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14.771 Development Economics: Microeconomic Issues and Policy Models
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14.771, Development Economics

Problem Set #8 - Benjamin (1992)

Question 1

The author first refers to a paper by Pitt and Rosenzweig (1986) that uses farmer's illness as a test of separation.

1. Using a graphical representation or equations similar to Benjamin, explain why this constitutes a non-rejection of the separation hypothesis.
2. Explain why the separation hypothesis could not hold in this case and yet lead to the same empirical result found by Pitt and Rosenzweig (assuming that it was estimated correctly).

Question 2

Take Benjamin's "Case 3" of differing wage rates

1. Explain graphically each subcase and identify in which case consumption and production decisions are linked.
2. Provide a potential reason why wage rates may differ in these two ways.
3. In particular, distinguish the three regions in the case where the hired labor cost more than own labor and explain in which case Benjamin's test will reject separation.
4. How could one distinguish between subcase 1 and the hypothesis of equal returns?

Question 3

Let us now take a look at Benjamin's empirical results

1. What exactly are Benjamin's regressions testing? What is he assuming about the factors modifying labor supply of a household? What measure of the wage is he taking?
2. Why is he not so worried about endogenous household formation? Are you convinced by his argument?
3. Why is he worried about measurement error? Do you think that the instruments he used are solving the problem?

Question 4

One of the oldest theories in development is that of surplus labor. It specifies that labor is underutilized in the rural areas and can be drawn to industries without a cost.

1. How is this theory related to Benjamin's work?
2. What "subcase" is this theory relying on?
3. What do Benjamin's results suggest for the likelihood of this hypothesis to be true?

Question 5

Benjamin assumes a very particular source of violation of the separation hypothesis, namely restrictions on the labor markets. However, any link that joins consumption and production decisions (outside the income channel of the profits) would constitute a failure of the separation hypothesis. For each of the following sources, suggest a channel through which the failure could occur and explain shortly how one could test for that hypothesis.

1. Product markets
2. Capital markets