Table 1 Crude Birth Rate 1861 English Counties

	(1)	(2)
Infant mortality 1861	0.0454	0.0348
	(4.74)**	(2.45)*
Female/Male Ratio	-12.4556	-14.6640
	(2.85)**	(2.48)*
Female wage proxy (illiteracy at marriage 1860)	0.1956	0.1836
	(5.49)**	(4.92)**
Male wage proxy (illiteracy at marriage 1860)	-0.1092	-0.0577
	(-3.49)**	(-1.14)**
R Sq	0.7560	0.8041
Obs	42	42
Est	OLS	Population weighted OLS

Notes: Robust t statistics in parentheses: ** significant at 1%, * significant at 5% Observations exclude London, but include Monmouthshire, and extra-metropolitan Kent, Surrey and Middlesex. Variable key in Appendix. IV versions of (1) and (2) with endogenous mortality were estimated with a selection of plausible instruments - % male manufacturing employment 1851, % girls not at school in 1851, % domestic service 1841. Despite high first stage F ratios, tests of endogeneity, such as those due to Durbin, Wu and Hausman, did not reject the null of exogeneity.

Table 2 Crude Birth Rate in Europe 1870-1914: Panel Regressions

	(1)	(2)	(3)	(4)	(5)	(6)
death	0.4589	0.5387	0.3839	0.4592	0.6086	0.6571
	(2.86)**	(4.17)**	(2.51)*	(3.81)**	(7.98)**	(8.31)**
Gnppc	-0.0066	-0.0041	-0.0033	-0.0025		
	(2.58)*	(3.41)**	(1.84)*	(2.02)*		
illit	0.0362	0.0205				
	(2.23)*	(1.14)				
year	1.0311	0.6707				
	(1.62)	(2.23)*				
femalespop	-	-	7.9011	-52.2968		-59.409
			(0.16)	(1.43)		(2.22)*
R^2 Within	0.6478	0.6637	0.6557	0.6380	0.5356	0.6065
Betwn	0.4999	0.5600	0.4878	0.7078	0.5608	0.6496
Overl	0.4546	0.5137	0.4112	0.5169	0.5430	0.4747
Obs	78	78	74	74	88	78
Est	FE	RE	FE	RE	IV FE	IV RE

Notes: Absolute value of robust (except 5 and 6) z or t statistics in parentheses; * significant at 5%; ** significant at 1%.

Hausman on 1 and 2 accepts random. Eqn. 5 Instrumented: deathr; Instruments: year area pop. First stage F-stat=37.04. Eqn. 6 Instrumented: deathr; Instruments: year area pop. First stage F-stat= 33.05. 5 and 6 were Hausman tested against their OLS (efficient) equivalents and the null of exogeneity could not be rejected. Femalespop was significant at 1.8% level in the OLS version of 6, (coeff -62)

Table 3 European Fertility and Proportion of Women Single c 1900

	Birth rate	Percentage women aged 20-24 single	Percentage women aged 25-29 single
Austria	35.0	66	38
Hungary	39.4	36	15
Belgium	28.9	71	41
Bulgaria	42.3	24	3
Denmark	29.7	75	42
Finland	32.6	68	40
France	21.3	58	30
Germany	35.6	71	34
Italy	33.0	60	30
Netherlands	31.6	79	44
Norway	29.7	77	48
Portugal	30.5	69	41
Romania	38.8	20	8
Russia	49.3	*28	*9
Serbia	42.4	16	2
Spain	33.9	55	26
Sweden	27.0	80	52
Switzerland	28.6	78	45
Great Britain	28.7	73	42

Source: Hajnal 1965; Mitchell 1975
Notes: * USSR 1926

Table 4 Mean Age at First Marriage for Women 1861;
English County Regressions

	(1)	(2)	(3)
Birth rate 61	-0.1867	-0.1870	-0.2032
	(-7.49)**	(14.76)**	(8.92)**
Female ratio	2.1708	3.0968	3.1573
	(1.26)	(2.94)**	(3.18)**
Obs	42	42	42
R^2	0.7	0.67	0.7240
Endogeneity test	-	-	Robust score chi2(1) = 1.1292 (p = 0.2880) Robust regression F(1,38)=1.1366 (p = 0.2931)
Estimation	OLS	Population weighted OLS	Population weighted TSLS IV

Notes: Robust t statistics in parentheses; ** significant at 1%. Intercepts not reported. Eq 3 Instrumented: birth61, Instruments: female ratio, depositsinsavingsbanks manuf girlsnotat; first stage F stat=9.76.

Table 5 European Marriage, Schooling and Illiteracy 1890-10

	% of women aged 25-29 single around 1900	Primary school children c.1890 % of pop	% illiteracy 1910 (Flora)
Austria-Hungary	27	12.6	17
Belgium	41	10.1	13.4
Bulgaria	3	5.9	62.2
Denmark	42	15.4	3
Finland	40	2.3	1.1 [45]**
France	30	14.7	11.9
Germany	34	15.9	3
Greece	13	7.8	59.7
Italy	30	8.1	39.3
Netherlands	44	14.2	7.5
Norway	48	14.3	3
Portugal	41	4.7	68.9
Romania	8	3.2	65
Russia	9	2	55
Serbia	2	3	77.5
Spain	26	10.5	52.2
Sweden	52	15.1	1.5
Switzerland	45	16	1.5
Great Britain	42	13	7.5

Source: Hajnal 1965 Tables 2 and 3: Mitchell 1975; Flora 1975.
Notes: Single women in Austria and Hungary are aggregated.
* per 1000 of under 15 age group.
** see discussion in text.

Table 6 Illiteracy Regressions Europe 1910

	(1)	(2)	(3)
propnsingle	-0.556	-1.425	-1.347
	(2.08)*	(3.60)**	(7.94)**
schooling	-3.73	-2.11	
	(4.07)**	(1.64)	
constant	85.165	96.129	72.128
	(14.37)**	(7.59)**	(18.00)**
Obs	19	18	19
R^2	0.87	0.71	0.6
Estimation	OLS	IV	OLS

Notes Robust t statistics in parentheses; significant at 5%; ** significant at 1%
Eqn (2) Instrumented: propnsingle, Instruments: schooling agrilab
First stage F-stat=9.34

Table 7 Illiteracy in English Counties 1885

	Age at Marriage 1861	Boys not at school 1851	Girls not at School 1851	Infant Mortality 1861	R^2	N	Estimation method
(i)	-1.7839 [-2.92]**	0.3017 [3.34]**	0.1723 [2.59]**	-	0.6684	42	OLS
(ii)	-2.0907 [-3.56]**	0.2664 [2.51]**	0.1796 [2.62]**	-	0.7695	42	Population weighted OLS
(iii)	-1.6714 [-2.07]*	0.2841 [2.68]**	0.1437 [1.98]*	0.0275 [0.94]	0.7763	42	Population weighted OLS

Notes: London excluded. Monmouth and extra metropolitan Kent, Surrey and Middlesex included. Robust t ratios in parentheses. * significant at 5%; ** significant at 1%.

Table 8 Production Function Random Effects Panel Regressions: Europe 1870-1910

Dependent variable log GNP per head

	Log Human capital (% literacy)	Log Capital (rail km per head)	Resources in agriculture	R^2 within between overall	N	Estimation
(1)	0.1167 [2.55]**	0.0799 [2.27]*	-1.5445 [-9.97]**	0.5892 0.9212 0.8703	77	Panel Random Effects
(2)	0.1186 [2.19]*	0.0703 [1.21]	-1.5871 [2.61]*	0.5899 0.9200 0.8693	77	Panel Fixed Effects
(3)	0.5109 [2.93]**	-0.0115 [0.14]	-0.8918 [-2.74]**	0.3535 0.8664 0.7516	72	Panel IV Random, ec2sls human capital and capital endogenous, Instruments: agrilab, average tariff, year, death rate. First stage F-stat 7.18 and 15.70 for human and physical capital respectively.

Note: Robust z ratios (random) or t ratios (fixed) in parentheses. A Hausman test of (i) efficient against (ii) consistent does not allow rejection of null of no systematic differences in coefficients. A Hausman test of (iii) consistent against (i) efficient does not allow rejection of null of no systematic differences in coefficients