

Working Paper No. 16 (Summary)

ENGLISH ONLY

**UNITED NATIONS STATISTICAL COMMISSION and
ECONOMIC COMMISSION FOR EUROPE
CONFERENCE OF EUROPEAN STATISTICIANS**

**EUROPEAN COMMISSION
STATISTICAL OFFICE OF THE
EUROPEAN COMMUNITIES (EUROSTAT)**

Joint ECE/Eurostat work session on statistical data confidentiality
(Luxembourg, 7-9 April 2003)

Topic (v): Risk assessment

ON DISCLOSURE RISK MEASURES AND THEIR ESTIMATES

Invited paper

Submitted by the Central Bureau of Statistics and Hebrew University (Israel)¹

¹ Prepared by Yosi Rinott (rinott@mssc.huji.ac.il) and Natalie Shlomo (natalies@cbs.il).

On Disclosure Risk Measures and their Estimates

(Yosi Rinott, Hebrew University, joint work with Natalie Shlomo, CBS
Israel)

The program ARGUS is based on a model related to inverse sampling and the negative binomial distribution. It also assumes that realistic weights are available. Originally ARGUS calculated the distribution of estimated individual risks (risk per cell) based on the model. Several months ago we suggested combining the risk estimates into meaningful global risk measures which represent the expected number of matches under different scenarios. We are glad to see that related ideas seem to have penetrated recent ARGUS guidelines under the CASC project.

We will indicate the relation between the ARGUS model and a classical Bayesian model due to Bethlehem et al, and other models, and show some preliminary work on the effect of different assumptions and weighting schemes on the quality of the individual and global risk estimates, and on testing fitness with the model.