

Prof. S. Klasen
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Exam: Analysis of Microdata – Summer Term 1999

Section I:

Please answer all exercises of this first section of the exam. Spent about six minutes on each exercise. The number of points you may reach for each exercise equals six.

Exercise 1:

Suppose you want to estimate the mean per capita income in a country and that you have enough money to carry out interviews with approximately 1% of the country's households. Which sampling strategy would you choose to get the most precise estimates?

Exercise 2:

Assume you have to study poverty in a developing country using (cross-sectional) survey data. The data provide you with information on per capita income and per capita expenditure of households. Which variable will be more suitable for the analysis? Explain your decision!

Exercise 3:

A continuous dependent variable is only measured for a part of survey respondents and is unknown for all other survey respondents. Explain (e.g.: using a figure) why standard OLS regression analysis may lead to biased estimates of parameters of explanatory variables of this dependent variable.

Exercise 4:

Unemployment duration data is collected by retrospective questions in surveys is often characterised by measurement error. Discuss the types of measurement error, that often occur when such duration data is collected?

Exercise 5:

The table on the last page of the exam shows average incomes and average savings of households by income decile and by expenditure decile (Table 1.3, Deaton 1998). These estimates stem from survey data collected in Thailand (1986). Savings are calculated as the difference of the income and expenditure that the household reported. Are there reasons to believe that the savings estimates in the table are a result of measurement error.

Exercise 6:

Incidence analysis: Discuss the difference of measuring the impact of some policy by benefits of the policy to the recipients or costs of the policy to the government.

Section II:

Please choose one out of the following three exercises of the second section. If you answer more than one of the exercises of section II, the exercise with the lowest number will be corrected only. The maximum number of points you can reach is 24, so you should spent approximately 24 minutes on answering the chosen exercise.

Exercise 7:

Explain and criticise the Engle method and the Rothbarth method of measuring the cost of children.

Exercise 8:

How would you test whether the allocation of resources between husbands and wives is explained by the altruist model of Gary S. Becker or a bargaining model of allocation of resources in the household? Discuss the implications of these theories, and the data that you would use in order to test the hypothesis.

Exercise 9:

Suppose you are a researcher in a country where unemployment benefits are only paid for a limited period of time after people became unemployed. The entitlement length is 12 months. The benefit level is calculated as a constant percentage of the average monthly earnings of a recipient in the year prior to the job loss. Assume that the government asks you to investigate whether the unemployment benefit system is an important cause of high long term unemployment in the country. How would you proceed to investigate this problem? Discuss the data that you need, the specification and econometric methods involved, and problems of identification of the relevant parameters.