

Non-standard employment across occupations in the United States: the role of replaceability and labor market flexibility

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ABSTRACT Even in the most flexible labour market among advanced industrialized countries, forms of nonstandard employment are prevalent, though levels are noticeably lower than in European countries. As elsewhere, nonstandard employment provides employers with mechanisms for cutting costs and is theorized to occur more often in positions characterized by high replaceability and flexibility. Levels of nonstandard employment have remained rather steady in the past few decades, since most of the expansion occurred in the 1970s and 1980s. Nonstandard employment is related to workers in typical low-wage occupations as well as occupations such as education and journalism. On the individual level, having a low education and more general skills are related to nonstandard employment which backs up the theoretical expectations.

1. Introduction

While the United States is widely considered as having the most flexible labour market in the industrialized world, the standard employment relationship still constrains employers in various ways. And though employers may gladly provide mandatory and even additional benefits to retain hard-to-replace personnel, nonstandard employment offers a channel through which to realize further flexibility for certain types of workers. Understanding trends in nonstandard employment therefore means drawing attention to the interest and ability of employers to break with the standard employment contract.

This chapter charts developments in nonstandard employment and assesses its determinants and the consequences for transitions into more stable forms of employment. The types of nonstandard work assessed in this chapter include part-time, temporary work, temporary help agency work, contract agency work, and on-call/day labourers. Nonstandard employment is less prevalent than in other countries, probably due to the high level of existing flexibility in the system. Nevertheless, levels have increased since the 1970s, primarily as a result of heightened competition, the rise of the knowledge economy, and a political shift to the right. **Workers with XX characteristics are more likely to be in nonstandard employment.**

The next section provides an overview of nonstandard work and its determinants in the US case, after which the data employed for the empirical sections is discussed. Empirical sections explore trends in nonstandard work and related reforms, analyse determinants of nonstandard work and related transitions, and provide historical case studies of three relevant occupational groups, including academics, journalists, and cleaners.

2. Nonstandard Work in the United States and Institutional Reforms

Types of nonstandard work in the United States include part-time, temporary work, temporary help agency, contract agency work, and on-call/day labourers. Since standard employment involves full-time, permanent employment, nonstandard work is defined by a contract that is part-time or temporary. Reference to the *de Jure* versus *de Facto* employer constitutes an additional way of differentiating standard from nonstandard work (Kalleberg, Reskin, and Hudson 2000). Whereas *de Jure* and *de Facto* employer are one and the same for those in standard employment, they differ for those employed by a temporary help agency and contract company; the *de Jure* rather than the *de Facto* employer also directs work for those employed by a contract company. A further point of distinction is that workers employed by a temporary help agency or contract company as well as on-call/day labourers do not expect to continue working for the *de Facto* employer. All these forms of nonstandard work may involve reduced working hours. Related corollaries of nonstandard work involve low pay, lack or insufficiency of social benefits (e.g. health, pension), and lack of protection through labour law and collective agreements (Houseman and Osawa 2003). A more complete discussion of how nonstandard work diverges from standard work follows later on in this section. In the US context, the term contingent work is often used (Freedman 1985).

Nonstandard employment is defined by its contrast to a relatively short-lived period in the immediate post-war period of good and improving employment conditions for many workers, commonly referred to as the standard employment relationship. Despite its short duration, the roots of the standard employment relationship reach far back in history. Beginning in the 1800s, a long-term shift began in the structure of businesses from small craft-based firms to hierarchical organizations based on strong administrative control, long-term employment, internal career ladders, firm-specific knowledge, and the physical concentration of workers (Pfeffer and Baron 1988). Only by the end of the Great Depression did insecure employment give way to “standard” employment as the dominant type of employment. The 1950s and 60s are characterized by the preponderance of good jobs (Jacoby 1985).

By the 1950s, various reforms had improved the quality of standard employment. The Social Security Act of 1935 established unemployment insurance, universal pension, and benefits for needy families. In the same year, the Wagner Act secured collective bargaining rights and founded the National Labour Relations Board to oversee wage agreements. Although President Franklin D. Roosevelt neglected to address demand for health insurance at this point, a series of reforms in the 1940s and 1950s promoted employer-provided healthcare (Blumenthal 2006). For instance, in 1942, the government limited firms’ ability to compete for scarce workers by offering higher wages, while allowing them to offer benefits instead. In 1945, the government stipulated that benefits should be guaranteed for the duration of the work contract. In 1949, benefits were considered part of the wage package and unions could include discussions about benefits as part of wage negotiation. The United Automobile Workers were the first to use this practice, and it was actually implemented as a way to stall further unionization (Kalleberg 2009). By the 1950s, economic recovery in tandem with these reforms shifted the tide towards more high quality employment and the standard employment relationship was born.

The 1970s however ushered in a period of renewed insecurity as a result of economic change, the rise of the knowledge economy, and a political shift to the right (Kalleberg 2009). Heightened economic competition drove employers to seek ways to realize greater flexibility. Most recently technological change leads to occupational polarization or the expansion of high and low-wage occupations at the expense of mid-wage ones, a phenomenon which drives inequality in working conditions. For others, the consequences of economic change for job quality are not inevitable, but rather the result of clear political decisions that empower employers and shareholders over workers (Madrack 2012). In the immediate postwar period, managers controlled businesses instead of shareholders and as such businesses tended to employ more people (Kalleberg 2011, 22). Today, stockholders determine policy, and during the crisis the Federal Reserve has tolerated a high unemployment rate in favour of keeping inflation down (Madrack 2012).

Table 1 shows levels of nonstandard work in 1995 and 2005 and the following discussion reviews trends from earlier periods. Part-time work, defined by census surveys as working less than 35 hours a week, averaged 20 percent between 1955 and 1984, with an increase in the proportion taking on such work for economic reasons in the last ten years of this period (R. G. Ehrenberg, Rosenberg, and Li 1988). In a more recent study, the authors show that levels of

part-time employment have stood between 16 and 20 percent since the 1970s (Houseman and Osawa 2003) with about a quarter composed of involuntary part-time (Callaghan and Hartmann 1991). These statistics mask the higher numbers employed in such positions since the workforce grew substantially in the period. Of the 16 million new employees between 1979 and 1989, one-fourth was in part-time employment and forty percent of these involuntary (Appelbaum 1992). Table 1 reveals that levels of part-time work stood at 16.7 and 16.6 percent in 1995 and 2005, respectively, in line with the previous literature.

Table 1. Distribution of Nonstandard Work Arrangements

	1995	2005
Regular Full-Time	73.75	76.33
Regular Part-Time	16.63	16.72
Temporary or Temporary Help Agency	6.24	4.57
Contract Agency	1.06	0.86
Day Labourer	0.05	0.13
On-Call	1.32	1.15

Part-time work is particularly prevalent in retail and beginning as early as the 1950s employers have increasingly shifted to part-time jobs as a deskilling strategy to reduce costs (Barker and Christensen 1998). Involuntary part-time employment occurs as a result of explicit employer strategies to contain costs (Tilly 1992). Part-time workers earn lower wages and receive less fringe benefits (Larson and Ong 1994). The shift towards part-time work is due in large part to the Federal Family and Medical Care Leave Act of 1993 which increased the cost of full-time workers (Stratton 1996). Part-time work has also increased as a result of growth in sectors that rely more heavily on part-time work (Appelbaum 1992).

Work on contracts of a limited duration, or temporary work, is a more recent phenomenon than part-time work. There is a lack of good data on the share of temporary workers. One estimate puts the number of directly hired temporary workers at around 3.3 million workers in 1995, or 3.1 percent of the workforce (Kalleberg, Reskin, and Hudson 2000). Temporary workers are increasingly employed by agencies in the US context. Temporary agency work is further distinguished from other forms of temporary employment since they create a triangular employment relationship whereby they act as employment agents. Such agencies originated in Chicago in the 1920s with the supply of calculating machine operators (Kalleberg 2000) though only in the 1970s did temporary help agencies experience an explosion in the number operating in the labour market. They grew quickly in the 1980s, expanding ten times faster than normal employment between 1982 and 1990 (Appelbaum 1992). Whereas workers employed through temporary help agencies stood at 0.3% of the workforce in 1972, this proportion has risen to 2.5% in 1998 (Kalleberg, Reskin, and Hudson 2000). By the 1990s, temporary help agencies were employing 1.3 million workers daily and account for roughly half of all temporary employment (Appelbaum 1992). From another perspective, 38 percent of firms relied on temporary workers to fulfil mainly seasonal demands (Houseman 1997). The CPS data puts temporary and temporary help agency work at 6.24 and 4.57 percent in 1995 and 2005, respectively.

In earlier times, temporary help agencies simply acted as a type of employment service. As such, the clients of such agencies were the *de Jure* employers of workers hired through the agencies. By the 1970s, this situation had changed. At this time, employers were becoming hesitant to employ new workers on the terms of the standard employment relationship and the federal government had given up efforts to improve the effectiveness of the national employment service (Gonos 1998, 185). Yet the growth of temporary help agencies was not simply a question of altering human resource policies but depended critically on legal reforms. Temporary help agencies expanded as a result of strong lobbying efforts on behalf of the National Association of Temporary Services (Vallas and Prener 2012). Specifically, the temporary help industry won the title of employer thereby freeing up their clients from the legal obligations of this role (Gonos 1997). This change stems from court cases tried in the 1950s and 1960s, at the height of the New Deal model's reign over industrial relations (Gonos 1997). This reform empowered the "temporary help formula" which involved the transfer of jobs from the core labour force to a secondary or "competitive" one in which the employer had greater control over the duration and content of work. This solution meant an increase in both numerical and functional flexibility (Gonos 1998) as well as wage flexibility since wages were no longer decided according to negotiated agreements but by the market (Gonos 1997).

Contract companies differ from temporary help companies because they supervise the work of their employees. Of five services (janitorial, machine maintenance, engineering, accounting, and computers), between 14.8 and 28.2 of firms sampled reported contracting out some of these services in 1979, 1983, and 1986/7, with a clear increase over time (Abraham and Taylor 1996). Contract companies have long existed in fields such as construction though new areas such as business services witness growing use of this type of employment since they can complete various tasks more cheaply and efficiently (Abraham and Taylor 1996). Supervision may not be extensive as in the case of subcontracting when the work takes place off-site (Kalleberg 2000). Subcontracting companies increasingly provide workers, a practice known as "employee leasing". Although earlier only found in unionized trucking and warehousing industries, a 1986 reform provided incentives for all industries to replace existing workers with a leased workforce (Axelrod 1987). Table 1 puts employment levels at 1.06 and 0.86 percent in 1995 and 2005, respectively.

On-call employment involves situations where the employee can be alerted on short notice that their services are needed. Occupations where on-call employment is common include substitute teachers, caterers, nannies, and nurses (Valenzuela 2011). According to the CPS data, 1.32 percent of the workforce was employed as on-call workers in 1995 and 1.15 in 2005.

Day labours can be employed informally or formally. Informal day labourers meet in public places such as parking lots to solicit work for one or a few days. Informal day labourers are typically young, foreign born and usually unauthorized, and male and work in areas such as construction and, at times, industrial and factory work (Valenzuela 2003). Formal day labours are hired through temp agencies or hiring halls and are far less common than informal forms of employment (Peck and Theodore 2001). Day labour has become "an increasingly visible part of

the urban landscape and is growing in the United States” (Valenzuela 2003, 308). Table 1 puts employment levels at 0.05 and 0.13 percent in 1995 and 2005, respectively.

While the above discussion explores in part variation in types of nonstandard work, it is also possible to delineate theoretically how nonstandard workers as a group should differ from workers on full-time permanent contracts. Following the other country chapters, we expect the prevalence of nonstandard work to vary according to the availability of skills (replaceability). The prevalence of nonstandard work should also vary according to the degree of flexibility within a given sector (due to unionization). Replaceability refers to the costs incurred when an employer tries to replace an existing worker by hiring a comparable worker on the open market. Flexibility captures precisely those costs resulting from regulations and laws which restrict employers’ ability to hire whomever they choose.

Replaceability and flexibility are a function of various contextual factors. Specifically, replaceability derives from labour supply and demand conditions and the nature of skill needs in terms of their level and specificity. When labour markets are slack and employers rely on a low-level of general skills, employers hold the upper hand and should feel less pressure to offer standard employment positions. Beyond skills simply being general, the tasks fulfilled by such a worker may only be of use to the employer for a limited duration of time. The degree of replaceability therefore is not only a function of the specificity of the skill but the extent to which the tasks are fundamental to a firm’s operations (Kalleberg 2003). In this way, neither high nor specific skills are sufficient conditions for standard employment. Many independent contractors and temporary-help agency employees are high-skilled, such as consultants and journalists. Moreover, skill specificity is only important in making workers essential to a firm’s competitiveness if these specific skills are essential to a firm’s operations, i.e. firm-specific. The measure of skill specificity used here and in most other studies cannot make this necessary distinction. Despite these concerns, we expect, in line with the other chapters that workers with high and specific skills should, on average, exhibit a lower probability of being in nonstandard work contract, though there should be variation among occupations group in this regard.

Flexibility is greater when unions are weak and labour market institutions constrain hiring behaviour. In the US context, unions are already quite weak and employment protection extremely low as expressed in the “employment-at-will” doctrine that governs most jobs.

3. The Approach

a. Data

The main data source includes the Contingent Work Supplement of the Current Population Survey from 1995 and 2005. A brief description of the definitions of nonstandard work is in order. Part-time refers to those working less than 35 hours a week. The remainder of the nonstandard work types were coded based on behavioural questions directly designed for this purpose, including: “is your job temporary?” (further questions used to assess temporary work status: are you hired until a specific project is complete? hired to replace another worker temporarily? hired for fixed term?), “are you paid by a temporary help agency?”, “did you work

for a company that contracts out your services last week?”, “were you an on-call worker last week?”, and “were you a day-labourer last week?”.

Section 4 measures differences in the incidence of nonstandard employment between these two times period. Since the occupational codes differ substantially between these two surveys, a crosswalk from the Census Bureau is used to harmonize the data and also converted the data from the 3-digit to the 1-digit level.¹ (At the moment, I am still trying to figure out which crosswalk is best to get from 1990 Census codes to 2000 census codes. There is a 3-digit level crosswalk from David Autor from the paper “The Polarization of Job Opportunities in the U.S. Labor Market: Implications for Employment and Earnings” and all data available on his website. However, this leads to quite different results for Figure 2).

Section 5 assesses the determinants of nonstandard employment (Table 2) and transitions from nonstandard to standard employment (Table 3). For this part, only the survey from 2005 is used. The types of nonstandard employment types are dummy variables and are the dependent variable for Table 2. Independent variables included personal characteristics (age, gender, education, marital status, race), labour-market related characteristics (industry, occupation, occupational unemployment, relative skill specificity, and union membership), and geographical characteristics (region, metropolitan area). To avoid measurement error, the 23-pronged occupational variable available in the 2005 CPS Contingent Work supplement is used. Occupational unemployment provides a measure of labour demand by occupational group and is the proportion of unemployed by occupational group. The relative skill specificity measure follows Iversen and Soskice and is the number of 3-digit occupational groups within each 2-digit occupational group as a proportion of the total number of 3-digit occupational groups, weighted by the 2-digit occupational group’s share of the workforce and then weighted by the average education level of that (2-digit) occupational group.

(FIRST TABLE 2: For this section, nonstandard employment is grouped into four categories: low-pay, part-time, types of work typically of short-term duration (temporary, temporary agency, contract agency), and types of work of very short duration (on-call and day labourer).)

The case studies in Section 7 are based on academic sources.

b. Method

Section 5 employs logistic regression to analyse the determinants of nonstandard employment.

4. Trends in Nonstandard Employment in the United States and Related Institutional Reforms

Figure 1 plots the percent in nonstandard employment and the percent in low-wage employment by 1-digit occupational group. Managers have the lowest incidence of both nonstandard employment and low pay. Another group of occupations have higher levels of nonstandard employment but are not necessarily receiving low pay. These occupations include transport-related, protection services,

¹ The crosswalk used was obtained from the following website
http://www.census.gov/hhes/www/ioindex/occcross_menu.html.

technical (e.g. university teachers, journalists), crafts, and professional occupations. Clerks and operators lie somewhere between this group and managers.

Three occupational groups exhibit a higher incidence of being low-wage but are differ in terms of the prevalence of nonstandard work. Sales occupations have the lowest number in nonstandard employment, followed by personal services (e.g. cleaners) and then farming.

Figure 1. Low pay (below 67% of median hourly pay) and share of non-standard work (census bureau 1 digit)

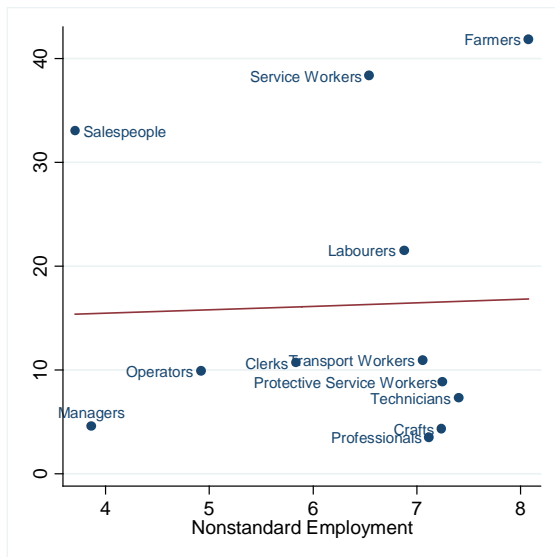
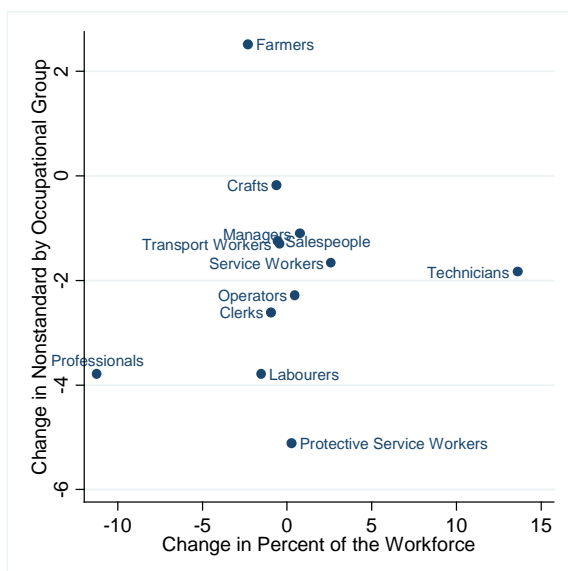


Figure 2. Change in employment and change in the share of non-standard jobs (ca. mid-1990 and most recent) (1-digit census crosswalk)



A couple of observations can be made. First, the prevalence of nonstandard work is not necessarily related to low pay which is a common indicator of poor job quality and low skill levels. Therefore there is preliminary support for the idea that nonstandard work derives from factors besides the level of workers' skills. Second, levels of nonstandard employment are considerably lower in the

United States than in European countries. Third, nonstandard is actually decreasing, albeit only slightly, between 1995 and 2005, and changes in the proportion employed in nonstandard work is unrelated to changes in the size of a particular occupational group.

5. Determinants of Employment and Transitions out of Nonstandard Employment in the United States

Table 2 provides the results for the determinants of nonstandard work. The probability of being in nonstandard work increases if an individual is younger, female, less educated, non-married, and foreign born. A few important exceptions to this rule apply. First, foreign born are less likely to work part-time, which may be due to the financial need to work more hours and perhaps take on multiple jobs. Second, the results for gender, education or foreign born become insignificant or change sign and are significant in the models for contract agency or on-call work (if considering the more differentiated Table 2), confirming studies that show these forms of work to be used for high-skill workers. Forms of nonstandard employment are less more widespread in all regions compared to the south, except for on-call work which is more common in the west than anywhere else. Metropolitan areas exhibit lower levels of low-pay, part-time work, day labourers, and on-call workers.

Turning to the industrial and occupational categories, a few observations about the clustering of nonstandard work by category are made. Most industrial and occupational groups exhibit higher probabilities of nonstandard work than the references categories of the manufacturing industry and management occupations, respectively. Workers in either the education industry or the in occupations related to education reveal higher probabilities of being in every type of nonstandard employment. Two other occupational groups, personal services and sales and office, mimic these findings. The professional services industry and occupations within media and arts and transportation are not related to low-pay but are strongly related to all other forms of nonstandard employment.

Looking at these data from another perspective, that is, according to the number of categories associated with each type of nonstandard work, provides an indication of how pervasive nonstandard work is. All coefficients for the categories were positive for the model for low-pay except for two industrial groups (mining/construction and public administration) and two occupational groups (cleaners and construction and repair) (?????). Part-time work is more likely among all industrial and occupational groups except for the industry of public administration, which is less likely to exhibit part-time work than the reference group of managers. Day labourers are significantly more prevalent among workers in the occupation of media or the arts and, only at the margin, among farmers. None of the other results are significant.

Almost all groups revealed a high relative probability of having on-call workers though the number of observations is quite small.

Relative skill specificity is negatively related to part-time and on-call work. These findings are in line with the theoretical framework since workers with specific skills are more likely to be valued by the firm through a standard work contract.

However, relative skill specificity is positively related to temporary agency work.

Occupational unemployment is positively related to low-pay, part-time work, temporary agency work, and contract agency work.

Being a union member is oddly related to being in all forms of nonstandard work except for part-time work.

→sometimes the cells have very few observations – what to do?

Table 2. Probability of being on a non-standard contract (GROUPED)

	Low Pay	Part-Time	Temporary, Temporary Agency, Contract Agency	Day-Labourer, On-Call
Age	-0.0376** [0.002]	-0.0037** [0.001]	-0.0131** [0.001]	-0.0038 [0.003]
Female	0.5266** [0.056]	0.4208** [0.022]	-0.0326 [0.040]	0.0487 [0.083]
Married	-0.6190** [0.060]	-0.1981** [0.020]	-0.3296** [0.037]	-0.1765* [0.073]
Education	-0.4855** [0.030]	-0.1664** [0.011]	-0.0435* [0.021]	-0.1558** [0.042]
Foreign Born	0.3109** [0.071]	-0.4027** [0.033]	0.4150** [0.049]	0.0374 [0.109]
Occ Unemployment	0.4501** [0.074]	0.0569** [0.017]	0.0817** [0.031]	-0.0613 [0.055]
Region (Reference: South)				
<i>Northeast</i>	-0.4139** [0.076]	0.1676** [0.028]	-0.1867** [0.049]	-0.1504 [0.104]
<i>Midwest</i>	-0.1160+ [0.065]	0.2262** [0.026]	-0.2295** [0.048]	0.0036 [0.095]
<i>West</i>	-0.1996** [0.066]	0.2061** [0.026]	-0.0846+ [0.046]	0.2755** [0.090]
Metropolitan Area	-0.3342** [0.057]	-0.1105** [0.022]	-0.0459 [0.043]	-0.4129** [0.075]
Industry (Reference: Manufacturing)				
<i>Mining and Construction</i>	-0.7488** [0.217]	0.6482** [0.059]	0.3799** [0.090]	1.0762** [0.222]
<i>Agriculture</i>	0.2798 [0.324]	1.6218** [0.085]	-0.7282** [0.247]	-0.1306 [0.452]
<i>Wholesale, Retail, Finance</i>	0.3747** [0.134]	0.6540** [0.047]	-0.2034* [0.081]	0.4702* [0.208]
<i>Transport and Leisure</i>	0.4062** [0.132]	0.8379** [0.047]	0.0665 [0.079]	0.9687** [0.193]
<i>Information</i>	0.4135+ [0.216]	0.5114** [0.076]	0.2151+ [0.130]	0.8433** [0.298]
<i>Professional Services</i>	0.1525 [0.157]	0.7114** [0.052]	0.8480** [0.080]	0.6992** [0.225]
<i>Education</i>	0.2889* [0.144]	0.5217** [0.051]	0.3512** [0.084]	1.0946** [0.208]
<i>Public Administration</i>	-0.297 [0.241]	-0.3238** [0.076]	0.1527 [0.110]	0.4411 [0.273]
Occupation (Reference: Management Occupations)				
<i>Business, Computers, Architecture and Sciences</i>	0.2821 [0.317]	0.0333 [0.054]	0.3887** [0.096]	0.3954 [0.245]
<i>Education</i>	1.6954** [0.296]	0.7958** [0.057]	0.7950** [0.105]	1.2470** [0.219]
<i>Media and Arts</i>	0.3815 [0.403]	1.1229** [0.091]	0.5258** [0.159]	1.8609** [0.345]
<i>Health</i>	0.7296* [0.309]	0.7411** [0.054]	0.1759 [0.110]	1.1542** [0.223]
<i>Protective</i>	0.9690* [0.398]	0.6614** [0.105]	0.0767 [0.172]	2.1180** [0.348]
<i>Food Service</i>	0.3583 [0.452]	0.9840** [0.101]	-0.0984 [0.195]	0.9881** [0.361]
<i>Cleaning</i>	-0.1224 [0.485]	0.4702** [0.111]	-0.0904 [0.208]	1.3943** [0.380]
<i>Personal Services</i>	0.9963** [0.359]	0.9805** [0.084]	0.2747+ [0.157]	0.8267* [0.349]
<i>Sales and Office</i>	0.5929+ [0.310]	0.3449** [0.058]	0.2548* [0.113]	0.4197+ [0.242]
<i>Transport</i>	0.2694 [0.393]	0.4502** [0.089]	0.2705+ [0.158]	1.8034** [0.332]
<i>Construction and Repair</i>	-0.3356 [0.478]	0.0585 [0.106]	0.071 [0.176]	1.6832** [0.400]
<i>Farming</i>	0.6178 [0.990]	0.7723** [0.285]	0.6784 [0.443]	4.9533** [1.147]
Relative Skill Specificity	0.0218 [0.034]	-0.0370** [0.010]	0.0224+ [0.013]	-0.1023* [0.040]
Union Member	0.4556** [0.145]	-0.5316** [0.061]	1.1902** [0.064]	1.2218** [0.107]
Constant	-4.1958** [0.357]	-1.8415** [0.088]	-2.8770** [0.157]	-4.8149** [0.356]
Observations		66,392	66,392	66,392
Standard errors in brackets				
** p<0.01, * p<0.05, + p<0.10				

Table 2. Probability of being on a non-standard contract (NOT GROUPED)

VARIABLES	Low Pay	Part-Time	Temporary	Temporary Help Agency	Contract Agency	Day Labourer	On-Call
Age	-0.0376** [0.002]	-0.0037** [0.001]	-0.0141** [0.002]	-0.0106* [0.004]	-0.0065+ [0.003]	-0.0307** [0.009]	-0.0005 [0.003]
Female	0.5266** [0.056]	0.4208** [0.022]	-0.0502 [0.044]	0.2336+ [0.127]	-0.1602 [0.101]	-0.1617 [0.275]	0.0732 [0.087]
Married	-0.6190** [0.060]	-0.1981** [0.020]	-0.3425** [0.042]	-0.5693** [0.119]	-0.0695 [0.089]	-0.4853* [0.236]	-0.1297+ [0.077]
Education	-0.4855** [0.030]	-0.1664** [0.011]	-0.0606** [0.023]	-0.0416 [0.066]	0.0679 [0.052]	-0.2833* [0.128]	-0.1346** [0.045]
Foreign Born	0.3109** [0.071]	-0.4027** [0.033]	0.4899** [0.055]	0.4594** [0.149]	0.0886 [0.125]	0.8399** [0.254]	-0.1334 [0.123]
Occ Unemployment	0.4501** [0.074]	0.0569** [0.017]	0.0522 [0.037]	0.2568** [0.098]	0.1318* [0.067]	0.2085 [0.267]	-0.0672 [0.057]
Region (Reference: South)							
<i>Northeast</i>	-0.4139** [0.076]	0.1676** [0.028]	-0.1524** [0.055]	-0.2953+ [0.172]	-0.3267** [0.123]	0.1885 [0.278]	-0.1847 [0.112]
<i>Midwest</i>	-0.1160+ [0.065]	0.2262** [0.026]	-0.2433** [0.054]	-0.0493 [0.150]	-0.2893* [0.118]	-0.5253 [0.320]	0.0651 [0.100]
<i>West</i>	-0.1996** [0.066]	0.2061** [0.026]	-0.1145* [0.052]	0.0413 [0.145]	-0.0513 [0.107]	-0.2246 [0.273]	0.3405** [0.095]
Metropolitan Area	-0.3342** [0.057]	-0.1105** [0.022]	-0.051 [0.048]	-0.0386 [0.144]	0.0301 [0.108]	-0.5663* [0.233]	-0.3972** [0.079]
Industry (Reference: Manufacturing)							
<i>Mining and Construction</i>	-0.7488** [0.217]	0.6482** [0.059]	0.3866** [0.103]	-1.1890** [0.360]	1.4951** [0.232]	0.3815 [0.573]	1.1572** [0.245]
<i>Agriculture</i>	0.2798 [0.324]	1.6218** [0.085]	-0.5007* [0.254]			1.1212 [0.887]	-0.8479 [0.617]
<i>Wholesale, Retail, Finance</i>	0.3747** [0.134]	0.6540** [0.047]	-0.1362 [0.091]	-1.4433** [0.272]	0.3916 [0.246]	-0.7161 [0.540]	0.6590** [0.229]
<i>Transport and Leisure</i>	0.4062** [0.132]	0.8379** [0.047]	0.1461 [0.089]	-1.7961** [0.317]	0.8635** [0.229]	-0.1933 [0.494]	1.1552** [0.214]
<i>Information</i>	0.4135+ [0.216]	0.5114** [0.076]	0.1454 [0.145]	-0.9232 [0.603]	1.2903** [0.316]	-0.7875 [1.105]	1.0690** [0.316]
<i>Professional Services</i>	0.1525 [0.157]	0.7114** [0.052]	0.1334 [0.100]	1.9089** [0.185]	2.0077** [0.219]	-0.4731 [0.667]	0.8775** [0.245]
<i>Education</i>	0.2889* [0.144]	0.5217** [0.051]	0.4766** [0.093]	-1.3301** [0.297]	0.4845+ [0.258]	0.7919 [0.516]	1.1819** [0.229]
<i>Public Administration</i>	-0.297 [0.241]	-0.3238** [0.076]	0.3429** [0.119]	-0.2944 [0.380]	-0.6619+ [0.362]		0.6114* [0.289]
Occupation (Reference: Management Occupations)							
<i>Business, Computers, Architecture and Sciences</i>	0.2821 [0.317]	0.0333 [0.054]	0.3989** [0.108]	0.2259 [0.440]	1.0436** [0.228]	0.4295 [1.455]	0.3413 [0.249]
<i>Education</i>	1.6954** [0.296]	0.7958** [0.057]	0.7150** [0.112]	1.6601** [0.592]	0.3889 [0.332]	1.0707 [1.219]	1.2502** [0.223]
<i>Media and Arts</i>	0.3815 [0.403]	1.1229** [0.091]	0.8011** [0.176]	-0.8871 [0.748]	0.6611+ [0.363]	3.5876* [1.417]	1.5926** [0.363]
<i>Health</i>	0.7296* [0.309]	0.7411** [0.054]	-0.1446 [0.124]	1.9076** [0.455]	1.2396** [0.272]	0.3969 [1.320]	1.1655** [0.227]
<i>Protective</i>	0.9690* [0.398]	0.6614** [0.105]	-0.4619* [0.220]	-1.1234 [0.844]	2.0546** [0.322]		2.0560** [0.357]
<i>Food Service</i>	0.3583 [0.452]	0.9840** [0.101]	-0.019 [0.223]	-0.1367 [0.824]	-0.6923 [0.493]	0.6759 [1.779]	0.9642** [0.372]
<i>Cleaning</i>	-0.1224 [0.485]	0.4702** [0.111]	-0.0191 [0.243]	-0.5611 [0.702]	0.2822 [0.453]	1.012 [1.866]	1.3689** [0.393]
<i>Personal Services</i>	0.9963** [0.359]	0.9805** [0.084]	0.2422 [0.177]	1.4933* [0.587]	0.4454 [0.396]	1.172 [1.560]	0.7475* [0.361]
<i>Sales and Office</i>	0.5929+ [0.310]	0.3449** [0.058]	0.2701* [0.129]	0.9866* [0.461]	-0.4115 [0.292]	1.5206 [1.252]	0.279 [0.250]
<i>Transport</i>	0.2694 [0.393]	0.4502** [0.089]	0.052 [0.184]	1.3309* [0.555]	0.6700+ [0.361]	2.4884 [1.540]	1.6765** [0.344]
<i>Construction and Repair</i>	-0.3356 [0.478]	0.0585 [0.106]	0.0386 [0.203]	0.2876 [0.640]	0.4736 [0.388]	2.5175 [1.768]	1.5058** [0.416]
<i>Farming</i>	0.6178 [0.990]	0.7723** [0.285]	1.0579* [0.506]	-1.3831 [1.357]	0.8658 [1.235]	6.7599+ [3.664]	4.4560** [1.233]
Relative Skill Specificity	0.0218 [0.034]	-0.0370** [0.010]	0.0041 [0.016]	0.1330** [0.039]	0.0041 [0.028]	-0.1777 [0.124]	-0.0874* [0.042]
Union Member	0.4556** [0.145]	-0.5316** [0.061]	1.2389** [0.069]	-0.3723 [0.420]	1.2546** [0.147]	0.0519 [0.597]	1.2891** [0.109]
Constant	-4.1958** [0.357]	-1.8415** [0.088]	-2.8113** [0.178]	-6.9084** [0.568]	-6.3462** [0.405]	-6.3883** [1.426]	-5.2342** [0.378]
Observations	66,392	66,392	66,392	65,198	65,198	62,667	66,392

Table 3. transitions from non-standard employment to standard (low pay -> medium or high pay, fixed-term contract -> permanent contract, agency work -> contract outside agency sector, part-time -> full-time)

6. Case studies

Three occupational groups are examined in more detail, including academics, journalists, and cleaners.

They should be as 'causal' and explanatory as possible, referring to our proposed analytical framework ((a) labor supply and demand, (b) skill formation and dominant skill profile, (c) industrial relations in the occupation or sector, (d) labor market institutions, in particular availability of non-standard employment options), allowing for peculiar, idiosyncratic additional explanations (if needed)

Table 4: Labor market indicators for selected occupations, 2005

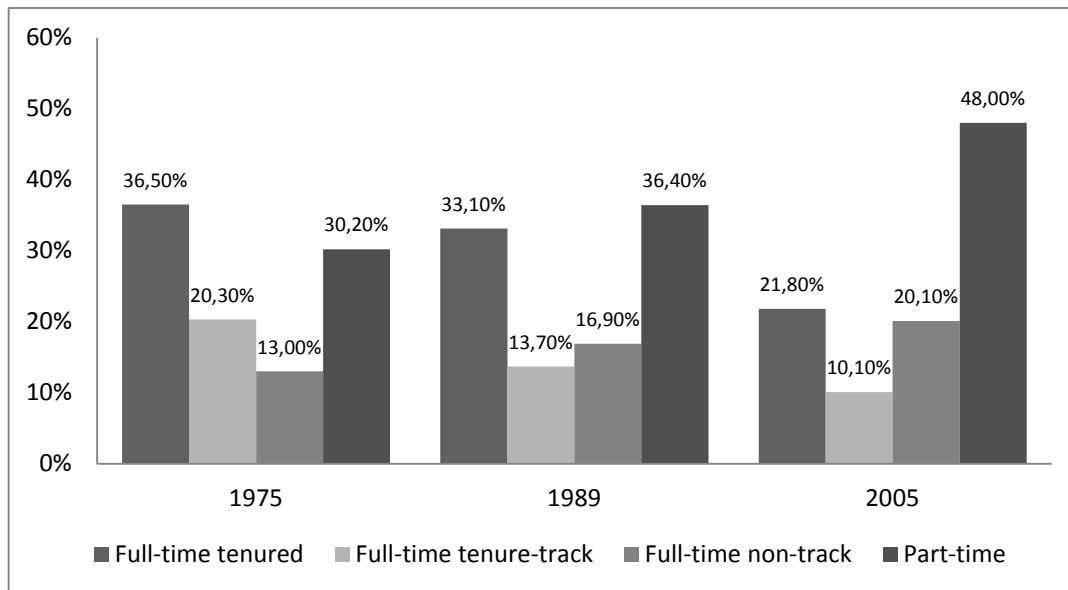
	Low Wage	Part-Time		Temporary		Temporary H Agency		Contract Agency		Day Labourer		On-Call	
		All	Involuntary	All	Involuntary	All	Involuntary	All	Involuntary	All	Involuntary	All	Involuntary
Managers	0.1	13.0	0.5	2.3	0.1	0	0	0.4	0	0.00000	0.00000	0.4	0.1
Professionals	0.1	8.0	0.4	2.7	0.4	0.2	0.1	0.6	0	0.00000	0.00000	0.4	0.1
Technical Professions	0.3	22.6	1.0	1.7	0.4	0	0.0	0.2	0	0.04153	0.04153	0.4	0.1
Clerks	0.2	13.2	1.7	3.8	0.8	0.4	0.2	1.0	0	0.00000	0.00000	0.6	0.2
Service Occupations	0.3	17.5	1.0	3.0	0.6	0.2	0.1	0.6	0	0.00000	0.00000	0.6	0.1
Farmers	0.0	16.7	2.1	4.2	0.0	0	0	0	0	0.00000	0.00000	0.0	0
Crafts	0.3	15.9	1.4	3.3	1.3	0.7	0.5	2.5	0	0.13021	0.00000	0.7	0.1
Operators	0.1	14.1	1.2	3.1	1.1	0.7	0.2	0.7	0	0.00000	0.00000	0.1	0.1
Transport Workers	5.0	28.7	5.9	17.8	5.9	1.0	0	1.0	0	0.00000	0.00000	3.0	1.0
Labourers	0.0	13.0	0	4.3	4.3	0	0	4.3	0	0.00000	0.00000	4.3	0

7. Academics

Stanley Aronowitz referred to academic jobs “the last good jobs in America” (Aronowitz 2001) in large part because of the high level of job security professors enjoy in the form of tenure or lifetime faculty employment. The idea of tenure comes from American scholars studying in Germany, where the concept of academic freedom, or *Lehrfreiheit*, offered protections to professors employed as civil servants at universities (Hofstadter and Metzger 1965). For much of the 19th century and early 20th century, professors were employed at the behest of the board of trustees in a state of implicit tenure. Despite relatively stable working conditions, wealthy donors began to try to interfere in the administration of the university and this led to problems. Specifically, some donors attempted and sometimes succeeded in securing the termination of certain professors that they saw as ‘problematic’. These occurrences instigated a movement for stronger legal protection for professors. The American Association of University Professors (AAUP), formed in 1915, contested this practice on grounds of academic freedom in a statement that was published in its final version in 1940, entitled the “Statement of Principles on Academic Freedom and Tenure”. At this time, the AAUP recommended a probationary period of seven years which remains the norm (Andrews 2009). Following severe shortage of university professors, two court cases in 1972 strengthened the contractual obligations of universities towards tenured faculty (Board of Regents of State Colleges v. Roth, 408 US 564, and Perry v. Sindermann, 408 US 593). Specifically, tenure status was to be specified in the work contract and workers with this status granted due process (Forest 2002).

Since the 1970s, however, the situation for university teachers worsened and precariousness has risen. The number of 'contingent workers' at universities increased, from 43 percent in 1975 to 65 percent in 2003 (Russell 2006). Contingent workers consist of large numbers of part-time workers. Figure 3 charts the relative share of tenured, tenure-track, full-time non-tenure track, and part-time academics in 1975, 1989, and 2005. The proportion of tenure and tenure-track has clearly decreased at the expense of rising employment in non-tenure track full-time and part-time employment. **Table 4 shows a more differentiated picture of nonstandard employment in 2005**

Figure 3. Nonstandard Employment among Academics (Source: (Kalleberg 2009))



There are three main contributing factors to the growth of nonstandard employment among academics. First, part of the explanation for the growing precariousness of university faculty has to do with weakening enrolment rates and declining demand for instructors as a result. This shift comes after a long period of expansion. The university as such was promoted through the Land Grant Acts in the 1860s (Altbach 1995) and the number of universities increased as a result. After WWII, the GI Bill (formally the Servicemen's Readjustment Act of 1944) triggered and the Vietnam War continued the trend in high and largely incomparable rates of university enrolment in the US (Card and Lemieux 2001). Although enrolment in higher education stagnated or fell for the large part of the 19th century, participation rates grew steadily between 1920 and 1970 (Jenks and Riesman 2002). Enrolment fell because of the weakening market value of a college education and the fact that tuition increases also occurred at higher rates than parents' income (Jenks and Riesman 2002). Fewer students meant lower demand for instructors and therefore a privileged position of employers in determining the conditions of the work contract.

The second explanation includes the mounting need to secure a cheaper labor force in order to balance out expensive tenured staff that is not obliged to fulfill all teaching needs of the institution. Some tenured staff are also able to exact considerable external funds, allowing them to develop 'empires' within their university and making them relatively independent of their institution and related obligations (Altbach 1995). Non-tenured staff, on the other hand, generally do more teaching than tenured staff and are paid less (Baldwin and Chronister 2005). Public universities have also lost ground to private universities in terms of salary increases (Ronald G. Ehrenberg 2002), leading to

wage inequality and incentives for universities to balance more expensive tenured faculty with nonstandard employees.

The final contributing factor to growing numbers of faculty without tenure or tenure-track appointments includes demographic change. As populations age, tenure implies a longer and longer financial commitment on the part of the university, and temporary contracts in the form of visiting professorships offer universities a way to avoid this growing burden (Baldwin and Chronister 2005). In 1994, the retirement age was “uncapped” so professors could occupy tenured positions for longer, though this has not been found to delay retirement significantly (Schuster and Finkelstein 2008).

→ other forms of education use on-call work a lot

8. Creative Occupations (Journalists)

The journalism profession is characterized by a high degree of permeability (Weaver and Wilhoit 1991). Although education programs in journalism are widespread, lacking a degree does not disqualify one from entering the profession. In this way, weak barriers to entry lead to a large supply of potential workers.

Various technological changes contribute to the high permeability of journalism and the related entry new occupational groups into the profession, such as photographers and web designers, which has led to periodic turf wars. Today, the introduction of computers and the growth of online news reporting in particular have fundamentally altered the way journalism is conducted (Bagdikian 1971) and, in doing so, led to new conflicts (Powers 2012).

Corporate concentration has also had enormous ramifications for the journalism profession.

A divergence in wages among journalists is apparent.

Hiring workers on nonstandard contracts is seen as a wage to address cost pressure (Cushion 2007).

UNIONS AND POWER TO FIGHT NONSTANDARD WORK?

9. Cleaners

(Hondagneu-Sotelo 2001)

10. High and Low Skill Occupations in manufacturing

Bring in protectionism and unions

11. Conclusion

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