Labour Market and Firm Behaviour

The central aim of the unit is to obtain new knowledge of the functioning of the labour market and firm's behaviour through econometric analyses of Statistics Norway's microdata, and to use this knowledge in analysing economic issues. In connection with this work, the unit also contributes to the development of relevant theories, methods and databases.

Main areas of research

- The relation between labour supply and business cycle conditions
- Labour supply effects of tax reforms
- Barriers to increasing female employment
- Firms' demand for heterogeneous labour
- Efficiency, growth and firm exit
- Measurement of capital and innovations
- Effects of fiscal incentives to R&D
- The choice of and returns to education
- Indicators for the performance of schools
- Education and inequality: Sorting, resources and outcomes
- Price index methods
- Econometric methods

Some highlights 2008

The effects of R&D tax credits on patenting and innovations

Norwegian business spending on R&D is low by OECD standards. To stimulate business R&D, in 2002 the Norwegian government introduced a tax-based incentive, SkatteFUNN. We analyze the effects of SkatteFUNN on the likelihood of innovating and patenting. Using a rich database for Norwegian firms, we find that projects receiving tax credits result in the development of new production processes and to some extent the development of new products for the firm. Firms that collaborate with other firms are more likely to be successful in their innovation activities. However, the scheme does not appear to contribute to innovations in the form of new products for the market or patenting.

Documentation: DP 565

A Labor Supply Modeling emphasizing Job-type as Choice Variable

Traditional labor supply analysis is based on the assumption that workers only have preferences over consumption and hours of work, and are able to choose consumption and hours freely within the budget constraint. Recently, various discrete choice versions of the traditional approach (with discrete hours) have become popular, but the basic assumption above is still maintained. Neither of these two approaches allows for agents'preferences over qualitative job-specific or choice restrictions facing the agents in the labor market in terms of restricted choice sets of job opportunities. In this paper we argue for an alternative modeling framework that differs from the standard models of labor supply in that the notion of job choice is fundamental. Specifically, the worker is assumed to have preferences over a latent worker-specific choice set of jobs from which he chooses his preferred job. A job is characterized with fixed (job-specific) working hours, wage rate and non-pecuniary attributes. As a result, observed hours of work and wage rate are interpreted as the job-specific (fixed) hours of work and wage rate associated with the chosen job. The discussion in this paper focuses on interpretation of different versions and extensions of the alternative framework, theoretical and practical advantages, and how this approach relates to familiar existing approaches in the literature.

Documentation: DP 550

Engel elasticities

Estimation of standard errors of Engel elasticities within the framework of a linear structural model formulated on two-wave panel data is considered. The complete demand system is characterized by measurement errors in total expenditure and by latent preference variation. The estimation of the parameters as well as the standard errors of the estimates is based on the assumption that the variables are normally distributed. Considering a concrete case it is demonstrated that normality does not hold as a maintained assumption. In the light of this standard errors are estimated by means of bootstrapping. However, one obtains rather similar estimates of the standard errors of the Engel elasticities no matter whether one sticks to classical normal inference or perform non-parametric bootstrapping.

Documentation: DP 532

Benefit shifting: The case of sickness insurance for the unemployed

This study describes the probability of transition from unemployment with unemployment insurance (UI to sickness insurance (SI), using a proportional hazard duration model and a large register-based dataset. The combination of limited UI duration and the fact that SI rights do not depend on remaining UI, creates an incentive to use SI to effectively extend UI. The separate effects of elapsed unemployment duration and of UI duration on hazard rates are identified through a reform of the UI system. The estimated hazard rate for transition from unemployment to SI increases sharply the last months before UI exhaustion. The spikes are larger for diagnosis for mental illness, and vary across individuals, but are present for all groups and all diagnoses.

Documentation: **Henningsen, M.:** Benefit Shifting: The Case of Sickness Insurance for the Unemployed. *Labour Economics* **15** (6), 2008, 1238-1269. [21]

Performance Pay and Within-Firm Wage Inequality

This paper examines the impact of performance-related pay on wage differentials within firms. Our theoretical framework predicts that, compared to a fixed pay system, pay schemes based on individual effort increase within-firm wage inequality, while group-based bonuses have minor effects on wage dispersion. Theory also predicts an interaction between performance-related pay and union bargaining, where union power reduces the impact of performance pay on wage dispersion. The empirical contribution utilizes two recent Norwegian employer surveys, linked to a full set of employee records. A longitudinal sub-sample allows for identification based on fixed establishment effects. Introduction of performance-related pay is shown to raise residual wage inequality in nonunion firms, but not in firms with high union density. Our findings suggest that even though performance-related pay appears to be on the rise, the overall impact on wage dispersion is likely to be small, particularly in European countries with strong unions.

Documentation: DP 535

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