements as to retirement and health care benefits; and provide insurance in case of unemployment.... Employers have the responsibility to provide these things because employees are participants in the employer’s common enterprise.... Team production justifies obligations from the team to the individual Members.”<sup>87</sup>

## **8 THE CONTINGENT WORKFORCE**

A recent issue of *Jobonomics* reports that, as reported by the BLS, contingent workers represent 29% of the U.S. workforce and notes that “Another alarming trend involves the dramatic rise in the contingent workforce. The BLS defines the contingent workforce as the portion of the labor force that has “nonstandard work arrangements” or those without “permanent jobs with a traditional employer-employee relationship”. The contingent workforce is comprised of two general categories: core and non-core. Core contingency workers include agency temps, direct-hire temps, on-call laborers and contract workers. Core contingency workers generally represent low wage earners that have nonstandard work arrangements out of necessity. These workers are

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<sup>85</sup> *Id.*, at 184.

<sup>86</sup> Weil, note 1 above, at 205.

<sup>87</sup> Matthew T. Bodie, *Participation as a Theory of Employment*, 89 *Notre Dame L. Rev.* 661 (2013).

often subjected to exploitation and are usually not entitled to traditional employer-provided retirement and health benefits. The non-core category includes independent contractors, self-employed workers and standard part-time workers who work fewer than 35 hours per week. Non-core workers generally seek nonstandard work agreements as a matter of choice. Jobenomics views the non-core workforce as a positive economic force that will grow significantly via the emerging digital economy. On the other hand, Jobenomics views the core contingency as a major challenge as more and more citizens work for substandard wages, become frustrated, and seek alternative ways of income.”<sup>88</sup>

Anthony Atkinson notes that “In the twentieth century, employment in OECD countries was largely characterised by regular jobs, but the twenty-first century is witnessing a significant return to what is now regarded as nonstandard employment. Part-time work is the most common.... The McKinsey Global Institute 2012 paper *Help Wanted: The Future of Work in Advanced Economies* found that "managing employees and contract workers across the Internet, companies now have the ability to make labor more of a variable cost, rather than a fixed one, by engaging workers on an as-needed basis. Across the OECD... nations, part-time and temporary employment among prime-age workers has risen 1.5 to 2 times as fast as total employment since 1990.... In our own surveys of US employers, more than one third say they plan to increase use of contingent labor and part-time workers in the years ahead.... It is therefore increasingly misleading to talk in terms of people having, or not having, a job. Work is not simply a (0,1) activity. The twenty-first century labour market is more complex, and this has implications for how we think about employment as a route out of poverty and full employment as a means of assisting us on the way to less inequality.”<sup>89</sup>

More than five million Americans are working part-time for economic reasons. This is down from a peak of over 9 million but is much greater than the 4 million in 2006.<sup>90</sup> “About 31% of workers worked in contingent employment situations in 2005, if one characterizes contingent workers as those not employed in standard, full-time settings.... The number of workers classified as independent contractors grew from 8.3 million to 10.3 million, and also increased as a percentage of total employment, from 6.7% to 7.4%.”<sup>91</sup>

In a recent report, the General Accountability Office (GAO) pointed out that “The size of the contingent workforce as a proportion of the total U.S. employed labor force can range widely, depending on how it is defined.”<sup>92</sup>

GAO found that “Contingent work can be unstable, or may afford fewer worker protections than standard work, depending on a worker’s particular employment arrangement. As a result, contingent work tends to lead to lower earnings, fewer benefits (such as retirement plans and health insurance), and a greater reliance on public assistance. Accounting for other factors that

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<sup>88</sup> Chuck Vollmer, *Jobenomics U.S. Unemployment Analysis*, Q3 2015, Nov. 10, 2015, [www.jobenomics.com](http://www.jobenomics.com).

<sup>89</sup> Anthony B. Atkinson, *Inequality: What Can Be Done?* Harvard, 2015, at 135-137.

<sup>90</sup> Bureau of Labor Statistics, *Employment Level- Part-Time for Economic Reasons, All Industries (2015)*; Bureau of Labor Statistics, Table A-8, *Employed Persons by Class of Worker and Part-Time Status*, Economic News Release, March 6, 2015.

<sup>91</sup> Weil, note 1, at 272-273.

<sup>92</sup> *Contingent Workforce: Size, Characteristics, Earnings, and Benefits*, GAO-15-168R: Published: Apr 20, 2015. Publicly Released: May 20, 2015.

affect earnings, contingent workers earn less than standard workers on an hourly, weekly, and annual basis.... GAO also found that contingent workers are about two-thirds less likely than standard workers to have a work-provided retirement plan and less than half as likely to have work-provided health insurance.”<sup>93</sup>

## **9 SHOULD EMPLOYERS CONTINUE TO BE INVOLVED IN PROVIDING RETIREMENT AND HEALTH BENEFITS?**

Perhaps it is time to change the role of the employer. For retirement plans to be employer-based is logical, though not inevitable: the retirement benefits replace the wages received from the employer. For health benefits to be employer-based is a historical accident and is anomalous from an international viewpoint.

In 2007, one of the proposals made by the Conversation on Coverage was the establishment of a national clearinghouse structure to administer portable individual retirement accounts.<sup>94</sup> In the same year, the ERISA Industry Committee (ERIC) issued a comprehensive reform proposal.<sup>95</sup> ERIC proposed a new structure that would provide benefits through independent Benefit Administrators, who would compete based on quality, use of information technology, plan design and cost. Benefit Administrators, in many respects, would assume the role of today’s plan sponsors and, particularly with regard to health care, would be organized on a geographic basis.<sup>96</sup> Frank Cummings, one of the drafters of ERISA, viewed the proposal favorably: “The ERIC Proposal is a beacon of light for a system losing its bearings in a storm of plan cutbacks, freezes and terminations. It represents the only new upside after years of downside inventions.... At long last ERIC has propounded at least an invitation to some new thinking.”<sup>97</sup>

Susan Stabile argues that the failures of the employer-based retirement system cannot be rectified by incremental changes and that “there are really only two possible models. The first is to jettison the employer-based system entirely and provide a government pension [providing a livable pension for all elderly Americans] for everyone. The second is to retain the employment-based system but move to a mandatory system with more stringent regulation of defined contribution plans than currently exists.”<sup>98</sup>

Katherine Stone argues that the current system of benefits originated in the industrial era of the 20<sup>th</sup> century, when employers sought to secure a stable workforce, that this employer-centered model of benefits has largely outlived its usefulness in the new “boundaryless” workplace of the

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<sup>93</sup> Id.

<sup>94</sup> Covering the Uncovered: Final Report of the Conversation on Coverage, [www.conversationoncoverage.org](http://www.conversationoncoverage.org).

<sup>95</sup> The New Benefit Platform for Life Security, available at [www.eric.org](http://www.eric.org). As it states on its web site, ERIC is “dedicated exclusively to representing the employee benefits and compensation interests of America’s major employers.”

<sup>96</sup> Id.

<sup>97</sup> BNA Pension & Benefits blog, <http://bnablog.bna.com/penben/2007/07/several-weeks-a.html#comments>.

<sup>98</sup> Stabile, *Is it Time to Admit the Failure of an Employer-based Pension System?*, 11 *Lewis & Clark L. Rev.* 305, 325 (2007). A similar argument was made by Daniel Halperin in 1993: “If, as a matter of public policy, it is important for people to be able to maintain their standard of living upon retirement, or at least maintain a minimum standard beyond what is provided by Social Security, rather than trying to encourage employer plans or individual savings, it would be more straightforward either to enhance Social Security benefits or to require employers to contribute to private plans for their employees.” Halperin, “Special Tax Treatment,” *supra* note 22, at 44.

21<sup>st</sup> century, and that it must be replaced with an alternative that is more portable and more affordable for the vast majority of workers.<sup>99</sup>

More recently, Eugene Steuerle, Benjamin Harris and Pamela Perun have argued that “In a DC plan system where the majority of the risks and responsibilities for saving fall on workers, where independent financial services companies provide investments, and where professional administrators manage the plan, it is self-defeating to continue to insist that employers as plan sponsors remain the ultimate guarantors of the plan and all its functions. There is increasing recognition that the next bold move in the evolution of the 401(k) plan system could be to transform employers into facilitators of their employees’ saving. This merely requires activating an employer’s payroll system to transfer employee contributions to a saving plan run by an external entity. Such a system has been in place for decades in the 403(b) plan universe where employers typically make supplemental savings plans available to their employees. In such plans, employers are not fiduciaries, and their primary responsibility is to transfer elective contributions, limited in amount as in the 401(k) world, to the plan chosen by the employee.”<sup>100</sup>

## 10 CONCLUSION

The employer-based system of providing retirement and health benefits is failing too many Americans, including disproportionate numbers of the poorer and more vulnerable members of society. The largely incremental changes made over the last 30 years have not solved the basic problems of access, coverage and adequacy. Accordingly, I suggest that it is time for a more radical approach. One approach would be to redefine the terms “employer” and “employee” to capture the realities of the 21<sup>st</sup> century workplace. However, any redefinition would be susceptible to the development of new workplace relationships that work around the redefinitions. Accordingly, the more promising approach is to provide a system in which entitlement to some level of retirement and health benefits is independent of employment or employment history, with employers remaining free to offer supplementary benefits to attract and retain talented employees.

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<sup>99</sup> Katherine V.W. Stone, A Fatal Mismatch: Employer-centric Benefits in a Boundaryless World, 11 Lewis & Clark L. Rev. 452 (2007).

<sup>100</sup> C. Eugene Steuerle, Benjamin H. Harris and Pamela J. Perun, Entitlement Reform and the Future of Pensions, September 2014, PRC WP2014-08, Pension Research Council.

## **The Changing Structure of Work:**

### **Implications for Workplace Health and Safety in the US**

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# The Changing Structure of Work: Implications for Workplace Health and Safety in the US

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**Abstract:** The structure and organization of work are continually changing. Changes may be cyclical, reflecting economic and social conditions, including business cycles and labor market structures. Other changes, often resulting from new technologies, may be unidirectional. Whether or not the changes are temporary or permanent, employment arrangements affect worker exposures to workplace hazards and their ability to address them. In this paper, we focus on the effects on occupational safety and health (OSH) of relationships that have been described as fissured or market-mediated, including the staffing agency model, the franchised relationship, same site contracting, supply chain relationships, and contracting by a firm with many individuals. Worker safety may be affected by several factors, including economic pressures on contracted employers, the separation of control of the work environment from the employment relationship, and the short tenure of workers in some dangerous jobs. After summarizing the limited number of studies that attempt to measure the impact of these non-standard employment relationships on worker safety and health, we briefly discuss other changes in the labor market that affect OSH, and then turn to the policy and legal implications of these mediated relationships. Finally, we highlight the need for better data, safety and health surveillance, and research when employment relationships are fissured. The paper focuses on changes and strategies in the U.S., but provides some references to relevant international studies.

## **Introduction**

The structure and organization of work are continually changing. Changes may be cyclical, reflecting economic and social conditions, including both business cycles and changing labor markets. Other changes, often resulting from new technologies, may be unidirectional. Whether or not the changes are temporary or permanent, there is legitimate concern that some of these changes result in increased pressure on workers and working conditions and decreased regulatory effectiveness. The starting premise of this paper is that there should be no variance in the level of protection from workplace risks for workers, no matter what the employment relationship between employer and employee and no matter what the contracting relationships among firms/ Today's complex world of work poses some new challenges while also retaining many of the risks that are the consequences of work organization and hazards that have existed for a long time. The challenges for effective intervention are therefore both continuing and evolving. We believe that this has always been true, and it requires policy experts and regulators to continually re-evaluate strategies based upon new risks, changing work organization, evolving technologies, and shifts in industrial mix.

Firms adopt various contracting and employment strategies in an effort to increase profitability, to focus on core expertise, to increase flexibility, to affect labor relations, and to create new boundaries that limit their statutory responsibilities or financial liabilities. These arrangements include firm to firm contracting for goods (through supply chains), contracting for workers (through staffing/ temp agencies or subcontracting to gain access to special expertise), delivering a branded product or service (through franchising), and delivering services through individual workers who may, or may not, be sufficiently independent to be classified accurately as independent contractors. In the "standard" employment relationships – often mythologized as ubiquitous in the past – the lead firm directly employs the workers and controls the site of work. In contrast, alternative employment arrangements may divide the core or lead firm from the site of work or from the direct employment of the workers. These arrangements may create uncertainty about responsibility for maintaining safe workplaces; lead to inadequate training, personal protective equipment, and communication with workers exposed to hazards; increase the number of workers in short-term or new places of employment (a known risk factor for injuries); increase the likelihood that reporting of injuries or illnesses will be incomplete or inaccurate; and decrease the ability of workers to communicate with each other and with the firm with the greatest ability to control the hazards.

At the same time, the attractiveness of these work arrangements is influenced by technological changes that enable firms to engage in control and monitoring techniques that further encourage the use of contracting arrangements to maximize firm profits. These new technologies also enable entirely new forms of work in what has become known as the "gig" or "sharing" economy, exemplified by Uber and Lyft ride services and internet-based job bidding web sites such as Task Rabbit and Mechanical Turk that have blurred the separation of work space and private space.

These new technologies also can result in increased oversight and monitoring within workplaces for both direct and contracted workers. Innovative computer algorithms and widespread use of smart phones have had a profound impact on some kinds of work and workplaces. Computer-enabled "just in time" staffing of enterprises to accommodate temporally variable client demand have changed

scheduling, created uncertainty for workers, and increased work-related stress in some segments of the workforce.

Other changes are occurring at the same time. New materials such as manufactured nanoparticles are being introduced into workplaces. Demographic and organizational changes within the workforce have changed the way in which workers themselves can respond to risk. Shifting labor force participation of female and older workers, decreasing worker voice as unions have declined, and a rise in the number of immigrants with a diversity of languages all affect safety and health prevention strategies.

This paper focuses on the nature of these employment relationships in relation to occupational safety and health risks and the adequacy of current regulatory mechanisms to respond to workplace risks. Contracting relationships may exert considerable downward pressure on wages and benefits, but relationships may have varying effects on occupational safety and health (OSH): while decreased attention to safety characterizes some models, there are also emerging relationships that may offer new opportunities for improved management of health and safety risks. New forms of production may include widespread adoption of less hazardous materials or processes. Shrinking of some higher-risk occupations, such as underground coal mining, means that over-all population risks may decline, while large and growing industries, such as health care, pose different and significant risks to workers.

These are all critical changes in the evolving nature of work, and some of them are beyond the scope of this paper. Here, we consider the following issues.

First, Part I focuses on evolving employment arrangements between and within firms and summarizes existing research regarding the effects of these changes on health and safety of workers. In discussing these arrangements, we provide an analysis of labor-market relationships, and we point to the specific consequences for OSH, noting both the potential opportunities for risk reduction and the areas of likely increased risk for workers. Our discussion of changes in the structure of work is necessarily brief. For more in-depth analyses, we refer the reader to Weil [2014] and Appelbaum et al. [2016].

In Part II of the paper, we turn to established regulatory models to ask how they function currently and can best respond to these challenges. Some of the changes require continued application or expansion of existing regulatory strategies. Others should motivate the development of new strategies. Changing work and work organizational issues pose regulatory challenges, but, within the context of OSH, some of these changes may present opportunities to leverage limited inspection and enforcement resources more effectively.

Part III briefly summarizes the challenges to injury and illness surveillance, data collection, and research created by the changes in work. It provides limited recommendations for future research that would focus on the effects of these changes in OSH and the effectiveness of regulatory interventions.

We reiterate one beginning point here: The inquiry with regard to health and safety effects of changing workforce relationships is not completely parallel to the inquiry regarding effects on wages and benefits. Pressures to reduce costs are likely to lead both to reduced wages and less attention to health and safety conditions. However, other aspects of the structure of work may affect health and safety conditions and wages differentially. For example, franchising arrangements create a central lead



firm that might require improved equipment to be adopted by all franchisees that thus gives better protection against hazards than equivalent independent small businesses might provide. We present one example of how this has worked in our discussion below.

## **Part I. The effects of the changing labor market on safety and health**

In Part I. A. we describe various employment relationships and the issues of increased risk that may be associated with these arrangements. Following this discussion, in Part I.B. we discuss some of the other changes in work that also impact safety and health.

### **A. Standard and fissured employment relationships**

We begin this section with a description of the “standard” employment relationship, which we believe remains the primary work organization model in the U.S. at this time. We describe the evidence of growth of alternative work arrangements and the evolving employment relationships that influence the nature of work and the OSH risks at work: contracting relationships among firms, including subcontracting and use of staffing agencies to provide labor; franchise arrangements and supply chains; and, to some extent, individual contracting arrangements. Note that we do not address the full category of contingent employment, which includes a variety of part-time and temporary work within firms, although there may be substantial commonalities with some of the arrangements described here.

We use the following definitional structure in discussing these models.

**LEAD FIRM:** The lead firm has the power to decide about contracting and to control the contracts with host and staffing firms/ It is the top of the pyramid or, as described by David Weil, the firm that sits in the catbird's seat/ [Weil 2014] p. 60.

**SITE OR HOST FIRM:** The site firm controls the work environment directly. In situations involving multi-employer sites, the employing firm may also be at the site, but may not have control over the full site. Note: OSHA refers to the primary contractor that has overall responsibility at the site at a multi-employer site as the controlling contractor.

**EMPLOYING FIRM:** The employing firm directly employs the workers. The employing firm generally hires, pays wages and obtains mandated insurance coverage for its workers (unemployment, worker's compensation)/ In situations involving staffing agencies that supply workers to a site, this employer will share responsibility for a wide range of OSH issues with the host and lead firms.

**The lead, host and employing firm *may* be the same firm, or not, depending on the nature of the relationships.**

## **The standard employment model**

In the standard employment model, the lead, host and employing firm are all the same. Production is carried out within the boundaries of a single firm, as differentiated from what Abraham and Taylor [1996] call "market-mediated work arrangements" and Weil [2014] calls "fissured employment" (We will use both terms.).

During a significant portion of the last century, firms sought vertical integration, that is, all activities from producing raw materials through sales to final consumers within the boundaries of a single firm. Of course, total vertical integration is virtually impossible. For example, it would have been impossible for an automobile company to do everything from mining coal, iron, and other raw materials through selling the cars to consumers; moreover, it would have had to own the companies that provided electricity to light its buildings and power its machinery, provided fuel to heat its factories, and so on. In fact, historically, there has always been subcontracting.

When observers and researchers talk about the single firm model, they generally describe large, profitable firms, typically of national or international scope. They also describe firms that have a particular labor model: long-term employment engagements, much of promotion coming from within the firm, and wages and benefits that often are better than could be expected in a firm that hired from the outside at market wages. These are the internal labor markets as described in the 1950s by Clark Kerr [1954] and later in more detail by Piore and Doeringer [1971]. This type of employment arrangement was typified by the "big three" U.S./automobile manufacturers in the 1950s/

Many much smaller firms also are unified, in the sense that the same firm operates at a site with workers who were direct employees of the firm. The regulatory statutes governing employment that were passed in the 20<sup>th</sup> century were largely designed to address issues within these types of firms, where the lead firm, the firm that controls the worksite, and the firm that employs the workers are all the same.

In this standard model, employment, wage, and OSH issues arise within a single firm, and they are therefore easiest to regulate: the same firm controls the site, manages the workers, bears the risks, and makes the profit. This is similar to the description of Kalleberg, Reynolds, and Marsden [2003], although we do not distinguish here between part-time and full-time workers or between workers who are directly hired for a limited duration or are on call and those who are not. This unified employment arrangement, particularly in larger firms, often makes it simpler for an employer to maintain a safe and healthy work environment.

## **Why would firms choose to externalize activities?**

Several factors may increase the attractiveness of having work done by individuals or firms outside the umbrella of the centralized firm.

First, if the firm experiences fluctuations in demand, it can respond by using workers who are not part of the regular workforce during those periods, rather than choosing to keep a regular workforce that will be fully employed only at peak demand, or scheduling substantial overtime work during periods of

high demand, or hiring workers directly during times of high demand and then laying them off as demand slows.

Second, work done outside the firm may yield economies of scale or indivisibilities that would make within-firm services more expensive than those that can be obtained in the marketplace. Examples include specialized information technology services, complex accounting services, specialty intermittent support services, or workers' compensation or health care claims administration.

Third, firms may simply choose to externalize work from the central firm in order to reduce employment costs by reducing wages, benefits and other employment costs. In economic theory, workers would be paid wages and benefits equal to their marginal product. In practice, there are many reasons why this will not be the case. In some cases, the rents (that is, excess profits above the minimum needed to keep the firm in operation) that some firms enjoy may end up shared with its workers. This may happen because a union bargains for a share of the firm's rents/ Or firms may want to pay higher-than-market wages to workers who have gained firm-specific skills because this is more cost-effective than hiring and training workers from the outside. There is also evidence that firms that pay high wages do so throughout the skill spectrum. This evidence comes both from studies of the firm contribution to wage heterogeneity [Barth, et al. 2014, Gruetter and Lalive 2009] and from studies of changes in the wages of less-skilled workers when jobs are outsourced [Dube and Kaplan 2010]. On the other hand, there is less reason for a firm to pay high wages to relatively unskilled workers, particularly if they do not need firm-specific skills. Having lower-skilled work done by non-employees allows the lead firm to capture some of the difference between the wages paid to less-skilled employees within the firm and outside the firm.

Fourth, firms may seek to reduce regulatory and social insurance costs, some of which may also be employment costs. If jobs are moved to firms that evade U.S. labor and environmental laws and regulations or to countries with more permissive laws, then those firms' costs may be lower—thus allowing the contracting firm to buy goods or services at a lower cost. Similarly, if jobs are moved to small contractors that are not experience-rated for workers' compensation, then these contractors will have injury costs that are unresponsive to injury rates. Lower workers' compensation costs may also reflect misclassification of workers by staffing agencies to categories that reflect less overall risk, and thus lower insurance rates.

Finally, staffing agencies may be used to employ potentially permanent hires. Going through a staffing agency may make it easier to quickly replace workers who don't meet the company's needs/This may be particularly true in unionized firms.

Weil [2014] also argues that institutional factors can lead firms to shed employment of low-skill or non-essential workers. These include greater pressure to increase profits from capital markets, executive compensation tied to firm profits, and management theories that encourage firms to focus on their core competencies.

### **What is the evidence of significant recent growth of alternative models?**

There is evidence that the fraction of employment that lies outside the umbrella of the consolidated standard firm model has been growing for decades. This growth has become the focus of

considerable policy debate in recent years, fueled most recently by the publication of David Weil's research on fissured employment.

Evidence of this growth is strongest in the professional and business services sector, in which services are provided by firms in this sector to other firms. In contrast, the administrative and support services subsector of this sector, probably the most directly relevant to this paper, employed over eight million workers in 2014, almost double its 1990 employment. This subsector includes both professional services such as accounting, legal, and information technology, and less-skilled services including janitorial and security services where OSH risks may be high. Firms in this sector provide general staffing assistance (ranging from professional employer organizations that provide administrative services to temporary help firms that employ unskilled workers) or specialized services such as payroll, benefits administration, or workers' compensation administration.

Evidence of growth of non-standard employment arrangements also comes from studies of specific occupations. For example, Dube and Kaplan [2010] examined outsourcing of janitors and guards from 1983-2000 using the Current Population Survey (CPS). They found a 31 percent increase in the proportion of janitors with outsourced jobs and a 24 percent increase for guards.

Notably, growth in specific areas of outsourced employment has varied among specific types and over time. Tables 1A and 1B compare the overall change in employment for the U.S. economy with employment changes in specific industries within the administrative and support services sector for 1990-2000 and for 2000-2014. During the earlier period, overall employment grew by 21%, as compared with only 5% in the later period, which includes the Great Recession. Employment in the administrative and support services sector grew by 80% in 1990-2000 (at almost four times the overall growth in employment) but only 6% in 2000-2014, or one percentage point more than the overall employment growth rate. Employment services, the largest industry within administrative and support services, showed an even greater fluctuation between the two periods, plummeting from growth of 154% in the earlier period to a decline of 9% in the later period (Figures 1a and 1b). Some of the other industries in this sector showed growth that was slower than overall employment growth in the later period, but some showed faster growth.

It is not surprising that the employment services industry saw a large downturn during the Great Recession. A major function of this industry is to provide temporary employees for firms during times of increasing demand because releasing temporary employees is easier and cheaper than laying off longer-term employees. They are often hired for jobs involving relatively little firm-specific skills. However, we do not know the extent that the change in employment in this sector is related to the business cycle and to what extent this represents a change in the trend toward using temporary employees. We suspect that the trend in growth of the employment services industry has slowed considerably.

Weil [2014] makes a convincing qualitative argument that there is substantial and continuing growth in franchising, offshoring, and domestic outsourcing of production. Still, there is limited quantitative evidence of past growth in these activities, in large part because of data availability. We see no strong reasons for assuming that there will be continued growth in these sectors, although we cannot rule this out.

## **Types of market-mediated work arrangements and their impact on OSH**

The downward pressure on wages and working conditions that may be created by the forms of many of these models has been well-described previously. (See [Weil 2014] and [Handwerker and Spletzer 2015].) If the motivation to go outside the lead firm is to capture firm-specific rents and the firm supplying the labor, services, or products is in a more competitive market than the lead firm, then we may expect to see a reduction in wages for people performing those tasks. This is what has been observed in some research studies [Berlinski 2008, Dube and Kaplan 2010, Kalleberg, et al. 2000]. Research has shown that franchised locations may violate wage and hour laws more often than locations operated by the lead firm [Ji and Weil 2015]. The factors that produce lower wages and wage and hour violations may also result in cutting corners on providing a safe and healthy workplace. In a study of 13 U.S. industries, Filer and Golbe [2003] found that serious violations of OSHA standards were inversely related to firms' operating margin/

However, it is also important to note that if a task is outsourced because an outside individual or organization has superior, highly-valued human capital or enjoys economies of scale, then it would seem much less likely that outsourcing would reduce pay levels or OSH conditions. There is evidence that pay levels are high in some types of outsourced jobs [Houseman, et al. 2003, Kunda, et al. 2002].

In this section, we describe the basic, simple forms of market-mediated, or fissured, employment arrangements, and summarize the research that focuses specifically on OSH effects within these arrangements. In many cases, hybrid or multi-layered arrangements may occur. For example, a franchisee may hire workers from a staffing agency and subcontract janitorial services. Still, we think that a simple taxonomy is useful.

### **#1: The staffing agency model**

In the staffing (or temp) agency model, the lead employer and the host employer are the same. We use staffing agency to encompass all types of firms that provide workers to another employer – from janitors to temporary construction workers to essentially permanent placements of both unskilled and skilled workers. The staffing agency hires and pays the worker, but does not have direct control over the worksite. In essence, the agency is supplying workers to the lead/host employer, but the lead/host has control over the conditions at the worksite.

This creates a triangulated relationship, with the employment relationship running between the staffing agency and the worker, while the lead/host firm and the staffing agency have a contractual relationship between themselves. These inter-firm contracts specify a wide range of issues, including issues of liability and insurance (such as workers' compensation). The services provided take place at the lead firm's site under the lead firm's specifications. Specific services are provided by the contracted staffing agency that may not have supervisory personnel at the work site. These services may include, for example, security, janitorial and landscaping services, among others. Not included here are multi-employer sites, discussed below, at which a variety of subcontractors provide services under their own supervision, while operating under the primary umbrella of a general (controlling) contractor.

#### *Evidence about OSH effects of the staffing agency model*

We have found only a handful of studies that directly address the impacts of new fissured employment arrangements on occupational safety and health in the United States, and even fewer of staffing agency workers. We focus on the U.S. because differences among countries, including in employment laws as well as differences in the employed populations, make it difficult to know the cross-national transferability of findings. There is a substantial international literature on this, for example the work of Quinlan, Mayhew, and their colleagues [Gregson, et al. 2015, Mayhew and Quinlan 1997, Quinlan 1999, Quinlan 2015, Underhill and Quinlan 2011]. The international literature on precarious employment as a social determinant of health has been reviewed recently [Benach, et al. 2014].

Older studies have looked at arrangements that involved these types of triangulated relationships. About twenty years ago, Rebitzer [1995] studied the impact on occupational safety of subcontracting of maintenance and turnaround at petrochemical facilities. He found that managers at the facilities were instructed to maintain an arms-length relationship to the contractor employees. This was believed to be necessary in order to limit the facility owner's liability for contractor actions and for worker's compensation benefits for work injuries. In the course of this study, Rebitzer found a chemical company memo indicating that managers should not instruct contract employees on how to work in compliance with plant safety procedures (p. 44). A statistical analysis found that contract employees, especially those who worked less than one year at the facility, had substantially higher injury rates than did direct employees.

In a related paper [1994], Kochan, and his co-authors provided recommendations to OSHA that are still relevant today. Three of these are: (1) holding plant managers accountable for the safety of all those working at their sites, including employees of contractors, (2) requiring plant managers to collect site-specific safety data for direct-hire and contract workers, and (3) establishing minimum training standards appropriate for the different types of work employees perform in petrochemical plants.

Evidence from high risk industries such as petrochemical, construction and trucking indicate the negative effects associated with contracting out work may result from a desire by companies to avoid liability or regulatory oversight [Azari-Rad, et al. 2003, James, et al. 2007, Rebitzer 1995].

Muzaffar et al. [2013] compared data on contract workers and direct employees in all U.S. mines between 1998 and 2007 to determine if there were notable differences between the two groups in relation to fatal mining accidents. Their data indicated that the univariate odds of a reported fatal incident as opposed to a reported non-fatal incident were 2.8 times higher for contract workers than operators. They also utilized a multivariate model, which associated other factors with fatality. These included being a contract worker, being more than 8 hours into a working day, and having less overall experience in that specific mine. They found that contractors had higher reported fatality rates than direct employees but lower reported non-fatal injury rates. It is not clear whether the non-fatal injury rate finding is an artifact of differential reporting. Also, if limited mine experience is a mediator between being a contract worker and experience at a specific mine, this study may have underestimated the impact of contracting on injury rates.

A 2011 NIOSH study, led by Pappas and Mark [2011] suggested that contractors in underground coal mines had substantially higher injury rates than direct mine employees, but that the disparity in rates had almost disappeared by 2009. However, these comparisons did not control for differences in the

occupations of contractors and direct employees. Contractors are often employed to do specialized tasks like trucking and ventilation work that may not otherwise be done by direct employees.

Several studies of staffing agency workers have found elevated injury risk. An early study at a plastic products manufacturer found that staffing agency workers had well over twice the injury rate as permanent workers [Morris 1999]. The authors stated that the two groups did similar work and received the same job training. Injury rates were not adjusted for age, gender, tenure, or other potential confounders.

Other studies have focused specifically on temporary workers. In a study of needlestick injuries of hospital nurses, Aiken, Sloane, and Klochinski [1997] found that temporary nurses had an elevated injury rate/Using workers' compensation data from Minnesota, Park and Butler [2001] found substantially higher claim rates among temporary agency workers. Two studies using Washington State workers' compensation claim data found qualitatively similar effects [Foley, et al. 2014, Smith, et al. 2010]. Smith et al. [2010] found that temporary workers had estimated claims rate ratios double those of permanent workers in manufacturing and construction.

ProPublica reporters merged Florida 2011 workers' compensation data with occupational employment data from the Bureau of Labor Statistics (BLS) Occupational Employment Statistics (OES) program [Pierce, et al. 2013]. They focused on comparing injury rates for occupations in the employment services industry group (5613) with those not in this industry group, controlling for age group, sex, and a measure of whether a job was hazardous. Using logistic regression, they found an odds ratio of close to four for injuries of temporary workers compared with other workers. We reran their analysis using negative binomial regression to model their count data and obtained an incidence rate ratio of 3.53 (95% confidence limits 2.76 to 4.51). Using either method, it is reasonable to conclude that temporary jobs are, on average, more hazardous than other jobs in occupations with similar overall injury rates. Furthermore, in the event of injury or illness from work, there may be inadequate recordkeeping or reporting by either the host or the employing firm, either because of true confusion as to who is responsible for recording and reporting or by intent.

Benavides et al. [2006] conducted a study of Spanish temporary workers, including both staffing agency workers and individual temporary workers. They found rates of fatal and non-fatal occupational injuries were 2.5 to 3.0 times as high among temporary workers. However, when accounting for gender, age, occupation, and company-specific length of employment, the rate ratios became insignificant and close to 1.0. Length of employment appeared to be the most important contributor to the excess risk of temporary workers. Given the differences, as noted above, among countries' underlying systems, it is difficult to know whether this study is applicable to the U.S. environment.

One reason to go outside the firm is to respond to fluctuations in demand, temporarily hiring workers in times of increasing cyclical demand and laying them off during slack periods. Temporary workers hired during times of high demand may have similar pay rates during their employment, but their relatively short tenure at a specific workplace may increase their OSH risks, because of unfamiliarity with the hazards at a worksite, less OSH training relevant for the specific job supplied by either the staffing company or the host company, and more distant relationships with longer-term workers who could help navigate worksite hazards.



Temporary and short-term workers, frequently hired through employment agencies, may be particularly vulnerable to workplace safety risks. As noted in a recent OSHA White Paper [OSHA 2015]:

New workers often lack adequate safety training and are likely to be unfamiliar with the specific hazards at their new workplace. As a result, new workers are several times more likely to be injured in the first months on the job than workers employed for longer periods. Consistent with these findings, OSHA has investigated numerous incidents in recent months in which temporary workers were killed on their first days on a job. Temporary workers are also likely to be newly assigned to unfamiliar workplaces multiple times in any given year and may carry this increased risk as long as they are in the temporary workforce. For employers, there is less financial incentive to invest training resources on temporary employees because shorter tenure will yield a lower return on investment than similar investments for permanent employees. OSHA has encountered many situations, including some in which temporary workers have been killed, in which employers have chosen to not provide required safety training to temporary workers. And the temporary workers themselves, recognizing the precarious nature of their employment, are less likely to complain to their employers, or to OSHA, about the existence of even serious hazards [Foley, et al. 2014, Grabell 2013].

Workers in non-standard employment relationships, particularly in these triangulated contracted relationships, are often subject to the same occupational hazards faced by others in the same work environments in standard employment relationships. But these workers are likely to have little control over their work schedules or pace, may be hired only during periods of high demand, and have few social supports in the workplace. They may also have limited training in job tasks, associated risks, and the means to prevent injury or adverse health exposures. The availability of personal protective equipment and the knowledge of how and when to use it, may be limited. And, in some cases, they may be assigned to the most dangerous jobs [Mehta and Theodore 2006].

Protections from hazards may be diminished and their vulnerability to a broad range of adverse effects may be exacerbated by the nature of their employment relationship. Workers in these relationships, particularly those who are short-term or seasonal workers, may be more subject to job stress and its adverse health consequences and less likely to benefit from the workplace factors that may mitigate these effects [Cummings and Kreiss 2008]. Job stress can result in both physical and psychological disruption. Prolonged job strain is thought to lead to increased cardiovascular disease, musculoskeletal disorders, sleep disruption, and psychological disorders. According to a recent analysis of General Social Survey data, exposure to harmful workplace practices such as job insecurity, low job control, high job demands, and low social support at work may explain a significant proportion of observed inequality in life spans in different demographic groups in the US [Goh, et al. 2015]. The growth in non-standard employment relationships that result in increased exposure of less educated and ethnic minorities to harmful workplace practices may thus ultimately result in diminished life expectancy. These findings are consistent with a longitudinal mortality study of temporary workers in Finland that found workers moving from temporary employment to permanent employment had lower death rates than those who remained as temporary workers [Kivimäki, et al. 2003].

Finally, these workers may have less access to health insurance and workers' compensation benefits [Asfaw 2014, Mehta and Theodore 2006], causing greater financial strain and interfering with recovery from injury or illness.

## **#2: The franchised relationship**

In the franchised relationship, the lead – the power firm in the relationship – is the franchisor. The franchisee is the direct and the host employer, with day-to-day direct control of the worksite, although this control is tempered by the terms of the franchise agreement which will often set out specific requirements for the worksite. This includes many fast-food chains, but also janitorial firms, security firms, and others. In contrast to the staffing agency model, this looks diagrammatically linear, rather than triangulated: the lead firm contracts with the site firm which contracts with the employees; but the lead employer and the site employer are not both at the worksite.

The franchisee is governed by explicit contractual terms and delivers a product or services to an outside buyer based upon the requirements of the franchisor. The franchisee often looks like a small business, but the franchisor exercises significant control. The regulator can easily reach the franchisee, as it is the site employer, but would have more leverage if it can reach the franchisor and either persuade the franchisor to require OSH measures in the franchise contracts or persuade the franchisor to change other contractual terms that may impact OSH. For regulatory purposes, the nature of the franchise agreement and the extent to which the franchisor and the franchisee are sharing in the local enterprise will matter.

Franchising may offer significant opportunities for regulatory and public health agencies to improve worker safety by focusing on the lead employer (the franchisor) and promoting changes that result in improvement in safety in all franchised establishments. This may mean that, in some cases, a business that would have been a "small business" – with all the economic, policy and regulatory challenges this entails – may in fact be sufficiently connected to a lead employer to provide opportunities for effective OSH interventions.

Although we found no published quantitative studies of the impact of franchising on worker health and safety, a recent example successfully employing this strategy is instructive. The Occupational Health Surveillance Program of the Massachusetts Department of Public Health, through its ongoing surveillance of workplace burns, identified poorly designed coffee-makers as the source of a number of serious burns in franchised coffee shops. The burns resulted in the need for emergency medical care and, in some cases, permanent impairment. The franchisor specified the kind of equipment the franchisees needed to use and sold this equipment to the worksites. The franchisor agreed to design an equipment retrofit and then contractually to require franchisees to adopt the retrofit. When ongoing surveillance indicated a continuation of the burn problem, the franchisor ultimately agreed to require the use of newly designed coffee makers that appear to have greatly diminished the burn risk at multiple sites.

## **#3: Same site contracting**

This model involves multiple employers operating at a single site. Subcontractors direct the work of their own employees, but the ultimate responsibility for the worksite (and work product) is shared with

the controlling host employer. This model is most common in construction, where the lead employer is sometimes termed the “controlling contractor/ In construction, subcontracting is common, and subcontract workers are faced not only with the hazards of their own jobs but hazards emanating from other activities at the site/! n example of this is in a study of electrical subcontractors’ exposure to hazardous noise levels emanating from other contractors at the worksite, even though their own activities are relatively quiet [Seixas, et al. 2001]. Notably, while there is an extensive literature regarding construction hazards generally, there is a dearth of studies that specifically focus on the effects of subcontracting on OSH outcomes in multi-employer sites.

#### **#4: Contracting by a firm with many individuals**

In this model, a central firm develops individual contracts with individual workers. This is an arena of considerable current dispute regarding the classification of these workers as independent contractors. Within the OSH field, the problem is further exacerbated by the fact that these workers work in disseminated sites, often not under the control of the lead firm, but not necessarily under the control of the worker. In the Uber model, for example, the place of work – the vehicle itself – is arguably within the sole control of the worker, with specifications set by the firm. The roads are, of course, not within the control of any of the firm, though this does not differ from the on-the-road hazards of other workers. In the home health aide model, on the other hand, the place of work is under the control of the customer/client, and the aide may confront considerable risks from both the physical workplace and the difficulty in caring for patients who may pose both physical and emotional risks for the caregiver. In all of these models, OSH interventions – beyond requirements for training and communication – would be difficult.

We did not identify any published evidence about the OSH impact of this form of market-mediated employment.

#### **#5: Supply chain relationships**

When one firm contracts with another to complete portions of the work, a supply chain is formed. While often discussed within the context of globalization, this also occurs within the U.S. In this situation, the lead employer contracts with another employer for the delivery of particular goods that meet specifications. It is up to the contracted employer to figure out how to do this, including making decisions regarding further contracting, either for workers or with another firm that will provide part or all of the product. The lead firm may have potential contractual authority over a range of production issues that could govern conditions at the site of the direct employer, but this authority is exercised infrequently.

Supply chain competition domestically or from abroad can increase economic pressures on domestic firms competing internationally. In principle, subcontracted (outsourced or offshored) work can be done by profitable well-established firms or by marginal firms that are under substantial economic pressure. There is some evidence that OSH risks are greater among marginal subcontractors. McManus and Schaur [McManus and Schaur 2014] estimated that increased Chinese import competition in the period 2001-2007 led to substantially higher injury rates in affected U.S. industries and that small plants were particularly affected. Supply-chain policies and practices have significant

impact on safety conditions worldwide as exemplified by the Rana Plaza disaster [Manik and Najjar 2015].

## **B. Underlying changes in the nature of work and the health and safety consequences**

Underlying changes in the nature of work, including technological changes, and changes in the labor market both independently change OSH risks and also interact with changing contractual arrangements. Detailed discussion of these other trends is not the primary focus of this paper, but it is important to note that these other changes may, in fact, be as significant in the evolution of OSH challenges as those discussed in the prior section.

First, new technologies are disrupting existing patterns of work and are likely to continue to do so in the future. For example, improved accuracy of analytic models of consumer demand has enabled employers to fine-tune work schedules to meet production needs [Greenhouse 2015]. Last-minute schedules make working hours less predictable for the worker and have negative impact on necessary non-work arrangements, including childcare and other family responsibilities. Wireless tracking technologies combined with delivery route adjustment based on real-time traffic conditions, such as those implemented by UPS, improve the efficiency of parcel delivery and reduce fuel costs but also change the balance of worker control of job pace versus demand/Warehouse fulfillment centers are adopting voice recognition picking technologies with computer generated voices pacing and directing workers that may (at least initially) improve worker efficiency and reduce error, but also result in closer monitoring of worker performance, reductions in worker control over job pace, speed-up and attendant mental and physical risks. An example of this is Dematic Pick-to-Voice, described on their website [Dematic]. It is these technological changes that enable the gig economies such as Uber and Taskmaster, but they also dramatically affect work within more standard employment relationships. In fact, these new unforgiving technologies allow a return to an extreme form of Taylorism. They have the potential to increase psychosocial stressors and increase work-family conflicts, particularly for workers with dependent children.

Second, sectoral shifts mean that important job growth is in isolated environments often subject to contracting arrangements. The growing need for in-home health care is a critical example where OSH hazards are high and work is dispersed. Increased dispersion of work is further enabled by technological interventions. On the other hand, employment in some dangerous industries, such as underground coal mining, is declining.

Third, workers have decreasing ability to voice concerns about health and safety, as well as other issues. Union membership has been declining in the U.S. for many years (Figure 2), and unions have played a substantial role not only in protecting their own members but supporting laws and institutions that attempt to protect all workers. Protections for raising concerns exist only on paper for many. We discuss this more fully in the next section.

Fourth, the workforce itself is changing in ways that create new OSH challenges. There is, for example, a higher labor force participation of older workers and of women; the number of immigrants in the workforce is high, with challenges of both language and, for those who are not documented, increased vulnerability to retaliation.

Fifth, there are new exposures – such as nanoparticles – that pose risks that are still being assessed.

These underlying, and in some cases non-cyclical, changes may be at least as important as changes in labor market structures in affecting OSH and therefore in developing a strategic approach to reducing OSH risks.

## **Part II: Strategies to improve health and safety in fissured employment**

The overall goal is clear: to protect all workers, to the extent feasible, from illness, injury or death from hazards at work. While regulation of health and safety in single firms is challenging, the regulation of fissured environments is undoubtedly more complex. Nevertheless, all workers need to be fully aware of the hazards they face; effective communication and education is just as critical for employees hired through staffing agencies, as is the need for appropriate personal protective equipment, training, and careful attention to exposure histories irrespective of length of employment with an individual host firm. All workers must be able to raise concerns about safety without fear of retaliation from a direct or an indirect employer/ Regulatory interventions should, to the extent possible, cross employers' contracting boundaries in order to reach the entity that has the most potential to control hazards for the largest number of workers – generally the lead firm. Assistance should be provided to employers, particularly small and medium-sized employers, to educate them in how to meet their health and safety obligations. Similarly, irrespective of contracting relationships, it is critical to ensure accurate reporting and effective surveillance. And there should be alignment of liability to hold responsible parties accountable for exposures that lead to illness or injury.

These goals require, in non-standard employment relationships, reaching up through layers of contracting (franchises, supply chains, multi-site employers, single site multi-employer) and out across triangulated contracting relationships (staffing agencies and complex subcontracting).

The gig economy poses different issues, as people generally work alone, often from home or in solo settings. This particular set of issues will require new approaches to worker education, communication, and general (non-workplace-centered) public policy.

Health and safety regulatory policy is only partly a matter of enforcement of the OSH Act's standards and general duty clause. Instead, we must think about all of the available regulatory levers as well as the tools available to workers who seek to improve their health and well-being.

The problem of preventing injury and disease from work differs in some fundamental ways from the problem of wage violations. In wage collection, the goals are to find an entity that will pay wages that are due and to counter misclassifications that remove workers from the protections of the wage and hour laws and social safety net. To accomplish this in fissured workplaces, it may be necessary to identify the lead firm that may be setting wage requirements or establishing policies that misclassify workers. In contrast, responsibilities for health and safety are tied to place – the place where workers work and the policies that govern the work environment.

There are several intersecting areas of policy that must be addressed, and they intersect in various ways with the types of employment arrangements that we have described in the prior section. We

address three of the critical areas below. A fourth – potential legal and policy approaches in the states – is an important part of the puzzle, but is generally not addressed in this paper.

### #1: Worker voice

The ability of workers to raise concerns about health and safety risks is critical to successful OSH policy. It goes without saying that the regulatory reach of OSHA (and state plans) is limited, given the inflexibility of standards, the difficulty of mounting general duty cases, and the inadequacy of administrative resources. As noted above, union membership has declined overall, so that only about 7% of the private sector workforce is now covered by collective bargaining agreements, most of which guarantee job security to workers through just cause and progressive discipline provisions. With this decline, the strength of health and safety efforts has also diminished within the union movement. In addition, although a few state statutes require joint health and safety committees, these committees function more effectively in unionized than in non-union workplaces [Weil 1999]. Moreover, these state-created committees exist in a gray area of legality as a result of the preemption of state law by the National Labor Relations Act (NLRA) and the reach of §8(a)(2) of that Act, 29 U.S.C. §158(a)(2) which prohibits employer domination of workplace organizations that function as labor organizations within the meaning of Section 2(5), 29 U.S.C. §152(5). See *Electromation, Inc.*, 309 N.L.R.B. No. 163 (Dec. 16, 1992). Joint labor-management safety committees established outside of union-organized workplaces are therefore viewed as suspect by the NLRB, even when established pursuant to a state law that mandates that the committees be created. See NLRB Office of the General Counsel Advice Memo, *Goody's Family Clothing, Inc.*, Case No/10-CA-26718 (Sept. 21, 1993). Non-union private sector workers are almost universally at-will, with no job protection other than that offered by specific employment laws that provide very limited rights that are difficult and often expensive to enforce. Thus, there is no easily accessible route for most workers to raise OSH concerns, and workers must take significant risks to come forward.

The existing protective laws do not make up for fear of retaliation and lack of on-the-ground protections. There are two primary sets of relevant, though limited, laws. The whistleblower laws, enforced by OSHA, vary in their level of protection. In particular, the protection offered to workers in general industry for raising health and safety issues (or related activities, such as reporting injuries) under Section 11(c) of OSHA is notoriously weak [Spieler 2014]. Nevertheless, it is important that Section 11(c) says, "No person shall discharge or in any manner discriminate against any employee." On its face, this language does not require a claim be made against the direct employer. To our knowledge the interpretation of these laws has not yet been used to include complaints against host or lead employers. If the non-direct employer is complicit in the discriminatory or retaliatory acts, however, there is no reason why this could not be done. In fact, a similar argument was recently sustained in a case involving a temporary worker under Title VII, where the statutory language is less broad: In the case of *Faush v. Tuesday Morning, Inc.*, 808 F.3d 208 (3d Cir. 2015), the site employer was held responsible for discriminatory conduct involving a worker employed through a staffing agency, where the site employer itself engaged in discriminatory conduct including job assignments.

The second arm of protection, under the NLRA, extends protection to workers who collectively raise concerns about working conditions, irrespective of their union status. The National Labor Relations Board [NLRB] has moved ahead to reach both franchisors – in a case involving McDonald's US! – and

host employers that use workers through staffing agencies. The question is whether the direct employer and the host or lead employer are “joint employers” under the NLRB Act. In the case involving McDonald’s, the NLRB General Counsel issued complaints against both the franchisees and the franchisor, alleging that actions were taken against the workers in the franchises for engaging in protected activities and that the franchisor, McDonald’s, was sufficiently involved to constitute a joint employer under the statute. According to the General Counsel, “Our investigation found that McDonald’s, US!, LLC, through its franchise relationship and its use of tools, resources and technology, engages in sufficient control over its franchisee’s operations, beyond protection of the brand, to make it a putative joint employer with its franchisees, sharing liability for violations of our Act.”

In *Browning-Ferris Indus. of California, Inc.*, 362 NLRB No. 186 (Aug. 27, 2015), addressing the issue of staffing agencies, the Board broadened the definition of joint employers – returning to an earlier accepted definition – and determined that a host/lead employer was a joint employer responsible for collective bargaining with the employees of a staffing agency as long as the host employer was able to exert at least indirect control over wages, hours and other terms of employment:

In this case, for instance, BFI communicated precise directives regarding employee work performance through Leadpoint’s supervisors. We see no reason why this obvious control of employees by BFI should be discounted merely because it was exercised via the supplier rather than directly.

The Board concluded:

The Board may find that two or more entities are joint employers of a single work force if they are both employers within the meaning of the common law, and if they share or codetermine those matters governing the essential terms and conditions of employment.

These cases are notable when considering health and safety issues for three reasons. First, they indicate that workers who collectively raise health and safety concerns may have recourse, under the NLRA, against lead and host employers – taking both negotiations and protection for concerted activity up the food chain to the potentially most influential entity. Second, they will allow workers employed by staffing agencies and franchises to organize unions that reach across the firm’s contracting lines – a unionizing effort will involve both the direct and the host, both the franchisee and the franchisor. Third, these legal analyses have relevance to interpretations of the OSH Act, discussed in the next section.

Despite these potential areas of protection for workers in non-standard employment relationships, the laws and the level of job security are weak for all at-will workers. The number of complaints brought under these laws – and related laws where retaliatory or discriminatory conduct involving health and safety or work injuries is alleged – is overall quite small. This may mean that retaliation is infrequent, and that workers bring forward their concerns without facing retaliation. Alternatively, based on persuasive data regarding under-reporting of both hazards and injuries [Azaroff, et al. 2002, Spieler and Wagner 2014], it is likely that the problem is, in fact, that retaliation is often not reported, and that non-union workers are particularly reluctant to voice concerns about safety – or even to report injuries. These rights are further attenuated for workers who work alone as home health aides or in

other similar positions, as they face additional barriers to raising a collective voice. Individuals employed through staffing agencies – particularly if they are made more vulnerable by their immigration status – also face special barriers, particularly if they are assigned to worksites for brief periods of time, or they are immigrants without adequate documentation. This means that the protection of worker voice, a critical foundation for improved health and safety, is extremely weak. Aggressive enforcement of the available laws is critical, but may not be adequate to address the level of vulnerability faced by most workers.

## **#2: Legal interventions to address workplace hazards**

The goal for an OSH strategy should be to focus where interventions will have the broadest and most lasting impact. This is particularly true in situations involving complex relationships among employers and resulting confusion for workers. OSHA practice has historically recognized this need, and this recognition predates the current discussion regarding non-standard employment arrangements. Recent developments in enforcement suggest that OSHA is pursuing a more strategic and aggressive approach.

First, OSHA has engaged in various strategies for targeting hazards and hazardous industries for some time. Now, with the OSHA Information System (OIS), OSHA can better evaluate its own enforcement targeting, and continually improve its targeting efforts. As data sources improve, so will the possibility for relying on this feedback loop to improve targeting efforts that can affect behaviors across an industry. The recent revision of the emphasis program on amputations and the development of regional emphasis programs on the poultry industry are examples of newly designed targeting efforts. OSH! has also invited interested parties to advocate for new targeting/ Changes in OSH! s programmed inspection policies and practices and development of emphasis programs in the industry sectors with both target populations of particularly vulnerable workers and significant regulated hazards will allow OSHA to be a more efficient and effective enforcement agency in the areas of growing concern that are exacerbated by changes in work structure.

Second, OSHA has engaged more effectively in the use of corporate-wide enforcement and settlement agreements. See [https://www.osha.gov/pls/oshaweb/owasrch.search\\_form?p\\_doc\\_type=CWSA](https://www.osha.gov/pls/oshaweb/owasrch.search_form?p_doc_type=CWSA) for a list of the settlement agreements currently in place. The authority to seek corporate-wide enforcement – without a voluntary agreement – was preliminarily upheld by the Occupational Safety and Health Review Commission (OSHRC) in a recent case in which OSHA sought the entry of a corporate-wide abatement order involving non-compliance with safety standards for powered industrial trucks in the employer's 170 shipping terminals and service centers distributed across the U.S. Secretary of Labor v. Central Labor Transport, LLC, OSHRC Docket Nos. 14-1452, 14-1612, 14-1934 (2015). The expansion of the use of similar agreements and enforcement to cover contracting arrangements among employing entities – including franchise agreements – should be explored further. The example given above of effective intervention in franchised coffee shops highlights the possibilities for effective health and safety interventions when reaching up through contracting relationships.

Third, a recent Memorandum of Understanding between OSHA and the Department of Justice (DOJ), announced December 17, 2015, establishes the Worker Endangerment Initiative within DOJ and



expands the possibilities for criminal enforcement, including in areas where contracting among firms exacerbates workplace health and safety challenges. The previous prosecution in *United States v. Xcel*, Criminal Case No. 09-cr-00389-WYD (D. Col. 2010), despite the fact that it ended with an acquittal, is an example of expanding the prosecutorial net beyond the direct employer-employee relationship. The prosecution of Don Blankenship in a case arising out of the Upper Big Branch mine disaster also suggests that federal prosecutions regarding workplace health and safety can be pursued successfully.

In what other ways can OSHA use its direct regulatory authority to address the problems created by fissured contracting relationships among employers?

Although the OSH Act clearly envisioned what we have called standard employment relationships, in fact OSHA has broader authority to reach non-direct-employers than exists for other federal agencies under the NLRA, FLSA and other laws. Although the specific language and degree of proof required under the other statutes may vary somewhat, they all require proof of a direct employment relationship in order to assert rights on behalf of the workers/ OSHA's hortatory language is much broader: Section 2 of the OSH Act includes Congressional findings that urge OSHA to assure "so far as possible every working man and woman in the National safe and healthful working conditions" - Section 4 says, "This Act shall apply with respect to employment performed in a workplace/ Here, the focus seems to be more on place and control of the environment, and less on the exact nature of the employment relationship. In fact, OSHA can sometimes impose regulatory duties based on an employer's relationship to the hazards at work without also proving that the cited employer is the direct employer of the workers who are at risk.

This is particularly true in the enforcement of specific standards. Section 5(a)(2) of the Act requires "each employer to comply with occupational safety and health standards/ Thus, enforcement of the standards does not require proof of a direct employment relationship, though the cited entity must be an employer/ <sup>1</sup>This statutory framework means that OSHA need not focus on the existence of a direct employment relationship when enforcing standards, in contrast to legal interventions under other federal employment and labor statutes.

Note that this not true with regard to enforcement of the "general duty" clause/ The language of Section 5(a)(1) suggests that proof of a direct employment relationship is necessary for enforcement of the general duty clause. "Each employer shall furnish to each of *his* employees employment and a place of employment which are free from recognized hazards that are causing or are likely to cause death or serious physical harm *to his employees/* (Emphasis added)

Relying on the statutory language relating to enforcement of standards, the Multi-Employer Citation Policy, first developed in the 1970s and last revised in 1999, recognizes that joint responsibility among multiple employers is critical where coordination affects workplace hazards; the policy notes that "more than one employer may be citable for a hazardous condition that violates an OSHA standard/ The test under this policy is whether the cited employer is a "creating, exposing, correcting or

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<sup>1</sup> The definition of "employer" is not particularly helpful. OSHA Act Section (3) (5) says, "The term "employer" means a person engaged in a business affecting commerce who has employees/

controlling employer and whether the employer's actions were sufficient to meet its obligations [OSHA 1999]. The citation policy explicitly applies in all industry sectors, and most appeals courts have endorsed this approach. Under this directive, the controlling employer is "[a]n employer who has general supervisory authority over the worksite, including the power to correct safety and health violations itself or require others to correct them. Control can be established by the contract, or in the absence of explicit contractual provisions, by the exercise of control in practice."

Rabinowitz [2015] persuasively argues that this policy may be applied to other non-standard employment arrangements where the non-direct employer has significant control over the work environment, though this argument has not yet been tested. As noted above, this argument only has relevance when enforcing specific standards, because the general duty clause requires a direct employment relationship. For example, Rabinowitz suggests that franchisors often have sufficient control – through contracting/ franchise agreements or inspection policies or specific worksite requirements – to be cited under this policy. Similarly, supply chain organizational structures, where the lead employer specifies conditions or work organization, may arguably also be vulnerable to this approach. Rabinowitz appropriately concedes, however, that the hazard must be one that the franchisor or lead employer has the ability to control: any franchise agreement requirements for use of protective equipment or hazardous site equipment or hazardous workplace practices would qualify; site-specific hazards that could not be anticipated, such as exits blocked by boxes, would not.

The Washington State Supreme Court imposed liability, for example, on the lead jobsite employer, SeaTac, after a worker, who was employed by a contractor that provided ground services for the airlines, was injured. The court held that the lead employer retained control over the manner in which the contractors completed their work, and was therefore potentially liable in tort.<sup>2</sup> The court relied in part on Washington's multi-employer site doctrine, noting that OSH liability might hold "irrespective of any employer-employee relationship" as long as the jobsite owners "retain control over the manner in which contractors complete their work." See *Afoa v. Port of Seattle*, 296 P.3d 800 (WA en banc).

Rabinowitz argues that the use of the multi-employer citation policy in non-standard work relationships would be strengthened by several steps that DOL could take, including revision of the existing policy so that it explicitly and clearly covers both traditional and non-standard work organization and developing a written legal justification for broad application of the policy. OSHA could also strengthen its legal position on these issues by issuing a regulation, as was done in 1997 in California, explicitly referring to multi-employer worksites in "both construction and non-construction." See Title 8 of the California Code of Regulations, Section 336/10 – Determination of Citable Employer (available at [https://www.dir.ca.gov/title8/336\\_10.html](https://www.dir.ca.gov/title8/336_10.html)).

OSHA can also make use of the more traditional "joint employer" doctrine in multi-employer situations: Use of this doctrine would be necessary for enforcement of the general duty clause and may be necessary in some cases involving the enforcement of standards. This can be done advancing the same type of legal argument as that used by the NLRB in the *Browning Ferris* and *McDonald's* cases, discussed above. The specific legal issues that confront the NLRB in re-interpreting the joint

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<sup>2</sup> The tort liability issue is one that is very specific to the state.

employer doctrine may also confront OSHA; the outcome of the NLRB cases, as they continue to be litigated, will help to define the boundaries for developing this doctrine under the OSH Act.

Not surprisingly, broadening OSHA enforcement to include contracted and franchised facilities and firms has already attracted attention from employers' representatives who focus on health and safety. For example, Baruch Fellner, an attorney with Gibson Dunn & Crutcher LLP, told Bloomberg BNA in August 2014, "If you've got a blocked exit at a McDonald's down the corner and they get a citation – ho-hum. But if you've got hundreds of McDonald's receiving the same kinds of citations, with ratcheted-up penalties going to the attention of the CEO of McDonald's writ large, then OSHA gets its shaming mechanism and its deterrence mechanism." [Lee 2014].

Notably, state law – particularly the law governing workers' compensation – generally acknowledges the relationship among contracting employers. While direct employers usually provide workers' compensation coverage and, therefore, benefits, host and lead employers are, in many jurisdictions, shielded from tort liability as a result of their contractual relationships with the direct employers. This protection is sometimes extended by statute (Tennessee is one example), but it can also be extended through the contracting arrangements between staffing agencies and host employers (as was recently held by the Massachusetts Appeals Court in *Molina v. State Garden*, 88 Mass. App. Ct. 173 (Mass. App. Ct. 2014)). Obviously, this is not the universal rule, as can be seen by the Washington State case described above.

There are other alternative strategies to allow for regulation of health and safety violations, but none are available under current federal OSH law. The "hot cargo" provisions of the wage and hour laws – which allow intervention in the supply chain when violations are found – are not now part of the OSH regulatory landscape. Regulation of contracting terms – between franchisor and franchisee, or between lead and supplier – might require inclusion of specific terms regarding OSH issues. Federal contracting requirements might be expanded to include requirements and responsibilities within franchising and staffing arrangements.

Two examples of non-OSH Act regulatory intervention in health and safety involving the mining industry are also instructive. First, the Dodd Frank Wall Street Reform and Consumer Protection Act, Pub. L. 111-103, was enacted shortly after the Upper Big Branch mining disaster. It requires publicly-traded companies that operate mines to report a variety of safety-related information including significant mine safety violations and the dollar value of assessed fines in their quarterly SEC filings that go to shareholders. There is some belief that this heightened visibility of safety conditions to investors will create an effective incentive to correct hazardous conditions and prevent them from occurring. Second, the Mine Safety and Health Administration [MSHA] requirement for pre-shift inspections to identify and mitigate hazardous conditions provides another example of efforts to prevent hazardous conditions for all workers at a worksite no matter what their employment status. OSHA has encouraged employers to develop and implement Injury and Illness Prevention Programs in an effort to achieve similar goals.

Private rights to bring actions against employers that create or tolerate safety and health hazards – including employers in contracting relationships – are generally viewed as state law issues, and may sometimes be barred under the web of state laws governing the workplace. This is not, however,

universally true, as is also illustrated by the Washington State case discussed above. Notably, the Washington State statute has an arguably broader definition of employers than the OSH Act, making the reach of the statute in non-standard employment situations more likely.<sup>3</sup>

State litigation that does not overlap with standards is likely to be going on below the radar of much of the national debate on these issues. A full discussion of the potential of state legal action in the health and safety area is beyond the scope of this paper, although there is certainly additional state-based litigation that is worthy of note. For example, in a case involving severe burns in a Hardee's restaurant, where the plaintiff alleged a variety of state causes of action, a federal district court in West Virginia denied the franchisor-defendant's motion to dismiss. The franchisor argued that it was not the injured worker's employer—the judge concluded—that the Franchisor Defendants had actual knowledge of alleged unsafe working conditions which were of long standing and much complained about at the Hardee's franchise in question, where the plaintiff had alleged that the franchisor provided training, supervision, inspections, equipment, cooking supplies, and procedures in furtherance of the operation of that restaurant. It is reasonable to infer from these allegations that the Franchisor Defendants had control over the equipment and procedures which contributed to Hamrick's injury and that their conduct created a risk of physical harm to Hamrick. Defendants owed Hamrick a common-law duty to exercise reasonable care, and his alleged injury as a result of using equipment and safety procedures in place at that restaurant makes him a foreseeable plaintiff. See *Hamrick v. Restaurant Management Group LLC*, Memorandum Opinion and Order, Civil Action No. 2:14-cv-02762 (S.D. W. Va., Sept. 19, 2014). The liability of franchisors and contracting firms will undoubtedly be pressed by plaintiffs' lawyers in state claims like this one, where state law varies regarding the extent to which employers have civil liability for workplace injuries; this is a worthy area for additional exploration in thinking about the full set of potential legal actions that may help to improve health and safety in fissured workplaces around the country.

### **#3: Education, training, communication, medical surveillance, and personal protective equipment**

Who is responsible for ensuring that individual workers receive the necessary information and training to perform jobs in a safe manner? This is an easy question to answer in the standard employment relationship. But in non-standard arrangements, where authority may be retained by a lead employer that exerts indirect control of day-to-day work (e.g. franchising, supply chains) or in triangulated contracting situations (e.g. staffing agencies or off-site subcontractors), the apparent diffusion of responsibility may threaten the ability of workers to obtain critical information, be fitted with essential personal protective equipment, or be assured that exposure time-limits are met when they move from job to job. These problems may be exacerbated by language barriers and the legally vulnerable status of undocumented immigrant workers. Workers may be understandably confused in triangulated work relationships where employers are choosing to meet their responsibilities by contracting among themselves, using contracts that are not available or transparent to workers or regulatory agencies.

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<sup>3</sup> The WISHA defines employer as follows: "any person, firm, corporation, partnership, business trust, legal representative, or other business entity which engages in any business, industry, profession, or activity in this state and employs one or more employees or who contracts with one or more persons, the essence of which is the personal labor of such person or persons" RCW 49.17.020(4) [emphasis added]- the OSH Act defines employers as follows. "The term 'employer' means a person engaged in a business affecting commerce who has employees" 29 U.S.C./§ 652(5)/

The problems posed are clearly more challenging, both from a practical and regulatory point of view, in triangulated work relationships than in hierarchical contracting relationships.

To date, OSHA has addressed this problem in several ways.

First, although not directly analogous, some standards extend responsibility for protections to non-direct employers: manufacturers and distributors must create and transmit information under the hazard communication standard regarding toxic chemical hazards; property owners must inform contractors regarding asbestos hazards; multi-employer sites require employer to employer communication. The confined space standard for general industry specifically requires host employers to work with contractors, 29 C.F.R. § 1910.146(c)(8); failure to do so has resulted in at least one criminal prosecution in which the trial judge allowed the case to go to trial after five workers died. *United States v. Xcel Energy, Inc.*, Criminal Case No. 09-cr-00389-WYD, Order denying defendant's motion to dismiss (D. Col. March 29, 2010). Thus, in situations involving standards, in which the non-direct-employer holds critical information, OSHA has the ability to require transmittal of information from one employer to another. This is in keeping with the broad language of the statute regarding application of standards, discussed above. The breadth of this regulatory authority needs further exploration.

Second, OSHA has launched the Temporary Worker Initiative (TWI), based upon data showing that temporary workers are at increased risk of work-related injury and illness, and has also issued guidance regarding treatment of workers employed through third party staffing agencies. The guidance states explicitly that host and staffing agencies may be joint employers for purposes of OSHA enforcement:

While the extent of responsibility under the law of staffing agencies and host employers is dependent on the specific facts of each case, staffing agencies and host employers are jointly responsible for maintaining a safe work environment for temporary workers - including, for example, ensuring that OSHA's training, hazard communication, and recordkeeping requirements are fulfilled.

This is reiterated in instructions from Deputy Assistant Secretary Dougherty to Regional Administrators, issued July 15, 2014. The guidance also recommends – but, because it is not a standard, does not *require* – that temporary staffing agencies and host employers “set out their respective responsibilities for compliance with applicable OSHA standards in their contract, and that “[h]ost employers must treat temporary workers like any other workers in terms of training and safety and health protections” (emphasis in original) [OSHA 2014c]. The Dougherty memo specifically notes as well:

If the staffing agency has a long-term, continuing relationship with the temporary worker, it may be best positioned to comply with requirements such as audiometric testing or medical surveillance. The host employer, in turn, would be the primary party responsible for complying with work-place-specific standards relating to machine guarding, exposure to noise or toxic substances, and other workplace-specific safety and health requirements.

The OSHA TWI also specifically addresses responsibilities in these situations for providing personal protective equipment, concluding:

As joint employers of temporary workers, both the host employer and the staffing agency are responsible for ensuring that adequate PPE and associated training is provided. The host employer will usually have the primary responsibility for selecting, providing and ensuring the use of adequate PPE. The staffing agency shares responsibility for its workers' safety and must take reasonable steps to ensure that the host employer conducts the appropriate hazard assessment and provides adequate PPE. [OSHA 2014b]

Similar problems arise regarding injury record-keeping and medical surveillance. The staffing agency may be most familiar with the consecutive work placements of its employees, and therefore must be legally responsible for adherence to medical surveillance requirements – although, of course, temporary workers in non-staffing agency relationships do not have this potential tracking mechanism. OSHA, in its TWI Bulletin No. 1 [OSHA 2014a], addresses this problem by again noting the joint employer status of the staffing and host employer. Here, OSHA concludes that the record-keeping responsibility follows the path of direct supervision: if the host employer maintains day-to-day supervision over the worker, the host employer is responsible for recording injuries and illnesses, but the staffing agency shares responsibility and therefore should maintain frequent communication with its workers and the host employer to ensure that any injuries and illnesses are properly reported and recorded. It would also be helpful to require that all workers be given portable exposure and medical surveillance information, given the mobility of the workforce in general. This would be particularly useful for workers who are employed by staffing agencies at multiple worksites with the same hazards.

Third, in November 2015, OSHA issued a draft of proposed Safety and Health Program Management Guidelines (<https://www.osha.gov/shpmguidelines/>). These guidelines include a section on communication and collaboration at sites where employees of more than one employer are present. They also provide guidance to employers in triangulated work settings, although they do not create new legal obligations. Needless to say, despite OSHA's recent and innovative efforts to give clear guidance, all of this entails regular communication between and among employers, and clear and comprehensible communication with workers – and a genuine commitment to the health and safety of the contracted workers. In situations in which employers do not demonstrate this level of commitment, OSHA is called upon to use its full enforcement powers. And, indeed, citations for violations involving temporary workers' injuries have been issued by OSHA. In one current example, OSHA issued citations against both the host employer, Moore Co Inc., and the staffing agency, Manpower Group US Inc., after temporary workers were injured when inadequately guarded machines pulled them in [U.S. Department of Labor Nov. 13, 2015]; citations in these situations have also been sustained by the Review Commission, as in the case of *Perez v. Matsu Alabama, Inc., d/b/a/ A Division of Matcor Automotive Inc.*, OSHRC Docket No. 13-1713 (Sept. 29, 2015). The legality of this approach may ultimately not be in question – though it will certainly be litigated. The real problem is that the vulnerability of workers, combined with the complexity of the relationships among the employing firms, makes both worker voice and regulatory intervention difficult.

Moreover, none of these approaches acknowledges the problem that some workers are off-site entirely, creating a separate challenge in the area of communication and monitoring. Nor does OSHA

address the problem of workers who come onto dangerous sites in order to make deliveries or who are otherwise only transiently present.

### **Part III: Data, Surveillance, and Research Needs**

#### RESEARCH

The diversity and frequency of changes in employment relationships have outpaced our understanding of their consequences for the health, safety, and well-being of workers in non-standard employment and of the best strategies for controlling or mitigating the risks. While some of these changes undoubtedly benefit workers, providing new opportunities and, for some, increased flexibility and autonomy, others confer additional risk.

In 1996 the National Occupational Research Agenda, developed through a NIOSH-led stakeholder engaged process, identified changing employment relationships and organization of work as a high priority for new research and surveillance. The recommendations for future research and improved prevention are still relevant. These recommendations included: (1) improved surveillance to better track how the organization of work is changing, (2) accelerated research on safety and health implications of the changing organization of work, (3) increased research focus on organizational interventions to protect safety and health, and (4) steps to formalize and nurture organization of work as a distinctive field in occupational safety and health [CDC/NIOSH 2002].

Two types of investigations would be helpful in better understanding the health consequences of non-standard employment and the effectiveness of policies intended to address them. A population-based prospective investigation of the health consequences of non-standard employment could be designed to account for a range of issues found in the current literature, most notably selection bias. This would be useful in both understanding how workers in standard and non-standard employment differ, if at all, and the impact of non-standard work on health and wellbeing. The study population would need to be large in order to explore a wide range of these diverse employment arrangements and to be able to evaluate whether any health effects observed vary with the intensity and duration of worker exposure to non-standard work. But these investigations would need to be based on good information concerning the basic demographics of workers in non-standard employment.

It would also be particularly useful to investigate the effectiveness of a range of policy approaches, including both voluntary programs such as guidance and consultations as well as direct regulatory interventions, that are intended to protect workers in non-standard employment. This kind of intervention effectiveness research, while challenging to conduct, could be instrumental in providing flexible, effective approaches to dealing with the diversity of employment arrangements faced by the current workforce. Interventions that are narrowly workplace-focused are unlikely to be sufficient to address the range of health consequences of non-standard employment. Policy interventions and their evaluation must also look more broadly at the overall context of work beyond the traditional arena of enforcement of health and safety regulations.

Notably, there continues to be a dearth of available information relevant to understanding the extent to which workers are employed in fissured work arrangements, with estimates varying widely [Dey, et

al. 2012]. Definitions of the range of non-standard employment lack standardization. Health and safety surveillance—the ongoing collection, analysis, and reporting of data for purposes of prevention—has been unable to provide insight into the extent of non-standard employment, the degree to which these relationships confer added risk, and the effectiveness of interventions intended to address this risk.

To determine the risks faced by workers in fissured employment arrangements, we need two types of data: (1) on injuries and illnesses categorized by relevant characteristics, including employment category (e.g. staffing agency, franchisee, etc.) industry, occupation, age, gender, and race) and (2) on employment and hours categorized by the same characteristics.

There are several national sources of information on employment and hours by industry. These sources can most directly provide estimates of the employment in the employment services sector and in its subsectors temporary help services and professional employer organizations (PEOs). They are less helpful in providing estimates of non-standard work involving franchising, on-site contracting, and supply-chain relationships. Bernhardt [2014] has recently written a good description of some of the data challenges in identifying and measuring the extent of non-standard employment arrangements in the U.S. economy.

The national data sources include Occupational Employment Statistics (OES) data and Quarterly Census of Employment and Wages (QCEW) data, and Current Employment Statistics (CES) data, all collected by the U.S. Department of Labor's Bureau of Labor Statistics (BLS). They also include the Current Population Survey (CPS) and the Contingent Worker Survey (CWS) Supplement to the CPS. These sources have been used to estimate fissured employment numbers, but numbers derived from them differ substantially. A major reason is differences in how the data are collected. For example, the QCEW is designed as a complete census of employers, while the OES and CES are based on a sample of employers. The CES and CWS Supplement are population-based surveys and rely on workers' responses. Surveys may not use the same classifications, causing comparability problems. These issues are well-described by Dey, Housman, and Polivka [2010], and we will not dwell on them here.

A yet more difficult problem is matching current national injury data to fissured employment data. There are two national occupational injury and illness datasets collected annually by the BLS: the Census of Fatal Occupational Injuries (CFOI) and the Survey of Occupational Injuries and Illnesses (SOII). Since 2011, the CFOI has been collecting information on both the firm employing the fatally injured worker and the host employer [Pegula 2014]. However, contractor definitions are not identical in the CFOI and the Census datasets, so linking the CFOI with employment and hours data may be problematic. The SOII does not collect information identifying either contractors or staffing/PEO workers, so it cannot be used to compare injury rates between fissured and standard employment. Workers' compensation data has been used to compare the experience of staffing agency workers with direct employees [Fan, et al. 2006, Foley, et al. 2014, Park and Butler 2001, Pierce, et al. 2013, Smith, et al. 2010]. However, only a few states collect injury data that can be linked to occupation. This, combined with the substantial differences in workers' compensation laws among states, limits the usefulness of this data source.



A potential solution to this data problem for the staffing agency arrangements in the administrative and support services sector would be to add to the current required OSHA Form 301 the name, Federal Employer Identification Number (EIN), and address of both the host and the employing firm for injured workers, as well as the workers' occupation (perhaps the checklist now in the SOII)<sup>4</sup> and to fill out a separate OSHA Form 300A for the lead firm and for each staffing or PEO firm paying wages or salaries to people working at the host firm. Franchisees could be required to provide a single form (unless they used staffing agency or PEO workers), but that form would also include the name, EIN, and address of the franchisor firm. Requiring both EINs should mitigate the potential for double-counting injuries.

We understand that such a change would require OMB approval and would need to go through rulemaking. In addition, we recognize that there is substantial underreporting on OSHA forms and to the SOII. Still, the proposed changes would potentially provide valuable surveillance data on the risks of two important categories of fissured employment. It would also provide data that could be used in the SOII to compare the risks of standard and fissured jobs nationally.

Gathering similar data for surveillance and research for same-site construction subcontractors, franchises, and supply chains would involve more substantial changes in data collection. We can imagine an OSHA initiative focusing on franchises that would require franchisor companies to obtain OSHA Forms 300A and 301 from its franchisees. This information, together with equivalent information from non-franchised locations, could then be made available to BLS or OSHA for statistical or surveillance purposes. A parallel data collection could, in principle, be done where construction contractors would collate this information for subcontractors working on their projects.

## **Conclusion**

We reach several conclusions based upon this review of the occupational safety and health implications of changes in work, the regulatory and policy environment, and the current state of data collection and research.

First, the context in which these employment relationships appear is critical. Vulnerable workers can be found in standard and fissured arrangements; not all workers in fissured arrangements are necessarily more vulnerable; highly vulnerable workers are likely to be more vulnerable as a result of some fissured work arrangements.

Second, one area is quite clear: There is ample evidence that temporary workers, and particularly temporary workers employed through triangulated contracting arrangements, are particularly vulnerable to OSH hazards when compared to workers with more stable work arrangements/ OSH!' s current focus on temporary workers is therefore warranted.

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<sup>4</sup> The SOII occupational categories are: office, professional, business; healthcare or management staff; delivery or driving; sales; food service; product assembly, product manufacture; cleaning, maintenance of building, grounds; repair, installation or service of machines, equipment; material handling (stocking, loading/unloading, moving, etc.); construction; and farming.

Third, non-standard employment includes a broad range of specific arrangements and exposures. There is a need for further research and data in a number of areas in order to assess fully the effects of these heterogeneous contracting arrangements on occupational health and safety risk. There is much that we do not know. Moreover, we cannot assume that the current nature of contracting arrangements among firms will remain static. It will be important to understand the level of penetration and the persistence of these contracting forms in different industries over time to assess fully their effect on occupational safety and health. It would be useful to know when arrangements are embraced because workers prefer them and which are accepted because of limitations in the labor market that limit worker power or choice. Although the downward pressure on wages may be clear when looking at staffing agency hiring and supply chain economics, we nevertheless need to better understand the nature of contracting among firms, and the extent to which these contracts create additional pressures that result in changes in occupational safety and health risk. We do not know, for example, whether franchising – with clear directives from central firms – increases or decreases the level of risk when compared with equivalent independent small businesses – and whether the answer to this question would be industry-specific.

Finally, there are risks that are growing irrespective of these contracting arrangements that should not be ignored. In this area, as in many others, the multiplicity of risks makes OSH a more difficult area to assess than wage and hour violations. Disruptive technological changes, for example, may increase psycho-social risk, irrespective of the specific nature of the employment contracting arrangement. Other changes, including changes in labor market participation, particularly of aging workers, and new hazards, such as those created by nanotechnology, may be as significant to OSH as changes in the work relationships that are created by inter-firm contracting.

In sum, occupational safety and health – and the control of risks to workers – is a multidimensional and highly contextual challenge. The changes in work relationships through fissuring are a piece of the puzzle – but a piece that creates specific prevention challenges for employers and enforcement challenges (and opportunities) for OSHA and its sister enforcement agencies.

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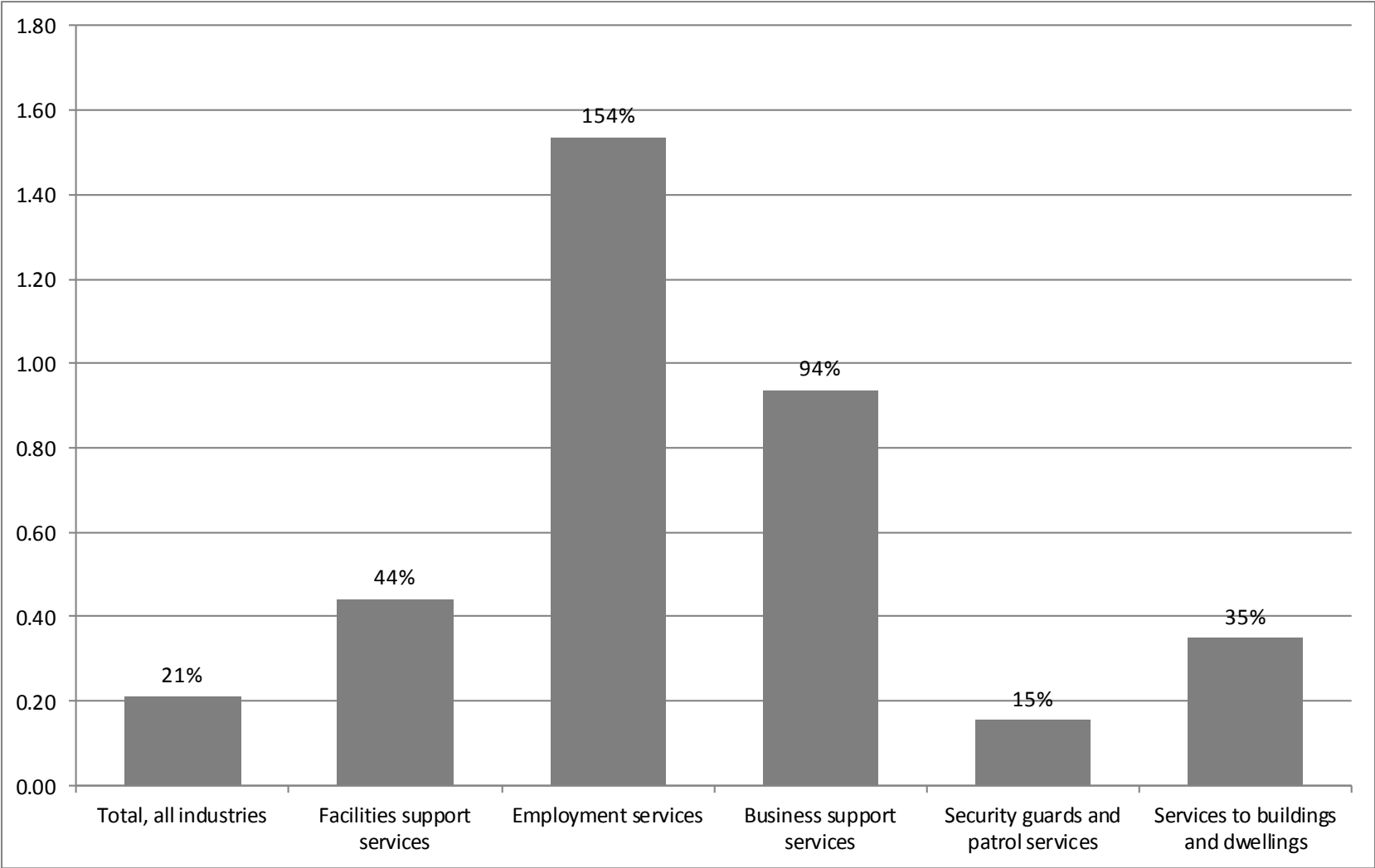
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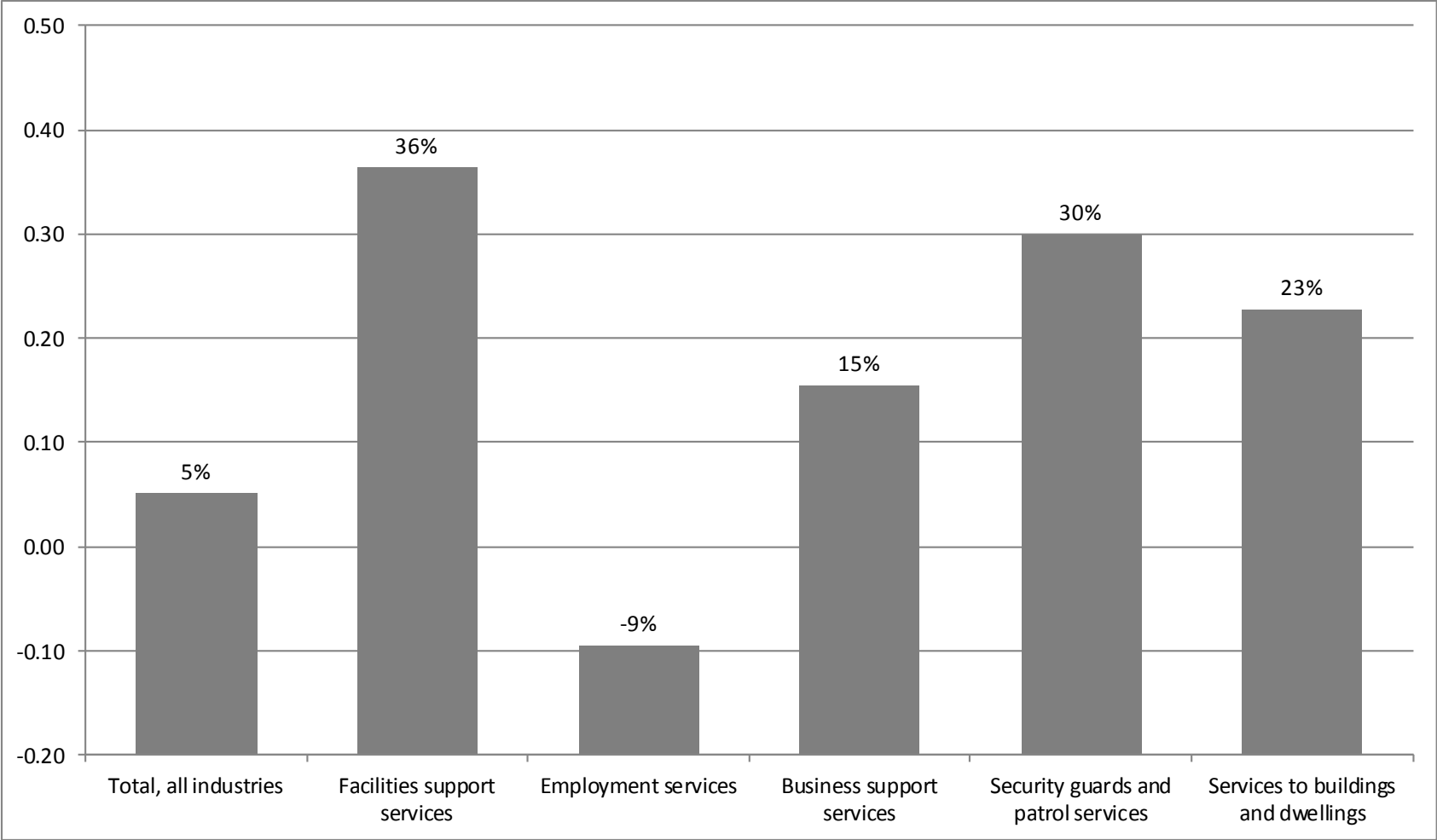
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**Figure 1a. Employment Growth, U.S. 1990-2000**

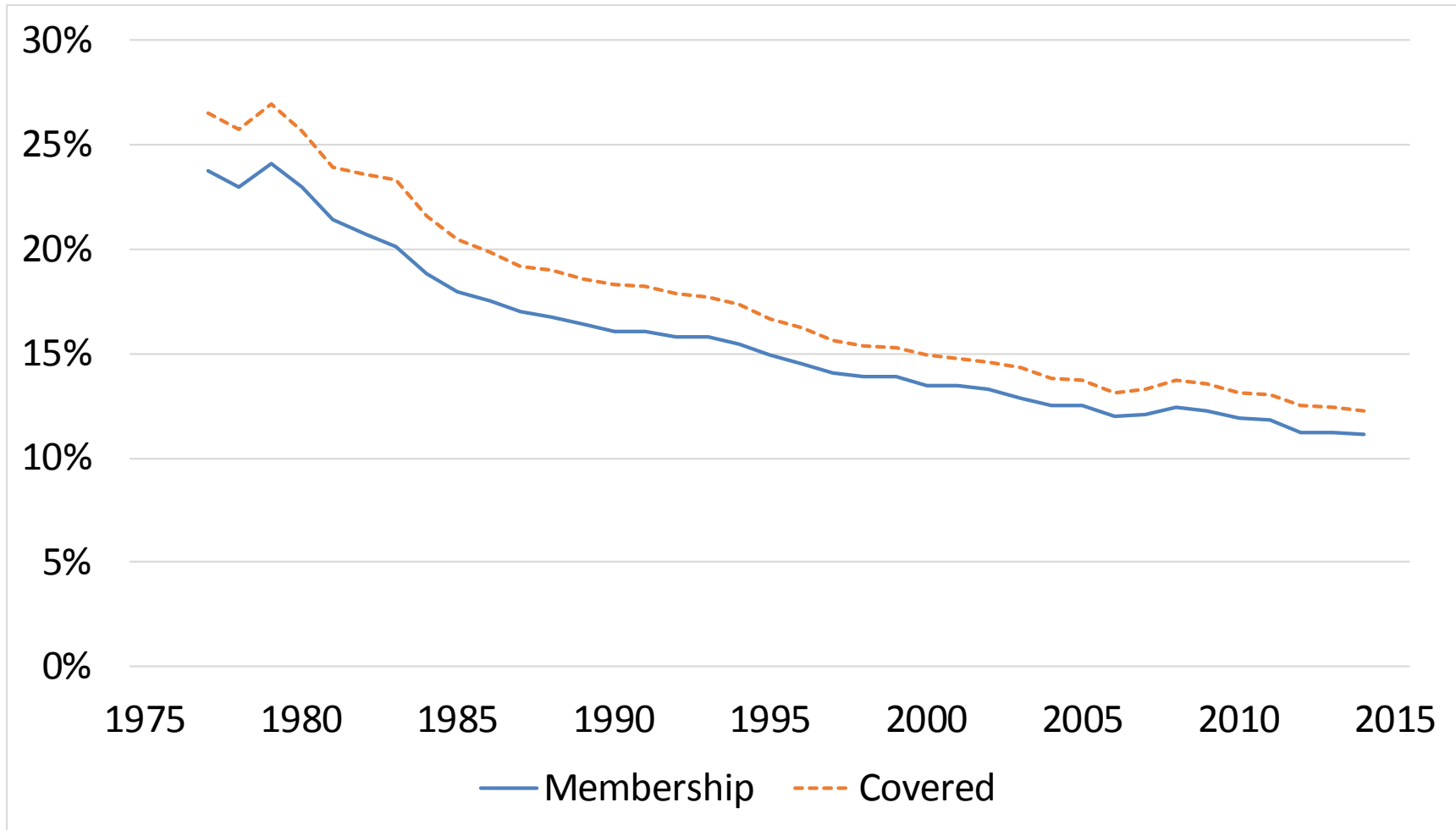


**Figure 1b. Employment Growth, U.S. 2000-2014**



Source: Bureau of Labor Statistics, Quarterly Census of Employers and Workers.

**Figure 2. Union Membership, United States, 1977-2014**



Source: Barry T. Hirsch and David A. Macpherson. <http://www.unionstats.com/>