Course MTH110 – Basic Statistics
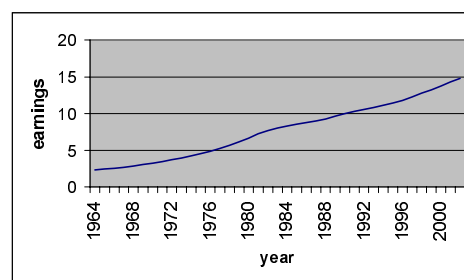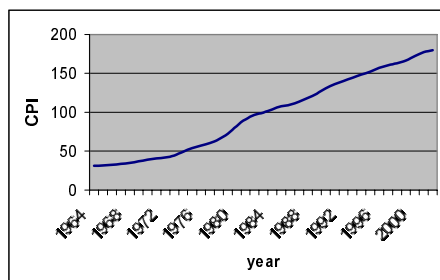**Lecturer dr. Daniel Ševčovič**

Homework 8
(Return date: 5.3.2003)

Consumer price index, average earning and the rate of inflation

U.S. Department Of Labor Bureau of Labor Statistics (www.bls.gov) reports several important statistical data including, in particular, Consumer Price Index (CPI), average hourly earnings of production workers, etc.

1. Download compiled data containing CPI and hourly earnings. Make a linear regression analysis between CPI and hourly earnings. Estimate average hourly earning at the end of the year 2004. By means of R-squared test measure how strong is the regression.

2. Compute the yearly inflation rate by analyzing yearly averaged CPI's. To this end, calculate how 1 US dollar from the year 1980 lost its real value in the year 1981. The lost of the value expressed in percent represents yearly inflation rate in the period 1913-1914. Continue this calculation for all subsequent periods, i.e. 1981-1982, 1982-1983, … , 2000-2001, 2001-2002.

The data set is available at:
http://www.iam.fmph.uniba.sk/institute/sevcovic/studium/cityu/