Work and Pay in Flexible and Regulated Labor Markets: A Generalized Perspective on Institutional Evolution and Inequality Trends in Europe and the U.S.

Thomas A. DiPrete, Duke University
Dominique Goux, INSEE
Eric Maurin, CREST
Amelie Quesnel-Vallee, Duke University

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Abstract

In recent years a “unified theory” has emerged out of labor economics, which argues that a combination of “macroeconomic shocks” and flexible labor market institutions in the U.S. has produced strong upward trends in wage inequality, while these same shocks have produced high unemployment and low employment growth in Europe as a side effect of the wage stability preserved by that continent’s rigid labor market institutions. This paper takes issue with the common view that inequality trends are best explained by a model of stable institutions interacting with changing macroeconomic forces. It argues that European institutions in fact have changed, and that institutional changes which were triggered by the broader macroeconomic forces have affected the form as well as the size of inequality trends. While the U.S. has experienced rising strong skill-based wage inequality, institutional change in France has produced an upward trend in the density of insecure jobs and an increased concentration of low-skill workers in insecure jobs. These results challenge the view that low employment rates is the sole mechanism through which European labor markets have absorbed asymmetric shocks to their demand for labor.

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INTRODUCTION

"…the U.S. experience of declining unemployment, falling to steady real wages, and rapidly rising wage inequality and the EU experience of rising unemployment, rising real wages, and comparatively stable relative-wage levels are two sides of the same coin. The United States permitted real and relative wages to adjust, while many countries in Europe…chose to let employment take the brunt of the shocks."

--Blau and Kahn (2002, p. 256)

The relative performance of American and European labor markets is a topic of great interest to scholars across all social science disciplines. A prime stimulus of this interest is the now well-known fact that trends in core outcomes have moved in separate directions on the two sides of the Atlantic Ocean. The American labor market has experienced a sharp rise in earnings inequality, while Europe has experienced stagnant job growth and high unemployment, but low wage inequality in comparison with the U.S.

Why have the experiences of Europe and America trended in different directions? A group of scholars have recently analyzed a decade of research by labor economists and argued that these apparently divergent experiences can be explained by a "unified theory" (Blank 1977; Blau and Kahn 2002; see also Krugman 1994). As shown in the quotation at the start of this paper, this unified theory argues that differences in the labor market structure of European and American countries have produced two distinct reactions to a common set of macroeconomic "shocks." According to this theory, the U.S. tolerates large differences in individual-level labor market outcomes, while Europe prefers relatively homogeneous outcomes for workers. The interaction between the

"shocks" of the past twenty five years and these different institutional preferences has led to the divergence in labor market outcomes between the U.S. and Europe.

The current paper challenges this theory's depiction of European institutions as rigid and preserving of relatively egalitarian outcomes for workers at the expense of those not able to work (who are then supported by the safety net of the European welfare state). We challenge also the empirical contrast between a Europe with stable inequality at the cost of low employment growth and high unemployment and a U.S. with rising inequality. We argue instead for a broader perspective on both institutional flexibility and on inequality than does the unified theory.

Our approach sees institutional flexibility as growing on both sides of the Atlantic. However, the pattern of flexibility varies by country, and the inequality is of a more generalized nature than commonly portrayed. When one understands a job as an employment relationship, one sees that the "returns" to the job go beyond wages to include job security as well. Either component of a job's "returns" can be more or less unequal across the population of employed workers. Institutional differences have caused inequality in the job security component to grow relatively rapidly in Europe, while inequality in the wage component grew rapidly in the U.S. We present empirical evidence to support this theory for the case of France, which is portrayed by the unified theory as a typical European country having a highly regulated labor market, stability in wage inequality, and high unemployment relative to the U.S. We then consider the potential for generalization of our approach to other Western European countries.

A Generalized Perspective on Labor Market Evolution

During the 1970s, unemployment increased in the U.S. but even more so in Western Europe, and was a source of serious political concern on both sides of the Atlantic. Between the early 1980s and the late 1990s, U.S. unemployment generally fell, while European unemployment fluctuated without any clear trend. Wage inequality in the U.S., however, increased dramatically during these years even as real wage growth was stagnant; in contrast, wage inequality increased only modestly in Western Europe. How should we explain such different relative positions of these regions in the 1970s and the present time?

As Morris and Western (1999) noted in their recent and still salient review of research on inequality trends in the American context, theories for these trends are highly contested. They made (for our purposes) two important observations on the state of knowledge about these trends. The first was that both technical and institutional forces appear to be generating the trends. The second was that, even as stratification research flourishes in sociology, and even as economic sociology continued to develop a powerful (though often too-stylized -- Fligstein 2001) critique of neoclassical economic models for ignoring the embeddedness of social structures in markets, sociology has produced "a strange and remarkable silence" (to use Morris and Western's 1999 p. 624 characterization) concerning the explanation for these emerging trends in inequality. While Morris and Western limited their focus to American trends, it would not be inaccurate to extend their critique to the subject of comparative trends as well (DiPrete 2005). Furthermore, while the dominance of economics on this subject has produced a

literature that overemphasizes the role of technical factors, this literature has not ignored institutional mechanisms.

The consideration by economics of institutional along with technical mechanisms to explain inequality trends is even more apparent in the comparative literature. The most prominent case comes from what has been termed the "unified theory" and has been expressed by numerous labor economists including Krugman (1974); Blank (1977), Siebert 1977; Layard, Nickell and Jackman (1991), the several contributions found in Freeman and Katz (1995), Blanchard and Wolfers (2000), Ball (1999), and Blau and Kahn (2002), who provide the most complete summary of the unified theory literature and the empirical status of this theory to date.

The unified theory seeks to explain the differing trends in the United States and Europe as the product of an interaction between "macroeconomic shocks" and relatively stable but cross-nationally variable labor market institutions. The unified theory can be summarized in terms of three propositions: [1] the major institutional features of major industrialized countries have remained relatively stable since the 1970s (when unemployment was relatively low in Europe and high in the U.S), [2] the macroeconomic context has changed considerably since the 1970s; specifically, the industrialized world has experienced a common set of "macroeconomic shocks" during this period, namely low productivity growth, periods of inflation and disinflation, growing levels of international trade, and a technologically driven steady decline in the relative demand for low-skilled labor, and [3] the labor market outcomes in a country are a product of the *interaction* between that country's institutional features and the common global "macroeconomic shocks."

According to the unified theory, the impact of these shocks on the American labor force was largely unbuffered by labor market regulation. Because U.S. wage setting mechanisms are flexible, American wages adjusted to these shocks and their impact on employment levels was relatively small. In contrast to the American case, European labor markets are rigid, characterized by greater institutional control over wage setting, greater institutional control over the allocation of labor, and greater labor costs to employers tied to employment protection regulations and to mandated contributions from employers to finance the relatively generous European social welfare benefits. According to the unified theory, the rigidity of European wage-setting mechanisms minimized the impact of these shocks on the wage structure and instead produced a reduction in employer demand for low-skill labor, which is reflected primarily in low employment levels for low-skill workers and secondarily in high unemployment rates for these workers (rates of unemployment are more sensitive to measurement differences and social welfare benefit differences across countries than are rates of employment). American and European arrangements thereby represent opposite responses to the same basic growth-equality trade-off.

The unified theory is clearly "institutional" in that it adopts a "choice-within-constraints" explanatory framework (Ingram and Clay 2000). Moreover, this literature does not ignore that institutions can and do change. Blau and Kahn (1999, 2002), for example, three perspectives on institutional change. First is the political economy perspective, which views institutional arrangements and change as a product of power differences between major corporate actors. Next is the "market failure" perspective, in which rational actors construct institutions to increase economic efficiency. Finally,

there is what might be termed the "market dominance" approach, in which institutional arrangements that resist market forces are gradually undermined by internal and global competitive forces (Katz and Autor 1999). The unified theory can be viewed as consistent with any of these perspectives; its key assertion is that institutional change has been relatively minor and consistent with the prior institutional context; it is the minor institutional changes in the context of relatively stable institutional differences that – in the face of common macroeconomic shocks-- has produced the different employment and wage inequality trends in the U.S. and Europe (Blau and Kahn 2002, p. 5).

Supporters of the unified theory cite many empirical studies as support for the theory's main hypotheses (see Blau and Kahn 2002 for an extensive review of this literature). In particular, as Figure 1 demonstrates, the trends in wage inequality since the 1980s have been much stronger in the U.S. than in continental Western Europe (Freeman and Katz 1995; Acemoglu 2002), while unemployment rates in much of Western Europe surged past American levels and have remained higher to the present time, as Figure 2 demonstrates. However, important aspects of the empirical record are not consistent with the theory's predictions.

Confounding evidence exists in the specific labor force trends of both small and large European states. The contrary evidence from small states primarily concerns the experience of countries like the Netherlands, Denmark, Norway or Austria. These countries have unemployment rates comparable to U.S. rates even as their wage-setting institutions are comparatively centralized, their unemployment insurance is generous and their level of wage inequality is low.

The contrary evidence from large states concerns Germany and France. Recent research on unemployment in the U.S. and Germany finds that the rate of employment growth for low skill workers in Germany was almost identical to that in the U.S. despite dissimilar wage trends (Krueger and Pischke 1997). Specifically, the wages for low skill workers have risen in Germany in recent decades, in both absolute and relative terms, while they have been declining in the U.S. (Krueger and Pischke 1997, Juhn, Murphy and Pierce 1993; see also Blau and Kahn 2000 for additional contrary evidence). These facts are at odds with the unified theory, which predicts that low skilled German workers should experience especially low employment growth rates because the persisting high floor on their wages should price them out of the labor market. Additional research finds that growth in unemployment among German workers was not concentrated among low-skill workers (Gottschalk and Smeeding 1997).

Wage trends for France likewise do not show rising inequality or declining real wages for low skill workers (Card, Kramarz, and Lemieux 1999). According to the unified theory, French labor markets should compensate for their rigid wage structure via declining employment of unskilled workers. However, Card, Kramarz, and Lemieux (1999) have shown that during the crucial decade of the 1980s, when American relative wages for low skilled workers dropped considerably and when French relative wages remain highly stable, the pattern of relative employment growth for low skill workers was very similar in France and the U.S. This pattern does not correspond to the unified theory's prediction (see also Nickell and Bell 1995, 1996 for additional contrary evidence). The conclusion of Card, Kramarz and Lemieux (1999) is that wage flexibility alone cannot account for the employment dynamics observed in western economies and

that an explanation for the relative employment performance of the U.S. and Europe is still lacking. While the opposing evidence may not be decisive,[1] it has led to a search for alternative explanations for the different inequality trends in the U.S. and France than that offered by the unified theory.[2]

The current paper criticizes the unified theory, but also goes beyond criticism to develop a plausible alternative theory of relative inequality trends on the two sides of the Atlantic. In our view the empirical failings of the unified theory arise from limitations in its conception of institutional change and of core labor market outcomes. On the institutional side, the unified theory does not fully acknowledge the importance of changes that took place in Europe in the early eighties, when new flexible labour contracts became possible and when the costs to employers of making layoffs were reduced.[3] On the macroeconomic side, it neglects the rapid globalization of western economies, where financial and physical capital is increasingly mobile and markets increasingly instable (Morris and Western 1999).

One notable consequence of the too-narrow focus of the unified theory is an inattention to dynamics in the structure and distribution of employment *relationships*. Sociological theories of class have long regarded the wage of a job as inadequate to characterize the employment relationship. Erickson and Goldthorpe (1992; see also Goldthorpe 1980, 1982) in particular have assigned central importance to the distinction between a "short-term and specific exchange of money for effort" and a "longer term and more diffuse …service relationship" that "takes the form not only of reward for work done, through a salary and various perquisites, but also comprises important *prospective* elements – for example, salary increments on an established scale,

assurances of security both in employment and, through pension rights, after retirement, and above all, well defined career opportunities." (Erikson and Goldthorpe 1992, pp. 41-42). This distinction forms the basis of Goldthorpe's concept of the service class. We argue that attention to the distribution of employment contracts and the security and career opportunities they imply is likewise essential for understanding the structure and dynamics of inequality in Europe.

A second notable consequence of these omissions is an excessive attribution of trends in labor market outcomes to dynamic shocks as opposed to dynamic institutional structures. Sociological institutional and neoinstitutional theories emphasize the ubiquity of institutions, but also the ubiquity of institutional change. Sometimes this change is the result of purposive action by actors who aim to implement a particular set of goals or values (Stinchcombe 1997). Purposive action implies change, and the reality of institutional change has been recognized both by sociological and economic theorists, though their explanatory frameworks differ. The view most commonly attributed to economics is that institutions change in response to environmental changes that select for efficiency in outcomes (March and Olson 1989; Fligstein 2001), though "choice-within-constraints," "information-theoretic" or "thick rationality" logics have undermined the technical perspective even within economics (North 1993, 1995; Nee 1998; Clemens and Cook 1999; Ingram and Clay 2000). Sociological accounts of change are more diverse. Sometimes they emphasize inertial drags on change (Hannan and Freeman 1984). Sociologists have recently placed greater emphasis on turmoil produced by shocks, tensions, contradictions, and disjunctures among multiple institutions that may undermine the "taken for granted" character of any specific

institutional arena (Clemens and Cook 1999). The result, as described by Fligstein in his "political-cultural" approach to institutional analysis, is often conflict and attendant political activity from stakeholders in particular markets. This activity can lead to the reshaping of institutions, often through the kind of iterative "policy feedback" process between the actors with the power to alter institutional rules and the stakeholders described by Skocpol (1992). Institutional change implies a refining or a recasting of market rules and incentives, and – within the market arena -- these changes can play an independent role in the production of inequality trends.

Institutional change over the past twenty years has created important new sources of flexibility in European labor markets. Ebbinghaus and Kittel (2005) have shown that many European countries have modified their pattern of wage bargaining in response to prior rates of nominal wage growth over the past thirty years. Ebbinhaus and Kittel argue that these changes occur when the major corporate actors are dissatisfied with potentially inflationary macroeconomic performance. Similar adjustments have occurred in response to dissatisfactions within the political arena about employment growth. Many European countries and specifically France have passed legislation which created the possibility of a fixed term contract (FTC), and thereby diminished the cost of laying off permanent workers. The change in the institutional rules for labor contracts was an outgrowth of a continual push by employers for greater control over the employment relationship, a countervailing push by workers for greater rights and protection, and the actions of governments that were successively controlled by center-right and socialist political parties.

Employment contracts are required by law in the "regulated" labor market of France. However, the laws concerning employment contracts have changed significantly in the past three decades. The legal foundation of the indefinite term contract and other employment protections dates to the 1955-1965 period, when the economy tightened and French unemployment fell from a low 2% to an extraordinarily low 0.5%. From that point, unemployment began an unsteady but relentless climb to 1.6% in 1970, 6.2% in 1980 and 10.3% in 1985. This climb produced widespread discontent within French society. Right-of-center governments reacted to this discontent in 1972, when the government of Chaban-Delmas and Pompidou secured legislation allowing temporary help agencies in 1972, and again in 1979 when the government of Barre and d'Estaing passed a law authorizing the FTC.

Political conflict continued to shape the rules for hiring and termination in the 1980s. Institutional innovation occurred within a modernization framework led by an administrative elite that circulated between the state, the banks, and the large firms during both right- and left-oriented governments (Hancké 2001). The autonomy of this elite was, however, circumscribed by workers who demanded greater employment protection through their unions, and who voted for left of center and often far left of center political parties (as recently as 1969, the Communist party received 21% of the votes in the national election). The state reacted to the conflicting demands and constraints by zigging and zagging within a fairly narrow policy space to tighten or loosen the FTC regulations according to its political orientation of the moment. One side used the institutional logic of "worker rights," "employment protection" and "economic democracy," the other side based its actions on the institutional logic of "adaptation" to

structural change and variable demand for labor, "flexibility," "economic efficiency," and a "transactional" instead of a "protective" conception about the appropriate role of collective bargaining, and those in the middle argued for a "pragmatic" but nonetheless statutory approach to labor relations that was adaptable to changing economic conditions without being socially destabilizing (Javillier 1986; Merle 1989; Lyon-Caen 1993, Maurau 1993). These shifts produced a series of amendments to the FTC law in 1982, 1986, and 1990 and had a material impact on the rate of growth of FTC contracts in the French workforce during these years (Charraud 1993).[4]

While these important institutional modifications occurred during the 1970s and 1980s, it is also important to observe the kinds of institutional changes that did *not* occur in France. The adjustments of the French labor market primarily concerned the hiring process, not the wage-setting process. The minimum wage in France has been set by the SMIC ("salaire minimum de croissance") since 1970, when the law required that the SMIC provide "workers with the lowest remuneration a purchasing power guarantee and a participation in the economic development of the nation." The sharp relative rises of the minimum wage ended in 1983 as a consequence of the new incomes policies introduced by the socialist government in response to the economic crisis of the early 1980s. The passage of the Auroux laws in 1982, which originally were resisted by the employer's association and at least tolerated by the main unions at the time, led to the introduction of more flexible pay systems and a further weakening of the trade unions (Howell 1992; Boyer 1994; Goetschy 1998; Ebbinghaus and Visser 1999; Ebbinghaus and Hassel 2000; Hancké 2001). Despite these developments, however, employers were not powerful enough and the state was not willing or able to go further in deregulating

the wage determination process, and the SMIC has risen in line with the median wage ever since 1983 (Council for Employment, Income, and Social Cohesion (2001). The resistance to change of the wage-determination process is largely responsible for the lack of change in wage inequality in France during the past twenty five years.

From a formal perspective, the use of FTCs continues to be restricted. In France, FTCs are currently allowed by law when the job in question fills a potentially temporary increase in demand, or when the work is inherently seasonal, or when the fixed term worker is temporarily replacing an indefinite term contract (ITC) worker who is absent from the labour force. Furthermore, French employers have an incentive to give an FTC worker an ITC at the end of the maximum 18 month fixed term contract (including renewals) to avoid paying a "termination tax."[5] Despite these formal restrictions, the employment share of FTC and temporary jobs has increased dramatically in France over the two recent decades, from barely 2% in the early eighties to about 9% in 2001. About 80% of workers' entries and exits in French establishments involve temporary contracts (Goux, Maurin and Pauchet 2003). The growth curve of temporary jobs in France parallels those of several other western European countries such as Italy, Spain, or the Netherlands, and the experience of France is at least qualitatively to that of Belgium, Austria, or Germany, which each has rising shares of temporary jobs during the 1990s (OECD 2002).

The unified theory views institutional constraints on wage flexibility as potentially pricing low-skill labor out of European labor markets. But, while these wage constraints are real, the introduction of FTC jobs has clearly decreased the relative cost of unskilled workers in Europe. Unskilled jobs are indeed the most exposed to the

cyclical and seasonal variations in economic activity, and as a consequence, those which suffered the most from employment legislation that imposes rigidities on the labor market. Also, unskilled tasks are by their nature almost as easy for new hires as for experienced workers to perform. Consequently, the low tenure of FTC workers offers no productivity disadvantages to the employer, while the possibility of low cost terminations offers definite reductions in the employer's overall adjustment costs in case of cyclical downturns.

A central hypothesis of this paper is that European labor markets have absorbed skill-biased technological change by allocating an increasingly large share of unskilled workers to flexible jobs. The heightened market turbulence of recent decades has increased the attractiveness to employers of nonstandard employment that builds employment instability into the job itself. The ease of utilizing FTCs has provided European employers with a new tool for redistributing labor adjustment costs and job security across highly skilled and less skilled workers. By neglecting the forces of globalization and the differences between secure and insecure job positions, the unified theory provides an incomplete interpretation of the differences between American and European labor market institutions and performance, and makes predictions that appear to be at variance with empirical observation. The unified theory's prediction that adjustment to "macroeconomic shocks" occurs mainly through wage inequality and unemployment rates ignores a major aspect of European adjustment, namely adjustment through increased use of contingent jobs.

Our approach remedies this deficiency. We argue that European labor markets have absorbed asymmetric macroeconomic shocks not through rising wage inequality

and falling real wages to low-skill workers (as in the U.S.), and not simply through adjustments in their demand for workers possessing various levels of skill (as reflected primarily in trends of employment rates by skill and secondarily by unemployment rates), but importantly through the creation of low-adjustment cost/low-security jobs and through the allocation of an increasingly large share of low-skilled workers to these jobs. European adjustment strategies have thereby produced rising inequality, but rising inequality in the job security rather than the wage component of the employment relationship or the quantity of jobs produced in different skill categories. Furthermore, we argue that skill increasingly predicts the level of job security attached to a job, that is, we hypothesize growing "job security" returns to skill in Europe, which parallel the rising wage returns to skill in the U.S. Thus, we see increases in what we have termed "generalized inequality" on both sides of the Atlantic; the specific components of the employment relationship that display growing inequality vary, but that fact of a trend is common.

In the next sections, we will review the empirical evidence for our claims. We first develop a comparative approach to the measurement of job insecurity as a job attribute in France and the U.S. Then we test the key hypotheses underlying our approach, namely that (1) institutional change in labor market structure has indeed occurred in France in response to the "macroeconomic shocks" described in the unified theory, (2) these institutional innovations have led to a genuine increase in labor market flexibility, as measured by changes in the distribution of jobs according to their levels of job security, (3) inequality in job security has grown faster in France than in the U.S., even as inequality in wages has grown faster in the U.S. than in France and (4) job

insecurity is increasingly related to skill in France, and thus becomes a major and distinctive labor market response to the macroeconomic "shocks" described in the unified theory. Taken together, our hypotheses imply that "generalized inequality" and generalized returns to skill have grown in both countries, but the different character of institutional flexibility in the two countries has caused the job security component of the employment relationship to trend more strongly in France while the wage component has trended more strongly in the U.S.

DISTRIBUTION AND TREND IN JOB AND EMPLOYMENT INSECURITY: THE OVERALL PICTURE

Some of the basic differences between job and employment security in the French and the U.S. labor market are well known. Separation rates are much higher in the U.S. than in France, especially for low-seniority workers, which reflects shorter job durations in the U.S. than in France. OECD statistics (1997, Table 5.10) show separation rates for all workers with less than one year of tenure with the employer were 65.9% in the U.S. in 1995 as compared with 41.6% in France. In contrast, unemployment is much higher in France, which reflects above all much longer unemployment spells in France than in the United States. Unemployment rates have been at least three and sometimes as many as six percentage points lower in the U.S. than in France since the 1970s through at least 2001 (Eurostat 2000; Eurostat 2003). Generally speaking, U.S. workers have more difficulty in keeping their jobs but less difficulty in finding new ones than do French workers. Whether these differences in security make the overall American situation better or worse than the French situation is a difficult question. The answer, which is beyond the scope of this paper, depends on many factors including workers'

aversion to uncertainty, mobility costs, and the level and duration of unemployment benefits (Bowlus and Robin, forthcoming).

The general picture is well known, but an important specific feature that is less well documented -and more central to our paper- is the difference in recent trends in job security across the two countries. Job security may have declined somewhat in the U.S. during the past two decades, though the pattern is mixed, with rates of job displacement varying with the business cycle, with largely stable rates of transition from employment to unemployment, with a stable employment share for low-tenure workers, and with an unclear pattern of overall retention rates though probably a greater decline for younger than for older workers (Neumark, Polsky and Hansen 2000; Gottschalk and Moffitt 2000; Fligstein and Shin 2004).

In contrast, the pattern in France over the past two decades is unmistakeably a significant increase in layoff rates and in transition rates from employment to unemployment, coupled with an increasingly large employment share for low-security jobs. Layoffs were more prevalent in the U.S. during the 1980s (4.3% of total employment vs. only 2.9% in France), but the situation reversed in the 1990s, with the 5.0% layoff rate in France exceeding the 3.1% layoff rate in the U.S. (OECD 1997, Table 5.12).[6] Whereas the yearly risk of job loss for French workers with at least a year of seniority in the 1984-1988 period was about 1.6% for workers with at least a high school diploma and 3.1% for workers with less than a high school diploma, the yearly rates for these two groups had risen to 2.6% and 3.6% per year, respectively for the 1993-1998 period (Givord and Maurin 2004).[7] The trends in job insecurity in France are even steeper for workers with less than a year of seniority, due largely to the rising share

of contingent jobs in the French labor force. French utilization of FTC increased dramatically between 1982 and 1991 with the loosening of employment security regulations in the 1980s, and – in contrast to the U.S.-- has continued to increase during the 1990s, as Figure 2 demonstrates.. The proportion of French workers holding temporary jobs increased from about 6% in the mid 1990s to about 10% in the late 1990s and is now much higher than the American figure (Bloch and Estrade, 1999). The American contingent job trend is far less steep and generally tracks the business cycle (Fligstein and Shin 2004). Indirect and partial evidence for the U.S. suggests that the use of contingent jobs increased in the U.S. from 1972 until the middle of the 1990s (Segal and Sullivan 1997), peaked at 4.3% of the workforce (using the most expansive definition employed the by BLS), and gradually declined between 1995 and 2001 (Hipple 2001; Bureau of Labor Statistics 2001).[8] Taken together, the statistics on layoff rates, transition rates and on contingent job rates suggest high levels of employment insecurity in both countries, and a stronger trend toward heightened employment insecurity in France than in the U.S.[9]

Another important difference between the two countries concerns the distribution of job insecurity by age. Table 1, which uses data from the Contingent and Alternative Work Arrangements Supplement to the Current Population Survey in 2001 along with the French labor force survey for 2001, shows that job insecurity is much more concentrated on young workers in France in contrast to the more diffuse age pattern of the U.S. For example, the proportion of French workers who hold either a contingent job or a non-contingent low-tenure jobs is five to six times larger for the 18-28 year old than for the 44-64 year old group (66.9% of all employed workers and 55.7% of the labor

force versus 11.1% of all employed workers and 10.1% of the labor force). In the U.S. the corresponding ratios are only about 3.5.

In France, insecure job positions are mostly contingent jobs while in the U.S., the more numerically significant status is that of low-tenure in a non-contingent job. One obvious question is whether these different statuses correspond to a similar relative level of job insecurity in the two countries. To address this issue, we compared the consequences of holding a contingent job or having low-tenure in a non-contingent job on employment in the short and medium term to the consequences of being unemployed. The data come from the NLSY79 for the U.S. and the *Formation et Qualification Professionnelle* (FQP) Survey for France. We report our main results in Appendix A. Our analysis, which for technical reasons focuses on 29-37 year old workers at the start of a multiyear window of observation, confirms that unemployment, holding a contingent job, and holding a low-tenure noncontingent job form a hierarchy in terms of their effects on future employment. Unemployment has the most negative implications, and contingent job status falls between unemployment and low-tenure in a non-contingent job in its implications for future employment in both France and the U.S. Along with the statistics of Table 1, these results support the conclusion that France and the U.S. have a qualitatively similar hierarchy of insecure statuses, but a different distribution of workers across these insecure statuses for all age groups and for both genders.

In summary, cross sectional data show that job security is more unequally distributed in France than in the US especially across age groups. Meanwhile, trend data on contingent jobs, turnover, retention, and layoffs suggest a much steeper rate of

increase in job insecurity in France than the U.S. French firms were apparently creating an increasingly large share of low-security jobs --especially for young entrants into the labor market-- over the same period of time that American employers were raising the level of wage inequality and lowering the relative pay of low-skill jobs.

TRENDS IN SKILL-BASED INEQUALITY OF EMPLOYMENT SECURITY IN FRANCE

The data reported above suggests that trends in job insecurity have been steeper in the past two decades in France than in the U.S. This evidence, by itself, however, does not establish the validity of the key prediction of our theory, namely that institutional innovations in French labor markets produced rising *skill-based* inequality of job security as an important counterpart to the rising skill-based inequality of wages in the U.S. Tables 2 and 3 provide an empirical test for this key hypothesis. Table 2 focuses on the population of French male workers observed in the French labor force surveys in 1990, 1996, 2002. The first column shows the results of a logistic regression where the dependent variable is unemployment and where the independent variables are age, education (measured using the CASMIN categories as described in Shavit and Müller 1998 and the notes to Tables 2 and 3), and dummy variables for survey date. As it turns out, the regression reveals neither significant nor systematic trends in the inequality of unemployment risks across the different categories of workers. Significant inequalities in unemployment risk across educational level and age do exist, but these inequalities did not increase between 1990 and 2002. In particular, the differences between the log odds of college graduates (level 3b) and high-school dropout (1a) are virtually the same in 1990, 1996 and 2002.

The second column of Table 2 focuses on the population of male workers who hold a job and shows the results of a logistic regression where the dependent variable is whether the worker held a contingent job and where the independent variables are the same as in the first model, plus a set of industry dummy variables. Consistent with our hypotheses, the regression shows a significant increase in the probability of being contingent over time. Also consistent with our hypotheses, this increase is much more significant for non-educated workers than for educated ones. Holding age and industry constant, the difference between the log odds of college graduates and high-school dropouts being contingent workers increased significantly by about 0.6 (which corresponds to an increase of 1.8 in the relative odds). Meanwhile, the difference between the log odds of college graduates and high-school graduates (level 2) being contingent workers increased by about 0.4 (or an increase of 1.5 in the relative odds).

The third column of Table 2 focuses on the population of male workers who hold non-contingent jobs and shows the results of a logistic regression where the dependent variable is whether the worker is low-seniority. As discussed above, low-seniority workers are much less protected in France than high-seniority ones, even when they hold permanent contracts. Holding age and industry constant, the regression shows a significant increase in the odds of being low-seniority for the least educated workers. Holding age and industry constant, the difference between the log odds of low-seniority status for college graduates and high-school dropouts increased by about 0.5 and the difference between the log odds of college graduates and high-school graduates increased by about 0.3.

Table 3 shows that the regressions reveal similar results for women as for men. We do not find any systematic trend in the determinants of being unemployed. Specifically, the two groups of women who have been least affected by the general increase in unemployment risks are the most and the least educated (i.e., college graduates and high-school dropouts). In contrast, the increase in the probability of holding either contingent jobs or (poorly protected) low-tenure non-contingent jobs grows differentially for low–educated workers.

Taken together, Tables 2 and 3 show an increasingly large proportion of jobs with low security are held by low-educated workers in France. To put it another way, French employers, who were not able to reduce the relative wages of low-skill workers as were American employers, instead increasingly concentrated these low skill workers in jobs with low-adjustment costs.[10] This finding supports the central hypothesis of this paper.

GENERALIZING FROM FRANCE TO EUROPE

The unified theory sees a trade-off between wage inequalities and employment growth. In this paper, we have proposed an alternative perspective that sees the main difference between American and European responses to recent macroeconomic shocks not in the degree of institutional tolerance for inequality, but rather in the *type* of inequality that is tolerated as a market strategy for adjusting to shocks. In particular, the results of this paper demonstrate that the distribution of insecure job positions across workers is much more unequal in a continental European country like France than in the U.S. In particular, job insecurity in France is more concentrated among the young

workers and the low-skilled workers. American workers in contrast face a more diffuse form of insecurity. Our results also demonstrate that the *increase* in job insecurity over the last decades has been much larger in France than in the U.S. Most notably, the rise in job insecurity has been larger for the least skilled French workers than for the most skilled ones. This trend can be interpreted as a direct consequence of the interaction between the flexible employment regulations implemented in France (as in most western European countries) in the eighties and the recent macroeconomic shocks emphasized by the unified theory. In combination with other work, our research challenges the view that unemployment is the sole or maybe even the dominant mechanism through which European labor markets have absorbed asymmetric shocks to their demand for labor.

The obvious question raised by these results is whether the French pattern exists in other countries of continental Europe. A definitive answer to this question requires additional empirical research that is beyond the scope of this paper (see Maurin and Postel-Vinay 2005). However, two aspects of the broader European-American contrast are rather clear from existing evidence. First, the French pattern is consistent with a characteristic policy preference in contemporary Western Europe for relatively (to the U.S.) low wage inequality combined with social welfare policies that contain income inequality within relatively (to the U.S.) narrower limits. Second, the labor market institutions of Europe are much more heterogeneous than they often appear from an American vantage point, and this suggests the possibility of divergent innovations and responses to the strengthening employment-equality tension in European and American labor markets.

Much of the comparative literature on labor markets contains an explicit or implicit premise that Europeans are less tolerant of inequality than are Americans. This tolerance is expressed not just as a matter of public opinion, but as stronger support for labor unions and for a political constellation that makes it difficult even for right-leaning governments to implement policies that increase social inequality. Our findings suggest that this view is too simple and that the real issue concerns the *nature* of the inequalities that are tolerated. The true contrast is not between efficient America and egalitarian Europe, but rather between an America where employers have substantial freedom to structure individual employment relationships and a Europe where egalitarian tendencies are expressed more in terms of relative equality of compensation than relative equality in the form of labor market participation. One might argue that Europe is more egalitarian than America, but that European institutions recognize that not all forms of equality can be optimised simultaneously (cf. Swensen 1989), and thus show increased tolerance for inequality in some areas as a way of protecting equality in other areas.

This policy preference was for example clearly expressed in the "European Employment Strategy" of 1997 whose essential ideas have been reaffirmed in subsequent communications including most recently the November 2003 report of the Employment Taskforce, which was established by the European Commission of the EU and chaired by the former prime minister of the Netherlands. The European Employment Strategy consists of three objectives: (1) "full employment", (2) "quality and productivity at work," and (3) "cohesion and an inclusive labor market," where "inclusion" is defined in terms of opportunity to acquire skills, to enter the labor market, to remain in the labor market, and to progress in terms of pay and qualifications

(Commission of the European Communities 2003). The Employment Taskforce argues that these goals should be accomplished in part through the promotion of "flexibility combined with security on the labor market." Here, "flexibility" designates the adjusting of standard labor contracts, and the reviewing of other ("non-standard") labor contracts to increase options, to remove obstacles to the establishment and development of temporary work agencies, and to raise the attractiveness of part-time work. All of this, however, is supposed to be combined with "security", which is defined as the "capacity to remain and progress in the labor market." (Employment Taskforce Report 2003, p. 27; see Council for Employment, Income, and Social Cohesion 2001 for a parallel perspective from a French government source).

Whether these principles play out the same way in different European societies, however, is problematic. As Hall and Soskice (2001) have argued, there are different "varieties of capitalism" in Europe, encompassing "liberal economies" such as in the UK, the "coordinated economies" of Belgium and the Germanic and Scandinavian countries, and the "Mediterranean" economies, which is where they tentatively place France. Within this school of thought, France is seen as a transforming, liberalizing political economy that has shown "a remarkable capacity for adjustment" and that is "held up by many liberal observers as an example for other west European economies to follow" (Hancké 2001). Similarly, Schmid (2002) differentiates between "liberal market economies," "social market economies," and "state market economies," and he characterizes France as sharing attributes of both the second and the third type. So there is good reason to expect heterogeneity in the national-level response to the employment challenge created by equality promoting wage policies.

If we look specifically at the growth of temporary jobs in Europe, we see both similarities and differences relative to the French case. In contrast to the 50% of employment growth accounted for by temporary jobs in France, temporary jobs accounted for 40% of total employment growth in the Netherlands and 100% of the employment growth in Germany, Italy, and Austria (permanent jobs in these countries declined during the 1991-2001 period) (OECD 2003). In addition, survey data indicates a broad *perception* that employment was becoming more insecure in Europe. Table 4 reports statistics from "International Survey Research" (as reported in OECD 1997) that shows a widespread decrease between 1985 and 1995 in the proportion of workers who had a favorable opinion of their job security. Furthermore, trend data from the OECD (1997) displayed in Table 5 show that layoff rates during the early 1990s recession were higher both because of the expiration of temporary contracts and because of dismissals and redundancies across all large western European countries. While these data cannot indicate whether job insecurity trends were particularly strong for unskilled workers, they do suggest that France's experience was not out of line with the rest of Europe.

It seems unlikely, however, that European countries all responded to macroeconomic conditions in the same way. Some countries had special institutional arrangements that provide the basis for distinctive adjustments. The dual system in Germany, for instance generates a large number of fixed term apprenticeships that pay below entry-level wages, which could provide a mechanism for adjustment to macroeconomic shocks (McGinnity and Mertens 2002). Like France however, Germany has a large number of workers on FTC who have a relatively low rate of conversion and

a high risk of unemployment at the termination of their FTC (McGinnity and Mertens 2002).

The starkest contrast with France comes from Scandinavia, as temporary jobs accounted for less than 1/5 of total employment gains in Sweden, and temporary employment actually fell in Denmark at the expense of permanent jobs (OECD 2003). Denmark in particular spends a high proportion of its GDP on active labor market policies to boost the employment rate. These policies include job rotation schemes, which provide subsidies on the one hand for workers to leave their jobs for further training, for "education sabbaticals," or for parental leave, and on the other hand for firms to replace them with unemployed workers hired on temporary contracts. The expectation of these schemes is that the temporary jobs thus created will provide training for the unemployed so that they are in a better position to find a permanent job. Denmark also links the receipt of unemployment benefits for long-term unemployed young unskilled workers to required additional job training. In effect, Denmark has been trying to raise the skill level of the low-educated or educationally mismatched worker and thereby achieve the social inclusion called for in the European Employment Strategy. Combined with relatively favorable economic growth, a tightening of early-retirement programs, and policies that reduce work-family incompatibility for mothers, these active labor market policies have pushed the Danish employment to population ratio for 15-64 year olds to 76.4 by 2002 (80.2 for men, 72.6 for women) which contrasts favorably with French rates of 61.1 (68.1 for men, 54.3 for women). Unfortunately, available data does not allow a direct assessment of trends in the link

between skill and job insecurity in Denmark (Larsson 1999; Hygum 1999; Kruhøffer 1999; Schmid 1999; OECD 2003b; Volz 2004).

The Netherlands presents yet another contrast to the French situation. While the number of temporary jobs grew considerably during the 1990s, the conversion rate of FTC to ITC in the Netherlands was 90%, which is much higher than the 33% conversion in France (Auer 2000). The Netherlands also pursued an employment intensive strategy during the 1980s and 1990s that consisted of increased wage flexibility during collective bargaining and rapid intensification of part-time work (33% of all jobs in the Netherlands were part-time in 2001 (OECD 2003)), which has been assisted through negotiated arrangements between unions and firms that reduced the wage and pension penalty for working part-time (Schmid 2002). The Netherlands raised its employment to population ratio during the 1990s by more than 10 percentage points to reach 73.2 by 2002 (81.5 for men and 64.7 for women), which compares very favorably to France. Even in the case of the Netherlands, however, there are indications of growing inequality, as suggested by the declining proportion of workers who respond favorably concerning their job security (see above) and as evidenced by the rising wage inequality during the 1990s, when the 90/10 wage ratio grew from just over 2.5 to nearly 3.0 (OECD 2003). Clearly, more research is needed to establish the complete picture of generalized inequality trends across Western Europe, but the available evidence suggests that the French situation is not an exception.

SUMMARY

In their recent review of the literature on rising earnings inequality in the U.S., Morris and Western (1999, p. 642) argued that "market explanations dominate research on rising inequality," and that while institutional explanations have received some attention, "the focus has been narrow, restricted largely to the two major wage-setting institutions: the minimum wage and unions." Their review article primarily addressed the literature for American trends in inequality, which they described in terms of "unresolved debates" and "few concrete answers," but the theoretical concerns generalize more broadly to comparative trends across industrialized societies. In order to shed light on these debates, we have taken a comparative approach, which allows greater attention to institutional variation and change as potential explanatory factors. In so doing, we have broadened the narrow focus on wages and wage-setting institutions to encompass labor market institutions that affect multiple forms of employment flexibility, including especially the job security that is embedded in the employment relationship.

Our theoretical and empirical results support the value of a broad perspective on the employment relationship when trying to explain social and economic trends. The unified theory builds from two dominant characteristics of the employment relationship, namely employment and wages, and constructs an explanation that emphasizes macro-level tradeoffs between levels of employment and wage distributions as a response to technologically-based changes in the relationship between productivity and skill, coupled with the relatively fixed institutional environments for national labor markets. Our approach accounts for empirical anomalies of the unified theory by emphasizing the

dynamic nature of the employment relationship and the important distinction between unemployment and job insecurity.

This generalized view offers a potential explanation for a broader class of empirical phenomenon than just the comparative trends in labor market outcomes in the U.S. and Europe. A recurrent topic in the European debate is the so-called inequality paradox, which concerns the discrepancy between the perception of inequality and the actual growth of unemployment and of wage inequality. Surveys in Europe report considerable decreases in the proportion of Europeans who respond favorably to questions about the current level of security of their jobs.[11] Surveys further show that having or not having an indefinite term labor contract is an important determinant of job satisfaction in Western Europe (Clark 1998; Booth, Francesconi, and Frank 2002). Rising proportions of Europeans have expressed political protest either through ballot abstentions or through votes for far left or far right candidates, and these increases are especially apparent within the population of low-skill workers despite the lack of trend in official statistics on unemployment and wage inequality. In the French case, center-right and center-left governments have succeeded in keeping income inequality at an historically low level and (business cycle fluctuations aside) have stopped the trend increase in unemployment rates since the early 1980s. Yet no French government has managed to be re-elected since 1981. We suggest that the price which France and perhaps other western European governments have paid for this apparent stability in official statistics is a rise in some form of generalized inequality, that the population is aware of these deeper trends, and that it expresses its discontent in surveys and various protest actions. A society with a 10% unemployment rate is not as fragile as a society

that has 10% unemployment plus a significant level of job insecurity for those workers who have jobs. This fragility may be exacerbated when the workers in insecure jobs are recruited from the same low-income categories as those who are most at risk of unemployment.

While we certainly do not argue that European labor markets have achieved the flexibility of the American labor market, our research points to the potential importance of both institutional innovation and enduring institutional differences in shaping the impact of market shocks on macro level outcomes. The institutional changes that occurred cannot be pigeonholed either as inflexible resistance to economic forces, or as efficient adaptation. Employment contracts in France become more flexible, though not uniformly so, and wage policies changed, but not so much as to generate noticeable increases in inequality. France's particular institutional changes were a consequence of political responses to significant changes in the macroeconomic climate within broad institutional parameters that determined the relative strength of the interested parties and the relative power of alternative political and economic rhetorics. These factors differ from country to country. Therefore, it is to be expected that institutional responses will differ and will have differing impacts on employment levels, on various forms of inequality, and on trends in inequality by skill and other relevant statuses.

What is less clear is whether any realistic institutional response would have suppressed *all* forms of inequality trend in response to the changing macroeconomic forces of the past several decades. Growing flexibility of some sort in response to macroeconomic change seems to be a reality on both sides of the Atlantic. Wage flexibility plus macroeconomic change clearly has led to rising levels of wage and

income inequality in the United States. Growing flexibility in the nature of the employment relationship in Europe appears to have led to rising inequality in non-wage components of this relationship at least in France and possibly in other European countries. It is less clear whether the innovative policies of countries such as Denmark have found a strategy for flexibility without inequality. Our speculation is that flexibility without inequality requires high opportunities for skill-upgrading and job mobility in the life course. The extent to which such an opportunity can actually be realized in a modern capitalist country in the current globalized marketplace– even when the country in question has a highly developed welfare state and extensive active labor market policies -- is an open question with important theoretical and policy implications. It deserves serious and sustained research.

Finally, while our paper does not address directly the sources of rising wage inequality *within* the U.S, it does suggest the plausibility of new institutional approaches to this question. Most research on American wage inequality takes for granted that American labor markets are flexible, and looks for explanations in terms of supply and demand shocks that are worked out within a flexible labor market. Our comparative approach, however, emphasizes that fairly subtle forms of institutional innovation can have major impacts on labor market performance and worker outcomes. Our results suggest that institutional changes in the wage-setting mechanisms even of a generally flexible labor market such as that found in the U.S. might be an important component of the explanation for U.S. specific trends. The research challenge is to devise studies that can subject such institutional theories to empirical test.

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APPENDIX: COMPARING CAREER OUTCOMES OF INSECURE JOB STATUSES IN FRANCE AND THE U.S.

Analyses in the paper make comparisons between the France and the U.S. using three insecure statuses: unemployment, working in a contingent job, and working at low tenure in a non-contingent job. To assess the relative consequences of these three statuses, we used data from the NLSY79 for the years 1994-2000 to analyze the consequences of insecure employment on subsequent employment, wages, and wage growth for American workers.[12] To analyze individual-level outcomes in France, we use the *Formation et Qualification Professionnelle* (FQP) Survey. Sample members of the NSLY were between 29 and 37 years old in 1994.[13] To create a comparable analysis, we analyzed career outcomes for French workers in this same age range.

The French definition of contingent job includes all wage and salaried employees who do not hold a regular indefinite-term contract, which includes workers under fixed-term contracts (including seasonal contracts), workers sent by temporary help agencies, workers with temporary contracts in the public sector (i.e., *contractuels, auxiliaires, vacataires, pigistes*, etc.), and trainees and workers who benefit from subsidized contracts for job market integration or trial periods. The 1994, 1996, and 1998 waves of the NLSY79 contain questions that allow an operationalization of contingent work similar to that used in recent BLS studies (Polivka 1996; Hipple 1998, 2001). We used these questions to operationalize contingent work as those workers who said they were a temporary worker sent by a temporary help agency, or that they were a temporary worker hired directly by the company.

To make industry measures comparable, we classified workers in both countries into the 17 industry categories from the International Standard Industrial Classification (ISIC). We coded education in both countries into the CASMIN (Comparative Social Mobility in Industrial Nations) categories (Müller et al. 1989; Shavit and Müller 1998). The educational categories for the U.S. and France are indicated in the table notes of this paper, with the details of the French operationalization available in Maurin and Goux (1998). Because we have shorter-interval panels for the American case, we analyze employment consequences there over both a two and a four year period. The data for France allow us to measure employment effects five years after the respondent's May 1988 employment status. We used a propensity score analysis to estimate the effects of employment status on job outcomes. Further details about our methodology and a more complete discussion of results are available from the authors.

The three panels of Table A1 compare outcomes two years in the future between American contingent and non-contingent workers, unemployed and employed workers, and low tenure and higher-tenure workers, respectively. Within each panel, the first column compares differences in the proportion of workers in the treatment and comparison group who were employed at time 2. The second column reports average differences in wage levels at time 2 conditional on the matched cases actually working at time 2. The third column compares differences in wage growth between times 1 and 2, conditional on working at both times 1 and 2. Column 4 compares differences in the change in log wage, conditional on working at both times 1 and 2. Columns 5, 6, and 7 contain estimates of wage outcomes, wage change, and change in log wage both for cases who were and who were not working at time 2.[14] By setting the wage at zero for

those not working, columns 5, 6, and 7 provide an estimate of the combined wage effect that is produced by differences in wages for those working and the lack of a wage for those not working.[15] Because workers who were unemployed at time 1 have no wage for that time, we do not estimate the average wage change effects of unemployment.

The results in Table A1 show a lower probability of employment two years later for contingent workers relative to noncontingent workers in the U.S. For comparison, the second panel shows the effect of unemployment on employment two years later. The effect of unemployment on future employment is larger than the effect of contingent status on future employment for men, while for women the reverse pattern holds. These two patterns cancel each other; the average effects of unemployment and contingent job status on future employment in the two-gender sample are approximately the same size.

The third panel demonstrates that low tenure in a noncontingent job is also an insecure employment status, with an average impact on future employment that is about one-third the magnitude of contingent job status or unemployment. Contingent workers (especially men) experience lower wages two years later than do otherwise comparable non-contingent workers. There is little evidence in the propensity score analyses that contingent job holders face lower rates of wage growth; rather the results suggest that their working in a contingent job puts them (at least temporarily) on a lower but parallel wage track than otherwise comparable noncontingent workers. Low tenure holders of noncontingent jobs, in contrast, have higher average wage growth than more senior workers. In short, contingent workers are disadvantaged relative to low-tenure noncontingent workers in both future employment prospects and wage growth. They are less disadvantaged than the unemployed however, whose risk of future employment

instability is as great as is the risk faced by contingent workers, and whose wage penalties appear to be even greater.

Generally speaking, the consequences of insecure employment relationships four years in the future show the same pattern as two years in the future, but the size of effects is somewhat diminished. Table A2 shows that the effects of both contingent status and unemployment on employment status four years in the future are negative but no longer statistically significant. The low-tenure effects on future employment status are of similar magnitude as the effects of contingent status or unemployment though they retain statistical significance; it is probably the larger sample size for the low-tenure analysis that accounts for the difference in standard errors for these estimates. Unemployment continues to have a negative effect on wages in the four-year as in the two-year analyses, while low-tenure status continues to have a positive effect. The effects of contingent status on wage levels four-years in the future remain fairly similar in magnitude to the two-year effects, but they are not statistically significant at conventional levels. The effects of contingent job status continue to lie between the other two statuses, with unemployment offering the worst prospects and low-tenure status offering the best.

The results for France are presented in Table A3. The employment consequences of being in a contingent job in France appear somewhat worse than are the consequences in the U.S. French contingent workers have greater employment risks than do French low-tenure workers. The point estimate for contingent job status in France is even larger than the point estimate for unemployment, but Table A3 suggests that the ordering of these two insecure statuses depends on gender. Specifically, the

future employment risks from contingent job status are greater than the risks from current unemployment status for French men, while the reverse is true for French women. The mechanism by which this greater unemployment risk comes about is the relatively low conversion rate; other sources estimate that only about 33% of French fixed term workers are given an indefinite-term contract by their employer at the end of their contract (Goux, Maurin and Pauchet 2001), and those who are not quickly able to find another job become unemployed. The French five-year results look rather similar to the American two-year results in terms of risk patterns. This pattern suggests that insecure employment statuses generate future employment risk in both countries, but that the risk tends to decay faster in the U.S. than it does in France.

According to the propensity score analyses, the effects of contingent status on future compensation in France are somewhat more negative than in the U.S. For example, the estimated cost of contingent job status for French male workers (FF22,790 per year four years later, or about $4,272) is greater than the American result (US$1.44/hr, which equals about $2,880 for a full-time worker).[16] These differences in the point estimates derive from cross-national differences in the wage/compensation effects for women in the two countries. If we focus solely on men, the French effect (FF18,760 per year four years later, or about $3,520) is actually smaller than is the American effect ($2.77/hr or about $5,440 for a full-time worker). The standard errors are wide enough, however, that we cannot reject the null hypothesis that the male effects and also the combined gender effects are of similar magnitude in the two countries. The French results share the American pattern of showing more negative average earnings effects from unemployment than from contingent jobs, with the best wage outcomes

arising from the status of low-tenure noncontingent worker. Thus for France, like the U.S., contingent jobs appear to be an insecure labor force status that is similar to, but not as disabling, as unemployment, with more negative effects for contingent jobs than for low-tenure noncontingent jobs both in terms of future employment prospects and in terms of future compensation.

In summary, the main difference between the outcomes of insecure employment statuses in the two countries is the higher future employment insecurity risk for French than for American contingent workers. Clearly, the behavioral impact of contingent job status in France is in relative terms at least as consequential for short to medium term career outcomes as in the U.S.

Notes

[1] One limitation of the evidence in Card, Kramarz and Lemieux (1999) and Krueger and Pitsche (1997) is that it does not control for industry. Arguably the unified theory's prediction of a tradeoff between the wage and employment levels of low-skill labor would occur within specific industries, not at the level of the aggregate economy. Acemoglu (2002) modeled the relationship between changes in relative wages and changes in relative employment levels between high skilled and low skilled labor both under the assumption that technology is the same in Europe and America and under the assumption that technology in Europe is the same as in America after a fixed lag. He found that changes in relative wages are equally responsive to changes in relative labor supply of high and low skilled workers in Germany as in the U.S., which would support the unified theory, but not in Belgium, Denmark, or Sweden, which does not support it . However, his evidence is not definitive because of data comparability issues and his need to make specific assumptions about the elasticity of substitution between skilled and unskilled labor across the countries under analysis. Additional crude evidence that would appear to be not inconsistent with the unified theory is the fact that the ratio of high skill to low skill employment growth was greater in France and Germany than the U.S. during the 1990s, which was a time when wage inequality continued to grow faster in the U.S. than in the two European countries (although the country contrast on inequality trends is not as strong for the 1990s as for the 1980s) (OECD 2003, pp. 41, 44). However, such evidence is only weakly suggestive when age and industry have not been controlled.

[2] Acemoglu (2002), for example, has recently conjectured that wage compression in Europe may have motivated European employers to invest more in technology that improved the productivity of less skilled workers, thereby preserving higher than expected employment for this group.

[3] Our positing of an institutional theory of relative inequality trends can be seen as a response to the challenge put forward by Morris and Western (1999) for sociology to pay attention to recent trends in inequality, and to develop institutional theories for these trends.

[4] The period 1990 to 2001 has no significant changes in the legal framework for FTC.

[5] The precise details of these conditions have changed somewhat over time. Generally speaking, the conditions under which FTC could be used were loosened in 1985 and tightened somewhat in 1990, though these tighter regulations seem to have been inconsequential in practice (Michon and Ramaux 1993; OECD 1999)

[6] The OECD measured layoffs as a percentage of total employment during the economic "trough" of the 1980s (1984-85 in France, 1982-83 in the U.S.) compared with the economic trough of the early 1990s (1993-94 in France; 1991-92 in the U.S.).

[7] We have adjusted the transition rates reported in Givord and Maurin (2002) by 0.9, because, as they estimate, about 90% of these transitions are involuntary.

[8] The most expansive definition of contingent work used by the BLS ("estimate 3") includes self-employed workers and independent contractors with tenure and expectation of continued employment of one year or less, as well as temporary workers and contract workers, regardless of their current tenure. Unlike more restrictive estimates, estimate 3 does not require that the worker expect their jobs to end within one year. The job is contingent so long as the employee views the job as temporary for reasons related to the structure of the job. For further details, see Polivka (1996).

[9] One final relative source of insecurity that needs consideration concerns high-tenured noncontingent workers. The main risks to workers in this category come from job displacement. These risks in the aggregate have been well studied in the American case through the Displaced Worker Surveys. According to the 1998 Displaced Worker Survey (see Hipple 1999, table 3), the two-year rate of job displacement in the U.S. in the middle 1990s was about 4% on average and about 2.8% for those with more than 3 years of tenure, which would correspond to a rate of about 1.5% per year. Hipple (1999, table 3) found a two year displacement rate of 5.5% for

those with fewer than 3 years of job tenure. For higher tenured groups, the two-year displacement rate was: 3.7% (for 3-4 years of tenure), 3.3% (for 5-9 years of tenure), 2.4% (for 10-14 years of tenure), and 2.5% (for 15-19 years of tenure). While precisely comparable statistics do not exist for France, Givord and Maurin (2001) have analyzed the yearly rate of transition between employment and unemployment using the French Labor Force surveys. Whereas the yearly risk of job loss for workers with at least a year of seniority in the 1984-1988 period was about 1.6% for workers with at least a high school diploma and 3.1% for workers with less than a high school diploma, the yearly rates for these two groups had risen to 2.6% and 3.6% per year, respectively for the 1993-1998 period (the transition rates reported in Givord and Maurin (2002) by should be adjusted by 0.9, because, as they estimate, about 90% of these transitions are involuntary.) The U.S. rates exclude firings, which are included in the French statistics (in a firing, the job continues to exist, but the incumbent is terminated). Nonetheless, such an adjustment would still leave the French job loss rates for more senior workers at least as high as the American rates. Furthermore, it is likely that the French rates underestimate displacement because some workers who are displaced find new jobs without an intervening spell of unemployment (Margolis 2000).

[10] Because the concept of the contingent job is relatively new (Polivka and Nardone 1989), there are no data available for a trend analysis across the same set of years in the U.S. Using the 1995, through 2001 Contingent and Alternative Work Arrangements Supplements to the Current Population Surveys, we confirmed that unemployment in the U.S. is heavily skill biased. However, there is no systematic relationship between education and being either in a contingent job or having low tenure in a noncontingent job in the U.S. Complete results are available from the authors upon request.

[11] Between 1985 and 1995, the proportion responding favorably dropped 14 percentage points in France, 18 percentage points in Germany, 22 percentage points in the United Kingdom and 12 percentage points in the Netherlands according to the International Survey Research "Employee Satisfaction" survey results reported in OECD (1997).

[12]Unlike the NLSY79 data used in previous studies (e.g., Ferber and Waldfogel 1998, 2000), the 1994, 1996, and 1998 waves of the NLSY79 contain explicit measures of whether a sample member worked in a contingent job.

[13] According to data from the CPS (Hipple 2001), 26% of all contingent workers in the U.S. were between 25 and 34 years old, and another 18.5% were between 35 and 44 years old. Thus, the age range covered by the NLSY79 contains a numerically significant proportion of all contingent workers in the U.S.

[14] In a small proportion (less than 2%) of the NLSY79 cases, workers in contingent jobs reported wages that were either very low relative to the minimum wage, or were very high. Given the heterogeneity found in this group of workers in the American context, some of these values may be true, while others are probably errors in the data. To keep these values from unduly affecting the comparison, we capped wages in 1996 constant dollars below $3/hr at $3/hr and those above $100/hr at $100/hr (in fact, this transformation had no qualitatively significant effect on our estimates).

[15] For the change in log wage analysis, those not working were assigned a wage of $1 (which implies a log wage of zero). Because we do median comparisons for analyses involving the change in log wage, the results are unaffected by the specific positive wage value that we choose for those not working in the change in log wage analysis.

[16] The exchange rate was FF5.3346 per U.S. dollar on May 3, 1993 (source: Bank of Canada). The most comparable estimate for American workers would be somewhat higher than the 2000* $1.44 or 2000* $2.77/hour figures used in the text, because this figures assume that there are no differences in hours worked in the future year for workers who were or who were not in a contingent job in the treatment year.

Table 1. Proportion of Workers in Insecure Statuses by Gender, U.S. and France 2001.

	U.S. 2001			France 2001		
	All	Men	Women	All	Men	Women
18-28 years						
Unemployed	7.3%	8.2%	6.2%	16.8%	14.5%	19.5%
Contingent	6.7%	6.6%	6.9%	37.2%	35.8%	39.1%
Low tenure but not contingent	34.5%	32.4%	36.7%	18.5%	19.6%	17.2%
No. of obs.[a]	7850	4014	3836	13928	7443	6485
	7284	3693	3591	11575	6380	5195
29-39 years						
Unemployed	3.4%	3.2%	3.8%	10.2%	7.8%	12.9%
Contingent	3.0%	2.8%	3.3%	10.8%	9.4%	12.6%
Low tenure but not contingent	16.4%	14.9%	18.1%	10.3%	10.6%	9.9%
No. of obs.[a]	10399	5516	4883	24506	13185	11321
	10033	5330	4703	22108	12232	9876
40-64 years						
Unemployed	2.7%	2.8%	2.6%	9.1%	7.7%	10.8%
Contingent	2.7%	2.6%	2.8%	5.5%	4.4%	6.9%
Low tenure but not contingent	9.3%	8.2%	10.5%	4.6%	4.6%	4.7%
No. of obs.[a]	18344	9576	8768	40316	21451	18865
	17865	9317	8548	36718	19869	16849

Source: Current Population Survey, Contingent Workers Supplement, 2001; French Labour Force Surveys 2001.
[a] The first number of observations reported refers to the population in the labor force, while the second refers to the employed population (from which both the contingency and non-contingent low tenure rates were calculated).

Table 2: Trends in the distribution of unemployment and insecure jobs across French male workers.

Independent variables	Unemployment	Contingent Job	Low-tenure in Non-Contingent Job
Intercept	-2.52 (.09)	1.23 (.20)	-.32 (.25)
Date (ref=1990):			
1996	.42 (.10)	.61 (.14)	-.55 (.19)
2002	.34 (.09)	.48 (.14)	-.59 (.18)
Educational levels			
× Date (ref :3b)			
3a × 1990	-.36 (.14)	-.50 (.11)	-.11 (.10)
3a × 1996	.12 (.09)	-.14 (.09)	-.16 (.13)
3a × 2002	-.02 (.09)	-.18 (.08)	-.26 (.12)
2 × 1990	.18 (.10)	-.20 (.10)	-.36 (.10)
2 × 1996	.22 (.08)	.11 (.08)	-.11 (.12)
2 × 2002	.07 (.08)	.20 (.07)	-.09 (.11)
1c × 1990	.25 (.09)	-.29 (.08)	-.62 (.08)
1c × 1996	.35 (.07)	..01 (.07)	-.37 (.10)
1c × 2002	.14 (.07)	.13 (.07)	-.21 (.10)
1b × 1990	.36 (.11)	-.19 (.11)	-.49 (.12)
1b × 1996	.47 (.09)	.25 (.09)	-.03 (.14)
1b × 2002	.52 (.09)	.44 (.09)	-.02 (.14)
1a × 1990	1.06 (.08)	.22 (.08)	-.44 (.08)
1a × 1996	1.06 (.07)	.59 (.07)	-.16 (.11)
1a × 2002	1.14 (.07)	.76 (.07)	-.03 (.11)
Age × 1996	-.001 (.002)	-.010 (.003)	-.002 (.004)
Age × 2002	..002 (.002)	-.007 (.003)	-.001 (.003)
Age dummy vars. (9 categories)	(Yes)	(Yes)	(Yes)
Industry dummy vars. (16 categories)	(no)	(Yes)	(Yes)
Number of Observations.	126,800	114,479	99,200
Likelihood ratio (DF)	4827 (26)	18,740 (44)	3,772 (44)

Note: Standard errors are in parentheses. Education is measured using the CASMIN categories (cf. Müller and Shavit 1996). These categories are as follows: 3b= BA+, 3a = Some Tertiary, 2 = Secondary, 1c = Basic Vocational, 1b=Compulsory Elementary, 1a=Inadequately Completed Elementary Education.
* = $p < .05$, ** = $p < .01$, two-sided.
Source: French Labor Surveys 1990-2002.

Table 3: Trends in the distribution of unemployment and insecure jobs across French female workers.

Independent variables	Unemployment	Contingent Job	Low-tenure in Non-Contingent Job
Intercept	-1.96 (.11)	1.57 (.26)	.47 (.41)
Date (ref=1990):			
1996	.62 (.12)	.50 (.13)	-.38 (.20)
2002	-.04 (.12)	.59 (.13)	-.29 (.19)
Educational levels × Date (ref :3b)			
3a × 1990	-.48 (.12)	-.67 (.10)	-.35 (.11)
3a × 1996	-.28 (.08)	-.37 (.08)	-.20 (.13)
3a × 2002	-.06 (.08)	-.20 (.07)	-.04 (.11)
2 × 1990	.16 (.10)	-.31 (.09)	-.56 (.11)
2 × 1996	.27 (.07)	.04 (.07)	-.52 (.14)
2 × 2002	.44 (.07)	.26 (.06)	-.05 (.12)
1c × 1990	.70 (.09)	-.19 (.08)	-.75 (.10)
1c × 1996	.60 (.07)	.19 (.07)	-.48 (.12)
1c × 2002	.82 (.07)	.32 (.06)	-.01 (.11)
1b × 1990	.69(.10)	-.09 (.24)	-.62 (.12)
1b × 1996	.55 (.08)	.25 (.09)	-.17 (.15)
1b × 2002	.94 (.08)	.48 (.09)	.26 (.14)
1a × 1990	1.31 (.09)	.16 (.08)	-.60 (.10)
1a × 1996	1.20 (.06)	.61 (.07)	-.27 (.12)
1a × 2002	1.45 (.07)	.97 (.06)	.01 (.12)
Age × 1996	-.004 (.002)	-.009 (.003)	-.009 (.005)
Age × 2002	..004 (.002)	-.009 (.003)	-.015 (.004)
Age dummy vars. (9 categories)	(Yes)	(Yes)	(Yes)
Industry dummy vars. (16 categories)	(no)	(Yes)	(Yes)
Number of Observations.	106,581	91,964	80,523
Likelihood ratio (DF)	5688 (28)	12,752 (44)	3,338 (44)

Note: Standard errors are in parentheses. Education is measured using the CASMIN categories (cf. Müller and Shavit 1996). These categories are as follows: 3b= BA+, 3a = Some Tertiary, 2 = Secondary, 1c = Basic Vocational, 1b=Compulsory Elementary, 1a=Inadequately Completed Elementary Education.
* = $p < .05$, ** = $p < .01$, two-sided.
Source: French Labor Surveys 1990-2002.

Table 4: Changes in Perception of Job Security for Several European Countries, 1985-1995.

Percentage Point Change in Proportion Who Respond Favorably Concerning their Job Security in 1995 vs. 1985.	
Belgium	-6
France	-14
Germany	-18
Italy	-5
Netherlands	-12
Switzerland	-3
United Kingdom	-22

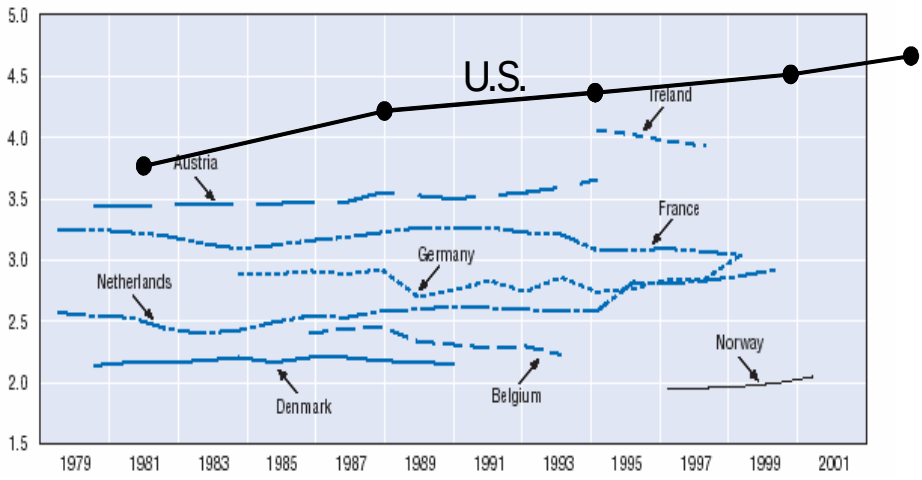
Source: International Survey Research, *Employee Satisfaction: Tracking European Trends.* As reported in the OECD *Employment Outlook* 1997. All differences reported above are "statistically significant."

Table 5: Estimated Layoff Rates for Selected European Countries: Early 1980s and Early 1990s.

	All Layoffs		Dismissals & Redundancies		Temporary Contracts	
Country	Trough 1980s	Trough 1990s	Trough 1980s	Trough 1990s	Trough 1980s	Trough 1990s
Belgium	1.1	3.0	0.5	1.7	0.4	0.8
Denmark	4.3	7.1	2.2	4.0	2.0	2.5
France	2.9	5.0	1.3	1.8	1.4	3.1
Germany	1.1	2.8	0.7	2.0	0.2	0.3
Greece	4.1	4.9	1.7	2.8	2.3	1.3
Ireland	3.4	3.3	2.5	1.8	0.9	1.4
Italy	1.4	2.3	0.5	0.8	0.8	1.4
Netherlands	3.1	1.7	2.8	1.2	0.0	0.1
Portugal	2.9	0.8	0.5	0.3	2.3	0.2
Spain	7.2	12.8	1.5	1.7	5.7	10.8
United Kingdom	2.2	2.7	1.8	1.8	0.9	1.2

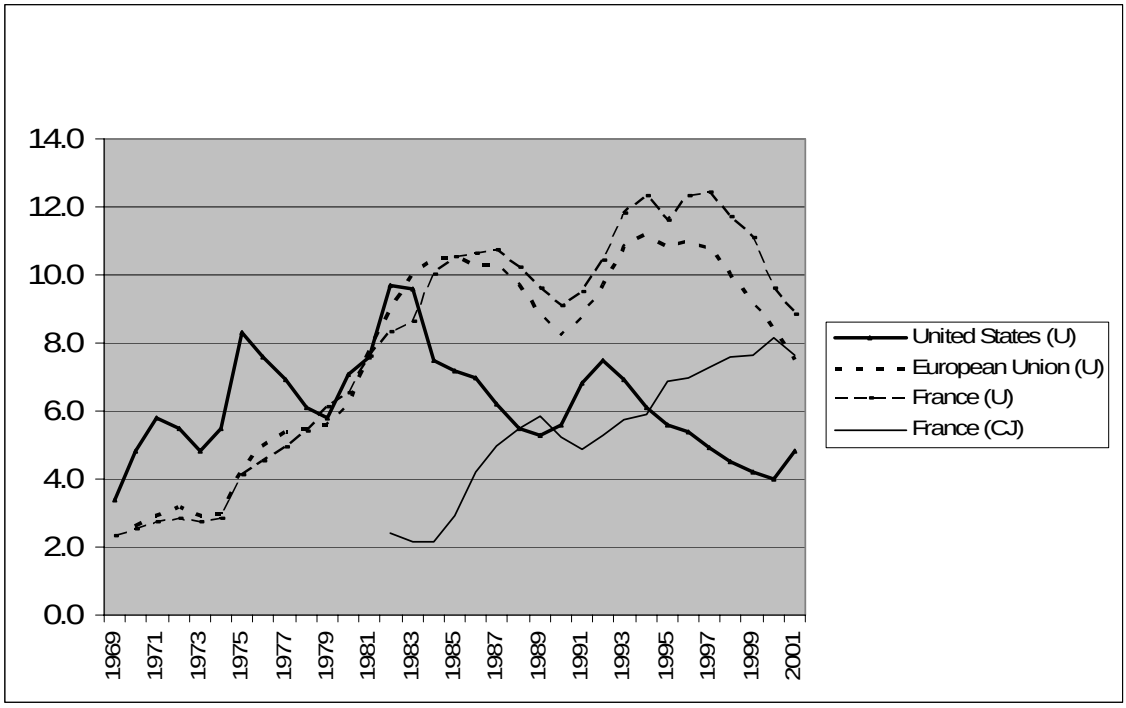
Source: OECD Employment Outlook 1997, based on unpublished data provided by Eurostat from the European Community Labour Force Survey.

Figure 1
90/10 Wage Ratio for the U.S. and Selected European Countries



Source: OECD Employment Outlook, Chart 1.10, annotated with American data from OECD (2003) and from the Bureau of Labor Statistics News Release on 1/16/04.

Figure 2. Unemployment and Contingent Job Rates, 1949 to 2001.



(U) Unemployment Rate
(CJ) Rate of Contingent Jobholding in France
Sources: OECD and the French labor force surveys.

Table A1. Consequences of Contingent Job, Unemployment, and Low-Tenure Status Two Years in the Future by Gender, for U.S. workers 29-41 years old.

		Conditional on Working at Time 2			Unconditional on Working at Time 2[a]		
	Employment	Wage	Wage Change	Change in ln(Wage)[c]	Wage	Wage change	Change in ln(Wage)[c]
Contingency							
All	-0.12**	-1.06	-0.23	0.03	-1.99**	-1.05	-0.08
(N=309)	(-3.7)	(-1.9)	(-0.3)		(-3.2)	(-1.6)	
(N=238)							
Men	-0.12*	-1.78*	0.51	0.01	-2.68*	-0.17	-0.12
(N=138)	(-2.5)	(-2.2)	(0.4)		(-2.6)	(-0.1)	
(N=109)							
Women	-0.12**	-0.48	-0.83	0.01	-1.47*	-1.74*	-0.06
(N=171)	(-2.7)	(-0.6)	(-1.0)		(-2.0)	(-2.2)	
(N=129)							
Unemployment							
All	-0.12**	-2.10**			-2.88**		
(N=731)	(-5.0)	(-3.7)			(-5.8)		
(N=545)							
Men	-0.17**	-2.12*			-3.60**		
(N=344)	(-5.1)	(-2.4)			(-4.7)		
(N=249)							
Women	-0.07*	-2.15**			-2.28**		
(N=386)	(-2.2)	(-3.0)			(-3.6)		
(N=296)							
Low Tenure[b]							
All	-0.04**	-0.25	0.88**	0.05**	-0.82*	0.38	0.03**
(N=2808)	(-4.0)	(-0.7)	(2.8)		(-2.4)	(1.3)	
(N=2401)							
Men	-0.04**	-0.30	0.80	0.06**	-0.32	0.50	0.04**
(N=1437)	(-3.1)	(-0.6)	(1.7)		(-0.6)	(1.1)	
(N=1271)							
Women	-0.04**	-0.84	0.97*	0.05**	-1.31**	0.26	0.02
(N=1371)	(-2.6)	(-1.9)	(2.4)		(-3.1)	(0.7)	
(N=1130)							

Note: Matching was done using a 0.25 caliper along with perfect matching on gender and survey year, and constrained matching on wages. See text for details.

[a] Those not working at time 2 are assigned a wage of 0.

[b] Contingent workers are excluded from these analyses.

[c] The median differences are reported here. See text for details.

Source: NLSY79 data for 1994-2000.

T-values in parentheses

* = p < .05, ** = p < .01, two-sided.

N is the number of matched pairs of observations– The first N is for the "Conditional on working at time 1" sample, and the N below it is for the "Conditional on working at time 1 and 2" sample.

Table A2. Consequences of Contingent Job, Unemployment, and Low-Tenure Status Four Years in the Future by Gender, for U.S. workers 29-39 years old.

		Conditional on Working at Time 2			Unconditional on Working at Time 2[a]		
	Employment	Wage	Wage Change	Change in ln(Wage)[c]	Wage	Wage Change	Change in ln(Wage)[c]
Contingency							
All	-0.03	-1.44	-0.68	0.02	-1.61	-1.10	0.03
(N=216)	(-0.9)	(-1.6)	(-0.6)		(-1.8)	(-1.0)	
(N=182)							
Men	-0.08	-2.77	-0.11	0.03	-3.43	-1.15	0.03
(N=97)	(-1.4)	(-1.5)	(-0.04)		(-1.9)	(-0.5)	
(N=84)							
Women	-0.001	-0.41	-1.17	0.01	-0.23	-1.09	0.03
(N=119)	(-0.01)	(-0.5)	(-1.2)		(-0.3)	(-1.2)	
(N=98)							
Unemployment							
All	-0.05	-2.04**			-2.20**		
(N=539)	(-1.9)	(-3.2)			(-3.3)		
(N=429)							
Men	-0.06	-2.29*			-2.68*		
(N=257)	(-1.5)	(-2.1)			(-2.3)		
(N=209)							
Women	-0.04	-1.52*			-1.61*		
(N=281)	(-1.1)	(-2.4)			(-2.4)		
(N=219)							
Low Tenure[b]							
All	-0.04**	0.15	1.06*	0.04*	-0.44	0.73	0.02
(N=1958)	(-3.2)	(0.4)	(2.5)		(-1.1)	(1.8)	
(N=1692)							
Men	-0.04**	0.27	0.88	0.02	-0.39	0.45	0.01
(N=1013)	(-2.7)	(0.4)	(1.4)		(-0.6)	(0.7)	
(N=896)							
Women	-0.04	-0.01	1.27*	0.05*	-0.50	1.02	0.03
(N=945)	(-1.9)	(-0.02)	(2.4)		(-1.0)	(1.9)	
(N=796)							

Note: Matching was done using a 0.25 caliper along with perfect matching on gender and survey year, and constrained matching on wages. See text for details.

[a] Those not working at time 2 are assigned a wage of 0.

[b] Contingent workers are excluded from these analyses.

Source: NLSY79 data for 1994-2000.

T-values in parentheses

* = $p < .05$, ** = $p < .01$, two-sided.

N is the number of matched pairs of observations – The first N is for the "Conditional on working at time 1" sample, and the second N is for the "Conditional on working at time 1 and 2" sample.

Table A3. Consequences on Employment in 1993 and Total Compensation in 1992 of Contingency, Unemployment and Low Tenure in 1988 by Gender, for French Workers 29-39 Years Old in 1988

	Employment in 1993	Total compensation in 1992 (in 1,000s of FF)	Natural log of total compensation in 1992 (in 1,000s of FF)[b]
Contingency in 88			
All	-0.12**	-22.79*	-0.29*
(N=117)	(-3.2)	(-2.4)	
Men	-0.15**	-18.76	-0.31*
(N=52)	(-2.7)	(-1.6)	
Women	-0.09	-26.01	-0.13
(N=65)	(-1.8)	(-1.8)	
Unemployment in 88			
All	-0.08*	-39.18**	-0.51**
(N=148)	(-2.4)	(-6.2)	
Men	-0.02	-43.99**	-0.42**
(N=65)	(-0.3)	(-4.0)	
Women	-0.13**	-35.40**	-0.54**
(N=83)	(-3.2)	(-5.4)	
Low tenure in 88[a]			
All	-0.03	-9.64	-0.13
(N=289)	(-1.2)	(-1.4)	
Men	-0.03	-6.38	-0.12
(N=191)	(-1.0)	(-0.7)	
Women	-0.03	-15.99	-0.15
(N=98)	(-0.7)	(-1.8)	

Source: FQP Survey 1993, INSEE.
[a] Contingent workers are excluded from these analyses.
[b]The median differences are reported here. See text for details.
T-values in parentheses
* = p < .05, ** = p < .01, two-sided.
N is the number of matched pairs of observations