**Department of Methods and Statistics- Utrecht University – the Netherlands**

The department of Methodology and Statistics participates in the Interuniversity Graduate School of Psychometrics and Sociometrics (IOPS). It is the largest department in its field in the Netherlands. It has many excellent researchers, its own MSc program "Methods and Statistics of Social and Behavioural Sciences" and a large amount of external funding. The quality of this department was rated as excellent by Quality Insurance Netherlands Universities (QANU, http://www.uu.nl/uupublish/content/AssessmentdoorQANU.pdf).

The department has a vacancy for a:

**PhD student on the project 'Improving statistical power in studies on event occurrence by using an optimal design' (1,0 fte)**

**Job description**
This project is funded by a VIDI grant from the Netherlands' Organization for Scientific Research (NWO). The PhD student will spend time on doing research, following mathematics and statistics courses of IOPS and other institutes, and spend about 10% of the time on teaching courses at the BSc level. The PhD student will be supervised by dr. M. Moerbeek (www.fss.uu.nl/ms/moerbeek).

The central question in studies on event occurrence is whether and when specific events occur. Examples are the age at which adolescents start experimental smoking and the age at which children start exposing anti-social behaviour. In such studies one can choose to measure study subjects continuously or once each time interval. For the latter method of measurement, optimal designs will be developed in this project. The PhD student will focus on the development of optimal designs for experimental studies with two qualitative treatments. Objective is to formulate guidelines with respect to the number of subjects, the number of measurements per subject, the optimal placement of measurements in time and the duration of the study. Drop-out and varying costs per treatment condition will be taken into account. Sample size calculations are too often done on an ad-hoc basis and this may result in under- or overpowered studies. It is therefore important to develop optimal designs in order to provide applied scientists with guidelines for the design of their studies on event occurrence.

The PhD student will write papers in international scientific journals, contribute to international conferences and write a PhD thesis.

**Qualifications**

- MSc in applied statistics, biometrics, biostatistics, econometrics, psychometrics or a related field with a solid background in applied statistics.

- Applicants should be familiar with the generalised linear model, matrix algebra, research designs and have some experience with computer programming.

- The applicant communicates easily in English, both verbally and in writing.

**Terms of employment**
We offer a temporary fulltime position of a year with -at good performance- the prospect of an extension with a maximum of three years (in total 4 years fulltime). The salary starts with € 2,042,- gross per month in the first year and increases to € 2,612,- gross per month

in the fourth year of employment at fulltime appointment (Collective Employment Agreement of the Dutch Universities). In addition, we offer good fringe benefits and a high-quality training program for PhD students.
(http://www.uu.nl/english > working > terms of employment)

Start date: winter 2008/2009.

**Further details**
Are you interested? For additional information about this position, please contact ms. dr. M. Moerbeek (supervisor), phone +31-(0)30 253 1450, e-mail M.Moerbeek@uu.nl.
(http://www.fss.uu.nl/ms/moerbeek)

**How to apply**
Please send your written application, with motivation, curriculum vitae and addresses of two references before **October 30th, 2008** and specifying vacancy number **69832**.

Applications can be e-mailed to: PenO-FEZ-FSW@fss.uu.nl or be sent to:

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