

AJAE Appendix:

Farmers' Subjective Valuation of Subsistence Crops:

The Case of Traditional Maize in Mexico

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Note: The material contained herein is supplementary to the article named in the title and published in the American Journal of Agricultural Economics (AJAE).

TABLE 1. Means of plot level and household level variables for the whole sample and the subsample of mono-cropped maize plots

Variable	Whole sample	Subsample
<i>Plot Level Variables</i>		
Yield (kg./ha.)	1087.17	1140.53
Seed amount/ha.	24.88	19.69
Plot area (ha.)	1.91	2.14
Irrigation dummy	0.14	0.15
Soil quality (1: Bad, 2: Regular, 3: Good)	2.28	2.31
Slope (1: Plain, 2: Sloped, 3: Very steep)	1.54	1.53
Walking time from the parcel to the community center (mins.)	38.99	39.01
Total labor (days/ha.)	73.66	55.58*
Total input cost/ha.	677.42	497.64
Total machinery hours/ha.	5.83	4.46*
Total animal hours/ha.	18.79	14.52
Number of observations	868	491
<i>Household Level Variables</i>		
Wealth index	2.31	2.28
Gender of household head(=1 if male)	0.90	0.91
Indigenous language dummy	0.36	0.40
Total land owned (ha.)	7.15	7.09
Number of plots cultivated	1.78	1.87
Number of plots owned	1.45	1.52
Total farm income (\$MX)	8707.04	9066.55
% land cultivated with maize	0.74	0.88*
% maize production sold	0.14	0.14
Maize purchase dummy (=1 if bought)	0.47	0.43
Off-farm income dummy	0.48	0.45
Maize sale dummy (=1 if sold)	0.25	0.25
Number of observations	557	314

Note: * indicates that the difference of the sample means is statistically significant at 5% level using a two-sided t-test.

TABLE 2. Production functions estimated with Heckman model

Variable	Coefficient (p-value)		Coefficient (p-value)	
	TV		MV	
ln(yield)				
ln(land)	-0.32***	(0.00)	-0.32	(0.44)
ln(labor)	0.18***	(0.01)	0.17	(0.74)
ln(seed)	0.20***	(0.00)	0.55	(0.36)
ln(input cost)	0.11***	(0.00)	0.04	(0.70)
ln(machinery)	0.13**	(0.01)	0.52	(0.81)
ln(animals)	0.04	(0.15)	-0.08	(0.94)
drought	-0.07	(0.67)	-0.63	(0.83)
soil quality ^a	0.25***	(0.01)	0.51	(0.67)
slope ^a	0.07	(0.60)	-0.17	(0.95)
irrigation	0.29**	(0.02)	0.2	(0.89)
altitude	-0.04	(0.80)	-1.02	(0.01)
age	-0.01	(0.15)	-0.01	(0.95)
education	-0.03	(0.27)	0.01	(0.98)
South-Southeast	-0.62	(0.24)	0.6	(0.91)
Central	-0.31	(0.58)	-0.25	(0.98)
Western Central	-0.2	(0.69)	-0.42	(0.77)
Northwest	3.45***	(0.00)	0.61	(0.79)
commercial dummy	0.69***	(0.00)	0.47	(0.73)
Intercept	5.11***	(0.00)	5.84	(0.30)
	p(TV)		p(MV)	
% vil. plots with TV(MV)	0.81*	(0.09)	0.83	(0.84)
% vil. maize marketed	-0.01**	(0.04)	0.01	(0.86)
% vil. off-farm inc. MX	0	(0.95)	-0.01	(0.95)
% vil. off-farm inc. US	-0.02	(0.56)	0.04	(0.85)
indigenous	0.90***	(0.00)	-0.97***	(0.00)
saved seed > 2 yrs.	0.68***	(0.00)	-0.57	(0.72)
soil quality	0.19	(0.26)	-0.1	(0.82)
slope	0.06	(0.69)	0.04	(0.87)
irrigation	-0.76**	(0.01)	0.78***	(0.00)
age	0.01	(0.23)	-0.01	(0.81)
education	0.02	(0.56)	-0.01	(0.95)
South-Southeast	0.26	(0.48)	-0.45	(0.65)
Central	0.81*	(0.07)	-0.94	(0.57)
Western Central	0.74**	(0.01)	-0.91	(0.54)
Intercept	-0.53	(0.52)	-0.23	(0.87)
Lambda (IMR)	0.16		-1.04	
p-Wald test (rho=0)	0.48		0.86	
N	425		66	

^a Soil quality and slope variables are rescaled to (-1,0,1) to prevent unnecessary imposition of a cardinal meaning to categorical variables.

Note: *, ** and *** for 10%, 5% and 1% significance levels, respectively.

TABLE 3. Production functions estimated with IV (probit) to control for the endogenous commercial farmer dummy (Dep. var: $\ln(\text{yield})$)

Variables	TV	MV
$\ln(\text{land})$	-0.317***	-0.18
$\ln(\text{labor})$	0.189*	0.215
$\ln(\text{seed})$	0.196**	0.661**
$\ln(\text{input cost})$	0.117***	0.071
$\ln(\text{machinery})$	0.162*	0.650**
$\ln(\text{animals})$	0.033	0.053
drought	-0.079	-0.750*
soil quality	0.298***	0.227
slope	0.062	-0.624**
irrigation	0.405	0.530***
altitude	-0.044	-1.026***
age	-0.008	-0.030*
education	-0.044	-0.05
South-Southeast	-0.739	-0.39
Central	-0.58	-1.240***
Western Central	-0.487	0.43
commercial dummy	0.931	0.333
Constant	5.427***	5.755***
N	425	66

Note: *, ** and *** for 10%, 5% and 1% significance levels, respectively.