

14.771: Labor Markets

Ben Olken

Outline

- Theme: how efficient are labor markets
- Motivation: the surplus labor hypothesis
- Rural Labor Markets
 - Labor Supply
 - Theory: Tests for 'separation' as a test of frictionless labor markets
 - Nominal Rigidities, Behavioral Issues, and Labor Supply
 - Poverty and Behavioral Issues in Labor Supply
 - Frictions in Labor Demand
- Urban Labor Markets
 - Search frictions
 - Informal vs. formal labor markets
 - Multinationals

Surplus labor

- Lewis (1954), drawing on even older theories (e.g., Marx), argued that there was "surplus labor" in the countryside. He argued that "about 25%" of labor had zero marginal value.
 - Claim: you can move labor from countryside to cities without decreasing agricultural output
 - This would mean that either:
 - The marginal product of labor is zero because the agricultural production function is Leontief.
 - Labor supply is totally elastic at some reservation wage rate.
 - This implies that an important goal for development was to bring this surplus labor into the urban sector where it would have positive value

Schultz's (1964) test

- One of the earliest natural experiment studies
- Studies the 1917-1918 influenza epidemic, which killed 6% of the population and reduced the workforce by about 8%
- Idea: if there really was 25% surplus labor, then agricultural output would not fall!
- Empirics:
 - Compares output in 1919–1920 to 1916-1917, which had similar weather
 - Looks at whether provinces with greater influenza deaths had greater declines in output
 - Examines acres sown, since does not have direct data on output

Schultz's (1964) test

TABLE 2
Deaths Attributed to Influenza Epidemic of 1918–19, and Predicted
and Observed Effects on Agricultural Production for
India and Major Provinces of India

<i>Province and all India</i>	<i>A measure of the distribu- tion of deaths (per 100 population)^a</i>	<i>Adjusted distribution of deaths (per 100 population)^b</i>	<i>Predicted re- duction in agricultural production (in per cent)^d</i>	<i>Observed re- duction in acreage sown to crops (in per cent)^e</i>
(1)	(2)	(3)	(4)	(5)
Central Province and Berar	6.64	15.60	8.32	7.00
Bombay	5.49	12.90	6.88	2.10
Punjab	4.54	10.67	5.69	8.20
North West Frontier Province	4.36	10.25	5.47	7.00
United Province	4.34	10.20	5.44	6.60
Bihar-Orissa	2.05	4.82	2.57	+0.50
Assam	1.86	4.37	2.33	3.60
Madras	1.67	3.92	2.09	2.20
Burma	1.39	3.27	1.74	+4.00
Bengal	0.85	2.00	1.07	1.40
All British India	2.64	6.20 ^c	3.30	3.80

Schultz's (1964) test

- Finds elasticity of output with respect to population of about 0.4, statistically significant with only 10 states!
- Does this rule out surplus labor? What assumptions would be required?
 - Land would need to be reallocated

Benjamin (1992)

- Question: how efficient are rural labor markets?
- Test of this: are production and consumption decisions 'separable'? This is the 'separation hypothesis'.
- Theoretical idea: with fully functioning efficient markets, households can freely buy or sell labor at wage w .
- Households therefore choose:
 - The labor input for their farms to maximize profits given wage w
 - The optimal labor/leisure trade-off for the family given w
- With full ability to buy and sell labor at w there is no reason these two decisions should be related
- Empirical test: do household demographic characteristics (which should affect labor supply) affect labor demand for the family firm?
- Related to a milder view of "surplus labor": if there are labor market frictions, you may employ labor on your farm even if the marginal product is below the outside market wage. You'll do you more of this if you have more people available in your household.

Separation

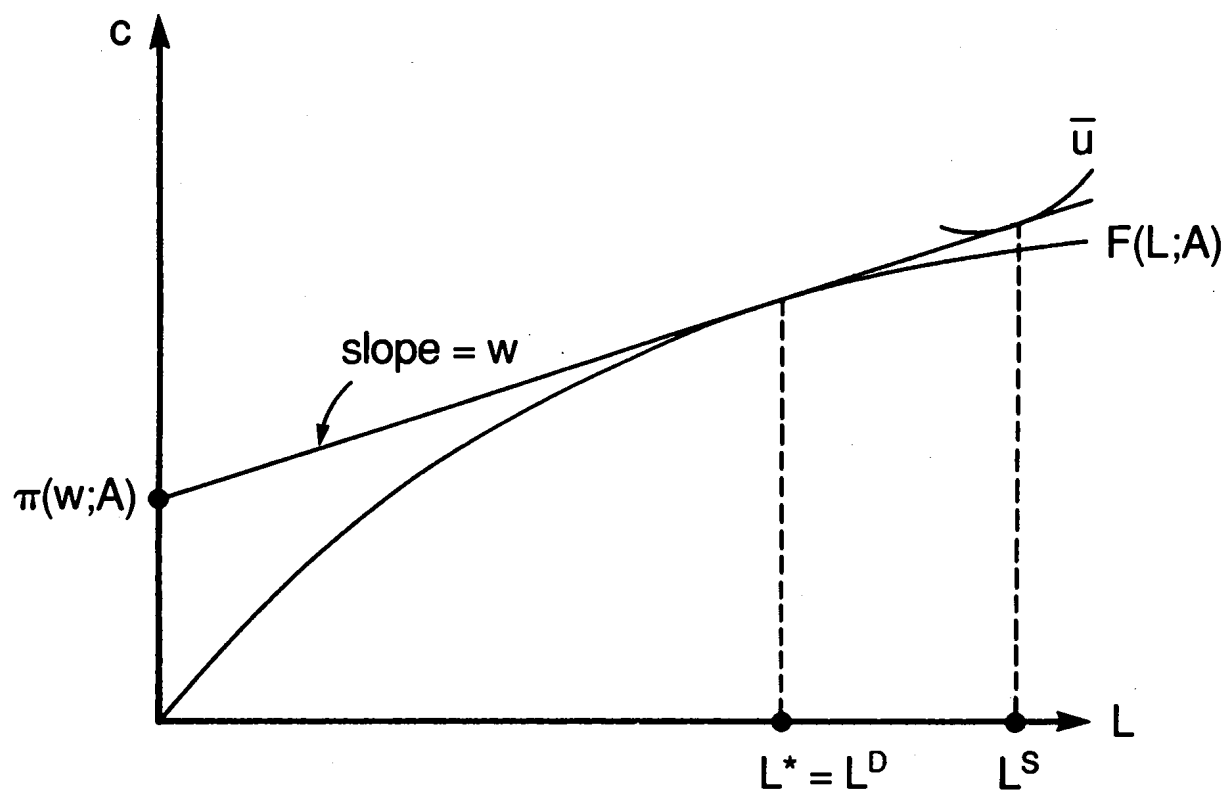


FIGURE 1.—Separation.

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Limits to separation

- When might separation not hold?
 - Minimum wage (implies maximum number of hours worked outside farm)
 - Imperfect labor markets (outside wage lower than inside wage)
 - Agency problems on land (efficiency of outside labor is lower)
 - Other market failures?

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14.771: Development Economics
Fall 2021

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