

**Final Examination**

(1 hour 30 mn, 20% of final grade, 30 points)

**Respond concisely in words and equations to 3 of the following 4 questions (10 points each)**

**1. Welfare Impacts of Shocks.**

- a. You want to estimate the effect of weather shocks ( $S$ ) on an indicator of household welfare ( $W$ ). You have cross-sectional observations from households scattered around a large region so that there is enough variation in the shock variable. Since weather shocks are without doubt exogenous to household behavior, could you estimate a simple OLS regression:

$$W = \beta_0 + \beta_1 S + \varepsilon$$

What econometric problem would you usually encounter?

- b. How do Alderman, Hoddinott, and Kinsey (*OEP*, 2006) circumvent the problem when they estimate the effect of the 1982-84 drought in Zimbabwe on children height-for-age: What data do they use? What is their identification strategy? What do they find?
- c. How do de Janvry, Finan, Sadoulet, and Vakis. (*JDE* 2006) circumvent the problem when they estimate the effect of weather shocks on school attendance in Mexico: What data do they use? What is their identification strategy? What do they find?

**2. Decentralized Targeting of a Welfare Program**

- a. What are the main arguments for and against the decentralization of the allocation of a targeted welfare program?

Report on the contribution of the paper by Bardhan and Mookherjee (*JDE* 2006, on the allocation of welfare programs in West Bengal) to this debate by answering the following questions:

- b. Describe the context of their study and their data.
- c. What is the basic model estimated for the intra-village allocation of funds (Write a precise equation with the different type of variables and controls used as regressors, and specify the units of observation). Justify its specification and the choice of variables.
- d. Use the results in Tables 4 and 5 (reproduced below) on credit subsidy and employment, to summarize the main findings of the paper.

**3. The Role of Network for Mexican Migrants in the US Economy**

It is often said that networks are an essential factor in the success of migration.

- a. Explain the empirical strategy used by Munshi (*QJE* 2003) to show the role of network in securing good jobs to migrants.
- b. What are the main results of the paper? Be very specific on what is shown and the limitation of these results in the broader debate on the role of network in facilitating migration.
- c. Could he use the same strategy to estimate the role of the network in fostering migration itself? Why or why not?

**4. Micro-finance Institutions**

With the Nobel Prize awarded to Mohammed Yunus, let's examine the theory of how group credit works.

- a. What are the main features of microfinance group credit?
- b. Explain how they each contribute or not in mitigating the problems of adverse selection, moral hazard in project choice, enforcement, and insurance. You need not write any model, but your should be very precise when relating the mechanisms by which each feature contributes to mitigating a problem. Discuss these theories when appropriate.

Table 4  
Intra-village targeting

	IRDP credit subsidy			Minikits	Employment
	% Share Landless	% Share Upto small	% Share SC/ST	% Share Upto small	
Mean (S.D.)	0.45 (0.40)	0.97 (0.14)	0.45 (0.42)	0.98 (0.08)	0.024 (0.095)
Ratio of Mean share to Demographic share	1.38	2.09		2.08	
Ratio of Mean share to Land share		1.43		1.50	
Observation, Groups, $W - R^2$	386, 72, 0.09	386, 72, 0.16	414, 75, 0.25	259, 77, 0.10	207, 73, 0.30
% HH landless	-0.18 (3.38)	0.27 (1.92)	-4.85 (4.22)	0.02 (0.56)	0.04 (0.11)
% HH marginal	-1.83 (2.27)	0.36 (1.39)	-6.53** (2.98)	-0.14 (0.34)	0.07 (0.10)
% HH small	0.97 (2.19)	1.27 (1.17)	-4.54 (2.99)	-0.69* (0.36)	-0.09 (0.12)
% HH medium	-3.30 (6.73)	-1.05 (3.14)	-0.41 (4.95)	-0.10 (0.64)	0.43** (0.20)
% Land Upto small	0.26 (0.36)	0.01 (0.44)	1.88* (0.93)	-0.06 (0.15)	0.03 (0.04)
% Land big	-0.40 (1.21)	-0.70 (0.49)	1.77 (1.14)	4.56e-3 (4.16e-2)	-0.05*** (0.01)
% Illiterate among upto small HH	-0.73 (0.70)	-0.12 (0.19)	-0.66 (0.69)	0.08 (0.12)	-0.01 (0.03)
% SC/ST among poor HH	0.75 (0.97)	-0.20 (0.40)	0.08 (1.27)	-0.02 (0.24)	0.03 (0.05)
%LS in GP (predicted)	0.97 (0.85)	0.11 (0.12)	-0.81 (0.48)	-0.18 (0.16)	-2.88e-4 (3.81e-2)
%LS in GP Sq. (predicted)	-0.82 (0.80)	-0.09 (0.09)	0.42 (0.37)	0.07 (0.12)	4.97e-4 (2.93e-2)
%LS in ZP	0.16 (2.12)	0.98 (0.77)	-1.05 (1.57)	-0.14 (0.27)	0.16 (0.12)
%LS in ZP Sq.	0.44 (1.50)	-0.66 (0.47)	0.47 (1.00)	0.12 (0.19)	-0.10 (0.09)

Employment-dependent variable: days employment generated per rupee employment grant exp.

All regressions control for % HH heads nonagriculturally employed, number of households, village/GP f.e., time block dummies and (predicted) village (per HH) resource received.

Credit, kit regressions control for relative yield of small farms, farm wage.

Employment regression controls for (predicted) real wage, average farm yield.

Robust standard errors in parentheses, clustered at district level.

LS = Left share in government seats, GP= local panchayat (village), ZP= district panchayat,  
SC/ST=scheduled castes or tribes

Table 5  
Inter-GP targeting

	IRDP credit subsidy (per HH) (1980 Rs.)	Minikits grant (per HH) (no. kits)	Employment (per HH) (1980 Rs.)	Total grant (per HH) (1980 Rs.)
Mean (S.D.)	23.56 (66.24)	0.09 (0.11)	194.89 (365.92)	463.93 (1247.39)
Observations, Groups, $W - R^2$	292, 46, 0.14	183, 50, 0.27	215, 47, 0.38	216, 47, 0.27
% HH landless	237.04 (190.61)	-1.26 (1.09)	-582.74 (638.48)	-362.52 (1075.10)
% HH marginal	189.24 (171.91)	-0.58 (0.90)	-843.56**** (554.64)	-920.38 (1113.61)
% HH small	-258.27**** (179.15)	0.78 (1.58)	-617.65 (969.20)	2152.85 (1689.45)
% HH medium	698.43 (564.82)	0.87 (1.81)	103.33 (1635.42)	3003.71**** (2085.00)
% Land upto small	-60.90 (74.68)	0.40 (0.28)	553.45* (281.04)	1098.80** (502.95)
% Land big	-165.30** (72.48)	-0.22 (0.29)	-104.32 (159.64)	-364.99 (362.52)
% Upto small HH illiterate	-95.70 (85.86)	0.41 (0.26)	-364.86 (345.20)	-247.05 (531.62)
% Poor HH SC/ST	78.14 (116.71)	-1.56*** (0.47)	-771.16**** (567.64)	-2509.72*** (763.42)
% LS in GP (predicted)	-70.56 (59.57)	0.49* (0.28)	-832.61*** (288.19)	-991.74 (1266.52)
% LS in GP Sq. (predicted)	32.12 (42.02)	-0.26 (0.17)	178.39 (164.96)	8.35 (652.81)
% LS in ZP	274.06* (159.24)	0.45 (0.86)	-85.66 (541.35)	-895.44 (1629.81)
% LS in ZP Sq.	-170.82* (100.52)	-0.35 (0.55)	39.33 (383.66)	347.16 (1111.71)

Controls: % HH heads nonagriculturally employed, no. households, average farm yield, all-GP average subsidy/grant per HH, GP fixed effect, time block dummies.

Credit, kit regressions added controls: farm wage, intravillage targeting.

Credit: added control for population/bank ratio in district.

Grant regressions added control: (predicted) real wage.

Robust standard errors in parentheses, clustered at district level.