## IRLE Institute for Researchon Labor and Employment



IRLE WORKING PAPER \#100-14
January 2014

# Labor Standards and the Reorganization of Work: Gaps in Data and Research 

Annette Bernhardt

Cite as: Annette Bernhardt. (2014). "Labor Standards and the Reorganization of Work: Gaps in Data and Research". IRLE Working Paper No. 100-14. http://irle.berkeley.edu/workingpapers/106-14.pdf

# Labor Standards and the Reorganization of Work: Gaps in Data and Research 

Annette Bernhardt
Visiting Researcher, Institute for Research on Labor and Employment, UC Berkeley Visiting Professor, Sociology, UC Berkeley

January 11, 2014


#### Abstract

:

A common but understudied argument is that the reorganization of work has contributed to the deterioration of labor standards in the US over the past four decades. Yet an analysis of existing aggregate data does not show a strong, unambiguous increase in key measures of nonstandard work. This paper therefore identifies data gaps and research questions that need to be answered, in order to better understand trends in workplace restructuring during the era of growing wage inequality.


## Acknowledgments:

Many thanks to research staff at the Bureau of Labor Statistics and the Census Bureau for their invaluable help on data minutiae. Charu Gupta provided excellent research assistance, and Susan Houseman, John Schmitt, Nik Theodore and Laura Dresser generously shared their expertise and feedback. All errors of analysis and interpretation are the author's.

## INTRODUCTION

A common intuition about rising inequality in the US is that the reorganization of work and production has contributed to the undermining and erosion of labor standards. The argument is that employers have externalized work as a way to cut wages, reduce benefits, and evade or escape legal responsibility for their employees. This is also a concern about the future - that New Deal laws and policies are inadequate to protect workers in 21st century jobs, whether in the form of temp work, part-time jobs, subcontracting, or the use of independent contractors. Yet there is surprisingly little quantitative research that has attempted to link trends in the organization of work to the strong growth in wage inequality that stems back to the mid-70s (Fligstein and Shin 2003).

This paper takes a step in that direction, by providing a broad scan of available data on the question of how work has changed in the US over the past four decades. The analysis identifies different types of nonstandard work arrangements; attempts to estimate the prevalence of each; and asks which ones have become more prevalent over time. It then briefly reviews evidence on several other measures, such as job instability, that could also signal a dissolution of the standard employment relationship.

As will be detailed below, aggregate data do not show a strong, unambiguous increase in nonstandard forms of work, and thus investigating a link to trends in distributional wage outcomes is premature. The main goal in this paper is therefore to identify key data gaps and research questions that need to be answered, in order to better understand trends in workplace restructuring during the era of growing inequality.

## MEASURING NONSTANDARD WORK

A large literature has analyzed changes in the organization of work over the past three or four decades, and predictably, differences in definitions and concepts abound. Kalleberg (2009) and Smith (1997) provide thorough reviews; this paper turns directly to identifying the major forms of work that have animated concern about growing precariousness.

The common touchstone in thinking about changes in the US labor market is the archetype of the standard job, where workers are full-time, permanent, and directly employed by a firm. Even at the height of mass industrialization many jobs did not fit this description, with many workers relegated to the secondary labor market. But half a century later, this archetype is still the reference point, both in academic research and public discourse.

As a result, nonstandard work arrangements are typically defined by researchers as departing from the standard employment relationship on at least one dimension: (1) the job is temporary, (2) the job is part-time, (3) the worker is employed by an intermediary, or (4) there is no employer at all.

A related concept is contingent work, and there continues to be vibrant debate in the literature about whether or not all forms of nonstandard work (such as part-time jobs) are contingent. The official BLS definition of contingent work is "any work arrangement which does not contain an explicit or implicit contract for long-term employment" (Polivka and Nardone 1989). ${ }^{1}$ Some researchers point out that a significant number of part-time jobs are permanent and that independent contractors can have long-term stable employment, and that therefore contingency is a separate dimension of job quality from how work is organized. ${ }^{2}$ Others argue that nonstandard work is contingent by its very nature.

Given the lack of consensus on how to define contingent work, my strategy is to focus on nonstandard work arrangements, which are better defined and more easily measured. The first section presents trends in three nonstandard work arrangements: temporary work; part-time work; and independent contractors. The second section summarizes the quite sparse evidence on subcontracting, a business practice which I argue does not necessarily result in nonstandard or contingent work. I then briefly review evidence on two other measures that could signal the dissolution of the standard employment contract, namely trends in job stability and firm size. The concluding discussion then proposes a simple framework to guide future research in this area.

## EVIDENCE ON TRENDS IN NONSTANDARD WORK ARRANGEMENTS

## Temp work

Temp work is generally defined as time-limited work, and comprises a range of employment relationships: (1) workers placed at an employer by temp agencies and other types of employment services providers; (2) on-call workers such as substitute teachers and day laborers; and (3) workers who are directly hired on a temporary basis by an employer.

The best measured of these categories is the first one: workers employed by the employment services industry (hereafter referred to temp agency work for short). This industry includes temporary help agencies, Professional Employer Organizations (which lease workers), and employment services agencies. Estimates of employment and trends in this industry vary depending on the dataset used. Dey, Houseman and Polivka (2009) have conducted an exhaustive analysis, and this paper follows their lead in using the BLS's Current Employment Statistics (CES) data as the most accurate.

Table 1 shows that currently 2.5 percent of the workforce (or 3.4 million) is employed by the employment services industry, the majority by temp agencies. ${ }^{3}$ This percentage increased during the 1990s, but has been relatively flat since then (fluctuations during recessions aside).

While the overall penetration of temp agency work in the US labor market is quite low, there is variation at the occupation level. Figure 1 shows the percent of detailed occupations employed
by the employment services industry in 2012, plotted by the occupation's median earnings. ${ }^{4}$ Again, most occupations have only a small percent of temp agency workers. But four stand out as having higher rates of temp agency work, and they are all lower wage. These particular occupations are not surprising, since in 2005, 38.7 percent of temp workers were assigned to the manufacturing sector, 13.9 percent to trade, transportation and utilities, and 18.4 percent to professional and business services (Dey, Houseman and Polivka 2009).

Researchers have identified several other types of temporary workers, in addition to those employed by agencies: on-call workers and direct-hire temps. Table 2 shows estimates of trends over time for these categories from the Contingent Worker Supplement (CWS) of the Current Population Survey. The drawback to this data source is that it is a survey of workers, and so depends heavily on the worker's ability to correctly identify who her employer is (not an easy task given the complexity of these work arrangements). For example, the percent of respondents that report working for temporary help agencies in this survey is lower than in Table 1 (which is based on the CES establishment survey and is more reliable). Nevertheless, the CWS is useful because it measures on-call work and direct-hire temps. Over the ten year period from 1995 to 2005, there was no significant increase in these two forms of work.

## Data and research needs:

- Because it measures forms of work unavailable in other datasets, the CPS Contingent Worker Supplement (halted in 2005) should be re-established as a recurring survey. However, measures need to be sharpened and questions added to better allow reconciliation of estimates across different datasets.
- For enforcement agencies and policymakers, ideally we would have data on the use of temp workers by specific industries at the local level. For example, while the national rate of temp work is quite low, in regions such as the Inland Empire and Chicago we know that the warehousing industry employs a significant number of temp workers (Struna 2012). In a similar vein, Cappelli and Keller (2013) report the potentially important finding that the use of temp agency workers is highly concentrated among relatively few establishments. A key task, therefore, is to explore ways of harnessing existing employer surveys at the state (or even city) level to gather local, industryspecific data on the reliance of temp work.


## Part-time work

The Bureau of Labor Statistics defines part-time workers as those who usually work less than 35 hours per week - currently 28 million workers, or 19.2 percent of the US workforce. Of parttime workers, the majority are classified as "voluntary" part-time (college students or young mothers or caregivers, for example). ${ }^{5}$ A minority are classified as "involuntary" part-time,
meaning the worker would rather have a full-time job but can't find one for economic reasons; this category is highly cyclical and grows steeply during recessions (currently 8 million workers are involuntary part-timers).

Figure 2 shows long-run trends in part-time employment. After increasing during the 1970s, both the overall percent part-time and the percent involuntary part-time have been largely flat, with the exception of cyclical increases during recessions. ${ }^{6}$

The sharp increase in both part-time measures during the Great Recession is especially marked; this is not surprising, given the unusual severity of the recession. A common question is whether the ongoing elevated rate of involuntary part-time work reflects continuing weakness in the economy, or potentially signals a secular trend. Figure 3 suggests that so far, the trend in involuntary part-time work has closely tracked the trend in the unemployment rate, indicating it is still largely cyclical (the 2001 recession graph is provided as a point of comparison). At this point, there is not yet evidence of a permanent, long-run increase.

Although the aggregate trends in Figure 2 have been stable for several decades, it is possible that they could be masking important underlying changes in part-time work. What follows are several research questions to explore this possibility.

## Data and research needs:

- Have there been changes in the distribution of part-time work, that cancel out in the aggregate? For example, we know that low-wage workers are more likely to be parttime than higher-wage workers; has that gap changed since the mid-70s? Have there been divergent trends in the prevalence of part-time work across different industries? In answering these and related questions, researchers will need to be careful to account for demographic shifts that occurred during the past 40 years, including the significant increase in women's labor force participation and growth in their hours of work (Rones, IIg and Gardner 1997).
- Have the penalties for working part-time grown over time? We know that on average, part-time workers are paid less than comparable full-time workers and are less likely to receive employer-provided health and pension benefits. But has that gap changed over time? For example, in a descriptive analysis of the CPS I find that real median wages for full-time workers grew 10 percent from 1979 to 2012, but declined slightly for part-time workers. As a result, the part-time wage penalty increased from 39 to 46 percent (of full-time wages) during that time period.
- What about measures of hours instability? While data are sparse, researchers have identified worrisome trends toward just-in-time and on-call scheduling, and the growth
in non-standard shifts. This is an urgent area for new data collection going forward, since low-wage workers are more likely to work in jobs with unpredictable shifts and nonstandard hours (Lambert, Haley-Lock and Henly 2012).
- What about trends in weeks worked per year? A large literature has documented that US workers (especially women) have significantly increased the number of annual weeks worked since the mid-1970s, and that seasonal work has become less common (Rones, Ilg and Gardner 1997). Figure 4 shows this trend toward more weeks worked per year, for both part-time and full-time workers. But there is evidence that the distribution of weeks worked has polarized, with professional workers putting in more hours and lowwage workers struggling to get enough hours (Fligstein and Shin 2003). We need more research on who has borne the brunt of this growing hours gap, and how that maps onto trends in the income distribution.

More generally, a clear lesson from the research literature is that part-time work is not monolithic. On the one hand, significant numbers of part-time jobs are low wage, do not offer benefits, are subject to volatile schedules, and result in high rates of poverty for the workers who inhabit them (this is especially true for involuntary part-time workers, see Valetta and Bengali 2013). At the same time, for some subset of part-timers, this work arrangement is functional and the desired form of engagement (e.g. for students) and offers family flexibility (e.g. young moms). Relevant here is that 54 percent of part-time workers in 2007 were secondary wage earners who voluntarily worked less than full-time, with no detrimental effect on economic security (Shaefer 2009). As with temp work, the lesson for enforcement agencies and policymakers is to identify particular industries where part-time work has contributed to the degradation of labor standards.

## Independent contractors

Defining independent contracting is complex (Planmatics 2000). From the standpoint of the IRS, independent contractors are individuals who receive 1099 forms from their employers, yet some portion of these workers may be misclassified. In the legal context, several different tests exist to distinguish employees from independent contractors; the ultimate designation can differ depending on the test used, the particular employment law in question, and state law.

The most reliable source of information we have on independent contracting is data on the selfemployed. The Bureau of Labor Statistics gathers data on two types of self-employed persons: those who are unincorporated and those who are incorporated. The official BLS definition of self-employment only includes those who are unincorporated (and who presumably receive 1099 forms), since technically those who have incorporated appear on their business' payroll as wage and salary employees, not contractors (Hipple 2010). Some argue that there is a substantive distinction here as well - for example, that a small restaurant owner who has
incorporated is different from a free-lance graphic designer. Others argue that incorporation is purely a tax decision and does not substantively change the nature of self-employment (Cohany 1998).

In 2013, there were 14.7 million self-employed persons in the US, or 10.2 percent of the workforce. Figure 5 shows the percent incorporated and unincorporated self-employed from 1970 to $2013 .^{7}$ Overall, the percent self-employed has remained relatively stable over time. The mild decline in the unincorporated self-employment is mainly due to declines in agricultural employment, and has been offset by growth in incorporation (Hipple 2010).

An important lesson from existing research on the self-employed/independent contractors is the sheer diversity of the population in this category. The occupations range from management consultants, lawyers, doctors, farm managers, and architects, to insurance agents, construction contractors, dry cleaners, graphic design freelancers, and real estate brokers, to street vendors, barbers, auto mechanics, landscapers, cab drivers, caregivers, and truck drivers. Similarly, educational backgrounds range from workers with less than a high school degree to workers with advanced degrees. And annual incomes for the self-employed vary widely (though the median has consistently been higher than private sector wage and salary workers).

Moreover, echoing a consistent theme in the literature, in its most recent survey the BLS found that 82.3 percent of independent contractors prefer an independent or alternative work arrangement to being an employee; only 9.2 percent would prefer an employment arrangement or job (US Bureau of Labor Statistics 2005).

At the same time, we know that in a subset of industries and for low-wage workers in particular, independent contractor status can mean poverty wages, unsafe workplaces and chronic wage and employment instability (for example, in residential construction and trucking). Closely related is the problem of misclassification, where unfortunately we have very little data. While a number of state audits have estimated the percent of employers who misclassify employees as independent contractors, there are no reliable data on the percent of the workforce that is misclassified (this is the more important measure, since a given employer could be misclassifying one or 100 workers). A best guess is that perhaps 1-2 percent of the workforce is misclassified. ${ }^{8}$ We have no national data on misclassification trends over time.

If the question is what forms of work are undermining labor standards, the broad category of self-employed/independent contractor may not be very useful; combining highly-paid managerial consultants or architects with day laborers or home health aides doesn't make much sense from a research perspective.

Instead, it might be more fruitful to focus on identifying different models of independent contracting, along multiple dimensions of job quality and employment stability. In particular, a
rich area for development is what has sometimes been called dependent contractors. Substantively, the concept of "dependent contractor" would capture workers who are true independent contractors (i.e. they are not misclassified), but where the economic terms and conditions of employment are not under the workers' control (see Kennedy (2005) for a legal treatment). For example, taxi drivers in New York City are independent contractors, but the city's Taxi and Limousine Commission sets the fares and lease rates that effectively determine the drivers' wage rate (and also their working conditions, since drivers must work long shifts six or seven days a week in order to clear any profit). Similarly, in 2005 there were over 19,000 publicly-subsidized childcare workers operating as independent contractors in New York City; however, the reimbursement rates were set by the City's Administration for Children's Services and in many instances resulted in sub-minimum wages (Bernhardt, McGrath and DeFilippis 2007).

## Data and research needs:

- In order to sharpen the definition and measurement of independent contracting, a key task is to analyze IRS tax data and compare 1099 filings with BLS data on selfemployment - and then reconcile any differences in prevalence and trends.
- Similarly, if the CPS Contingent Worker Supplement is fielded again, questions should be added to help reconcile worker self-identification as independent contractors with official statistics on self-employment. For example, the percent of the workforce identifying as independent contractors in the CWS worker survey only ranged between 6 and 7 in late 1990s and early 2000s, and included both self-employed and wage and salary workers (US Bureau of Labor Statistics 1995, 2005).
- We urgently need regular, ongoing collection of representative data on misclassification, at both the national and state level. Important will be to focus on estimating the number of workers misclassified (and who they are and in which industries they work), not just number of employers who misclassify.
- More generally, a key agenda for future research is to conduct in-depth industry and occupation case studies in order to identify "dependent contractors" and other models of independent contracting that are especially vulnerable to exploitation and that undermine labor standards.


## DOMESTIC SUBCONTRACTING

One of the fundamental economic transformations of our time has been the vertical disintegration of the firm (Powell 1990). At the height of mass industrialization, the dominant economic organizations were large, complex and vertically integrated, meaning that most
stages of the supply chain for a given product or service were incorporated within a single firm. Since then, companies have increasingly focused on their "core competencies" and contracted out other functions to suppliers and contractors, either domestically or overseas, in what is sometimes referred to as the "make or buy" decision. This shift to networked production has had many drivers, key among them the economic crises of the 1970s, globalization, new communication and transportation technologies, and industry deregulation (Piore and Sable 1984).

While business schools and management journals have closely tracked and often advocated for the use of subcontracting, we have only very sparse data on the prevalence and job quality effects of the practice, and virtually no representative data on trends over time. In what follows, I summarize the results of an in-depth literature review of what we know about domestic subcontracting, with the caveat that this research is still ongoing and so the analysis is preliminary (and necessarily incomplete given the virtual absence of representative data). ${ }^{9}$

The research literature makes an important distinction between two units of analysis that are sometimes conflated in policy debates:
i. Subcontracting as an action by an employer: Subcontracting is a discrete decision made by an employer to take a function (sometimes previously done in-house) and contract it out to another firm or company. Thus, a contractor is the company that provides the goods or services being subcontracted, and a contracting company is the firm that contracts out the function. ${ }^{10}$
ii. Subcontracted jobs: Here, the unit of the analysis is the job that has been subcontracted. The direct employer is the contactor company, and the job may be either on-site or off-site. ${ }^{11}$

## Prevalence

There is little by way of systematic, representative data on domestic subcontracting in the private sector (my focus is on the private sector since contracting out by the public sector is better documented). Our best measures are of firm practices, where employer surveys suggest that subcontracting is widespread. For example, Johnson (1996) reports that 86 percent of Fortune 500 businesses subcontracted at least one function in the 1990s, and Hewitt Associates found that 93 percent of respondents had subcontracted out some human resource functions in 1996 (Greer, Youngblood and Gray 1999). Houseman (2001) used a telephone survey of 500 establishments conducted in 1996 and found that 44 percent of them used contract workers. Other researchers draw on BEA data to conduct input-output analyses, isolating an industry's intermediate inputs purchased from other industries. For example, Han, Kauffman and Nault (2011) found that on average, a single US industry spends $\$ 1.7$ billion a year on IT
subcontracting.
Unfortunately, representative data on the number of subcontracted jobs or workers in the US are almost non-existent, or else deeply flawed. As a result, it is currently not possible to estimate the number or percent of workers affected by the practice.

The CPS Contingent Work Supplement (CWS) attempted to measure contracted work in its worker surveys. Unfortunately, the estimates from this survey are not reliable because they depend on workers accurately identifying that they are working for a contractor. The problem is that security guards working for Securitas or accountants at an accounting firm are unlikely to identify their employer as a contractor. To wit, in 2005 only 0.6 percent of workers said they were contract workers in the CWS (US Bureau of Labor Statistics 2005). But in that year, the Professional and Business Services sector alone employed 12.7 percent of the workforce; this sector consists exclusively of contract companies that provide services to other companies (in 2013, it employed 18.5 million workers, or 13.6 percent of the workforce).

In some cases, it is possible to triangulate prevalence data for specific occupations where one can identify contractor industries (Dey, Houseman, and Polivka 2009). For example, Dube and Kaplan (2010) used BLS data to show that the share of janitors employed by building services contractors (as opposed to other industries) increased from 16 percent in 1983 to 22 percent in 2000. Using the same logic, in Table 3 we analyzed 2012 BLS data to estimate the percent of select occupations that have a substantial percent of workers contracted out. This is not a representative table; the list of occupations is purely illustrative, chosen because it was possible to identify key contractor industries. Similarly, the estimated percent of workers contracted out is conservative, because there are likely other industries where these occupations are employed by contractors. Nevertheless, the high prevalence rates in this table suggest that subcontracting merits a significant investment of new data gathering and research to fully document the practice and its impact.

## Trends and preliminary observations

Despite the lack of hard data, the existing research literature (often in the form of case studies) does yield insights into the complexity of subcontracting.

## 1. Contracting out is not always a strategy to cut wages

Researchers have identified a range of motivations for subcontracting, which often differ depending on the type of function being contracted out. A common motivation is to take advantage of cost savings that may arise from lower wages, union avoidance, greater economies of scale, access to more efficient technology, and reduced monitoring and transaction costs (Fixler and Siegal 1999). Firms also use subcontractors to overcome capacity constraints, to obtain specializations and skills that are not available in-house, to comply with
new regulations, to smooth production cycles, or to focus on the enterprise's core competency (Abraham and Taylor 1999).

In addition to discrete "make or buy" decisions about a particular function (where the question of motivation is more relevant), researchers have long noted that subcontracting is inherent to the production and distribution systems of certain industries that are project based, such as construction, apparel and motion pictures (Powell 1990). Another distinct form of subcontracting is the logistics sector, which has grown alongside big-box retailers such as WalMart, Home-Depot and others. Increasingly, logistics firms coordinate multiple functions such as transportation and warehousing, customs clearance and brokerage, contract labor, information technology, and inventory management among others (Langley, Allen and Dale 2004).

Bernhardt and Garrick (2013) give a detailed table of commonly subcontracted functions by industry. The functions vary widely, and include HR 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; machine maintenance; cable installation; food services and food processing; parts manufacturing and assembly; laundry; housekeeping; diagnostic labs; and clinical research trials.

## 2. The impact of subcontracting on job quality not inherently negative, and subcontracted work is not inherently contingent

Even with weak data, existing research suggests that contracting out does not necessarily result in a deterioration of working conditions. Rather, the impact of subcontracting on wages, benefits, and other job quality outcomes differs depending on a host of factors - the economics of the contractor industry, the reason for subcontracting, the size of the contractor firm, the presence or lack of unions, the skill requirements of the occupation, government regulation and enforcement, and so forth. As a result, we see a wide range of outcomes, from the fissured employment relationship and exploitation that Weil (2011) documented in the janitorial and fast food industries, to the full-time, permanent jobs of many segments of the Professional and Business Services sector (Sharpe 2001).

This is an area that requires much more research: identifying the conditions under which contracting out does, or does not, result in worse outcomes for workers. A related point is that subcontracted work is not inherently contingent. For example, Carnoy, Castells and Benner (1997) argue that when contract firms have multiple clients, a large degree of independence, and provide relatively secure, full-time employment to their employees, they should not be included in the definition of contingent employment. Similarly, Polivka (1996) shows that not all workers in alternative work arrangements are contingent under the BLS's official definition, and points out that depending on the occupation, subcontracted workers can develop stable
relationships with the contract company.
At the same time, there are many occupations where working conditions deteriorate when jobs are contracted out. For example, Dube and Kaplan (2010) used CPS and BEA data and found that janitors and security guards that work for building and protective service contractors earn less than those working in other industries. Other examples include school cafeteria workers (McCain 2009), call center workers (Batt and Nohara 2009), and petrochemical workers (Rebitzer 1994). Depending on the industry, subcontracting can also increase the prevalence of labor and employment law violations. Contract warehouses, for example, are known to be rife with minimum wage, overtime, and health and safety violations (Struna 2012). Finally, researchers have pointed out that while some contractor companies may have long-term relationships with their employees and offer promotions, subcontracting raises the risk that jobs are removed from internal labor markets.
3. Subcontracting is not unidirectional or always in the direction of fragmentation, and increasingly, new functions like waste management are subcontracted from the outset

Subcontracting is changing the industrial structure of the US, triggering robust growth in industries that are primarily dedicated to providing goods and services to other companies. In some cases, new services such as waste management and IT functions have been contracted out from the start, and were never in-house to begin with. Many of these newer contract industries are part of the Professional and Business Services (PBS) sector; Berlingieri (2012) used input-output analysis to show that the growth in PBS alone can explain 14 percent of the increase in services employment.

At the same time, the contracting trend is not always uni-directional. For example, dataprocessing activities were initially provided mainly by contractors, but then as computing costs went down, firms brought this function in-house. As the need for highly specialized data processing grew, however, these functions were contracted out again (O'hUallachain and Reid 1991).

Another key lesson from the research literature is that subcontracting is not inherently a process of fragmentation; contractor firms run the gamut from small fly-by night shops to large multi-nationals. Perhaps even more important, in some contractor industries there is evidence of consolidation and diversification. For example, Aramark, Compass and Sodexho started out as food service contractors, but have expanded and are now offering a full range of services to companies including environmental, laundry and facilities management services (Lawn and Bulzalka 1998). The market share of these contractors is a significant indicator of industry consolidation: Aramark held 29 percent of the food service market share in 2012 (Samadi 2012) and Cintas Corporation held 27 percent of the industrial laundry market share (Moldvay 2012). In a similar vein, third-party logistics companies increasingly offer the full range of logistics
services and thus are dominating the market for supply chain coordination.
In sum, there is a stylized view of subcontracting as a uni-directional process of economic fragmentation. But this may be a simplified and short-run perspective. Fragmentation has indeed occurred in industries with heavy reliance on subcontracting, but that may be only the first stage in an ongoing and constantly evolving system of networked production. As entire industries of contractors emerge, it should be no surprise that they change via industry consolidation and concentration, with likely complex implications for job quality and stability.

## Data and research needs:

- Subcontracting is easily the worst-measured of the various dimensions of the reorganization of work in the US. We may not be able to reconstruct past trends, but at the very least, we urgently need to ensure that the practice is fully documented going forward. Rectifying the data gap will require sustained collaboration between university researchers and the DOL, BLS, Census and BEA, in order to identify existing surveys that can be augmented to allow better estimation of prevalence at the industry, firm and job level.
- At the same time, we need to generate in-depth, rigorous case studies of domestic subcontracting in key industries, harnessing industry data and combining it with qualitative field research. The goal of these case studies would include mapping the structure of contracting relationships and supply chains; identifying where the economic power lies in those relationships; and measuring the impact on the employment relationship. Key here will be to identify different models of subcontracting in order to pinpoint the ones that undermine labor standards.
- Equally important will be to conduct research on the contractor industries themselves, tracking changes in the organization of work and production as existing contractor industries mature and as new ones come online.


## OTHER DIMENSIONS OF CHANGE AT WORK

## Job instability

Conventional wisdom holds that the life-long job in America is dead - that long-term employment relationships have been replaced by job churning and short-term gigs. It's a deeply held image in the public mind, and closely related to the intuition that contingent work has become the norm.

And yet, academic researchers have so far failed to find compelling evidence of a strong, secular increase in job instability over the last 30 or 40 years. The lack of consensus among
economists was so surprising that, at the end of the 1990s, the Russell Sage Foundation supported a major effort by a group of researchers to reconcile measures and findings across a wide range of datasets. The result was greater clarity about why different datasets were yielding different trends on measures such as job tenure, job retention rates, and the probability of job loss. Substantively, the researchers found some evidence of mild declines in long tenures during the downsizing wave of the early 1990s, particularly for managerial and professional workers; some increase in short tenures in the 1970s (but not since then); and some increase in job loss during the 1980s (but not the 1990s). Taken as a whole, however, no clear long-term trend toward greater instability emerged from that collective effort (see Neumark (2000) for a detailed assessment). Several papers have been published since then using more recent data, but again yield conflicting findings (Stevens 2005, Farber 2008).

A new research effort to assess long-terms trends in job stability is clearly warranted, given the importance of the topic for public policy, as well as the availability of more than a decade of additional data. In addition, it may be that recent advances in access to administrative data could yield more rigorous measures.

At the same time, an under-researched question is whether the wage consequences of job changing or job loss have changed over time. One study in the Russell Sage Foundation project found that the wage returns to job changing became more unequal for young men entering the labor market in the 1980s and early 1990s (Neumark 2000). From the standpoint of public policy, it will be important to extend this type of analysis to the present, for the full population of workers.

## Firm/establishment size

Another trend that would have the potential to undermine labor standards and job quality is a shift in employment toward smaller firms, which on average offer lower wages, fewer benefits, more part-time work, more violations of employment and labor law, and less stability than larger firms (Brown and Medoff 1989, Pedace 2010; Bernhardt et al. 2009). An important distinction in this research area is the difference between firms and establishments; for example, The Gap is a large multinational firm, but its stores - or establishments - are small.

Table 4 looks at trends in the distribution of employment across firm size between 1977 and 2011. Even though the majority of firms in the economy are small, the table shows that large firms employ a sizeable and disproportionate percent of the workforce. ${ }^{12}$ In terms of trends over time, there is evidence of a mild shift in employment from small firms toward medium and large firms. Table 5 replicates the analysis for establishments; here, there is evidence of a mild shift in employment from both small and large establishments toward medium establishments.

On the whole, however, neither table shows the type of dramatic change in employment by
firm or establishment size that would have an appreciable impact on the wage distribution and other job quality outcomes. That said, it would be useful to analyze firm/establishment size trends in particular industries, and to ask whether the small-firm penalty in wages and other job quality outcomes has changed over time.

## A SIMPLE FRAMEWORK FOR FUTURE RESEARCH

The preceding sections have flagged a number of research and data gaps that need to be filled (and note that these were not meant to be exhaustive, but rather a starter list). Implied in the analysis has been a simple framework for the different ways in which nonstandard forms of work could potentially undermine labor standards over time:

- Changes in prevalence: Nonstandard work may become more prevalent over time, shifting more workers into jobs that have lower wages, are vulnerable to violations of employment and labor laws, or lie wholly outside coverage by those laws.
- Changes in distribution: Even if the prevalence of nonstandard work remains steady, its distribution may change over time, in ways that concentrate negative effects on different groups of workers or in particular industries.
- Changes in impact: Similarly, even if the prevalence of nonstandard work remains steady, the penalties of having a nonstandard job may increase over time, resulting in a bigger gap in wages and other job quality measures compared to full-time, permanent jobs.
- Threat effects: Employers may use the threat of moving to nonstandard work as a way to hold down wages and cut benefits.


## CONCLUSION

The past 40 years have seen a dramatic shift against US workers: income inequality has grown, wages have stagnated for many, employers have cut back on health and retirement benefits, and upward mobility has declined. The debate about causes will no doubt continue, but at this point, the sheer magnitude of the decline in economic security and opportunity is undeniable.

In addition, we all share a strong intuition that the nature of work has fundamentally changed, contributing to the deterioration of labor standards. Yet at least with aggregate national data, it has been hard to find evidence of a strong, unambiguous shift toward nonstandard or contingent forms of work - especially in contrast to the dramatic increase in wage inequality. This is not to say that there have been no changes in the workplace. But as this paper has emphasized, for enforcement agencies and policymakers, it may be more fruitful to focus on specific industries and regions in assessing when and where pernicious forms of nonstandard
work have grown, and which groups of workers have been most impacted.
The data analysis in this paper also suggests that researchers might fruitfully take up several broader questions. How much of the growth in inequality has been transmitted via the reorganization of work, and how much has been driven by a broad-based dismantling of the social contract? How much of the threat to the Fair Labor Standards Act and other labor standards has come from shifts in the employment relationship, as compared to the loss of bargaining power and enforcement capacity across work arrangements? A good start on answering these questions (and tracking trends in the future) will be to significantly strengthen data and research on nonstandard work and the understudied trend of subcontracting.

Table 1. Percent of US workforce placed by employment services providers

|  | 1990 | 2000 | 2013 |
| :--- | ---: | ---: | ---: |
| Employment services industry | 1.4 | 2.9 | 2.5 |
| Temporary help agencies | 1.1 | 2.0 | 2.0 |
| Professional employer organizations (PEOs) | 0.1 | 0.6 | 0.3 |
| Employment placement agencies \& executive search services | 0.2 | 0.3 | 0.2 |

Source: Current Employment Statistics, Bureau of Labor Statistics.

Table 2. Percent of workers in temporary work arrangements

|  | 1995 | 2005 |
| :--- | ---: | ---: |
| Agency temps | 1.0 | 0.9 |
| On-call workers and day laborers | 1.6 | 1.8 |
| Direct-hire temps | 2.8 | 2.1 |

Source: CPS Contingent Worker Supplement, as reported in US Bureau of Labor Statistics $(1995,2005)$ and US Government Accountability Office (2006).

Table 3. Percent of workers employed in select contractor industries, for select occupations, 2012

| Occupation | Contractor industry | Median <br> hourly <br> wage | Percent of <br> occupation in <br> contractor <br> industry |
| :--- | :--- | ---: | ---: |
| Laundry and Dry-Cleaning Workers | Dry-cleaning and Laundry Services | $\$ 9.58$ | 53 |
| Janitors and Cleaners, Except Maids and <br> Housekeeping Cleaners | Services to Buildings and Dwellings | $\$ 10.73$ |  |
| Telemarketers | Business Support Services | $\$ 10.74$ | 37 |
| Security Guards | Investigation and Security Services | $\$ 11.52$ | 55 |
| Customer Service Representatives | Professional and Business Services | $\$ 14.70$ | 58 |
| Heavy and Tractor-Trailer Truck Drivers | Truck Transportation; Support Activities for | $\$ 18.37$ | 26 |
| Transportation | $\$ 18.74$ | 54 |  |
| Service Unit Operators, Oil, Gas, and Mining | Support Activities for Mining | $\$ 20.18$ | 51 |
| Paralegals and Legal Assistants | Professional, Scientific, and Technical Services | $\$ 22.59$ | 84 |
| Accountants and Auditors | Professional, Scientific, and Technical Services | $\$ 30.55$ | 75 |
| Computer Occupations | Professional, Scientific, and Technical Services | $\$ 36.67$ | 35 |

Source: Author's analysis of Occupational Employment Statistics, Bureau of Labor Statistics.

Table 4. Distribution of employment across firm size, 1977-2011

|  | Percent of employment |  | Percentage <br> Firm size |
| :--- | :---: | :---: | :---: |
| point change |  |  |  |

Source: Business Dynamics Statistics, US Census Bureau.

Table 5. Distribution of employment across establishment size, 1977-2011

|  | Percent of employment |  | Percentage <br> Establishment size |
| :--- | ---: | :---: | :---: |
| 1 to 4 employees | 1977 | 2011 | point change |
| 5 to 9 | 9.0 | 6.2 | -1.8 |
| 10 to 19 | 10.7 | 8.3 | -0.7 |
| 20 to 49 | 15.3 | 11.3 | 0.6 |
| 50 to 99 | 11.4 | 16.7 | 1.4 |
| 100 to 249 | 13.4 | 12.7 | 1.4 |
| 250 to 499 | 9.0 | 15.6 | 2.2 |
| 500 to 999 | 7.7 | 9.0 | 0.0 |
| $1000+$ | 15.5 | 6.6 | -1.1 |

Source: Business Dynamics Statistics, US Census Bureau.

## REFERENCES

Abraham, Katherine G. and Susan K. Taylor. 1996. "Firms' Use of Outside Contractors: Theory and Evidence." Journal of Labor Economics 14(3): 394-424.

Batt, Rosemary and Hiroatsu Nohara. 2009. "How Institutions and Business Strategies Affect Wages: A Cross-National Study of Call Centers." Industrial and Labor Relations Review 62(4): 533-552.

Berlingieri, Giuseppe. 2012. "The Rise in Services and Outsourcing." Manuscript. Centre for Economic Performance, London School of Economics, February.

Bernhardt, Annette and Jessica Garrick. 2013. "Interim Report: Research on the Prevalence and Impact of Subcontracting in the US." Manuscript. New York: National Employment Law Project.

Bernhardt, Annette, Ruth Milkman, Nik Theodore, Douglas Heckathorn, Mirabai Auer, James DeFilippis, Ana Luz González, Victor Narro, Jason Perelshteyn, Diana Polson and Michael Spiller. 2009. Broken Laws, Unprotected Workers: Violations of Employment and Labor Laws in America's Cities. New York: National Employment Law Project.

Bernhardt, Annette, Siobhan McGrath, and James DeFilippis. 2007. Unregulated Work in the Global City: Employment and Labor Law Violations in New York City. New York: Brennan Center for Justice.

Brown, Charles, James Hamilton, and James L. Medoff. 1990. Employers Large and Small. Cambridge, MA: Harvard.

Cappelli, Peter and JR Keller. 2013. "A Study of the Extent and Potential Causes of Alternative Employment Arrangements." Industrial and Labor Relations Review 66(4):874-901.

Carnoy, Martin, Manuel Castells, and Chris Benner. 1997. "Labor Markets and Employment Practices in the Age of Flexibility." International Labour Review 136(1):27-48.

Cohany, Sharon. 1998. "Workers in Alternative Employment Arrangements: A Second Look." Monthly Labor Review November:3-21.

Dey, Houseman and Polivka. 2009. "What Do We Know about Contracting Out in the United States? Evidence from Household and Establishment Surveys." Working Paper No. 09157. Kalamazoo, MI: Upjohn Institute.

Dube, Arindrajit, and Ethan Kaplan. 2010. "Does Outsourcing Reduce Wages in the Low-Wage Service Occupations? Evidence from Janitors and Guards." Industrial and Labor Relations Review, 63(2):287-306.

Farber, Henry. 2008. "Employment Insecurity: the Decline in Worker-Firm Attachment in the United States." Working Paper No. 172. Center for Economics Policy Studies, Princeton University.

Fixler, Dennis J and Donald Siegal. 1999. "Outsourcing and Productivity Growth in Services." Structural Change and Economic Dynamics 10(2): 177-194.

Fligstein, Neil and Taek-Jin Shin.2003. "The Shareholder Value Society: A Review of the Changes
in Working Conditions and Inequality in the US, 1976-2000." Working Paper Series. UC Berkeley: Institute for Research on Labor and Employment.

Greer, Charles R., Stuart A. Youngblood and David A. Gray. 1999. "Human Resource Management Outsourcing: The Make or Buy Decision." Academy of Management Executive 13(3):86-96.

Han, Kunsoo, Robert J. Kauffman and Barrie R. Nault. 2011. "Returns to Information Technology Outsourcing." Information Systems Research 22(4): 824-840

Hipple, Steven. 2001. "Contingent Work in the Late-1990s." Monthly Labor Review March:3-27.
Hipple, Steven. 2010. "Self-Employment in the United States." Monthly Labor Review September:17-32.

Houseman, Susan N. 2001. "Why Employers Use Flexible Staffing Arrangements: Evidence from an Establishment Survey." Industrial and Labor Relations Review 55(1): 149-170.

Johnson, S. Gregory. 1996. "When Only Hired Guns Will Do." Journal of Commerce. July 4, found at https://www.joc.com/when-only-hired-guns-will-do-survey-more-fortune-100-firms-outsourcing-company-activities_19960704.

Kalleberg, Arne L. 2009. "Precarious Work, Insecure Workers: Employment Relations in Transition." American Sociological Review 74(1):1-22.

Kennedy, Elizabeth. 2005. "Freedom from Independence: Collective Bargaining Rights for 'Dependent Contractors.'" Berkeley Journal of Employment and Labor Law 26:144-168.

Lambert, Susan, Anna Haley-Lock, and Julia Henly. 2012. "Schedule Flexibility in Hourly Jobs: Unanticipated Consequences and Promising Directions." Community, Work \& Family 15(3):293-315.

Langley, John C., Gary R Allen and Thomas A. Dale. 2004. Third-Party Logistics: Results and Findings of the 2004 Ninth Annual Study. Georgia Institute of Technology, found at http://scl.gatech.edu/research/supply-chain/20043PLReport.pdf.

Lawn, Jown, and Michael Buzalka. 1998. "Eight Trends that Drive the Contract Market." Food Management 33(4):54-58.

McCain, Mary. 2009. Serving Students: A Survey of Contracted Food Service Work in New Jersey's K-12 Public Schools. New Jersey: Rutgers Center for Women and Work.

Moldvay, Caitlin. 2012. "Cleaning Up: Demand for Construction and Households Will Return, Strengthening Revenue." IBIS World Industry Report 56172: Janitorial Services in the US. 2012. October.

Neumark, David. 2000. "Changes in Job Stability and Job Security: A Collective Effort to Untangle, Reconcile, and Interpret the Evidence." In On the Job: Is Long-Term Employment a Thing of the Past?, edited by David Neumark, pp. 1-30. New York: Russell Sage Foundation.

O’hUallachain, Breandan and Neil Reid. 1991. "The Location and Growth of Business and Professional Services in American Metropolitan Areas." Annals of the Association of American Geographers, 81(2):254-270.

Pedace, Roberto. 2010. "Firm Size-Wage Premiums: Using Employer Data to Unravel the Mystery." Journal of Economic Issues 44(1):163-82.
Piore, Mike and Charles Sabel. 1984. The Second Industrial Divide: Possibilities for Prosperity. New York: Basic.

Planmatics, Inc. 2000. Independent Contractors: Prevalence and Implications for Unemployment Insurance Programs. Report prepared for the US Department of Labor, Employment and Training Administration.
Polivka, Anne and Stephen Miller. 1998. "The CPS After the Redesign: Refocusing the Economic Lens." In Labor Statistics Measurement Issues, edited by J. Haltiwanger, M. Manser and R. Topel, pp. 249-289. Chicago: University of Chicago Press.

Polivka, Anne and Thomas Nardone. 1989. "On the Definition of 'Contingent' Work." Monthly Labor Review December:9-14.

Polivka, Anne. 1996. "Contingent and Alternative Work Arrangements, Defined." Monthly Labor Review October:3-9.

Powell, Walter W. 1990. "Neither Market Nor Hierarchy: Network Forms of Organization." Research in Organizational Behavior, 12: 295-336.

Rebitzer, JB. 1995. "Job Safety and Contract Workers in the Petrochemical Industry. Industrial Relations, 34(1): 40-57.

Rones, Philip, Randy Ilg, and Jennifer Gardner. 1997. "Trends in Hours of Work Since the Mid1970s." Monthly Labor Review April:3-14.

Samadi, Nima. 2012. "Eating up: Downstream Markets Will Renew Their Appetite for Industry Services." IBISWorld Industry Report 72231:Food Service Contractors in the US. October.

Shaefer, Luke. 2009. "Part-Time Workers: Some Key Differences Between Primary and Secondary Earners." Monthly Labor Review October:3-15.

Sharpe, Murem. 2001. "Outsourcing, Organizational Competitiveness and Work." Journal of Labor Research, 18(4): 535

Smith, Vicki. 1997. "New Forms of Work Organization." Annual Review of Sociology 23:315-39.
Stevens, Ann Huff. 2005. "The More Things Change, the More They Stay the Same: Trends in Long-Term Employment in the United States." Working Paper No. 11878. Cambridge, MA: National Bureau of Economic Research.

Struna, Jason, et al. 2012. "Unsafe and Unfair: Labor Conditions in the Warehouse Industry." Policy Matters. University of California, Riverside.

US Bureau of Labor Statistics. 1995. "New Data on Contingent and Alternative Employment Examined by BLS." Press release. Found at http://www.bls.gov/news.release/history/conemp 082595.txt.

US Bureau of Labor Statistics. 2005. "Contingent and Alternative Employment Arrangements, February 2005." Press release. Found at http://www.bls.gov/news.release/History/conemp.txt.

US Government Accountability Office. 2006. Employment Arrangements: Improved Outreach Could Help Ensure Proper Worker Classification. Washington, DC: USGAO.

Valletta, Rob and Leila Bengali. 2013. "What's Behind the Increase in Part-Time Work?" Federal Reserve Board of San Francisco Economic Letter, 2013-24, August 26.

Weil, David. 2011. "Enforcing Labor Standards in Fissured Workplaces: The US Experience." Economic and Labour Relations Review 22(2): 33.

## ENDNOTES

${ }^{1}$ The BLS measured contingent work five times with its Contingent Work Survey between 1995 and 2005, based on a series of questions about whether the respondent's job was short-term. It calculated three different estimates of the percent of the workforce that was contingent, ranging from 2-4 percent, with little change across those ten years (Hipple 2001, US Bureau of Labor Statistics 2005).
${ }^{2}$ For example, the US Bureau of Labor Statistics (2005) found that 39.3 percent of temp agency workers did not qualify as contingent according to the agency's definition. This finding likely reflects the great variety of employment relationships with temp agencies, where some workers have a long-term relationship with an agency (even though they are placed with multiple clients), or become permatemps at a particular client.
${ }^{3}$ The large majority of workers employed in the employment services industry are those placed at client companies; only a small percent are industry staff (Dey, Houseman and Polivka 2009).
${ }^{4}$ Ten (mainly professional) occupations are not included in this graph because of missing data on employment in the Employment Services industry.
${ }^{5}$ As Shaefer (2009) points out, the "voluntary" category is probably better described as workers who do not want full-time jobs or are not able to take full-time jobs because of family obligations (child care, elder care, health and medical limitations).
${ }^{6}$ The Current Population Survey underwent a significant redesign in 1994 that increased the estimated percent of part-time workers in the US. For 1968-1993, we use the adjustments provided by the BLS to create a consistent series (Polivka and Miller 1998); these adjustments not substantively affect the trend line.
${ }^{7}$ Pre-1994 data were adjusted for survey redesign using adjustments provided by Polivka and Miller (1998); these adjustments not substantively affect the trend line.
${ }^{8}$ In 1984, the IRS made its last misclassification estimate, finding that 15 percent of employers misclassified 3.4 million workers as independent contractors (US Government Accountability Office 2006). Since then, a number of states have conducted their own audits, of varying quality; Planmatics (2000) extrapolated a range of 1-2 percent based on these.
${ }^{9}$ This research was done as part of a broader project by the National Employment Law Project on subcontracting in the spring of 2013; this section draws heavily on Bernhardt and Garrick (2013).
${ }^{10}$ Independent contractors (not misclassified) can be thought of as one manifestation of contracting out, since the individual worker provides his or her services to a company under the terms of a contract.
${ }^{11}$ While there is overlap, the literature clearly distinguishes temp work from subcontracted work on two dimensions: who supervisors the worker, and the permanence of the contract. Temporary workers are
typically supervised by the contracting, or client firm, and the tenure of their employment is meant to be short-term. Contract employees typically are supervised by the contractor firm, and tenure can be long term and often permanent.
${ }^{12}$ Unfortunately, there is no consensus definition of small, medium and large firms. The threshold separating small from medium firms can range anywhere from 50 to 500 employees, depending on the statistical agency. The threshold separation medium from large firms is typically 500 or 1000 . Firms with less than 10 employees are often called micro-firms.

Figure 1. Percent of occupations in employment services industry,
2012


Source: Occupational Employment Statistics.

Figure 2. Trends in percent part-time and involuntary part-time, 1968-2013


Figure 3. Change in unemployment and involuntary part-time rate, during and after recession



Months since start of recession

Source: Current Employment Statistics

Figure 4. Trends in hours and weeks worked, 1975-2012


Source: Current Population Survey

Figure 5. Percent self-employed, 1970-2013


Source: Current Population Survey, Bureau of Labor Statistics, and Hipple (2010).
Pre-1994 data are adjusted for survey re-design using adjustments from Polivka and Miller (1998).

