1. Introduction

Attitudes to inequality and risk can be interpreted in a number of ways. A standard approach is to think in terms of strength of inequality aversion or risk aversion. There are several studies which examine these questions from the standpoint of economic orthodoxy in these two fields, and some which investigate risk and inequality jointly within the standard theoretical framework for analyzing income distributions. However such an approach presumes acceptance of the basic premises of this framework. In this paper we examine a deeper question that addresses the basis for statements about inequality or risk comparisons without incorporating \textit{a priori} the key assumptions that impose structure on inequality indices, measures of risk or other distributional criteria. Instead of posing the question “what is the degree of inequality (risk) aversion”
we address the logically prior question "on what basis can one say that one
distribution is more unequal (risky) than another?" We further address the
question of whether there is a linkage between distributional comparisons in
terms of inequality and those in terms of risk. This is accomplished by use
of a questionnaire-experimental study that permits one to investigate the way
in which individuals' perceptions of income-distribution comparisons conform
to, or depart from, the orthodox analytical framework.

Previous studies have analyzed the underlying structure of attitudes towards
risk and inequality using separate experiments (Amiel and Cowell 1999a, 1999b;
Amiel et al. 2001). However, in this case we are able to examine the structure
of both types of comparison simultaneously by means of a device explained
in Section 3. We analyze questionnaire responses of over 1100 students from
seven countries in a joint inequality-and-risk questionnaire experiment.

The paper is arranged as follows. Section 2 describes the background theory.
Sections 3 and 4 describe the experiment and resulting data set. Section 5 looks
at all the responses to the numerical questions jointly, and Section 6 studies the
variation in responses for specific numerical questions dealing with different
types of equalizing income transfers. Section 7 examines the implications of
responses to the verbal part of the questionnaire. Section 8 concludes.

2. Theoretical Background

As we outlined in the introduction there are two distinct types of question
that are relevant to the present paper, namely: What do we mean by inequality
and by risk? How are the two related? Strangely enough it is convenient to
discuss the second issue first – it is useful to consider in principle why and how
the two fields are connected.

2.1 Inequality and Risk

The literature on the ranking of probability distributions forms one of the
most important intellectual sources of the modern inequality literature. As
noted in Amiel and Cowell (1999b):

One of the most important intellectual sources of the modern inequality literature
is the literature on ranking probability distributions. Some of the seminal pieces
in inequality analysis – Atkinson (1970) foremost among them – started from the
insight that the problem of ordering income distributions in terms of inequality
is essentially similar to the problem of ordering distributions in other contexts.

Some links between inequality measurement and risk measurement are evi­
dent – inequality measures such as the coefficient of variation and the variance
of logarithms have obvious counterparts in the analysis of risk, since the stan­
dard deviation or variance is conventionally used as the measure of spread,
either for "income" or its logarithm; the entropy measures of Theil (1967) have