

Analysis of Micro Data

Final Exam

This exam consists of 2 parts, for which you have 90 minutes to complete. In the first part, please answer all questions. In the second part, you can choose one of three questions.

Part I: Answer all questions. The points allocated refer to the minutes you should spend on each question.

1. State briefly the advantages and disadvantages of clustered sampling. How can the disadvantages be addressed? (6)
2. Briefly describe modeling duration dependence (i.e. the baseline hazard) in survival-time analysis. (5)
3. Briefly state 2 different methods for generating equivalence scales and state their most important advantages and disadvantages. (10)
4. Why could it be the case that a regression of log of food expenditure on the log of total expenditures would lead to an (upwardly) biased estimate of the income elasticity of calorie consumption? (6)
5. What does the attached table say about whether widows in India are disproportionately found among the poor? What does it say about the household size of households containing widows? (6)
6. How can one empirically test whether Becker's model of the altruistic dictator, a Nash bargaining model (e.g. by McElroy and Horney), or a separate sphere bargaining model (e.g. by Lundberg and Pollak, and by Luindberg, Pollak and Wales) best describes the factors influencing intra-household resource allocation among adults? (6)
7. Briefly discuss the properties of Heckman sample selection model when errors in main and selection equation are independent (5).
8. Briefly discuss the properties of the FGT poverty measure (6).
9. Explain the rationale of Hausman specification test. (4)
10. Suggest the appropriate regression model for the situation in which the dependent variable Y is censored from below. Will the estimated coefficients have the same interpretation as in the classical linear regression model (explain)? Will this model still be appropriate if the sample is only observable given the condition that the outcome of Y exceeds the censoring threshold? (6)

Part II: Choose one question (30 points)

1. Consider the attached table about the incidence by decile of health expenditures in Indonesia (from van de Walle, 1995). First describe how the information in this table was generated. Second, interpret the table by discussing whether public health expenditures are pro-poor or pro-rich? Third, discuss possible policy implications arising from this table if one wants to improve health access to the poor? And lastly, critically evaluate this type of exercise in relation to what is says about how much public spending is valued by the beneficiaries.
2. How could one test whether parents are discriminating in their access to resources between sons and daughters? Distinguish particularly between expenditure and outcome-based approaches and discuss the merits of each of them. What policy implications would arise from such findings?
3. Discuss which factors should affect the decision by young people to live with their parents versus setting up their own households? Discuss how one could model this interaction using cross-section and panel data. Carefully evaluate all the problems associated with each modeling strategy. If one wanted to increase regional mobility of young people, what policy implications might be available?

Good luck !

Table 4

The head-count ratio and economies of scale

Widows

Household type	Mean household size	Economies of scale parameter (θ) ^a				
		1	0.8	0.6	0.4	0.2
1. All households	5.35	63.4	59.6	54.5	49.5	46.3
2. Male-headed	5.56	63.8	59.4	53.9	48.6	45.0
3. Female-headed	3.60	57.7	61.6	62.0	62.6	63.0
4. Widow-headed	3.32	58.2	63.8	65.1	66.2	67.6
5. Other female-headed	4.10	56.9	58.4	57.4	57.4	56.4
6. Single-person households	1.00	22.2	47.4	70.0	86.4	96.0
7. Single male	1.00	14.5	35.8	60.1	80.4	94.2
8. Single female	1.00	31.0	60.7	81.3	93.2	98.0
9. Single widow	1.00	33.1	63.7	84.1	94.4	98.6
10. Single widower	1.00	24.0	42.1	72.1	90.5	99.3
11. Households without widow	5.34	62.8	59.3	54.5	49.7	46.6
12. Households with widow	5.40	65.4	60.9	54.4	49.0	44.9
13. Male-headed	6.50	67.5	60.3	51.6	44.5	38.9
14. Widow-headed	3.32	58.3	63.8	65.1	66.2	67.6
15. Extended	6.41	67.3	60.6	52.1	45.4	40.2
16. Nuclear	3.51	55.4	63.1	68.4	70.8	75.0
17. Nuclear; male-headed	3.72	52.8	58.9	62.7	63.0	66.4
18. Nuclear; widow-headed	3.40	56.9	65.6	71.9	75.5	80.2
19. Extended; male-headed	6.78	68.2	60.3	51.0	43.5	37.4
20. Extended; widow-headed	4.95	62.7	62.8	58.8	57.1	56.4

^a See text for definition and interpretation.

Fig. 1.
types.

consider progressively higher levels of economies of scale. The cost of scale