



Societal and economic effects on quality of life and well-being: preference identification and priority setting in response to changes in labour market status



A project supported by the European Commission through the Fifth Framework Programme "Improving Human Potential" (contract number: HPSE-CT-2002-00143).

"We must meditate on what brings happiness, since if we have that, we have everything.
And if we have not, all our energies are directed at gaining it."
Epicurus (Letter to Menoeceus: The Happy Life)

EPICURUS Newsletter No. 3, December 2005

Contents

- Foreword
- Coordination of **EPICURUS**
- **EPICURUS** project objectives
- **EPICURUS** events
- Work and well being. The focus of **EPICURUS** research
- **EPICURUS** key findings
- **EPICURUS** research papers
- The **EPICURUS** Project Dataset (EPD)
- Policy contribution
- Next **EPICURUS** event
- Project timetable and outcomes
- **EPICURUS** participants
- Visit the **EPICURUS** website

Foreword

This project has been funded under the European Union Improving Human Potential programme entitled Societal and economic effects on quality of life and well-being: preference identification and priority setting in response to changes in labour market status (EPICURUS) contract number HPSE-CT-2002-00143. This three-year and six months project commenced on 1st of November 2002, and is a Research and Technological Development (RTD) project.

Coordination of EPICURUS

The EPICURUS project is coordinated by Professor Ioannis Theodossiou at the Centre for European Labour Market Research (CELMR) at the University of Aberdeen Business School.

EPICURUS project objectives

The project aims to answer the following high-level questions:

- How do working patterns (and changes in them), social norms in the workplace and inequalities in

socio-economic status affect the quality of life and well being of individuals across different EU countries?

- How does job satisfaction influence the quality of life and well being of individuals across different EU countries, given different social norms?
- How can we improve our understanding and assessment of how people change their perceptions of their quality of life and well being in response to changes in labour market status and social norms by eliciting their preference priority setting behaviour?

EPICURUS events

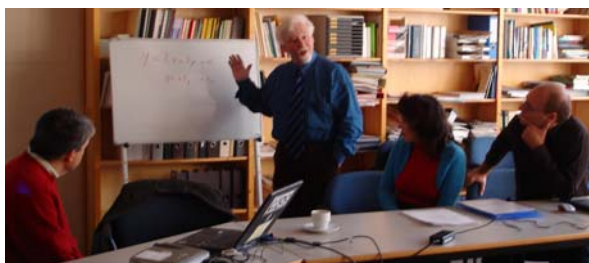
The EPICURUS team has met in Amsterdam, and successfully delivered on time all deliverables to date. A substantial amount of output has been disseminated in learned articles and academic conferences. A selection of these are detailed below. In November 2005 a workshop took place at the University of Amsterdam, the Institute for Advanced Labour Studies, The Netherlands to discuss about the analysis of the unique EPICURUS dataset. The meeting was very productive and the whole EPICURUS year has been a success in contributed to new data data analysis, determination of the next steps in EPICURUS and project co-ordination.



The EPICURUS team, University of Amsterdam 2005.

Work and well being. The focus of EPICURUS research

Modern job markets are increasingly characterized by a heightened demand for versatile skills, working time flexibility and occupational or geographical mobility. It has become widely acknowledged that workers in European economies have become more constrained in their activities by time considerations and quality procedures. In this framework, the investigation of the effects of socio-economic status and working patterns on individuals' quality of life and well being is an issue of policy concern and deserves attention. In addition, since work is an overwhelmingly important part of most individuals' lives, the satisfaction they derive from work is a major determinant of their quality of life and sense of well-being. Job satisfaction is medium through which the effects of working conditions and occupational characteristics flow in order to determine to a substantial degree the quality of life and the sense of overall well being for employed individuals. These issues are the focus of this project.



The EPICURUS team analysing the unique EPICURUS dataset.

EPICURUS key findings

1. In most countries the high educated have a significantly lower level of job satisfaction and/or the low educated have a higher level of job satisfaction.
2. Wages are generally considered to have a positive impact on job satisfaction. Uniformly across all countries, a higher transitory wage (a higher wage in the period in question compared to the individuals mean wage level) has a significantly positive effect on job satisfaction. However, the results highlight the concept of "rising expectations" since it is found that in some countries there

is a significantly negative effect of permanent wages.

3. The relation between type of occupation and level of job satisfaction is found to be one of the strongest and most consistent cross-country results. It points to the importance of the type of job as a main determining factor of job satisfaction – and hence of the quality of the job.
4. Voluntary part time workers generally have a higher job satisfaction than full time workers while involuntary part time workers generally have a lower job satisfaction.
5. Health status is one of the most significant factors in determining job satisfaction
6. Individuals who, due to sickness or disability, are unable to work full times appear to report a marked improvement in their life satisfaction if they are able to be active in the labour market as part time workers. Hence, if labour markets accommodate individuals who are unable to work full time due to ill health there will be a direct gain for society in terms of lower transfer payments as well as in terms of increased satisfaction and well-being of the sick or handicapped workers.
7. Changing working patterns affect the social norms in the workplace through adaptation.
8. Ex ante hypothetical valuations of job or life situations and conditions faced by individuals and revealed ones do not differ. This is a major finding of our experimental study, as it confirms the reliability of subjects' responses to valuation questions framed as judgements on hypothetical labour market conditions.
9. Employees strongly desire jobs that provide security in their employment. This is evident by the fact that riskless permanent contracts are the most preferred contracts on average, while temporary contracts leading to unemployment provide the largest disutility.
10. The analysis validates the traditional microeconomic postulate that higher wages provide additional utility to rational workers (monotonicity). Nonetheless, it refutes the second traditional assumption of the labour-leisure tradeoff model, which asserts that more working hours at any level will enhance employee disutility. On the contrary, an inverse U-shaped relationship is found, which suggests that up to some threshold individuals derive 'value' from jobs that involve more hours of work. This result does provide some support to the idea that people derive a sense of 'intrinsic enjoyment' from their work, so that, all other things constant, they are willing to exert more effort (hours) up to a certain range.

11. European employees declare a strong aversion to the uncertainty and restraint that is associated with rotating shifts and with having ones' working times determined by the employer.
12. Rules that constrain the scope of the worker's autonomy are seen as a positive asset by European workers, since to be given fixed tasks and freedom to decide when and how the execution of the task should be done is preferred to having complete control over the contents of the work. This result might arise due to the fact that when the tasks become more complex, positive involvement can degenerate in pain if internal pressure of time and responsibility accumulates.
13. workers do not seem to be significantly concerned with the existence of teamwork in their workplaces, despite the widespread popularity of 'teams' as a form of personnel management within firms. This potentially reflects the employees' beliefs that teamwork negates their decision-making independence, while it is also well-documented experimentally that individuals loathe the free-riding that takes place within teams.
14. Training possibilities, in particular those that last for a significant amount of time, are seen as a desirable attribute of the job.
15. A consistent finding of this research, and one which is particularly worrying in the face of the adverse demographic evolution of European economies, is that employees express a strong desire for early retirement plans at the age of 55 or 60. Thus, giving up the possibility of early retirement in the future is likely to come at a cost in terms of higher wages or some other work benefit such as lower work intensity or avoiding fixed job routines.
16. Jobs which involve loyalty on both sides of the employment relationship are valued highly by the employees
17. The results also provide support to the EU's concerns about the dramatic increase of stress-related illnesses in recent years, as they suggest that employees evaluate jobs with a high intensity of work, measured in terms of tight deadlines and/or high speed, very negatively.
18. The contribution of job satisfaction to overall life satisfaction and well-being is the highest, followed by satisfaction with family, with the use of leisure time, with health, with finance and with social life. Satisfaction with the amount of leisure, with environment and with the housing is the domains of satisfaction that have the lowest contribution to the overall life satisfaction and well-being.

EPICURUS research papers

A. Ferrer-i-Carbonell, B. M.S. Van Praag, and I. Theodossiou, 2005. Image and Reality: the Case of Job Satisfaction.

This paper operationalizes two types of utility derived from work. One is the ex post utility that workers derive from their present job. The other is the utility one assigns to a job before performing it. As usual in the literature, the first type of utility is empirically estimated by using a subjective question on job satisfaction. To study the ex ante utility this study resorts to a stated preference methodology known as conjoint analysis. At this stage of the growing subjective well-being research agenda, the proposed distinction is fundamental. Information on the utility experienced by individual contributes to welfare analysis. The ex ante utility can be used to understand why people take certain decisions and knowledge of it is needed for predicting individual behavior. The results suggest that there are distinctive differences between the two utility concepts.

A. Nikolaou, I. Theodossiou, E. Vasileiou "Does Job Security Increase Job Satisfaction? A Study of the European Experience.

The marked changes in European economies during the last quarter of the twentieth century, with the emphasis on technology and innovation were accompanied by an increase in the so-called labour market flexibility (Harrison, 1998). When assessing the desirability of labour market reforms towards flexible labour market policies, the issue of job insecurity and its effects on job satisfaction are important to policy makers as low job satisfaction implies lower productivity (Wright et al, 2002). Thus, Brockner (1992) found that workers in firms which were downsizing through redundancy schemes suffered from decreased motivation, morale, confidence and increased stress, which were labeled as the "Survivor Syndrome". Green et al, (2000) showed that job insecurity is harmful for welfare, having repercussions on mental health of employees and their families. The aim of this study is to assess the effect of job insecurity on job satisfaction. An issue that is largely ignored in the literature is that job security may affect workers' job satisfaction but it may also be the case that dissatisfied workers may face an increased risk of losing their job, hence facing greater job insecurity the repercussions. Thus, this study takes into account the endogenous nature of this relationship. The results show that,

after controlling for endogeneity, job security has a strong and significant positive effect on job satisfaction.

Theodossiou I. et al 2005. Individuals Stated Job Preferences: A Conjoint Analysis Approach.

This paper aims of detecting any common patterns and explaining any differences in the preferences of European workers. Beginning with the utility derived from the form of the contractual agreement, a number of interesting patterns emerge. Perhaps the most indisputable finding is the fact that European employees strongly desire jobs that provide security in their employment. This is evident by the fact that riskless permanent contracts are the most preferred contracts on average, while temporary contracts leading to unemployment provide the largest disutility. Moreover, it is also apparent by the fact that in France, Greece, Spain and Finland, workers express a dislike for temporary contracts that do not lead to permanency, while in all countries risky permanent contracts with no economic compensation are consistently evaluated quite low. These results are particularly important, given the rapidly changing face of European workplaces towards more flexible and insecure employment practices. Nevertheless, the strong preference for temporary agreements that can be seen in the highly flexible Danish, Dutch and British labour markets, might be indicative of the fact that workers in these countries are willing to take up such working arrangements voluntarily. This will be the case if they perceive such fixed-term contracts as providing them with the necessary flexibility to determine their own life-cycle balance, without coming at the cost of precarious and low quality employment.

The output of our conjoint analysis procedure validates the traditional microeconomic postulate that higher wages provide additional utility to rational workers (*monotonicity*), as this was found to be the case in all 7 countries that were examined in this study. Nonetheless, it refutes the second traditional assumption of the labour-leisure tradeoff model, which asserts that more working hours *at any level* will enhance employee disutility. On the contrary, we find an inverse U-shaped relationship with the vignette evaluation for all countries, which suggests that up to some threshold individuals derive 'value' from jobs that involve more hours of work. This result does provide some support to the idea that people obtain a sense of 'intrinsic enjoyment' from their work, so that, all other things

constant, they are willing to exert more effort (hours) up to a certain range. The threshold ranges from 25 to 30 hours, with the Spaniards and the Brits being on the lower bound, and the Scandinavians with the Dutch being the ones most happy to work extra hours. With respect to the format of their working hours, European employees declare a strong aversion to the uncertainty and restraint that is associated with rotating shifts and with having ones' working times determined by the employer. Apart from this common pattern, though, there is a discrepancy since the Scandinavians and the Brits prefer flexible working times, while the employees of the remaining countries state a preference for standard office hours.

The preference for autonomy in the workplace can also be seen by the fact that the employees of our sample declare a significant distaste for engaging in fixed routines. Nevertheless, with the exception of the Scandinavians, rules that constrain the scope of the worker's autonomy are seen as a positive asset by European workers, since to be given fixed tasks and freedom to decide when and how the execution of the task should be done is preferred to having complete control over the contents of the work. This result might arise due to the fact that when the tasks become more complex, positive involvement can degenerate in pain if internal pressure of time and responsibility accumulates.

Remarkably, workers do not seem to be significantly concerned with the existence of teamwork in their workplaces, despite the widespread popularity of 'teams' as a form of personnel management within firms. This potentially reflects the employees' beliefs that teamwork negates their decision-making independence, while it is also well-documented experimentally that individuals loathe the free-riding that takes place within teams. British workers appear to be the only ones who seem to appreciate the challenge and new experiences that are associated with being placed in varying teams.

Training possibilities, in particular those that last for a significant amount of time, are also seen as a desirable attribute of the job. Jobs which involve loyalty on both sides of the employment relationship are also quite attractive. Another consistent finding of our research, and one which is particularly worrying in the face of the adverse demographic evolution of European economies, is that employees express a strong desire for early retirement plans at the age of 55 or 60 (and in the case of the Netherlands and the UK workers would even prefer a forced stop to their

working lives!). In terms of policy-making, this would therefore suggest that giving up the possibility of early retirement in the future is likely to come at a cost in terms of higher wages or some other work benefit such as lower work intensity or avoiding fixed job routines. Finally, our empirical results also provide support to the EU's concerns about the dramatic increase of stress-related illnesses in recent years, as they suggest that employees evaluate jobs with a high intensity of work, measured in terms of tight deadlines and/or high speed, very negatively.

A. Skalli, I. Theodossiou and Vasileiou E. "Jobs as Lancaster Goods: Facets of Job Satisfaction and Overall Job Satisfaction"

Job satisfaction is an important, readily available measure of the worker's utility derived from the job and therefore reflects a number of supply side features of the labour market. Moreover, it allows the identification of those characteristics which have a differential impact on the worker's utility. This is important since higher job satisfaction is likely to result in higher performance at work, decreased absenteeism and tardiness (Lawler & Porter, 1967; Locke, 1969, Scitovsky (1976); Hamermesh, 1977; Freeman, 1978; Borjas, 1979). There are a number of empirical studies which investigate the effect of individual and job characteristics on job satisfaction (Clark & Oswald, 1996; Groot & Van de Brink, 1999; Lydon & Chevalier, 2002 and Sousa-Poza and Sousa-Poza, 2000 among others). However, the fundamental assumption of this literature, that individuals make a judgement about their job as a whole, does not explicitly allow for the possibility that an individual remains equally satisfied with her or his job when certain of the facets of job satisfaction change, for example, when working conditions deteriorate but this is accompanied by a compensating wage increase in a way that the overall job satisfaction remains the same. Hence, overall job satisfaction can be viewed as a weighted outcome of the individual's job satisfaction with each one of the facets. This assumption is similar to Lancaster's theory of consumption behaviour (Lancaster, 1966, 1977). In this approach, each job has a number of properties or facets from which utility is derived. The different mix of such properties leads to a differentiated job. Thus, two different mixes of characteristics for the same job may be viewed by the worker as equally attractive, provided that a low content in one desirable property is compensated by an increase in another. By considering the mix of properties, the intrinsic qualities of individual jobs can be incorporated

into the analysis. The same stated job satisfaction level can be obtained through different combinations of job facets reflecting intrinsic and extrinsic features of the job. This approach to investigating job satisfaction is better suited to address a number of important issues such as the effects on job satisfaction of the major changes of work organisation that firms have experienced during the last three decades. These changes have had an impact on pay practices, job contents, working conditions and environment and job security (Lindbeck and Snower, 1996, Blanchflower and Oswald, 1999; Aarason & Sullivan, 1998; Nickell et al, 2002).

The analysis in this paper is based on the European Community Household Panel and covers 10 EU countries over the period 1994-2001. One advantage of these data is that they provide information on overall job satisfaction, but also on intrinsic aspects such as satisfaction with the type of work as well as extrinsic aspects such as satisfaction with working conditions, with working time, with job insecurity and with earnings. The analysis differs from the literature in that it develops a two-layer model where the job satisfaction is viewed as an aggregate concept consisting of different components or facets. The results show that satisfaction with different facets of jobs are interrelated and the reported overall job satisfaction depends on the weight which is attached to each of these facets by the individual worker. The study attempts to identify the national specificities in terms of the individual and job characteristics effects on the facets of job satisfaction. The econometric methodology accounts for unobserved sources of individual heterogeneity and for time-specific effects.

Theodossiou, I. and Zangelidis, A. Do Career Prospects make happy workers? Evidence from Panel Data.

A number of studies have examined the utility from work and the effect that various socio-demographic, economic and workplace characteristics have on job satisfaction. One prominent finding in the literature is the importance of job security on job satisfaction. This paper further explores this avenue and investigates the relationship between career profile, job tenure and job satisfaction. This paper investigates the relationship between career profile, job tenure, earnings and job satisfaction utilising the British Household Panel Survey Dataset (BHPS). Career status is modelled as an endogenous variable, subject to an initial job choice and the potential endogeneity of the tenure-earnings and tenure-job satisfaction relationship is taken into account by the use of

instrumental variable estimation. In particular, this study makes a distinction between jobs with career development opportunities and jobs without career prospects and explores the tenure-job satisfaction profiles in this two-tier labour market framework. Individuals in jobs with career prospects are estimated to enjoy higher levels of job satisfaction compared with the remainder. Furthermore, the effect of the interaction between career prospects and employer-tenure on job satisfaction reveals two distinct paths. Employees in jobs where no career prospects are offered do not appear to enjoy higher levels of job satisfaction with accumulated tenure. Apparently the lack of career development opportunities in the current employment implies that workers do not gain any additional utility by spending an extra year with their employer. The tenure-job satisfaction profile is different in the case of individuals in jobs with career prospects. The findings suggest a U-shaped relationship between tenure and job satisfaction. Although initially workers experience a declining utility from work, as the employment relationship matures career development opportunities become available to them and they progressively gain higher levels of job satisfaction. Why do the above matter? First, an inclusion of the cost of job dissatisfaction is essential when one analyses and assesses the productivity enhancing job design. After all, job satisfaction is strongly related to the worker's productivity (Clegg (1983), Eagly and Chaiken (1993)). Second, taking account the effect that a dead-end non-career job has on the job satisfaction of the worker who is employed on this job may provide a promising avenue when policy makers or human resource managers formulate policies aimed at motivating the workforce. The implications of the results of this study suggest that although non-career employment paths may offer some flexibility to the firm in adjusting the size of the workforce on demand, it also has an adverse effect on the job satisfaction which workers derive from their jobs and hence lowers their productivity.

Vasileiou E. Workers Stated Preferences on Wages Premiums and Job Satisfaction for Dangerous Jobs. Evidence from the European Labour Market.

Over the last decade, the labour market environment has changed due to the increased labour market flexibility and the intensification of work. This dramatic increase of the use of flexible employment practices and flexible contracts designed to accommodate the changing demand conditions are accompanied by the

deterioration in working conditions (European Commission; 2001). Even if employees are satisfied with working conditions in general (80% confirm high satisfaction level), 10 % of European workers complained of a lack of information on work-related risks. According to the Third European Survey on Working Conditions more than a quarter of the workers in E.U believe that working conditions including health and safety have decrease (from 30% in 1990 to 27% in 2000). It is found also according to the same report that over the last years there has been no progress in the physical working conditions with an increasing part of workers exposed to noise, tiring positions and stress.

The satisfaction obtained from a job is directly affected by its inherent risk. Knowing that there is a high probability of being killed or suffering physical damage may decrease motivation (except for risk lovers). Therefore, these types of jobs are usually associated to high salaries to compensate the "disadvantages" and the risks. Empirical research has clearly shown (Viscusi, 1993; Wei, 1999 for UK workers;) that workers in dangerous jobs are considerable overpaid in comparison with any other workers because the risk of fatal injury or death is always present. Yet, the question is whether or not high-risk jobs derive any satisfaction at all. From a psychological perspective, it is possible to assume that these jobs do not produce any satisfaction, as there is a feeling of insecurity constraining the prospects for future career development due to the likelihood of having an accident. In economics, the debate focuses on workers' willingness to pay for safety improvement and the problem has been tackled using cost-benefit analysis (Viscusi, 1993).

The purpose of this study is twofold. Firstly it is investigate whether there are compensating wage differentials paid for workers in dangerous jobs and secondly, it is examined whether workers' job satisfaction signals that they are sufficiently compensated for this disamenity. It is important to have accurate estimates of the extent to which markers do compensate workers for dangerous jobs. This study provides new estimates of the compensating differential in the European Labor Market that are derived from a model that examine at the same time the effects of worker's job satisfaction on the wage premium for job hazards. Wage equations and job satisfaction equations are estimated for five European Countries for dangerous job in the framework of switching regression model. In this study the Epicurus dataset are used.

Theodossiou I. and Vasileiou E. Making the Risk of Job Loss a Way of Life: Does it Affect Job Satisfaction?

This study investigates the relationship between job satisfaction and job security in European countries. In doing so, it attempts to take into account the endogenous nature of the job security – job satisfaction relationship after controlling for the various economic and personal characteristics. The results show that, even after controlling for endogeneity, using both a conventional IV approach and a selection model, workers in jobs with low likelihood of job termination derive higher utility from work compared to the workers in insecure jobs. This appears to be the case for both men and women.

A. García-Gallego, N. Georgantzis, G. A. Panos and I. Theodossiou. Ultimatum salary negotiation and preference elicitation in experimental labour markets with a real task

This study attempts to obtain an insight into how market conditions affect behaviour and outcomes in real task experimental labour markets. We propose an abstract environment called a Salary Negotiation Experiment with a Real Task (SNERT). Under investigation are phenomena underlying real world labour markets, such as the worker's reservation salary, the role of unemployment, long-term contracts and market efficiency. The relationship between the functioning of markets and the ex ante hypothetical evaluation of them is examined, along with an incentive compatible mechanism, designed to elicit real valuations of the aforementioned environment.

A. García-Gallego, N. Georgantzís, M. Ginés-Vilar and A. Jaramillo-Gutiérrez. Gender and Risk Attitudes in Salary Bargaining Experiments.

We study risk aversion as a cause of gender differences in ultimatum bargaining. It has often been conjectured in the literature that gender differences in bargaining experiments are partly due to differences in risky decision making. Using the data obtained from our experimental sessions with Spanish subjects, we are able to disentangle risk-related and genuinely gender-specific effects in ultimatum bargaining. We confirm the broadly accepted result that women are more risk averse than men. Gender differences in both employer and employee-subjects' behavior remain significant after risk attitudes are accounted for. Specifically, female

employers offer lower wages and female employees reject more than males do. Given that risk aversion per se is found to have the opposite effects, we conclude that the reported gender differences are not because of but rather despite females' higher risk aversion.

A. Garcia-Gallego, N. Georgantzis, M. Gines-Vilar and A. Jaramillo-Gutierrez. Cultural and Risk-related Determinants of Gender Differences in Ultimatum Bargaining

We study culture and risk aversion as causes of gender differences in ultimatum bargaining. Gender effects are found to depend also on cultural differences. In sessions with Greek and Spanish subjects we obtain gender differences of the same sign and similar sizes, whereas British females' behavior differs from that of males only in the case of employee subjects and in the opposite direction to the gender effect reported on subjects Greece and from the two Mediterranean countries. It has often been conjectured in the literature that gender differences in bargaining experiments are partly due to differences in risky decision making. Using the data obtained from our experimental sessions with Spanish subjects, we are able to disentangle risk-related and genuinely gender-specific effects in ultimatum bargaining. We confirm the broadly accepted result that women are more risk averse than men. Gender differences in both employer and employee-subjects' behavior remain significant after risk attitudes are accounted for. Specifically, female employers offer lower wages and female employees reject more than males do. Given that risk aversion per se is found to have the opposite effects, we conclude that the reported gender differences are not because of but rather despite females' higher risk aversion.

van Praag, B.M.S. and Ferrer-i-Carbonell, A. Happiness Quantified: A Satisfaction Calculus Approach Oxford University Press, Oxford: UK. (This book has received press attention in the Netherlands).

A. Ferrer-i-Carbonell, B. M.S. Van Praag, The impact of the type of contract on job satisfaction: A EU-country comparison study.

In recent years European countries have seen an increase in temporary labour contracts. In this paper, we examine in how far the type of labour contract affects the individual's job satisfaction. The results indicate that the effect of fixed-term

contracts on job satisfaction varies largely across countries. For Spain and Italy, temporary contracts (fixed-term and casual contracts) are strongly negatively correlated with job satisfaction. For Denmark, France, and to a lesser extent the Netherlands, this relationship is not found. The empirical analysis is based on five countries participating in the European Community Household Panel, namely Denmark, France, Italy, the Netherlands, and Spain. The period studied covers the years from 1995 to 2001.

N. Datta Gupta and N. Kristensen. Work Environment and Employee Health - Panel evidence from Denmark, France and Spain, 1994-2001.

This paper investigates whether or not a good work environment can promote employee health even after controlling for socioeconomic status and life style factors. A dynamic panel model of individual health is estimated on worker samples from Denmark, France and Spain, 1994-2001, employing both self-assessed and objectively measured health. In all three countries, across all worker groups and under both types of health measures, we find that after controlling for observed characteristics, unobserved heterogeneity and reverse causality, a good work environment significantly promotes individual worker health. In fact, having a good work environment is found to be at least as important for employee health as socioeconomic factors. This effect is robust to the inclusion or exclusion of life style factors in the analysis. Our findings suggest that investing in a better work environment could be a low-cost way of improving employee health.

N. Kristensen and N. Westergård-Nielsen. Job satisfaction and quits. Which job characteristics matters most?

This paper seeks to analyse the role of job satisfaction on quits. Various job satisfaction domains are ranked according to their ability to predict quits. Satisfaction with Type of Work is found to be the most important job characteristic in Denmark while satisfaction with Job Security is found to be insignificant. These results hold across age, gender and education sub-groups and are opposed to results for UK, where Job Security is found to be the most important job domain. This discrepancy between UK and Denmark might be due to differences in unemployment insurance benefits and indicates that there are "invisible" benefits inherited in the

welfare state insurance system because employees in Denmark don't worry about job security. The idea that a generous welfare programme has an impact on the well-being of all insured, and not just the current beneficiaries, is an important but usually neglected argument in favour of the welfare state.

N. Kristensen and N. Westergård-Nielsen Reliability of Job Satisfaction Measures.

In this paper we evaluate consistency in answers to subjective questions about job satisfaction, and explore the implications of any inconsistencies. We do this by analyzing a cross-country data set for 6 EU countries where respondents were posed the same question about overall job satisfaction twice within the same questionnaire. We find that, on a 0-10 point ordered utility scale, 80 percent either classify themselves identically or in the immediate adjacent, and that the differences in classification are symmetric around zero. Furthermore, we find that highly satisfied workers report most consistently. When job satisfaction is used as an explanatory variable we show how OLS parameter estimates provide a lower bound and IV estimates an upper bound of the true estimate – and that the bounds are fairly tight. When job satisfaction is used as dependent variable we generally find high consistency when parameters are highly significant in both models, while less significant or insignificant parameter estimates may change considerably. This indicates that higher significance standards may be advisable in analyses with satisfaction measures as dependent variable compared to more traditional models that are not based on subjective data.

J. Lanfranchi and M. Laruégnat: intensity of work and its effect on mental stress and health: a European comparison.

Various studies have reported that, during the last decade, workers have suffered from an increase in the intensity of work in Europe (Green and McIntosh, 2001). Hard work and stress have been identified as determinants of the decreasing quality of jobs (Clark, 2005). In this study, we want to assess if the extent of work intensity also implied a decrease in the health status of the workers in Europe. This question is seen as important considering that among the various determinants of happiness, health is consistently ranked among the first together with job and financial situation (van Praag, Frijters and Ferrer-i-Carbonell, 2002). To do so, we use the EPICURUS dataset to empirically model four

health measures. The first three are measuring health aspects at work, that are the satisfaction with stress in the job and the number of absence episodes due respectively to work accidents and illness related to work. The last one is the subjective evaluation of health in general. The results we have obtained so far confirm that those four variables are consistently explained by the quality of the working conditions, the pace of work and the balance between work load and initiative in the job.

Pouliakas, K. and Theodossiou, I., Confronting objections to performance pay: An analysis of the incentives-job satisfaction relationship after controlling for endogeneity.

The increasing interest in performance-related pay (PRP) schemes has recently raised concerns regarding their potential corrosive effect on intrinsic job satisfaction, or the security of employment. This study confronts these fears by correcting for the endogenous impact of PRP on job satisfaction and satisfaction with various facets of jobs, namely total pay, job security, and the actual work itself. Using the British Household Panel Survey (BHPS), it is shown that PRP increases the satisfaction of workers with their pay and the work itself, without coming at the cost of greater dissatisfaction with job security. Non-economic arguments that incentive pay crowds-out the intrinsic satisfaction of jobs are therefore not supported, as are popular concerns regarding the adverse impact of PRP schemes on job security.

Pouliakas, K. and Theodossiou I. (2005). Socio-Economic Differences in the Perceived Quality of High and Low-Paid Jobs in Greece, *Economic Bulletin of the Bank of Greece*, Vol. 24, January, p. 91-132

Using data from eight waves (1994-2001) of the European Community Household Panel (ECHP), this study examines whether significant differences exist in the perceived quality of high and low-paid jobs in Greece. After correcting for the potential selectivity problem that is prevalent in the study of low pay status on job satisfaction, evidence is presented that low wage workers are significantly less satisfied with their jobs compared to their higher-paid counterparts. Further analysis of the specific facets of jobs reveals that the lower average satisfaction of low-paid employees in Greece arises not only due to their lesser pay, but mainly because of the inferior type of work that they perform, undesirable working hours and poor working

conditions. Low-paid workers in Greece therefore seem to suffer from a double penalty, as their jobs are also of bad quality. In view of this segmentation, combined with the fact that Greece remains a low wage economy, it becomes evident that policies that centre on the quality of jobs are of equal importance to those that focus on the level of pay that they provide.

Pouliakas, K. and Theodossiou, I. Socio-Economic Differences in the Perceived Quality of High and Low-Paid Jobs in Europe.

This paper investigates whether any significant differences in the perceived quality of high and low-paid jobs across six European labour markets exist. Utilizing data from six waves (1996-2001) of the European Community Household Panel (ECHP), and after correcting for the selectivity problem that is prevalent in the study of the effect of low pay status on job satisfaction, it is shown that, other things equal, low-paid employees are significantly less satisfied with their jobs compared to those who are high-paid in Greece, Spain, and Finland. In contrast, there appears to be an insignificant difference in the satisfaction of high and low wage workers in the United Kingdom, France and Denmark. The empirical evidence therefore suggests that low-paid jobs in the EU are not inevitably of low quality, though in some countries low wage workers have experienced the full brunt of both lower paid and bad quality jobs. For these countries policies that centre on the quality of jobs would be of equal importance to those that focus on the level of pay. A homogeneous policy of removing low wage employment through regulation, however, would not necessarily lead to improvement in the welfare of low-paid citizens across all European economies.

McCausland, W.D., Pouliakas, K. and Theodossiou, I. (2005), "Some are Punished and Some are Rewarded: A Study of the Impact of Performance Pay on Job Satisfaction", *International Journal of Manpower*, Vol. 26, Issue 7/8.

Using an econometric procedure that corrects for both self-selection of individuals into their preferred compensation scheme and wage endogeneity, this study investigates whether significant differences exist in the job satisfaction of individuals receiving performance-related pay (PRP) compared to those on alternative compensation plans. Using data from four waves of the British Household Panel Survey (BHPS), it

is found that PRP exerts a positive effect on the mean job satisfaction of (very) high-paid workers only. A potential explanation for this pattern could be that for lower-paid employees PRP is perceived to be *controlling*, whereas higher-paid workers derive a utility benefit from what they regard as *supportive* reward schemes. Using PRP as an incentive device in the UK could therefore be counterproductive in the long run for certain low-paid occupations.

Pouliakas, K. and Theodossiou, I. Rewarding Carrots, Crippling Sticks: Uncovering the Preferred Incentives of European Employees.

By relying on so-called stated choice methods, this study assesses the significance and infers the relative weights of various incentive mechanisms for the determination of ‘actual’ employees’ effort choices. The results, which are based on a newly generated dataset of lower and middle-skilled workers in 7 European countries (Denmark, Finland, France, Greece, the Netherlands, Spain and the U.K), suggest that (a) the primary determinant of the level of employee effort is the amount of discretion that is offered to the workforce; (b) pay incentives and reciprocal employer-worker behaviour as in Akerlof’s ‘gift exchange’ theory are considered by employees to be the most important factors for inducing marginal changes in their effort; (c) the use of ‘sticks’ (in the form of strict supervision and appraisals) is likely to be counterproductive; and (d) the division of labour associated with Tayloristic methods of production appears to be the least effective motivator among all considered. These results exhibit a remarkable robustness across the countries that have been examined. The expressed desire of employees for more autonomy, coupled with their aversion for rule by fear, gives credence to the contemporary fashion of “participative” management.

Panos, G.A., Theodossiou, I. and Nikolaou, A. Hedonic and envy effects on the utility from work: a study of the earnings Aspirations – Job Satisfaction Relationship.

This study attempts to obtain an insight into the earnings aspiration mechanisms and their relationship with job satisfaction. In doing so it uses an unbalanced sample of British employees from 11 waves of the BHPS. It investigates the effect of earnings on job satisfaction and assesses the effect of intra- and inter-individual earnings comparisons, as well as future expectations, on workers’ job satisfaction. This study provides

some new empirical evidence on the informational content of objective and subjective measures used to proxy worker earnings aspirations through the hedonic effect of earnings comparisons within and between individuals. Furthermore, in terms of methodological discussion, this study suggests the presence of a “tunnel effect” in the earnings comparisons between employees, in addition to the negative hedonic “envy” effect in the interdependent earnings preferences.

Concerning inter-individual comparisons, objective comparison measures provide both a positive and a negative effect on job satisfaction. This paper supports the informational content of objective measures of simple measures of relative earnings, such as mean earnings of employees with the same age, occupation and education in a specific year in capturing the negative hedonic interdependencies in the earnings preferences. Simple mean earnings of such broad groups capture the negative comparison earnings effect. It is also shown that besides envy, there exists a strong positive hedonic component on earnings comparisons reflecting either feelings of justice and fairness, or the positive effect from forward-looking information in an environment of personal equity. This effect is captured by using more detailed measures of relative earnings that may be assumed to be used by employees for comparisons, such as the earnings that an individual would expect to obtain, given his/her exact labour market characteristics. These may be approximated by the econometrically derived predicted earnings. In the relatively stable British economic environment there does not seem to be an issue of dominance between the two measures used to proxy the notions of a positive hedonic “tunnel-effect” and a negative hedonic “envy-effect” in inter-employee comparisons. Both effects are present in the formation of earnings aspirations. This contradicts the view that the “tunnel-effect” is weaker in economically stable societies, compared to post-war or post-revolutionary societies, and that the informational content of one’s peers’

The EPICURUS Project Dataset (EPD)

The EPICURUS team gave high priority to construct an identical questionnaire for the different seven countries. The cooperation through EPICURUS has given a unique opportunity to create an identical questionnaire that allows the study of the relationship between individual’s working situation and quality of life and the stated preferences of individual’s regarding the working conditions and job quality. The time investment on the coordination work

has been larger than originally thought but the obtained results have been very rewarding.

Policy contribution

The partnership is composed of established Research Institutes and Universities in the EU, all with a strong track record in socio-economics, and economic research. Together they offer the necessary range of interdisciplinary skills in economics and social sciences. The project will make a direct contribution to EU social objectives by identifying potential EU policies that most strongly affect quality of life and well being for EU citizens in relation to working patterns, social norms and labour market experiences.

Next EPICURUS event

Final Dissemination Conference, June 2006, Brussels,

Project Timetable and Outcomes

The progress of the research, reports produced and other relevant dissemination will be posted on the project website. The final report will be available in 2006.

EPICURUS website www.abdn.ac.uk/epicurus.

EPICURUS Partners

- **Centre for European Labour Market Research, University of Aberdeen, UK**
Professor Ioannis Theodossiou, Dr. W David McCausland.
- **Centre for Labour Market and Social Research, Aarhus school of Business, Denmark**
Professor Neils Westergaard-Neilsen, Professor Tor Eriksson.
- **The Research Institute of the Finnish Economy RIFE, Finland**
Dr Rita Asplund, Dr Edvard Johansson.
- **ERMES, Université Panthéon-Assas Paris II, France**
Associate Professor Ali Skalli, Associate Professor Joseph Lanfranchi.
- **Laboratorio de Economia Experimental, Universitat Jaume I, Spain**
Associate Professor Nikolaos Georgantzis, Associate Professor Aurora Garcia Gallego.
- **Amsterdam Institute for Advanced Labour Studies of the University of Amsterdam, The Netherlands**
Dr. Wiemer Salverda, Professor Van Praag and Dr Ada Ferrer-i-Carbonell.
- **University of Macedonia, Thessaloniki, Greece**
Associate Professor Angeliki Nikolaou, Professor Ioannis Theodossiou.



