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JOB QUALITY AND INSTITUTIONAL DYNAMICS OF COMPETITION IN POSTFORDIST CAPITALISM

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Job quality and institutional dynamics of competition in postfordist capitalism

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September 2011

Abstract

I present a Marxist regulationist framework for analyzing job quality, distinguishing between Fordist and postfordist regimes in terms of *institutional dynamics of competition*. An aggregate analysis of the US shows that over a quarter of industries and occupations in the liberal postfordist employment structure are low-wage. I construct an analytical framework based on four general types of labor process: high-skill autonomous work, semi-autonomous, tightly-constrained and unrationalized labor intensive work. These are expanded into eighteen distinct work systems by elaborating them in terms of various configurations along four elements of job quality: wages, security, training and promotion opportunities, and work intensity. While the typology can be reduced to three job types (good jobs, bad jobs and humdrum-but-decent jobs), the expanded typology is useful for the qualitative analysis of the institution dynamics of competition within which any particular organization operates. I present two case studies of the downgrading of labor processes along the expanded typology in manufacturing and retail sales.

Keywords

Competitive logics, employment relations, labor process, low-wage work, Fordism, job quality, postfordism

Introduction

Many advanced capitalist economies have witnessed a dramatic growth in low-wage work over recent decades. Research on low-wage work in the US goes back at least to the early 1980s with Bluestone and Harrison's (1982) landmark study, *The Deindustrialization of America*. Since then there has been growing interest in bad jobs (Loveman and Tilly, 1988), with a flurry of empirical research on job quality over the last decade, (e.g. Hunter, 2000; Kalleberg et al., 2000; Wright and Dwyer, 2000/2001; Dresser and Bernhardt, 2006; Appelbaum and Schmitt, 2009). While the growth of bad jobs has been explained by reference to deunionization and intensified competition, there has been little attempt to develop systematic theoretical analysis of how disparate trends in job quality – polarized job growth concentrated in the high- and low-wage ends of the spectrum in the US and UK (Autor et al., 2006; Goos and Manning, 2007) – should be understood in relation to the broader institutional transformation of capitalism within particular countries.

Here I present a Marxist regulationist framework for the analysis of job quality, from quantitative macro trends to qualitative local outcomes. I first outline a critical reconstruction of the postfordism framework, rejecting utopian formulations and developing an analysis of the Fordist and postfordist regimes in terms of *institutional dynamics of competition*. I next present an aggregate analysis of the employment structure of the US economy and argue that growing job polarization is a structural outcome generated by the dynamics of liberal postfordist competition, that is, the expansion and intensification of wage-driven competition within a service-based, internationalized, deunionized growth regime. I then turn to the analysis of competitive dynamics within sectors by constructing a typology of job quality that combines four general types of labor process (high autonomy, semiautonomous and two low-autonomy) with four aspects of job quality (pay, security, training and promotion opportunities, and intensity). The analysis produces 18 distinct work systems that are grouped into one of three job quality categories: good jobs, bad jobs and humdrum-but-decent jobs. Finally, I briefly apply the analytical framework to two case studies of manufacturing and retail sales. The aggregate analysis demonstrates that the liberal postfordist regime is increasingly unable to provide decent living standards for the low-skill workforce *required* to fill its structural demand for unrationalized labor-intensive services, while the sectoral analysis highlights predominant logics of low-road or middle-road employment strategy in the manufacturing and retail sectors.

Fordism and postfordism as institutional periodization

The roots of Fordism: Class analysis and Marxist institutional macroeconomics For Gramsci, Fordism was not a particular type of labor process (i.e. Taylorist work in massive factories) as such, but a set of institutional forms aimed at developing 'a new type of man suited to the new type of work and productive process' (Gramsci, 1999 [1929-1935]: 244, 286-7). While he did argue that hegemony 'is born in the factory,' through the 'persuasion' of high wages and social benefits, Gramsci's full argument is that the 'fundamental question of hegemony' – of winning the active consent of the working class – concerns the broader institutional structure of the political economy. In this formulation, Fordism is a class-analytic concept referring to a period of capitalism in which class dominance is secured through a progressive class compromise rooted in, but extending beyond, a high-wage, highly-rationalized labor process.

This analysis was later picked up by Palloix (1976) and Aglietta (2000 [1979]), where it was incorporated into a broader political economy of growth. While Aglietta did use Fordism to refer to a particular labor process, he also used it, like Gramsci, in a broader sense as form of capitalist regulation, which for Aglietta was based on the institutionalization of class struggle via unionization and the establishment of a new norm of middle-class consumption. Being a Marxist macroeconomist, much of Aglietta's emphasis was on the broader institutional framework providing a basis for expanded reproduction of the political economy: 'Fordism is thus the principle of *an articulation between the process of production and mode of consumption*' (2000 [1979], his emphasis).

It was only in subsequent appropriations of the concept of Fordism that its core aspect as an institutional stage of capitalism was lost, thus becoming primarily understood as an organizational-level concept concerned with a specific set of work organization practices (Dohse et al., 1985; Wood, 1993). And it is primarily as an organizational-level concept that Fordism and postfordism have been subject to criticism, either that that postfordism is a utopian concept (Clarke, 1990; Thompson, 2003) or that the concepts of Fordism and postfordism are based on a logic too 'unitary' (Vallas, 1999) to account for organizational diversity and multiple tendencies (Williams et al., 1987; Hirst and Zeitlin, 1991; Thompson, 2003).

(Post)Fordist critiques: Utopianism, empirical diversity and epochalism

Criticism of postfordism as a utopian concept were aimed squarely at the work of Piore and Sabel (1984) and the analysis associated with the journal *Marxism Today* (Murray, 1989). Piore and Sabel, Murray and some followers (e.g. Hirst and Zeitlin, 1991) offered up a vision of postfordism as a form of industrial regeneration based on empowered workers and highly flexible, networked firms. But there has always been a more critical, 'pessimistic' use of the framework, beginning with Palloix and Aglietta's concept of neofordism and extending through to analyses which have argued that postfordism is not as a vision of the future but simply the period after the demise or transformation of key Fordist institutions, characterized by continuities and changes (Dohse et al., 1985), with increased social polarization (Esser and Hirsch, 1994), the expansion of peripheral employment relations to formerly core workers (Friedman, 2000), and dramaticallyincreased organizational diversity and institutional disarray (Vidal, 2011).

In their strained attempt to distinguish flexible specialization from 'post-fordist analyses,' Hirst and Zeitlin (1991) presented the weakest critique of postfordism. Their substantive critique boils down to two highly suspect arguments. First, they simply point out again and again how postfordist analysis 'violates the basic assumptions of the flexible specialization approach' (Hirst and Zeitlin, 1991: 10). Second, they argue that regulationists posit realist concepts while the flexible specialization relies on ideal types. Quite remarkably, rather than holding all theoretical approaches to the same epistemological criteria that they believe to characterize the social scientific process, they illegitimately apply different epistemological criteria to their foes than they do to their own approach. Thus, while empirical diversity undermines regulation theoretic models, flexible specialization is immune to this same scientific principle: 'Unlike regulation theory, the central problem for flexible specialization is not to demonstrate the truth of falsity of it basic concepts, since these are conceived as ideal types instead of real forces' (Hirst and Zeitlin, 1991: 33).

In contrast, many of the other criticisms have made important substantive points. Williams and collaborators challenge the concept of Fordism as a historical model by arguing that 'Ford's successors did not aspire to become fully integrated producers who carried out all of the operations necessary to production in their own factory' (1987: 421). This claim may be true as far as it goes, but it does not go very far. That few factories attempted the complete vertical integration of Ford's Highland Park factory simply does not belie the fact that vertical integration was a prominent business logic among corporate America for decades until the profit crisis of the late 1960s, after which outsourcing and vertical disintegration became the order of the day under the new corporate logic of shareholder value.

There is no dataset I know of that contains aggregate quantitative data on vertical disintegration, specifically in terms of purchased components. But there are proxies, most importantly, establishment size by employment. On this measure, the data show that the average size of manufacturing establishments in the US declined by 71% between 1974 and 2006, from 70 to 41 employees (Henly and Sánchez, 2009). Notably, over the same period, the share of manufacturing workers employed by establishments with over 1,000 employees declined by 45% from 29% to 16%. These data are fully consistent with the notion of extensive vertical disintegration in the US manufacturing sector via outsourcing and the externalization of employment, something that appears to be, with the exception of Williams and collaborators, universally excepted among students of US

manufacturing. Qualitative evidence points strongly in the same direction (Liker et al., 1999; Whitford, 2005). Among numerous examples from other US manufacturing firms, Whitford cites a purchasing executive at a Fortune 500 machinery producer noting that we he started out in the industry purchased content was about a third of overall cost, but now ranges between 65 and 80% across the plants in his company.

Similar to Williams' critique of Fordism, Vallas (1999: 76) argues that postfordism operates in terms of a 'single, unitary logic' that simply cannot make sense of the diversity of empirical forms of work organization and the contradictory effects of corporate attempts to achieve flexibility on different groups of workers. However, his criticism is aimed, again, at particular formulations of postfordism (including Piore and Sable) that made predictions of the more-or-less complete demise of the Taylorist work in favor of empowered workers. Thompson (2003) also argues (sight centered on Marxism Today) that postfordism overstates the stability and underestimates the diversity of empirical arrangements. While these empirical criticisms are important, the theoretical criticisms are directed at particular versions of postfordism and neither Vallas nor Thompson articulates a general theoretical criticism against the analysis of contemporary liberal capitalism as an institutionally-specific period. I have already cited many scholars who deploy postfordism in more critical and sophisticated ways than the utopian versions cited by Vallas and Thompson. Other scholars have used the concept of postfordism in empirically-grounded ways that note both continuity and change (e.g. Friedman, 2000; Vidal, 2007b; Crowley et al., 2010). I agree with the critics that utopian and unitary-logic versions should be rejected, but I depart by engaging in a critical reconstruction that

explicitly addresses the issues correctly raised by Williams, Vallas and Thompson. Post simply means after. No more, no less.

Fordism and postfordism as institutional regimes of competition

As Williams and collaborators and Vallas have correctly warned, a singular model of the labor process does not provide a good basis for distinguishing between economic periods because there is so much empirical diversity. Rather than making appeal to an ideal typical model of production as a defining characteristic of the Fordist period, I wish to emphasize the broader institutional contexts of the political economy, within which labor process strategy is developed, employment relations are established, and forms of competition are institutionalized, generating dominant tendencies within particular contexts. Here I am revising my (2011) position, in order to better account for organizational diversity, by arguing that Fordism and postfordism do not refer to a particular labor process as such but to institutional regimes of competition.

In this vein, Fordism can be understood as an institutional regime of competition in contemporary liberal capitalism characterized by oligopolistic, nationally-bound competition generating a growing sectoral core of manufacturing firms and a dominant tendency toward *internalized employment relations* within that core: wages taken out of competition, vertically-integrated firms with internal labor markets, and relatively strong, legitimatized unions. Postfordism, then, refers to an institutional regime of competition characterized by highly-competitive, international competition generating a growing core of service firms and a dominant tendency toward market-driven or *externalized* *employment relations* within and outside the core: wage-driven competition, vertical disintegration, market-mediated employment and deunionization.

This formulation allows for a diversity of labor processes and attempts to explain them by reference to institutional dynamics of competition, taking the core of the economy as the basis for the periodization, hence allowing also for a diversity of competitive dynamics across the economy. Elsewhere I argue that the US accumulation regime is a Waltonist regime in which hegemony is maintained in a context of stagnating wages and a decline in labor's share of the national income through the relative preservation of middle-class consumption standards via the provision of cheap consumer goods from the Wal-Mart model combined with growing consumer debt (Vidal, forthcoming). Here I want to focus more narrowly on developing the analytical framework for the analysis of postfordist employment, which is meant to be a general analytical framework although I focus on the US case.

The model posits a Fordist period in which labor markets were segmented along organizational lines with a relatively large core of decent jobs in mostly large, mostly manufacturing firms and a smaller periphery of bad jobs in mostly smaller, mostly service firms. The just-in-case model of production with Taylorism was the standard for most large manufacturing firms. Internalized employment relations extended across these firms into other large firms, such as Sears, which adopted a 'welfare capitalism' model similar to manufacturing firms (Strasser, 2006), and also to smaller firms, often familyowned, like the local hardware store or the local retailer. As I will show below, this system generated job growth in mid-level jobs and well-functioning internal labor markets and career trajectories. Postfordism refers to the period after this institutional structure generating oligopolistic competition was eroded and transformed by corporate responses to the profit rate crisis of the late 1960s, including internationalization, deindustrialization, financialization and deunionization. With the market increasingly penetrating into the organization (Hauptmeier, 2011), the result has been new and reconfigured forms of work organization, vertical disintegration, deunionization and related institutional changes, leading to new industrial *norms* regarding employment externalization and market-mediated wages. There is now a much greater diversity of organizational forms and employment outcomes, including growing work intensification and peripheralization *within* the reconfigured core, which, as shown in Table 1, consists overwhelmingly of service firms. Indeed, of the top 25 largest employers, only three are manufacturing firms, while seven of these are general merchandisers and a further three are corporations that run eating and drinking establishments. As a result of these sectoral changes, labor market segmentation has thus become more complex and textured.

INSERT TABLE 1 ABOUT HERE

Work systems and competitive dynamics

The problem: Job quality in aggregate view

Assuming the most basic workplace regulations such as restrictions on child labor and basic health and safety standards, the most fundamental measure of job quality is wages.

The core issue, then, is whether a job provides a living wage and long-term employment security, is part of a recognized career ladder leading to a living wage, or is shorter term but part of a stable career that spans many organizations and projects. With regard to the latter, despite the hype of boundaryless careers, these are only feasible for a minority of workers in any country. And while low-wage jobs are not inherently problematic to the extent that they are filled by youth who are in school or postsecondary training, the fact remains that many adults become permanently stuck in low-wage jobs, as many as 60% according to one recent finding (Bernhardt et al., 2001).

Janitors, dishwashers, security guards, laborers, warehouse workers, cashiers, call center workers, low-end food servers, low-end sales people and so on. These and other types of low-skill jobs can provide a decent wage under certain institutional circumstances, namely, when internalized by large corporations under oligopolistic competition (as in the Fordist US) or in a more coordinated economy with inclusive labor market institutions (Bosch, 2010) that extend collective bargaining agreements to nonunion workers (much of Northern and Western Europe). But it is the contention of this paper that in liberal postfordist regimes such as the US and the UK, low-skill jobs will increasingly and necessarily become dead-end due to the rise of wage-based competition and the competitive logic of externalized employment relations. Turning to the aggregate employment structure, Table 2 shows the largest major sectors of the economy along with average wages for those sectors. Perhaps most noteworthy is the 66% decrease in manufacturing employment from 1955 to 2010, along with the fact that the government sector is now the single largest sector, accounting for nearly twice as much employment as manufacturing. Using the standard criterion for low-wage work of jobs making less

than two-thirds of the overall median, the cutoff for a low-wage job is \$24,413. Including two industries that are very near that (less then 8% above it), fully 31% of the entire nonfarm economy consists of low-wage industries. Looking at the occupational structure rather than industries (Table 3), there are six major occupations that fall into the low-wage category, accounting for 29% of total employment.

INSERT TABLES 2 and 3 ABOUT HERE

How has this industrial structure changed over time and how did it come to be like this? Examining job growth during the 1960s to the 1990s based on job quality deciles, Wright and Dwyer (2000/2001) find that for 1960s, 2% of job growth occurred in the lowest job-quality decile, 30% in the middle two deciles, and 40% in the top three deciles. In contrast, in the 1990s 17% of job growth occurred in the lowest job-quality decile, 11% in the middle two deciles, and 50% in the top three deciles. Similarly, between 1980 and 2000, Autor and collaborators (2006) find a rapid increase in high-skill jobs, a modest increase in low-skill jobs, and very slow growth in the middle. With the hollowing out of mid-level jobs, career mobility is increasingly hard for those in the worst jobs; a jump from the first decile to the sixth decile is highly unlikely.

These findings strongly suggest that a central characteristic of the Fordist regime was a growth dynamic that upgraded the employment portfolio, in contrast to the postfordist period of job polarization. While this is all consistent with the argument that internal labor markets, in particular, promotion ladders inside firms have declined in the postfordist period, this has been challenged by McGovern and collaborators (2007: 49) as a 'well-known myth.' The argument that internal labor markets have collapsed originated in the US based on a number of qualitative studies that have found outsourcing and delayering among large firms. Looking at the UK, McGovern et al (2007: 52, 60) report data on the 'underlying continuity of the employment relationship,' with the percent of full-time work remaining stable vis-à-vis flexible and temporary forms. They also find that in the UK, the percentage of employees who see their job as part of a 'recognized promotion or career ladder within their organization' has increased from 1984 to 2000 by 5 points, from 44.4 to 49.8. While these data appear problematic for the externalization hypothesis, I do not think they have marshaled sufficient evidence to reject it. While are important elements of continuity in some areas, there are also consistent indicators of change in others.

More importantly, the McGovern data simply do address the facts of deunionization, wage stagnation and wage polarization, all of which are equally important indicators of the externalization of labor. With respect to promotion ladders in particular, it must be noted that their data are based on subjective employee assessments that appear to be inconsistent with the data on wage mobility. Many McDonalds employees may aspire to become mangers, and therefore indicate their employer has a recognized promotion ladder, but most will not become managers. Looking at hard data, Dickens finds that wage mobility in the UK has 'fallen significantly between 1975 and 1994,' with a 41% fall in his mobility index since 1979/80 (Dickens, 2000: 478). Likewise, the data on wage polarization are unequivocal: job growth in the UK from 1979 to 1999 was entirely concentrated in the bottom two and top two wage deciles (Goos and Manning, 2007).

There is also strong evidence of wage polarization in the US. Comparing a cohort of young men who entered the labor market in the middle to late 1960s with a second cohort that entered the early 1980s, Bernhardt and colleagues (2001) find that low-wage careers have doubled from the earlier cohort to the more recent from 12.2% of workers to 27.6%. Looking specifically at mobility from ages 16 to 37, they find more workers starting out in the low-wage sector and a larger proportion (60% vs 49%) of them remaining in that sector. These various data sets on labor market polarization are strongly indicative of a collapse in internal labor markets and, specifically, in promotion and career ladders. And there is extensive qualitative evidence on outsourcing and delayering in large firms. While the qualitative evidence is of course of unknown generalizability, given the weight of the evidence on declining mobility and growing wage polarization, I feel comfortable concluding that there has been a significant decline in promotion and career ladders since the Fordist period.

As I have argued elsewhere (Vidal, forthcoming), the historical record strongly suggests that the Fordist period was, in its ability to generate rising real wages with strong profits and relative economic stability, quite anomalous in the history of capitalism. While union revitalization and a more activist welfare state could go a long way toward reversing wage stagnation and growing inequality and poverty, such ideas must contend not only with conservative and neoliberal ideology, but also with national political economies that are fundamentally changed in crucial ways, if also displaying fundamental continuities in other ways. It is my argument that to build a better explanation of the way things are, and therefore a sounder basis for anticapitalist politics, we need to provide an institutional explanation of how intensified competition, and deunionization are being experienced and implemented at the level of labor markets and organizations. To bring the extensive empirical work on these issues into some sort of cumulative understanding so that all the various findings can speak to each other, we need a concept such as postfordism that provides the basis for the analysis of the current phase of capitalism as a particular *institutional regime*, however disconnected and incoherent that regime may be. I now turn to present an analytical framework for analyzing postfordist competitive dynamics from the ground up.

Work systems: A typology

The aggregate level of analysis is useful as a broad snapshot, but it cannot capture the underlying dynamics of the economy because the institutional structure of the real economy is complex, multiscalar and incongruous. While the previous section used wages as the core indicator of job quality, there are of course many other attributes of job quality. A common set of attributes includes pay and benefits, job or employment security, the opportunity for training and promotion, the extent of work intensification or stress, and autonomy or the opportunity to participate in decision making and problem solving (Sengupta et al., 2009). I include each of these in my typology with the exception of participation in decision making and problem solving. It is common for academics to include the latter as a core characteristic of good jobs, but this does not take account of the fact that individuals have different orientations toward work. As I have demonstrated in a factory context, many workers do not desire the 'opportunity' to participate,

experiencing this as being stressful rather than intrinsically rewarding (Vidal, 2007a). Given this variation in individual orientations toward work, I use the following attributes which would seem to be of more general applicability across the range of work orientations: pay, security, opportunity for training and promotion, and work intensification.¹

These four attributes can help us understand the overall distribution of job quality in the aggregate, but they are missing a crucial basis for distinguishing between empirical work systems and the competitive dynamics within particular institutional fields: the socio-technical labor process itself. While the labor process consists of a particular configuration of physical technologies and organizational forms (including process and quality disciplines, required skill sets and managerial hierarchies) the quality attributes – pay, security, opportunity for training and promotion, and work intensification – should be clearly distinguished as elements of the employment relationship that can be increased or decreased within any particular labor process (Vidal, 2011).

A useful fourfold typology of labor processes has been developed by Herzenberg and colleagues (1998). The *high-skill autonomous* type includes professionals, upperlevel managers and many technicians, while the *semi-autonomous* type includes supervisors, flight attendants and skilled machinists. The *tightly-constrained* type includes telephone operators, machine operators and fast food workers, while the *unrationalized labor intensive* type includes janitors, security guards and low-level administrative support. Combining the four labor process types with the four job quality attributes produces the typology of 18 work systems presented in Table 4. This table is a heuristic meant to understand the full range of possible job outcomes in terms of a core labor process and other aspects of job quality.

INSERT TABLE 4 ABOUT HERE

While much of the debate has been focused on a dichotomy between good and bad jobs, or high road and low road managerial strategies (Bacon and Blyton, 2000), Sengupta and colleagues (2009) correctly note that most jobs have mixes of good and bad characteristics. They propose a typology between good, bad and ordinary jobs. Moving beyond the dichotomy is a useful step forward, but the notion of ordinary has connotations of being commonplace or normal. Some jobs are, on balance, very good, even if they have a few bad characteristics such as high levels of pressure. Others are clearly bad across a range of characteristics. Is everything in between ordinary? And if the trend is toward job polarization, then the middling jobs may not be the most common or the norm. At risk of being overly semantic, I want to suggest that a better description of the jobs in between is humdrum-but-decent. Table 4 reduces down to three job quality categories. Good jobs are those that offer some autonomy with good wages and security or have low autonomy but offer good wages, security and opportunities for training and promotion. Bad jobs are those that are low-wage and dead-end; relatively high wage but dead-end and intense; or relatively high wage but are insecure with no opportunities for promotion. Humdrum-but-decent jobs, finally, include semiautonomous jobs that are high

wage and secure but without opportunities for promotion, and low autonomy jobs that are either high wage and secure or low wage but secure with opportunities for promotion.

The expanded typology offers a framework for analyzing the conditions under which particular labor process types are implemented with different elements of job quality, including the conditions under which there is upgrading or downgrading within a labor process type or, indeed, to a new labor process type (e.g., most likely unrationalized to semiautonomous work or vice versa). I am proposing to conduct such analyses in terms of institutional dynamics of competition and managerial strategy. More specifically, the economy consists of a number of institutional fields of firms competing in distinct markets with particular technologies, ecological configurations, customer types, and levels and forms of unionization. This theoretical framework implies that there is a range of competitive dynamics across an economy. It would therefore be a herculean, if not impossible task to provide an aggregate picture of the overall mix of competitive dynamics across an economy, an analysis clearly showing, for instance, the extent of intensification and standardization dynamics vis-à-vis high-involvement, high-skill dynamics. But as a start, what can be done is to examine competitive dynamics within particular fields or sectors and provide comparisons of how these have changed over time along with internationalization and deindustrialization (and financialization). Analysis should focus on institutional dynamics of competition with the goal of explaining the institutional characteristics giving rise to a predominant strategy – that is, a predominant logic - among a field of firms. I now briefly turn to illustrate such an analysis for the two low-autonomy types of labor process.

Competitive dynamics: Tightly-constrained work

The first case involves manufacturing in small-to-mid-sized supplier factories in the US case, based on my own primary research (Vidal, 2007b; Vidal, 2007a; Vidal, 2009). The institutional field includes a tightly-constrained labor process; a relatively small number of giant, brand-name, multinational final-goods producers along with a much greater number of generally much smaller supplier factories; and a normative institutional logic specifying a complementary system of lean production practices that includes just-in-time practices, process mapping, continuous flow and high levels of employee involvement (Vidal, 2010). The normative logic is disseminated throughout the field by leading firms, lean gurus in major multinationals and other companies, nearly every industrial and engineering association in the US, and a cottage industry of academics and consultants.

There is a remarkable degree of consistency in the extent to which these purveyors of the lean gospel emphasize the importance of employee involvement for a truly lean system. And, indeed, my own research shows that the leanest firms, the ones that implement genuine continuous flow systems in their factory and engage in systematic continuous improvement do have at least a small number of key shopfloor workers regularly engaged in substantive forms of employee involvement. But most of the 31 firms I have observed stop short of this high-involvement model of lean, with management instead adopting a logic I call lean enough: doing one or two major restructuring events to improve the workflow and implement just-in-time practices, and asking their workers to contribute ideas, but *not* devolving the authority structure to allow for substantive employee involvement and, partly as a result, not implementing genuine continuous flow or systematic continuous improvement. Yet these firms become lean enough to see systematic performance improvements (Vidal, 2010). And while I did not see systematic work intensification under lean in the firms I visited, there is ample evidence that intensification is a common outcome under lean, particularly in auto assembly plants (Stewart et al., 2009; Rothstein, forthcoming). This suggests a third, work intensification logic.

There is clearly managerial choice in terms of the labor process and human resource policies. Under the typology in Table 4, my own findings show lean production as generally (within my qualitative sample) a humdrum but decent neotaylorist job, but in some cases, for a small subset of workers, a semiautonomous job. While much other research has shown lean to be a bad job because of a tendency toward work intensification. Unfortunately, we do not have enough data to offer anything other than hypotheses and perhaps some tentative conclusions. But let us begin.

Speaking of my own data, the main difference appears to be that the highinvolvement logic is harder to implement and more uncertain in outcome because it requires devolving authority and it increases the fragility of the factory system. At the same time, the lean enough logic delivers tangible results able to satisfy industrial customers. A critical part of the explanation here is that industrial customers are generally concerned only with output and not with process, so there is substantial room for variation in supplier organization (within limits, of course). And competitive pressures do not bear down to the level of specific work routines. This all leads me to the hypothesis that the lean enough logic will continue to predominate over the high-involvement logic. But then there is the intensification logic. In this case, it seems that the auto assemblers face a different competitive dynamic than the suppliers, with hyper-intensive competitive pressures and norms of ruthless labor-management relations. Without more research I do not wish to hypothesize beyond this, but simply to note that the competitive pressures facing mid-supply chain factories (mainly subassemblers and fabricators), do not seem to be nearly as intense as that faced by auto assemblers. Indeed, three of the suppliers I visited were primarily in auto, and one of them a large, first-tier, but they did not implement an intensification logic.

Competitive dynamics: Unrationalized labor intensive work

The manufacturing supplier case is one of firms competing in international markets. I now turn to examine a case of a domestic, non-internationally traded field: large grocers in the US. The institutional field includes a number of largely unrationalized labor processes (clerks, stockers); a large number of nonunion supermarkets and a smaller number union supermarkets; and two main competitive logics: the 'high-low' strategy of high shelf prices with low-priced promotional specials, and an 'everyday low price' strategy (Hughes, 1999; Vidal and Kusnet, 2009).² Unique among the retail sales sector, the grocery industry became heavily unionized in the 1930s and 1940s, after which the industry offered stable, high-wage jobs, even for nonautonomous and low skill jobs such as clerks, stockers and deli workers. The high-low strategy was part of a broader form of quality-based competition focused on delivering high quality customer service that originated in unionized stores. The logic of low-price was introduced to the field by vehemently nonunion, low-service stores warehouse stores.

Since the early 1980s, the grocery industry witnessed the rise of fiercely competitive nonunion firms introducing some technological innovations – mainly

expertise in using information technology to manage inventory – but competing primarily through a relentless focus on cutting labor costs. Nonunion competitors in the grocery industry, primarily Food Lion and Wal-Mart, began opening up stores rural areas where there was little threat of unionization. After getting a foothold in rural areas, these firms began to enter urban markets. The pressure on unionized groceries, and the good wages and working conditions in these stores, has been relentless.

In 2002, unionized grocery workers made 31% more than nonunionized grocery workers. But the nonunion giants have introduced a wage-driven dynamic into the field that has systematically transformed humdrum but decent jobs into low-wage, bad jobs. By 2003, Wal-Mart had 19% of the national grocery market, in less than ten years since it entered the industry in the late 1990s. Raley's, a unionized supermarket based in California, closed all of its 18 stores in the Las Vegas area, laying of 1,400 workers in response to competition from Wal-Mart supercenters. Thirty years ago, many employees would begin working at grocery stores in high school and then stay on full-time and long-term, turning the job into a career. Today, problems with recruitment have been identified as one of the industry's top concerns. A major part of the problem for recruitment and retention is the increasingly low wages offered in much of the industry.

While most supermarket jobs are unrationalized, some supermarkets are finding a way of intensifying them nonetheless. Food Lion was the fastest growing supermarket in the 1990s, expanding from 182 stores in the early 1980s to more than 1,000 stores within a decade. In addition to competing on low wages and no-frills stores, Food Lion has attempted to rationalized its work systems through an 'effective scheduling' program that places strict time limits on how long it can take to perform each task. For instance, clerks

are expected to handle 11 cases of fruit per hour and 35 cases of potatoes. Stockers have to shelve 50 cases of packaged items per hour. While the predominant competitive logic here seems to be the everyday low price strategy (i.e. wage-based competition), it remains to be seen how much they can further rationalize and intensify the labor process inside supermarkets.

Discussion: Dominant tendencies under postfordism

I have tried to reconstruct the concept of postfordism so that the conceptual framework is able to help make sense of the expansion of the service sector, increasing organizational diversity and the growth of low-wage work in contemporary liberal capitalism. Rather than using Fordism and postfordism as organization-level concepts, I use them to refer to institutional regimes of competition. The Fordist regime generated rising real wages with strong profits and relative economic stability, something that has never been witnessed before or since in the history of capitalism. Precisely because of this fundamental uniqueness of Fordism, I have argued that we should use the term postfordism to refer to the general institutional regime that has emerged since the erosion and transformation of Fordist institutions. Some three-to-four decades onward, there appears to be enough institutional stability to warrant viewing postfordism as a stable regime rather than a transitional period. Postfordism, then, refers to an institutional regime of competition characterized by highly-competitive, international competition generating a growing core of service firms and a dominant tendency toward externalization employment relations within and outside the core: wage-driven competition, vertical disintegration, marketmediated employment and deunionization. The distinction between internalized and

externalized employment relations is highly stylized and, as an attempt to broadly characterize entire phases of capitalism, it will necessarily be an oversimplification. Indeed, I have sought to move beyond this stylization by introducing a rather complex typology of job quality.

Drawing together a range of empirical studies on employment in the US and the UK, the forgoing analysis suggests that in the liberal postfordist regime, there is growing organizational diversity, but at the same time aggregate job polarization with downward pressures on job quality across a range of sectors. The expansion of the service sector combined with room for managerial choice at the organizational level has increased organizational diversity. Yet, such diversity notwithstanding, there is strong evidence that of a dominant tendency toward aggregate-level job polarization. While the share of high-skill autonomous jobs is clearly increasing, semiautonomous work is clearly decreasing, and tightly constrained work is stable, the aggregate data do not show any clear trend with regard to unrationalized work (Herzenberg et al., 1998: 77). However, case study evidence suggests that unrationalized work is increasing, particularly when this remains a viable option due to underemployment; with a slack labor market, there is little pressure on managers to rationalize labor-intensive jobs and improve wages.

Declining job quality is being experienced by a range of sectors in terms of stagnating or declining wages, declining promotion ladders or work intensification. These are driven by the intensification of competition within international and domestic sectors, resulting in new employment norms and competitive logics. In particular, while there is room for managerial choice in implementing the labor process and human resource systems, good enough or low-road logics of competition predominate in key sectors,

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leading to a growth of externalized employment. Liberal postfordism is characterized by multiple institutional dynamics of competition. In the manufacturing supply chain there is a predominant logic of good enough rather than a high involvement. In the retail sales sector, the predominant logic is one of wage-based competition driven by deunionization.

The combined analysis strongly suggests that the liberal postfordist regime is increasingly unable to provide decent living standards for the low-skill workforce *required* to fill its structural demand for unrationalized labor services. The institutions of Fordism were able to provide decent work and rising living standards for much of the low-skilled population, primarily through oligopolistic competition; strong unions and pattern bargaining inside the union sector; and a wage norm outside the union sector, not identical to but relatively close to the union wage, followed by local nonunion businesses. The unrationalized labor intensive sector is growing at the same time as the institutions that allowed parts of this sector to provide decent jobs are declining.

Perhaps the most pressing question is, what can be done with regard to low wage work in general and, more particularly, to address the problem of a large sector of unrationalized labor intensive work as well as low-skill tightly-rationalized work? Herzenberg and colleagues (1998) suggest that there is particular room for movement between semiautonomous work and unrationalized work, with skill upgrading possible but downgrading more likely due to low-cost competition. They suggest a highinvolvement model may provide a basis for skill-based upgrading of unrationalized work, but this could only be achieved in liberal economies through the promotion of sectoral worker associations and the limitation of wage-based competition. Although Herzenberg and colleagues are making an economic case, the real barriers their case faces are political.

Part of the reason for using the concept of postfordism is that it provides political ammunition as well as analytical power. As Gorz (1999) would have it, the politics should focus on the radical appropriation of the discourse of flexibility and autonomy. But there is another route too, one that is more relevant to the low-waged. To the extent that postfordism reclaims a Marxist pedigree, then it would work under the assumption that the economy is irreducibly social, that the social product is the outcome of vast amounts of coordinated labor and accumulated knowledge, and that productivity itself is collective. The point of a concept like postfordism, then, is that, however disconnected key institutions may appear, the political economy is fundamentally interconnected and interdependent. Postfordist competition systematically generates a job structure heavy on low-skill, dead-end jobs that *requires* a stratum of long-term working poor, whose wages are kept low by the existence of various strata of a reserve army of under- and unemployed. The productivity of autonomous and semiautonomous workers is based in part on routine and nonroutine labor. The wage form continues to present interdependent relations – the banker and his maid, software developers and their janitors, creatives and their cheap goods and services – as independent market transactions. Some things, indeed, don't change.

¹ Even these four attributes remain problematic, because individual workers may be willing to trade certain attributes for others. For example, Kelliher and Anderson (2010) show that some workers may be willing to trade more effort for more flexibility. Given the complexity of individual tradeoffs and variation across

individual work orientations, any general model of job quality will be imperfect. Indeed, studies on job satisfaction routinely find apparent anomalies such as when workers in high paying jobs report low job satisfaction (Quarstein et al., 1992). These problems notwithstanding, I maintain that the four job quality characteristics I have emphasized are core quality attributes that provide a sound basis for a general model of job quality, with the understanding that the situation becomes even more complicated when characteristics such as participation or flexibility are considered. In any case, participation may be understood to be endogenous to the typology in terms of the autonomy dimension of the labor process types, and flexibility at least partially covered in terms of wage and employment security, both of which would seem to be necessary for flexibility to be experienced as a benefit rather than a source of insecurity. ² For full citations to this section, see Vidal and Kusnet (2009).

References

- Aglietta M (2000 [1979]) A Theory of Capitalist Regulation: The US Experience. London: Verso Classics.
- Appelbaum E and Schmitt J (2009) Review article: Low-wage work in high-income countries: Labor-market institutions and business strategy in the US and Europe. *Human Relations* 62(12): 1907-1934.
- Autor DH, Katz LF and Kearney MS (2006) The Polarization of the U.S. Labor Market. *American Economic Review* 96(2): 189-194.
- Bacon N and Blyton P (2000) High road and low road teamworking: Perceptions of management rationales and organizational and human resource outcomes. *Human Relations* 53(11): 1425-1458.
- Bernhardt A, Morris M, Handcock MS, et al. (2001) *Divergent Paths: Economic Mobility in the New American Labor Market*. New York: Russell Sage Foundation.
- Bluestone B and Harrison B (1982) *Deindustrialization of America: Plant Closings*, *Community Abandonment and the Dismantling of Basic Industry*. New York:
 Basic Books.
- Bosch G, Ken Mayhew, and Jérôme Gautié (2010) Industrial Relations, Legal Regulations, and Wage Setting. In Gautié J and Schmitt J (eds) *Low-Wage Work in the Wealthy World*. New York: Russell Sage Foundation, 91-146.
- Clarke S (1990) New Utopias for Old: Fordist Dreams and Post-Fordist Fantasies. *Capital & Class* 14(3): 131-155.
- Crowley M, Tope D, Chamberlain LJ, et al. (2010) Neo-Taylorism at Work: Occupational Change in the Post-Fordist Era. *Social Problems* 57(421-447).

- Dickens R (2000) Caught in a Trap? Wage Mobility in Great Britain: 1975–1994. *Economica* 67477-497.
- Dohse K, Jürgens U and Malsch T (1985) From 'Fordism' to 'Toyotism'? The Social Organization of the Labor Process in the Japanese Automobile Industry. *Politics and Society* 14(2): 115-145.
- Dresser L and Bernhardt A (2006) Bad Service Jobs: Can Unions Save Them? Can They Save Unions? In Block RN, Friedman S, Kaminski M, et al. (eds) *Justice on the Job: Perspectives on the Erosion of Collective Bargaining in the United States*.
 Kalamazoo, Michigan: W.E. Upjohn Institute for Employment Research.
- Esser J and Hirsch J (1994) The Crisis of Fordism and Dimensions of a 'Post-Fordist' Regional and Urban Structure. In Amin A (ed) *Post-Fordism: A Reader*. Oxford: Blackwell.
- Friedman AL (2000) Microregulation and Post-Fordism: Critique and Development of Regulation Theory. *New Political Economy* 5(1): 59-76.
- Goos M and Manning A (2007) Lousy and Lovely Jobs: The Rising Polarization of Work in Britain. *Review of Economics and Statistics* 89118-133.
- Gorz A (1999) *Reclaiming Work: Beyond the Wage-Based Society*. Cambridge, UK: Polity Press.
- Gramsci A (1999 [1929-1935]) *Selections From the Prison Notebooks*. New York: International Publishers.
- Hauptmeier M (2011) Reassessing Markets and Employment Relations. In Blyton P,
 Heery E and Turnbull P (eds) *Reassessing the Employment Relationship*.
 Basingstoke, UK: Palgrave Macmillan.

- Henly SE and Sánchez JM (2009) The U.S. Establishment-Size Distribution: Secular Changes and Sectoral Decomposition. *Economic Quarterly* 95(4): 419–454.
- Herzenberg SA, Alic JA and Wial H (1998) New Rules for a New Economy: Employment and Opportunity in Postindustrial America. Ithaca, NY: ILR Press.
- Hirst P and Zeitlin J (1991) Flexible Specialization versus post-Fordism: Theory, Evidence and Policy Implications. *Economy and Society* 20(1): 1-56.
- Hughes KL (1999) Supermarket Employment: Good Jobs and Good Wages? : IEE Working Paper No. 11, Institute on Education and the Economy.
- Hunter LW (2000) What Determines Job Quality in Nursing Homes? Industrial and Labor Relations Review 53463-481.
- Kalleberg AL, Reskin BF and Hudson K (2000) Bad Jobs in America: Standard and Nonstandard Employment Relations and Job Quality in the United States.
 American Sociological Review 65(2): 256-278.
- Kelliher C and Anderson D (2010) Doing more with less? Flexible working practices and the intensification of work. *Human Relations* 63(1): 83-106.
- Liker JK, Fruin WM and Adler PS (1999) Remade In America: Transplanting & Transforming Japanese Management Systems. Oxford: Oxford University Press.
- Loveman GW and Tilly C (1988) Good Jobs or Bad Jobs Evaluating the American Job Creation Experience. *International Labour Review* 127593-611.
- McGovern P, Hill S, Mills C, et al. (2007) *Market, Class, and Employment* Oxford: Oxford University Press.

- Murray R (1989) Fordism and Post-Fordism. In Hall S and Jaques M (eds) *New Times: The Changing Face of Politics in the 1990s*. London: Lawrence & Wishart, 3853.
- Palloix C (1976) Le Procès de Travail. Du Fordisme au Néofordisme. La Pensée (185).
- Piore MJ and Sabel CF (1984) *The Second Industrial Divide: Possibilities for Prosperity*. New York: Basic Books.
- Quarstein VA, McAfee RB and Glassman M (1992) The Situational Occurrences Theory of Job Satisfaction. *Human Relations* 45(8): 859-873.
- Rothstein JS (forthcoming) When Good Jobs Go Bad: the Declining Quality of Auto Work in the Global Economy. In Warhurst C, Carré F, Findlay P, et al. (eds) *Are bad jobs inevitable? Trends, Determinants and Responses to Job Quality in the Twenty-First Century.* Basingstoke, UK: Palgrave.
- Sengupta S, Edwards PK and Tsai C-J (2009) The Good, the Bad, and the Ordinary. *Work and Occupations* 36(1): 26-55.
- Stewart P, Richardson M, Danford A, et al. (2009) We Sell Our Time No More: Workers' Struggles Against Lean Production in the British Car Industry. London: Pluto.
- Strasser S (2006) Woolworth to Wal-Mart: Mass Merchandising and the Changing Culture of Consumption. In Lichtenstein N (ed) Wal-Mart: The Face of Twenty-First Century Capitalism. New York: New Press.
- Thompson P (2003) Disconnected Capitalism: Or Why Employers Can't Keep Their Side of the Bargain. *Work, Employment & Society* 17(2): 359-378.
- Vallas SP (1999) Rethinking Post-Fordism: The Meaning of Workplace Flexibility. Sociological Theory 17(1): 68-101.

- Vidal M (2007a) Lean Production, Worker Empowerment, and Job Satisfaction: A Qualitative Analysis and Critique. *Critical Sociology* 33(1-2): 247-278.
- Vidal M (2007b) Manufacturing Empowerment? 'Employee Involvement' in the Labour Process after Fordism. *Socio-Economic Review* 5(2): 197-232.
- Vidal M (2009) Routine Inefficiency: Operational Satisficing in Real-World Markets. In Bandelj N (ed) *Economic Sociology of Work*. Bingley, UK: JAI Press, 89-117.
- Vidal M (2010) Between the Low Road and the High Road: Mapping and Explaining
 Variations in Lean Production in US Manufacturing. Unpublished manuscript,
 King's College London, Department of Management.
- Vidal M (2011) Reworking Postfordism: Labor Process versus Employment Relations. Sociology Compass 5(4): 273-286.
- Vidal M (forthcoming) On the Persistence of Labor Market Insecurity and Slow Growth in the US: Reckoning with the Waltonist Growth Regime. *New Political Economy*.
- Vidal M and Kusnet D (2009) Organizing Prosperity: Unions Effects on Job Quality, Community Betterment, and Industrial Standards. Washington, DC: Economic Policy Institute.
- Whitford J (2005) The New Old Economy: Networks, Institutions, and the Organizational Transformation of American Manufacturing. Oxford, UK: Oxford University Press.
- Williams K, Cutler T, Williams J, et al. (1987) The End of Mass Production? *Economy and Society* 16(3): 405-439.

Wood S (1993) The Japanization of Fordism. *Economic and Industrial Democracy* 14535-555.

Wright EO and Dwyer R (2000/2001) The American Jobs Machine: Is the New Economy Creating Wright, Erik Olin and Rachel DwyerGood Jobs? *Boston Review* (December/January).

	Company	Primary	Total		Company	Primary	Total
		industrial	empl.			industrial	empl.
		classification	(1,000s)			classification	(1,000s)
1	Wal-Mart	General	2,100	14	Fedex	Transp.	269.4
	Stores	Merchandise					
2	United Parcel	Transp.	400.6	15	AT&T	Telecom	265.4
	Service	I					
3	McDonald's	Eating &	400	16	Citigroup	Banks	260
		Drinking			0 1		
		Places					
4	IBM	Software &	399.4	17	Walgreens	Food & drug	244
		computer			e	retailers	
		services					
5	Yum! Brands	Eating and	378	18	Lowe's	General	234
		Drinking			Companies	Merchandise	
		Places			1		
6	Target	General	355	19	Accenture	Computer	204
	U	Merchandise				related	
						services	
7	Kroger	Food & drug	338	20	Verizon	Telecom	194.4
	U	retailers					
8	Hewlett-	Technology	324.6	21	Hospital	Hospitals	194
	Packard	hardware &			Corporation	I	
		equipment			of America		
		· · · · ·					
9	Home Depot	General	321	22	Best Buy	General	180
	1	Merchandise			5	Merchandise	
10	PepsiCo	Beverages	294	23	Safeway	Food & drug	180
	I	U			5	retailers	
11	General	Electrical	287	24	Darden	Eating and	174
	Electric	equipment			Restaurants	Drinking	
		· · · · ·				Places	
12	CVS	Food & drug	280	25	TJX	General	166
	Caremark	retailers			Companies	Merchandise	
13	Sears	General	280		L		
-	Holdings	Merchandise	-				
C	cae: Einangial Tim						

Table 1. Top 25 largest US companies by employment

Source: Financial Times 500.

Notes: These numbers are for worldwide employment, so this is only a proxy for the largest firms in the US. While some like Wal-Mart and McDonalds have significant international presence, some appear not to have any international presence, such as Krogers, CVS, Sears, Walgreens, Lowe's and TJX, and many others appear to have minimal international presence, including Target, Best Buy, Home Depot, Safeway.

1 2 8	0	, , ,		
	Share of total nonfarm	Share of total nonfarm	Average annual	Median annual
	employment,	employment,	wages	wages
	1955 (%)	2010 (%)	(\$)	(\$)
Federal, state and local government	11.8	17.3	51,220	44,680
Health care and social assistance	15.6	12.6	45,430	33,190
Ambulatory health care services and		8.2	52,980	34,335
hospitals				
Nursing and residential care facilities		2.4	30,580	24,950
Social assistance		2.0	28,740	23,520
Professional and business services	5.6	12.9	56,417	
Administrative and support and waste management and remediation services		5.7	33,630	25,980
Professional scientific and technical services		5.7	68,240	54,710
Management of companies and enterprises		1.1	67,380	55700
Retail trade	8.7	11.1	28,680	22,000
Leisure and hospitality	5.3	10.0	27,015	20,815
Manufacturing	26.1	8.9	44,560	35,540
Finance, insurance and real estate	3.7	5.9	48,330	36,255
Total		69.4	43,388	33,024
All sectors			45,513	36,989

Table 2. Employment and wages in the largest sectors, USA, 1955, 2010

Source: US Bureau of Labor Statistics

Notes: The self-employed account for 6.2% of total employment. The remaining nonfarm industries, all of which employ less than 5% of the total workforce are, in order from largest to smallest: construction, wholesale trade, other services, transportation and warehousing, information, educational services, mining, and utilities.

Median wages in bold are for low-wage industries, defined as those making less than two-thirds of the overall median wage. This cutoff is \$24,413. I have also included two industries that are very near to this, specifically the nursing and residential care industries are just 4% above the low-wage cutoff while the admin, support and wages management industries are less than 7% above it.

	Share of total	Average median
	employment	wage (\$)
Sales and related	10.6	24,370
Food preparation and serving related	8.7	18,770
Building and grounds cleaning and	3.3	22,490
maintenance		
Healthcare support	3.1	24,760
Personal care and service	2.7	20,640
Farming, fishing and forestry	0.3	19,630
Total	28.7	
All occupations		33,840

Table 3. Low-wage occupations, USA, 2010

Source: US Bureau of Labor Statistics

Notes: This cutoff for low-wages is \$22,334. I have also included three occupations that are very near to this, specifically, building and grounds cleaning is less than 1% above the cutoff, sales and related is less than 9% above it, and healthcare support is less than 10% above it.

	Labor process	Employment relations			Examples	
		High wages	Security	TPO	Intense	
Good jobs						
А	High-skill autonomous	Y	Y			Physicians; high-level managers
В	Semiautonomous	Y	Y		-	Lower-level managers; skilled machinists
С	Tightly constrained	Y	Y	Y	-	Machine operators
D	Unrationalized labor- intensive	Y	Y	Y	-	Fordist laborers
Humdrum but decent						
E	Semiautonomous	Y	Y	-	-	High-level admin support
F	Tightly constrained	Y	Y	-	-	Telephone operators
G	Tightly constrained	-	Y	Y	-	Telephone operators
Н	Unrationalized labor- intensive	Y	Y	-	-	SEIU janitors
Ι	Unrationalized labor- intensive	-	Y	Y	-	Fordist janitors
Bad jobs						
J	Semiautonomous	Y	Y	-	Y	Dental assistants
Κ	Semiautonomous	Y	-	-		Assemblers
L	Semiautonomous	-		-		Assemblers
М	Tightly constrained	Y	Y	-	Y	Meatpackers
Ν	Tightly constrained	Y	-	-		Machine operators
0	Tightly constrained	-		-		Data entry
Р	Unrationalized labor- intensive	Y	Y	-	Y	Drywall installers
Q	Unrationalized labor- intensive	Y	-	-		Low-level admin support
R	Unrationalized labor- intensive	-	-	-		Janitors

Table 4. Eighteen work systems

Notes: High wages = living wage or higher; Security may be job or occupational; TPO = training and promotion opportunities (either at organizational or industry or occupational level); Intense = where work is or has been intensified to a degree not offset by high wages.

If a work system has a given practice, it is noted with a 'Y'. If it does not have the practice, it is noted with a '-'. If there is nothing in a cell, the work system may or may not have the practice. The typology is meant to be exhaustive of all possible combinations for which there is a conceivable really-existing job in the US.