Snopkowski, K *et al.* 2016 Pathways from education to fertility decline: a multi-site comparative study. *Phil. Trans. R. Soc. B* doi: 10.1098/rstb.2015.0156

Supplementary material

Data Analysis - Structural Equation Modelling

Structural equation modelling (SEM) is a powerful multivariate analysis tool that can include several other analyses, such as path analysis, confirmatory factor analysis, regression analyses and others. Here we use SEM to examine a path model, which uses an iterative procedure to minimize the differences between the sample variance/covariance matrix and the estimated population variance matrix using maximum likelihood estimation. By examining the covariance matrix, structural equation modelling can determine whether the proposed model fits the data. While a structural equation model produces a chi-square statistic, the likelihood ratio (LR) test of the predicted model compared to the saturated model (a model that perfectly reproduces all of the variances, covariances and means and therefore has the best possible fit) almost always finds a significant difference, so the chi-square statistic is not particular helpful in discerning between possible models. Instead, we use other methods to estimate the fit of the model, including the comparative fit index (CFI) and the root mean square error of approximation (RMSEA). The CFI ranges from 0 to 1, with values closer to 1 indicating a better fit. A cut-off criterion of CFI \geq 0.95 is currently recognised as indicative of a good fit (4). While the RMSEA index also provides information about fit, it favours parsimony by preferring models with fewer parameters. Smaller values of RMSEA are preferred and a cut-off of values less than 0.06 generally indicate good fit (4). To determine the best fit model (for each context), we maximize CFI and minimize RMSEA. The coefficient of determination (CD) is the fraction (or percentage) of variation explained by an equation of a model, and is similar to r² in linear regression. We have presented these values in each of our tables.

Variable Operationalization

Number of births

In all three sites we use number of births as our outcome variable. Many evolutionary researchers are interested in number of surviving children as this is a better proxy for reproductive success. We reran these models using surviving children as our outcome variable and present the results here in the SM. In rural Poland, all children who survived to age 15 (or currently living children less than 15) are included, while in San Borja, children surviving to age 18 or currently living are included. In Matlab, children surviving to age 10 or currently living are included. In most sites, mortality rates between ages 10 and 18 are low, so using these differing ages likely has little impact on the overall results. For example, in 2010 in Matlab the combined rate of death for all children 10-19 years was only 1.2 per 1,000 population (1), a number very unlikely to alter our results or impact our ability to compare results across sites. We also use age at first birth as an output of fertility decisions, with a recognition that earlier ages at first births tend to be associated with higher reproductive success and greater number of live births. We include age as control for all pathways, as age has a strong effect on the number of living children, secular trends in levels of education, and many of the hypothesized mediating variables.

Education

In Poland, the scale goes from none or some primary (1) to full primary (2), vocational (3), secondary (4) and tertiary (5), while in San Borja and Matlab, the range goes from none (1), low primary (2), high primary/some secondary (3), completed secondary (4) and tertiary (5). In Poland, relatively few people have never attended school, so the lowest category includes those who only have some primary schooling, since this still only includes 1% of those women sampled. In contrast, in San

Borja and Matlab, approximately 27% and 39% of participants have never attended school, respectively. The same coding structure is used to determine husband's educational level, which is used as a mediating variable in the model.

Local Mortality

One mediating variable of our pathway from education to fertility is local mortality, which is defined in slightly different ways depending on data availability. In Matlab, it is measured as the number of child deaths in a woman's marital *bari* (cluster of households) up to age 10, excluding the respondent's children, while in Poland it is measured as the rate of mortality (by the age of 5) in a woman's community. In San Borja, this was measured as the rate of mortality of the interviewee's children, her siblings, and her nieces/nephews. While in San Borja, the rate of mortality ranges from 0 to 0.6, in Poland, the maximum mortality rate is only 0.078, which reflects both the lower mortality rate in Poland and the small samples when only including one's immediate relatives.

Women's Work

Women's work is another possible mediator which is measured in several different ways. In Poland, work is a binary variable where 1 represents a woman who has ever had employment outside of the home, while in Matlab (where outside employment is rare among women) work is a binary variable where 1 represents a woman who currently has any type of job outside the home or who had one before her retirement. In San Borja, work is a categorical variable that represents increasing levels of conflict between employment and childcare, where 0 = no work outside the home, 1 = working in the home (like baking and selling bread), 2 = women who work outside the home, but have employment where they can combine work with childcare, and 3 = women who work outside the home in employment that is incompatible with childcare. This variable is measured at the time of first birth. This variable was measured in slightly different ways in each context because of data availability or because the described variable was a better fit in the model than alterative measures of work status. For the Poisson model, whether the woman ever worked is used for San Borja so the data is more comparable across the three sites.

Social Network

One mediating variable is the fertility of the social network. This is operationalized in two different ways. First, it can be examined by looking at the fertility of an individual's group of friends. In both Poland and San Borja, women were asked to report five of their closest friends and then report the number of living children of each friend. In this case, women were not limited to only report friends with completed fertility (so it is likely that both the interviewee and her friends will have additional offspring in the future). In San Borja, the mode value reported for a friend's fertility was 3 and over 80% of friends described had at least 1 child. In Poland, additional information was collected on whether the friend was kin or non-kin. In contrast, in Matlab, we use the average fertility of women living in the same *bari* (cluster of households) who were born before 1981 (to exclude individuals who would be quite early in their reproductive careers). On average, *baris* include approximately 24 women born before 1981. The second way that this was operationalized was by calculating the average number of offspring for focal women's siblings, which was collected in all three sites. While the second measure might also incorporate some genetic effects, social transmission or shared environmental characteristics are much more likely explanations of sibling effects given the rapidly changing rates of fertility in all three field sites.

Contraceptive Knowledge and Use

The use and knowledge of contraceptives are two additional variables that potentially mediate the relationship between education and reproductive success. Contraceptive knowledge was recorded in San Borja and Poland as the age at which an individual learned about contraceptives. In Poland, this was converted to age brackets measured from 0 to 7, which correspond to under age 18 (0), 18-20 (1), 21-25 (2), 26-30 (3), 31-35 (4), 36-40 (5), 41-45 (6) and over 45 (7). This variable is not available in Matlab, but almost all women are at least aware of contraceptives from adolescence or

young adulthood since Matlab has had one of the most successful family planning programs in the world. Contraceptive use is defined as either a) the age at which the woman began using modern contraceptives (in San Borja), b) the age at which women began using either modern or traditional methods of contraception (in Poland), and c) whether the woman has ever used contraceptives (in Matlab). In Poland, approximately 63% of respondents reported using any type of contraception, but only 27% reported using a modern form (see 2). Including traditional methods increases the number of women who have information about timing of use, which is important for the structural equation model, which can only model paths where there is not missing data. Since Matlab only has data on whether the woman used contraceptives, the knowledge of contraceptives was not included in the path model, but given that most people in Matlab are aware of contraceptives, it may have little effect on the decision to use contraceptives in this context.

Wealth

We have also included wealth as a variable that may mediate the effect of education or husband's education on reproductive success. This is measured differently in each site based on the insights from the local researcher about the best measure of wealth in each site. In San Borja, wealth was measured as a first principal component of the distance from town (where people who live further from the centre of town tend to have less wealth), floor type (where poorer families tend to have dirt floors), and the log of household income (at time of interview). In Poland, wealth is defined as a factor of ownership of a computer, internet connection, car, satellite TV, number of rooms in the house and household income (for more details, see 3). Finally, in Matlab, wealth is defined in two ways: 1) the log of family income and 2) whether the household owns land.

Supplementary Table S1: Descriptive Statistics

		rural Poland					San Borja				Matlab			
Continuous		mean	sd	range	n	mean	sd	range	n	mean	sd	range	n	
Number of births		2.55	2.14	0-12	1995	4.13	2.91	0-16	506	4.01	2.03	1-11	796	
Number of surviving offspring		2.50	2.10	0-12	1995	3.88	2.65	0-14	478	3.58	1.68	0-9	796	
Age at first birth		23.75	3.82	16-46	1565	19.29	3.89	13-41	478	20.26	3.47	13-43	796	
Local mortality		0.03	0.015	0-0.078	1972	0.08	0.097	0-0.625	509	1.57	1.87	0-15	796	
Fertility of friend (bari) network		2.11	1.50	0-15	1876	2.9	1.73	0-9	484	3.96	0.75	0-9	614	
Fertility of sibling network		1.84	1.4	0-11	1944	2.88	1.64	0-12	458	2.96	1.47	0-9.4	736	
Age learned about contraceptives		1.48	2.04	0-7	1861	19.68	7.46	7-60	438		data no	t available		
Age began using contraceptives		22.16	3.95	12-42	1240	23.62	5.31	14-39	275	İ	data no	t available		
Wealth (in Matlab, Income (log))		0	1	-3.3-2.64	1995	0	1	-2.4-2.23	439	11.07	1.05	6.66-14.91	796	
Age		43.9	17.81	18-91	1995	39.02	12.84	18-77	509	43.69	11.26	21-67	796	
Categorical	ı	า	%		total n	n	%		total n	n	%	i	total n	
Education					1995				497	İ			796	
	1	21	1.05%			133	26.76%			313	39.32%			
	2	320	16.04%			74	14.89%			267	33.54%			
	3	525	26.32%			164	33.00%			199	25.00%			
	4	816	40.90%			86	17.30%			8	1.01%			
	5	313	15.69%			40	8.05%			9	1.13%			
Husband's education					1623				390				796	
	1	17	1.05%			9	2.31%			259	32.54%			
	2	359	22.06%			108	27.69%			227	28.52%			
	3	849	52.31%			61	15.64%			240	30.15%			
	4	300	18.48%			182	46.67%			37	4.65%			
	5	99	6.10%			30	7.69%			33	4.15%			
Women's work					1924				508				796	
No, never worked (or not currently working)		336	17.46%			61	12.01%			755	94.85%			
Yes, worked (or is currently working)		1588	82.54%			447	87.99%			41	5.15%			
Women's work (year of first birth) - San Borja o	nly								508					
Did not work						244	48.03%							
Worked in home						57	11.22%							
Worked outside of home, compatible with ch	ildcare					174	34.25%							
Worked outside of home, incompatible with o	hildcar	e				33	6.50%							
Contraceptive Use					1995				509				796	
Never used		722	36.19%			234	45.97%			73	9.17%			
Used		1253	62.81%			275	54.03%			547	68.72%			
Unknown		20	1.00%			0	0.00%			176	22.11%			
Own Land - Matlab only													796	
No, do not own land										204	25.00%			
Yes, family owns land										592	74.37%			

Note: See above for additional details on variable operationalization. sd represents standard deviation. n represents sample size.

Supplementary Table S2: Summary of Results

Hypothesis	Poland	San Borja	Matlab
H1: Women's education leads to reduced mortality of children, which in turn, reduces overall fertility	No, mortality does not influence fertility	Yes	Yes
H2: Women's education increases the ability of a woman to enter the workforce and that work may directly complete with childbearing activities, leading women to reduce fertility	Work is associated with later age at first birth and more births.	Work is associated with later age at first birth. No direct effect on fertility	Work is associated with later age at first birth. No direct effect on fertility
H3: Women's education is correlated with husband's education, and higher levels of husband's education reduces fertility	Husband's education is associated with reduced fertility	No	Husband's education is associated with reduced fertility
H4: Women with more education have social networks with lower fertility and that people are similar in their own reproduction to their network partners	Yes	Siblings' fertility does not predict fertility, but friends' fertility tends to predict fertility	Yes
H5: Women's education increases women's knowledge of contraceptives, increasing the likelihood of its use and ultimately reducing fertility	Yes	Yes	No, using contraceptives is associated with higher fertility

Supplementary Table S3: Results of the structural equation model of the potential pathways between education and fertility in Poland, San Borja, and Matlab.

	rural Poland		San Borja			Matlab			
Path	Coef	SE	p-	Coef	SE	p-	Coef	SE	p-
Education -> Friends' fertility	-0.165	0.021	<0.001	-0.112	0.047	0.018	-0.244	0.045	<0.001
Education -> Siblings' fertility	-0.082	0.021	<0.001	-0.106	0.044	0.017	-0.138	0.032	< 0.001
Education -> Local Mortality	-0.090	0.022	<0.001	-0.125	0.050	0.012	-0.094	0.037	0.011
Education -> Contraceptive Knowledge (in Matlab, Edu -> Contra Use)	-0.192	0.018	<0.001	-0.310	0.043	< 0.001	0.107	0.046	0.020
Education -> Husband's Education	0.522	0.020	<0.001	0.432	0.045	< 0.001	0.676	0.027	< 0.001
Education -> Work	0.296	0.025	<0.001	0.155	0.044	< 0.001	0.107	0.035	0.002
Education -> Wealth (in Matlab, Educ -> Income (log)	0.237	0.025	<0.001	0.192	0.067	0.004	0.142	0.042	0.001
Education -> Age at first birth	0.243	0.027	<0.001	0.237	0.051	<0.001	0.185	0.039	< 0.001
Education -> Number of births	-0.102	0.024	<0.001	-0.081	0.038	0.031	е	xcluded	
Contraceptive Knowledge -> Contraceptive Use	0.134	0.043	0.002	0.555	0.052	<0.001	informati	on not av	/ailable
Husband's education -> Wealth (in Matlab, Husband's educ -> Income	aval	udad		0.265	0.067	~ 0.001	0.210	0.041	<0.001
(log)		uded	0.001	0.365	0.067	<0.001		0.041	<0.001
Work -> Wealth (in Matlab, Work -> Income (log))	0.075	0.022	0.001		0.050	<0.001		xcluded 0.039	0.004
Friends' Fertility -> Age at first birth	-0.078	0.029	0.007		excluded	0.100			
Siblings' Fertility - > Age at first birth	-0.069	0.027	0.011	-0.080		0.100		0.038	<0.001
Local Mortality -> Age at first birth		uded	10.001		excluded	10.001		xcluded	0.000
Contraceptive Use -> Age at first birth	0.503	0.025	<0.001		0.056	<0.001	-0.078		0.060
Husband's education -> Age at first birth		uded	0.002		excluded	0.050		xcluded	10.001
Work -> Age at first birth	0.079	0.027	0.003		0.048	0.058		0.033	<0.001
Wealth -> Age at first birth (in Matlab, Income (log) -> Age first birth)	-0.082	0.024	0.001	0.220	0.060	<0.001	-0.066	0.034	0.052
Wealth -> Number of births (in Matlab, Income (log) -> Number of births)	0.107	0.018	<0.001	-0.159	0.047	0.001	۵	xcluded	
Friends' Fertility -> Number of births	0.107	0.018	<0.001	0.049	0.047	0.001	0.167	0.028	<0.001
Siblings' Fertility -> Number of births	0.133		<0.001		excluded	0.210	0.085	0.028	0.012
Local Mortality -> Number of births		uded	10.001	0.068	0.029	0.021	0.121	0.028	< 0.001
Contraceptive Use -> Number of births	0.102	0.030	0.001	0.265	0.052	< 0.001	0.067	0.030	0.024
Husband's education -> Number of births	-0.061	0.022	0.001		excluded	10.001	-0.061		0.018
Work -> Number of births	0.052	0.022	0.003		excluded			xcluded	0.010
Age at first birth -> Number of births	-0.229	0.022	<0.001	-0.309	0.035	<0.001	-0.174	0.026	<0.001
Age -> Friends' Fertility	0.503	0.020	<0.001	0.494	0.039	<0.001	-0.078	0.046	0.089
Age -> Siblings' Fertility	0.572	0.018	< 0.001	0.488	0.040	<0.001	0.567	0.028	<0.001
Age -> Local Mortality		uded	101001	0.096	0.050	0.054	0.379	0.035	<0.001
Age -> Contraceptive knowledge	0.629	0.015	<0.001	0.346	0.043	<0.001	information		
Age -> Contraceptive use	0.369		<0.001	0.265	0.053	<0.001		0.051	0.001
Age -> Husband's education	-0.135	0.025	< 0.001	-0.223	0.049	<0.001		0.032	<0.001
Age -> Work	0.230	0.025	<0.001		excluded	101001		xcluded	.0.001
Age -> Wealth (in Matlab: Age -> Income (log))	-0.157		<0.001		0.061	<0.001		xcluded	
Age -> Age at first birth		uded	101001		excluded	101001		xcluded	
Age -> Number of births	0.374	0.026	<0.001		0.045	<0.001		0.035	<0.001
Wealth -> Friends' Fertility (in San Borja only)					0.048				
Education -> Own Land (in Matlab only)				0.232	0.0.0	101001	e	xcluded	
Husband's Education -> Own Land (in Matlab only)							-0.057		0.065
Age -> Own Land (in Matlab only)								0.027	<0.001
Work -> Own Land (in Matlab only)								xcluded	10.001
Own Land -> Age at first birth (in Matlab only)								0.036	0.016
Own Land -> Number of births (in Matlab only)							0.062	0.029	0.032
BIC	6.	2388.16		7	22840.01			7065.51	0.032
CFI		0.982			0.969			0.989	
RMSEA		0.982			0.043			0.028	
CD		0.825			0.772			0.778	
n		1995			509			796	
"		1000		ı	303		I	, 50	

*without this path, the San Borja model was not a good fit.
'Excluded' indicates that the path worsened the fit of the model by decreasing CFI, increasing RMSEA or increasing BIC. The p-values for these paths were always p > 0.10.

Comparing the effects of different outcome variable: number of births vs. number of surviving offspring

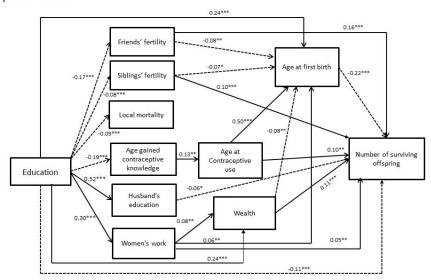
In the following tables and figures, we re-analyse our data to examine the models if we use number of surviving offspring instead of number of births. Our results show that the results from rural Poland are substantively the same. This is not surprising given the low rate of infant and child mortality. In San Borja, the only difference is the effect of mortality, which has no significant effect on number of surviving offspring, but does significantly predict number of births, where greater mortality is associated with more births. Given the higher rate of mortality in San Borja than rural Poland, this is not surprising. Additionally, local mortality is measured as the rate of mortality of the interviewee's children, her sibling's and her nieces/nephews in San Borja. Since this is the mortality of the interviewee and her close kin, we may be seeing the effect of replacement births, where women have additional births after the death of an offspring as opposed to the response of extrinsic community-level mortality rates. In Matlab, the only change involves the effect of husband's education on fertility; where husband's education is a significantly associated with number of births (as husband's education increases, the number of births decreases), but husband's education is not significantly associated with number of surviving children. It is possible that husband's education is also tied to the likelihood of child mortality, so while there is a negative association with number of births, women whose husbands have lower education also have higher rates of child mortality, resulting in husband's education having little effect on number of surviving children.

Supplementary Table S4: Results of the structural equation model of the potential pathways between education and number of surviving offspring in Poland, San Borja, and Matlab.

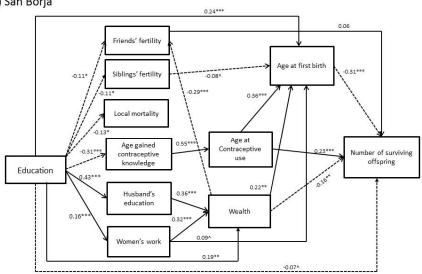
_	rural Poland			:	San Borja		Matlab		
Path	Coef	SE	p-value	Coef	SE	p-value	Coef	SE	p-value
Education -> Friends' fertility	-0.165	0.021	<0.001	-0.112	0.047	0.017	-0.205	0.039	<0.001
Education -> Siblings' fertility	-0.082	0.021	<0.001	-0.106	0.044	0.017	-0.137	0.032	<0.001
Education -> Local Mortality	-0.090	0.022	<0.001	-0.125	0.050	0.012	-0.094	0.037	0.011
Education -> Contraceptive Knowledge (in Matlab, Edu -> Contra Use)	-0.192	0.018	<0.001	-0.310	0.043	<0.001	0.109	0.046	0.017
Education -> Husband's Education	0.522	0.020	<0.001	0.432	0.045	<0.001	0.676	0.027	<0.001
Education -> Work	0.296	0.025	<0.001	0.156	0.044	<0.001	0.107	0.035	0.002
Education -> Wealth (in Matlab, Educ -> Income (log)	0.237	0.025	<0.001	0.192	0.067	0.004	0.210	0.041	< 0.001
Education -> Age at first birth	0.242	0.027	< 0.001	0.247	0.054	<0.001	0.187	0.039	< 0.001
Education -> Number of surviving children	-0.106	0.024	< 0.001	-0.071	0.040	0.076		excluded	
Contraceptive Knowledge -> Contraceptive Use Husband's education -> Wealth (in Matlab, Husband's educ -> Income (log)	0.131 ex	0.043	0.002	0.552 0.362	0.055 0.067	<0.001 <0.001	informa	ition not av	vailable
Work -> Wealth (in Matlab, Work -> Income (log))	0.075	0.022	0.001	0.322	0.050	<0.001		excluded	
Friends' Fertility -> Age at first birth	-0.077	0.029	0.008		excluded		-0.103	0.039	0.008
Siblings' Fertility - > Age at first birth	-0.069	0.027	0.012	-0.096	0.054	0.074	-0.145	0.038	< 0.001
Local Mortality -> Age at first birth	ex	cluded			excluded			excluded	
Contraceptive Use -> Age at first birth	0.504	0.025	< 0.001	0.259	0.062	<0.001	-0.079	0.041	0.056
Husband's education -> Age at first birth	ex	cluded			excluded			excluded	
Work -> Age at first birth	0.079	0.027	0.003	0.094	0.049	0.053	0.115	0.033	< 0.001
Wealth -> Age at first birth (in Matlab, Income (log) -> Age first birth) Wealth -> Number of surviving children (in Matlab, Income (log) ->	-0.081	0.024	0.001	-0.208	0.063	0.001	-0.066	0.034	0.055
Number of surviving children)	0.111	0.018	<0.001	-0.165	0.049	0.001		excluded	
Friends' Fertility -> Number of surviving children	0.156	0.023	<0.001	0.061	0.042	0.145	0.150	0.027	<0.001
Siblings' Fertility -> Number of surviving children	0.096	0.022	<0.001		excluded		0.098	0.033	0.003
Local Mortality -> Number of surviving children		cluded			excluded		0.084	0.027	0.002
Contraceptive Use -> Number of surviving children	0.099	0.030	0.001	0.230	0.056	<0.001	0.095	0.030	0.001
Husband's education -> Number of surviving children	-0.056	0.022	0.011		excluded			excluded	
Work -> Number of surviving children	0.056	0.018	0.002		excluded			excluded	
Age at first birth -> Number of surviving children	-0.222	0.022	<0.001	-0.304	0.037	<0.001	-0.250	0.026	<0.001
Age -> Friends' Fertility	0.503	0.020	<0.001	0.492	0.039	<0.001		excluded	
Age -> Siblings' Fertility	0.572	0.018	<0.001	0.489	0.040	<0.001	0.567	0.028	<0.001
Age -> Local Mortality		cluded		0.095	0.050	0.055	0.379	0.035	<0.001
Age -> Contraceptive knowledge	0.629	0.015	<0.001	0.346	0.044	<0.001		ition not a	
Age -> Contraceptive use	0.370	0.037	<0.001	0.259	0.055	<0.001	0.165	0.051	0.001
Age -> Husband's education	-0.135	0.025	<0.001	-0.223	0.049	<0.001	0.152	0.032	<0.001
Age -> Work	0.230	0.025	<0.001		excluded	.0.004		excluded	
Age -> Wealth (in Matlab: Age -> Income (log))	-0.157	0.025	<0.001	0.230	0.062	<0.001		excluded	
Age -> Age at first birth		cluded	.0.004	0.039	0.064	0.545	0.200	excluded	.0.004
Age -> Number of surviving children	0.368	0.026	<0.001	0.428	0.048	<0.001	0.399	0.035	<0.001
Wealth -> Friends' Fertility (in San Borja only)				-0.292	0.048	<0.001			
Education -> Own Land (in Matlab only)							0.057	excluded	0.005
Husband's Education -> Own Land (in Matlab only)							-0.057	0.031	0.065
Age -> Own Land (in Matlab only)							0.499	0.027	<0.001
Work -> Own Land (in Matlab only)								excluded	
Own Land -> Age at first birth (in Matlab only)							-0.084	0.036	0.018
Own Land -> Number of surviving children (in Matlab only)		C22CE 21	<u> </u>		22704.00		0.108	0.028	<0.001
BIC		62365.06	0]	22791.03			26486.61	
CFI		0.981			0.966			0.987	
RMSEA		0.043			0.044			0.030	
CD		0.824			0.767			0.772	
n		1995			509			796	

*without this path, the San Borja model was not a good fit.
'Excluded' indicates that the path worsened the fit of the model by decreasing CFI, increasing RMSEA or increasing BIC. The p-values for these paths were always p > 0.10.

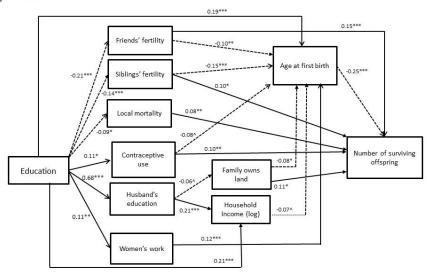
Supplementary Figure 1: Structural equation model of the pathways between education and number of surviving offspring in a) rural Poland, b) San Borja, and c) Matlab. All models include age as a control (not shown, see Supplementary Table 2). p < 0.10, p < 0.05, p < 0.01,
a) rural Poland



b) San Borja



c) Matlab



Supplementary Table S5: Poisson regression analyses predicting total surviving offspring in Poland, San Borja, and Matlab

	rı	ıral Polar	nd		San Borja	ı	Matlab			
	Coef.	SE	p-value	Coef.	SE	p-value	Coef.	SE	p-value	
Contraceptive Use (ref = ne	ver used)									
Used Contraceptives	0.035	0.037	0.342	0.112	0.055	0.040	0.158	0.053	0.003	
Unknown contraceptive										
use	0.223	0.130	0.087				-0.077	0.069	0.268	
Sibling fertility	0.030	0.012	0.011	0.018	0.018	0.310	0.037	0.013	0.005	
Friends' fertility	0.032	0.012	0.006	0.047	0.017	0.007	0.102	0.018	<0.001	
Women's work	0.059	0.045	0.192	0.002	0.066	0.974	-0.122	0.064	0.059	
Local mortality	-1.564	0.886	0.078	0.192	0.265	0.469	0.014	0.007	0.037	
Wealth	0.049	0.015	0.002	-0.077	0.029	0.007				
Income (log)							0.014	0.015	0.352	
Owns Land							0.144	0.044	0.001	
Husband's education (ref =	lowest leve	1)								
2	-0.136	0.102	0.184	-0.163	0.226	0.471	-0.017	0.033	0.604	
3	-0.208	0.108	0.053	-0.119	0.232	0.608	-0.056	0.040	0.168	
4	-0.304	0.111	0.006	-0.199	0.228	0.382	-0.062	0.076	0.416	
5	-0.302	0.123	0.014	-0.333	0.247	0.178	-0.077	0.102	0.451	
Women's education (ref = le	owest level)								
2	0.112	0.107	0.295	-0.001	0.077	0.986	0.073	0.032	0.021	
3	0.138	0.114	0.225	-0.133	0.066	0.045	0.023	0.050	0.651	
4	0.036	0.116	0.759	-0.118	0.089	0.184	-0.233	0.168	0.167	
5	-0.097	0.120	0.422	-0.095	0.155	0.540	0.061	0.164	0.711	
Age at first birth	-0.035	0.004	<0.001	-0.041	0.008	<0.001	-0.033	0.005	<0.001	
Age	0.013	0.001	<0.001	0.025	0.003	<0.001	0.018	0.002	<0.001	
Constant	1.268	0.174	<0.001	1.130	0.256	<0.001	0.206	0.241	0.393	
n		1337		•	285		•	577		
lote: SE represents standard	error. Bold	values re	present p<0	.05.		•				

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