Table 34.1
Income and expenditure elasticities of calorie demand

Author(s)	Year	HH resources	Measure of Calories	Country studied	Estimation Method	Elasticity (at Mean)
A. INDIRECT ESTIMATES (Calculated from food demand equations):						
Behrman & Deolalikar	1987	X	Availability	India	2SLS	0.77
Behrman & Deolalikar	1987	X	Availability	India	FE	1.18
Pinstrup-Andersen & Caicedo	1978	Y	Availability	Colombia	System	0.51
Pitt	1983	X[a]	Availability	Bangladesh	Tobit	0.78–0.82
Sahn	1988	X	Availability	Sri Lanka	Heckit	0.62
Strauss	1984	X	Availability	Sierra Leone	System	0.82
B. DIRECT ESTIMATES (Calculated from calorie demand equations):						
Alderman	1987	X	Availability	India	2SLS	0.41–0.44
Bouis & Haddad	1992	X	Availability[b]	Philippines	OLS	0.43
Bouis & Haddad	1992	X	Availability[b]	Philippines	2SLS	0.32
Bouis & Haddad	1992	X	Availability[b]	Philippines	FE	0.59
Deaton & Subramanian	1992	X	Availability	India	Nonparam	0.45
Edirisinghe	1987	X	Availability	Sri Lanka	OLS	0.56
Garcia & Pinstrup-Anderson	1987	X	Availability	Philippines	OLS	0.12–0.34
Timmer & Alderman	1979	X	Availability	Indonesia-rural	OLS	0.51
Timmer & Alderman	1979	X	Availability	Indonesia-urban	OLS	0.26
Chernichovsky & Meesook	1984	X	Intake-7 day recall	Indonesia	OLS	0.54
Ravallion	1990	X	Intake-7 day recall	Indonesia	OLS	0.15
Strauss & Thomas	1990	X	Intake-7 day weighed	Brazil	OLS	0.20
Strauss & Thomas	1990	X	Intake-7 day weighed	Brazil	2SLS	0.11
Behrman & Deolalikar	1987	X	Intake-24 hr recall	India	2SLS	0.17[c]
Behrman & Deolalikar	1987	X	Intake-24 hr recall	India	FE	0.37[c]
Bouis & Haddad	1992	X	Intake-24 hr recall	Philippines	OLS	0.12
Bouis & Haddad	1992	X	Intake-24 hr recall	Philippines	2SLS	0.08
Bouis & Haddad	1992	X	Intake-24 hr recall	Philippines	FE	0.14
Bouis & Haddad	1992	Y	Availability[b]	Philippines	OLS	0.11
Bouis & Haddad	1992	Y	Availability[b]	Philippines	2SLS	0.28
Trairatvorakul	1984	Y	Availability	Thailand	OLS	0.27–0.33
Ward & Sanders	1980	Y	Availability	Brazil	OLS	0.24
Ward & Sanders	1980	Y	Availability	Brazil	2SLS	0.53
von Braun, Puetz & Webb	1989	Y	Intake-7 day recall[d]	Gambia	OLS	0.37–0.48
Behrman & Wolfe	1984	Y	Intake-24 hr recall	Nicaragua	OLS	0.05
Bouis & Haddad	1992	Y	Intake-24 hr recall	Philippines	OLS	0.03
Bouis & Haddad	1992	Y	Intake-24 hr recall	Philippines	2SLS	0.09
Wolfe & Behrman	1983	Y	Intake-24 hr recall	Nicaragua	OLS	0.01

Measures of household resources are expenditure (X) or income (Y). Calorie measures are household availability based on food purchases and changes in stocks of own production (Availability), intake based on food consumption recall for last 7 days (Intake-7 day recall), recall for last 24 hours (Intake-24 hr recall) or intake weighed prospectively (Intake-weighed). Estimation methods are demand system (System), two stage least squares (2SLS), fixed effects (FE), Heckman selection (Heckit), OLS (ordinary least squares) or nonparametric (Nonparam).

[a] Food, not total, expenditure is used.

[b] Meals to guests & workers removed from availability.

[c] Not significant at 5 per cent significance level.

[d] Based on meal-specific recall for every meal over last 7 days.

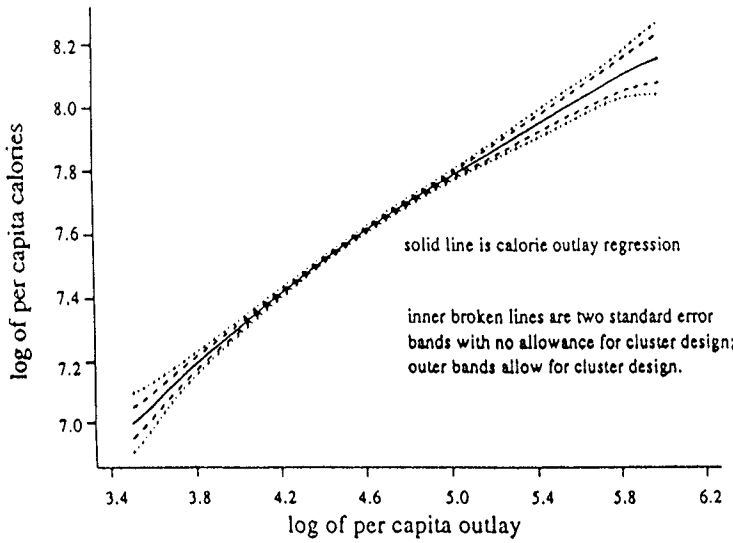


FIG. 2.—Regression function for log calories and log per capita expenditure, Maharashtra, India, 1983.

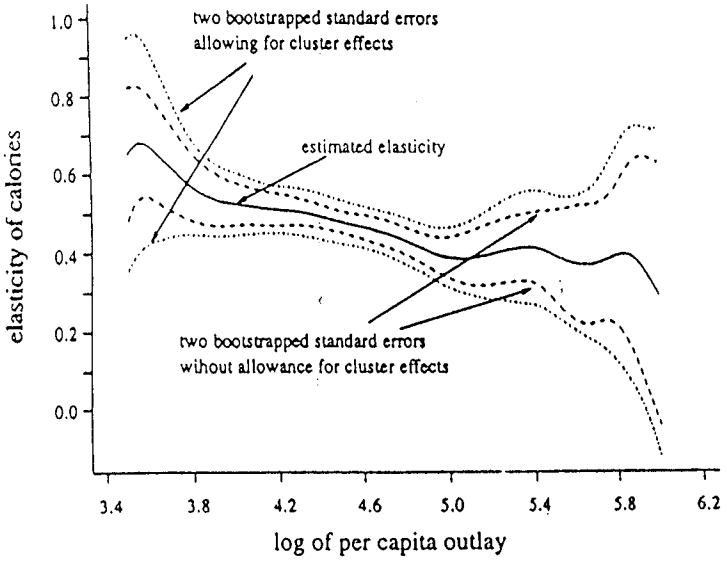


FIG. 3.—Elasticity of per capita calories to per capita expenditure, Maharashtra, India, 1983.

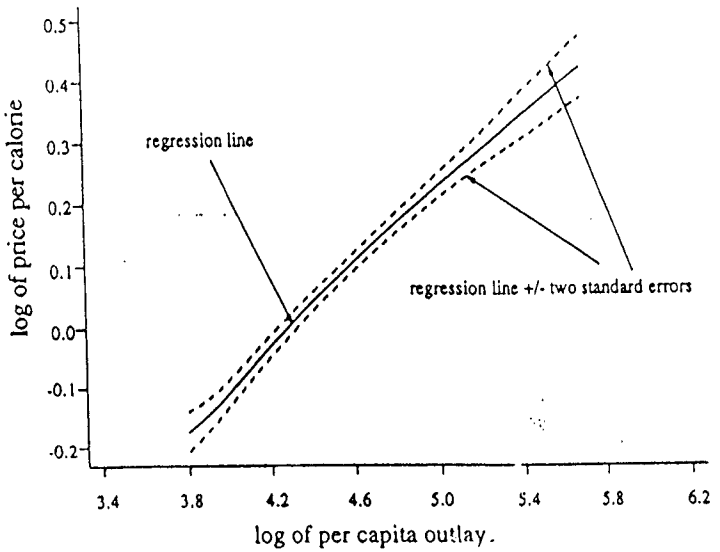


FIG. 4.—Log of price per calorie and log of per capita expenditure, Maharashtra, India, 1983.

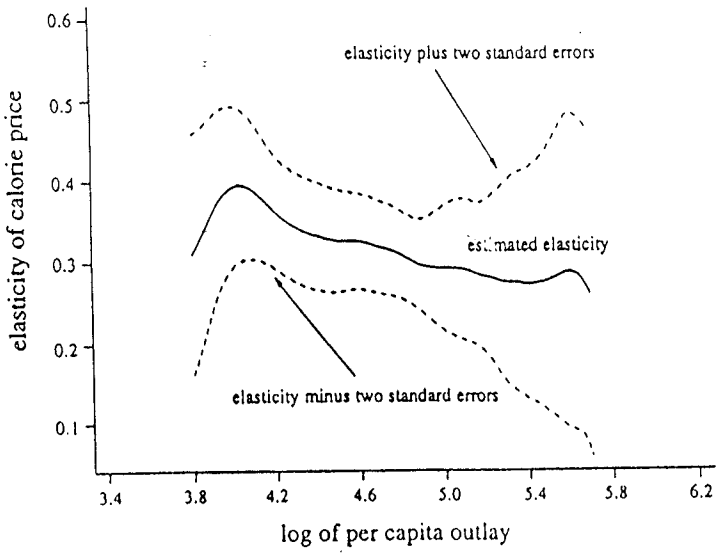


FIG. 5.—Elasticity of calorie price with respect to per capita expenditure, Maharashtra, India, 1983.

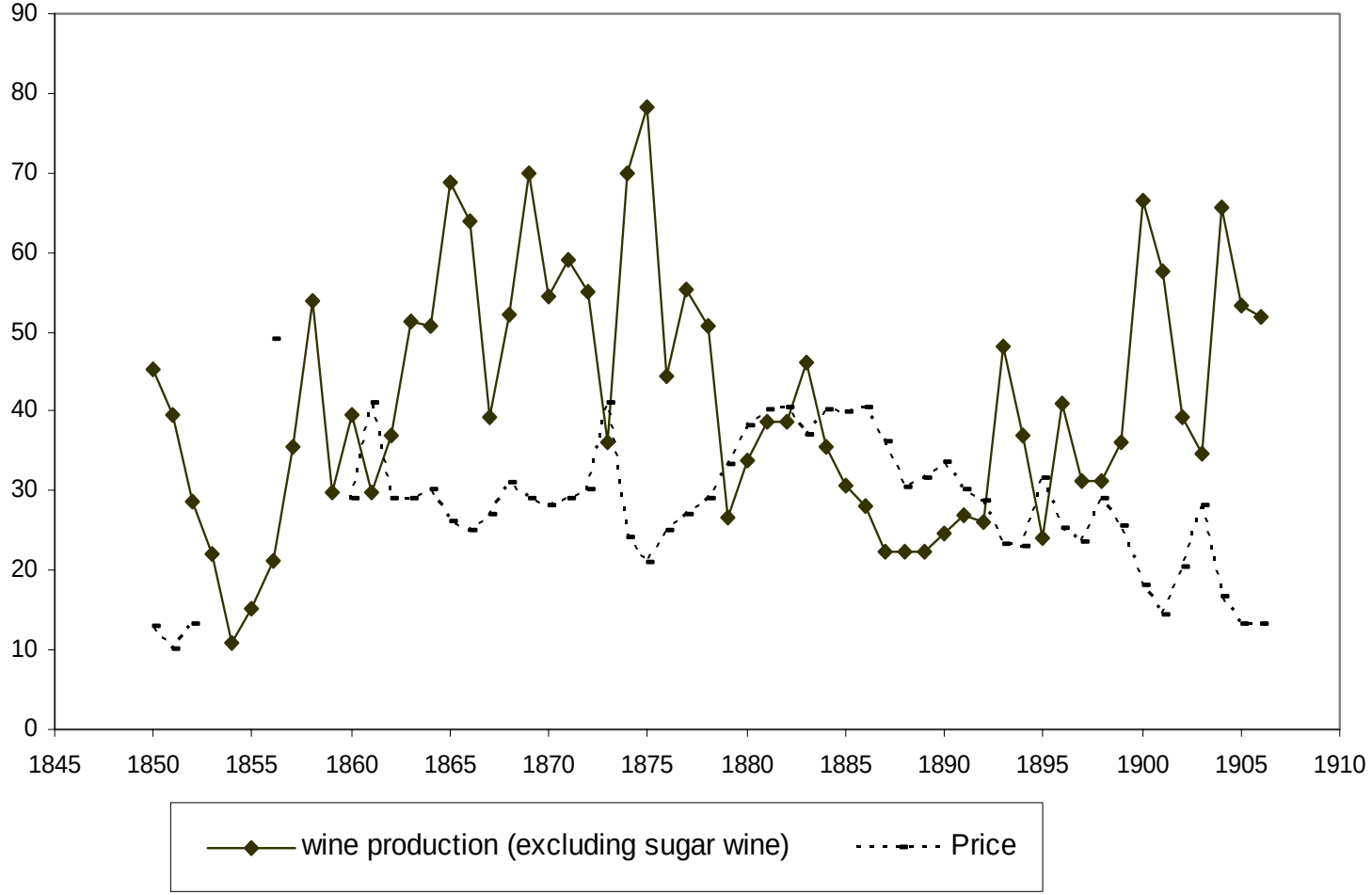
TABLE 2

OLS Estimates of Double Log Calorie and Calorie Price Regressions with Other Covariates

	Log Calorie Availability				Log Price per Calorie			
	All Data (1)		Within Village (2)		All Data (3)		Within Village (4)	
	β	|t|	β	|t|	β	|t|	β	|t|
Constant	6.028	(78)			−1.5934	(18)		
ln PCE	.3655	(29)	.3407	(27)	.3799	(25)	.3217	(23)
ln household size	−.1572	(14)	−.1630	(21)	.0839	(6.8)	.0661	(8.4)
rm04	−.0967	(2.2)	−.1461	(4.1)	.1024	(2.3)	.1008	(3.3)
rm59	.0488	(1.2)	.0321	(1.0)	−.0467	(1.2)	−.0331	(1.2)
rm1014	.0891	(1.9)	.0612	(1.9)	−.1120	(2.3)	−.0842	(2.9)
rm1555	.1636	(5.1)	.1634	(5.9)	−.1700	(4.3)	−.1347	(5.0)
rm55+	.1406	(3.0)	.1213	(2.8)	−.1565	(3.6)	−.1074	(2.9)
rf04	−.1359	(3.1)	−.1869	(4.9)	.0460	(1.1)	.0742	(2.2)
rf59	.0176	(.4)	−.0040	(.1)	−.0643	(1.4)	−.0476	(1.4)
rf1014	.1140	(2.8)	.0679	(2.0)	−.1108	(2.7)	−.0873	(3.0)
rf1555	.0420	(1.6)	.0514	(2.1)	.0085	(.3)	−.0021	(.1)
Scheduled caste	−.0083	(.8)	−.0179	(2.0)	.0020	(.2)	−.0071	(.8)
Hindu	.0114	(.7)	.0302	(2.1)	−.0562	(2.6)	−.0605	(4.4)
Buddhist	.0237	(1.1)	.0400	(2.0)	−.1080	(4.0)	−.0760	(4.0)
Self-employed nonagriculture	.0187	(1.0)	.0064	(.4)	−.0270	(1.1)	.0079	(.5)
Agricultural labor	.0433	(2.2)	.0222	(1.4)	−.0837	(3.4)	−.0418	(2.7)
Nonagricultural labor	.0275	(1.1)	.0293	(1.5)	−.0210	(.8)	−.0315	(1.7)
Self-employed agriculture	.0618	(3.5)	.0389	(2.7)	−.0610	(2.8)	−.0118	(.8)
R^2	.5532		.6706		.4254		.6414	

Note.—Variables beginning with *r* are demographic ratios, so that, e.g., rf59 is the ratio of females aged 5–9 to total household members, and rm55+ is the ratio of males older than 55. There are four labor type dummies, self-employed or employed, in agriculture or not. The omitted category is "other labor." The omitted religion/caste variable is Jain and other. The within regressions contain 563 dummy variables for the villages and do not contain a constant term. The (uncorrected) *F*-tests for the exclusion of the village effects are 3.19 with 562 and 5,043 degrees of freedom for the calorie regression and 5.39 with 562 and 5,042 degrees of freedom for the calorie price regression. The reported absolute *t*-values are corrected for heteroskedasticity and, in the case of the all-data regressions, for the cluster structure of the sample.

Figure 1: Wine Production and Wine price



Wine

	1850-1915		
	log(area)	log(yield)	log(production)
	(1)	(2)	(3)
A. Year Dummies, Departement dummies			
Phylloxera	0.028	-0.420	-0.384
	(.085)	(.093)	(.129)
Observations	3334	3241	4237
B.Year dummies, departement dummies, trend for high producing regions			
Phylloxera	-0.128	-0.351	-0.110
	(.117)	(.093)	(.146)
	3334	3241	4237
Observations	3334	3241	4237
C.Year dummies, departement dummies, departement trend			
Phylloxera	-0.106	-0.374	-0.419
	(.084)	(.063)	(.108)
	3334	3241	4237
Observations	3334	3241	4237

Figure 3: Wine production and height differentials

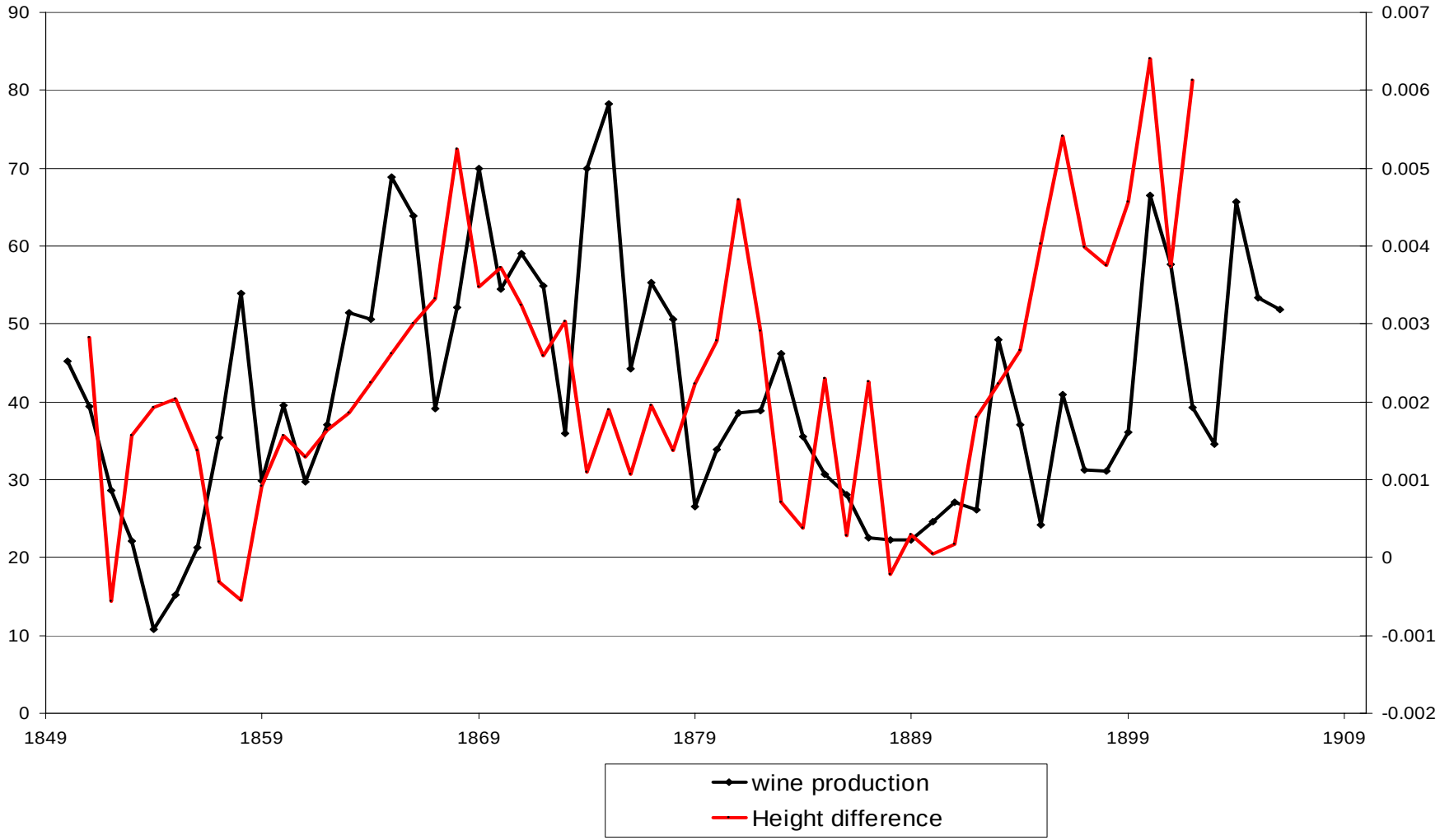


Table 4: Impact of phylloxera on height at 20

	Mean height at 20	
	all years	1852-1894
	(1)	(2)
A. Year Dummies, Departement dummies		
Born in phylloxera year	-0.00200	-0.00158
	(.00127)	(.00099)
Observations	6237	3485
B.Year dummies, departement dummies, trend for		
Born in phylloxera year	-0.00185	-0.00184
	(.00108)	(.00097)
Observations	6237	3485
C.Year dummies, departement dummies, departem		
Born in phylloxera year	-0.00126	-0.00188
	(.00097)	(.00094)
Observations	6237	3485

Table 4: Impact of phylloxera on height at 20

	Fraction smaller than 1.56m	
	all years	1852-1894
	(3)	(4)
A. Year Dummies, Departement dummies		
Born in phylloxera year	0.00526	0.00363
	(.00469)	(.00217)
Observations	6402	3485
B.Year dummies, departement dummies, trend for l		
Born in phylloxera year	0.00172	0.00436
	(.0039)	(.00205)
Observations	6402	3485
C.Year dummies, departement dummies, departem		
Born in phylloxera year	0.00315	0.00382
	(.00257)	(.00175)
Observations	6402	3485