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Richard Mussa*

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Abstract

This paper looks at the relationship between the likelihood of being in regular wage employment and parental education for Malawian youth. It uses data from the third integrated household survey (IHS3). Only a mother's education is found to have a statistically significant effect on the likelihood of being in regular wage employment for young females and males. It is established that the effect of a mother's education on young males is significantly larger than that for young females. The paper also finds that regardless of gender, a mother's education complements/reinforces the positive effect of a youth's own education on the probability of being in wage employment. The evidence from this paper points to the existence of an intergenerational poverty trap; with children of uneducated mothers or mothers with low education finding themselves outside regular wage jobs.

Keywords: youth employment; parental education; Malawi

1 Introduction

Most studies looking at the role of parental education (e.g. Lam & Schoeni, 1993; Agnarsson & Carlin, 2002; Li & Luo, 2004) and labour market outcomes have dwelled on the relationship between parental education and earnings. Typically, these studies find that parental education has a positive and significant effect on earnings. These studies thus focus on the intensive margin. In most developing countries, better jobs are in wage employment, not self-employment, and within wage employment there is also a ranking with regular wage jobs being better than casual wage jobs (Fields, 2011). Because regular wage jobs are better, Fields (2011) argues that "everybody" in developing countries would like to have a regular wage job. Given the low levels of wage employment in the developing world, and the desire by many to be in wage employment, it is surprising that there is a paucity of literature which looks at the relationship between the probability of

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being in wage employment and parental education. In a developing country context, while looking at the role of parental education on earnings maybe important, it is arguably more important to understand how parental education affects the likelihood that one will be in regular wage employment.

This paper thus takes a step back from the intensive margin analysis, and looks at the correlation between the probability of being in wage employment for young Malawians and parental education. As is shown in more detail in Section 2, the wage employment picture for the youth in Malawi is typical of that of most developing countries; the proportion of the youth in regular wage employment is lower than that of adults. A vast majority of the youth are in self-employment, unpaid family work, and own-account work. Although some of the youth who are self-employed do so as a matter of choice, the majority are what Banerjee & Duflo (2007) describes as “penniless entrepreneurs” or “reluctant entrepreneurs,” who are self-employed because they can’t find wage jobs. This paper answers three interrelated questions. First, given the low levels of regular wage employment among the youth in Malawi, and controlling for a youth’s own education, does parental education affect the probability of wage employment? Second, does parental education reinforce or reduce the effect of own education on the probability of wage employment? In other words, does parental education complement or substitute own education?

The rest of the paper unfolds as follows. Section 2 presents an economic and employment profile for Malawi. Section 3 looks at the methodology and variables used. Section 4 provides a description of the data used and summary statistics. This is followed by empirical results in Section 5. Section 6 concludes.

2 An Economic and Employment Profile for Malawi

Malawi’s economic growth experience in the recent past has been hailed as a success story. Table 1 provides selected employment and economic indicators for Malawi over the period 2004 and 2011. The economy grew at an average annual rate of 6.2% between 2004 and 2007, and surged further to an average growth of 7.5% between 2008 and 2011. This growth was primarily driven by strong growth in the agricultural sector which employs many of the country’s poor people. Despite these high economic growth rates, poverty declined marginally. The percentage of poor people was 52.4% in 2004, and it was 50.7% in 2011. Further to that, the high economic growth rates did not translate into more jobs as is evidenced by the fact that the unemployment rate marginally increased from 7.8% in 2004 to 9% in 2011. Two things are noteworthy with respect to the youth unemployment rate. First, the youth unemployment rate rose from 12.6% in 2004 to 15.2% in 2011. Second, the youth unemployment rates were higher than those for the entire population. The higher unemployment rate for youths is consistent with what obtains in most countries.

Malawi’s population is young. The table shows that the share of the youth in total

population has remained fairly static. Around one in five of the Malawian population is aged 15-24. One consequence of the young nature of the Malawian population is that there are many new entrants to the labour force each year. This means that the number of people of working age, i.e., between 15 and 64, will also grow rapidly. Levels of regular wage employment especially for the youth suggest that wage employment is a small part of the labour market in Malawi. The rest are either in unpaid family work or in self-employment. Overall wage employment increased from 9.3% of the labour force in 2004 to 13.4% in 2011. Interestingly, the share of the youth in wage employment decreased from 8.7% of the labour force in 2004 to 6.4% in 2011. Thus, although there has been an increase in wage employment over this five year period, it is adults who have benefitted from the increase. In terms of the type of employer of those in wage employment, Table 1 shows that overall most of the people who work for a wage were employed by either private individuals or private companies. A similar pattern emerges for the youth. Over this period, there was a shift towards public sector employment. Although the levels of employment in this sector were low, and were even lower for the youth; it is noteworthy that public sector employment for the youth increased by 7.4 percentage points between 2004 and 2011.

3 Empirical Strategy and Specification

To assess the relationship between youth wage employment and parental education, the paper uses a multilevel/hierarchical logit model. An extended discussion of this model and other generalized linear models can be found in for example Rabe-Hesketh & Skrondal (2008) and McCulloch et al. (2008). Consider an individual (young man or woman) i who resides in community j which is in district l . Let y_{ijl} be a dichotomous response variable defined as; $y_{ijl} = 1$ if the individual works for a wage, and $y_{ijl} = 0$ otherwise. The probability that the individual is in wage employment can be modelled using the following three level random effects logit

$$\Pr(y_{ijl} = 1 | \eta_{ijl}) = \Lambda(\eta_{ijl}) \quad (1)$$

such that Λ is a logistic cumulative distribution function (cdf), and η_{ijl} is the predictor which can be expanded to accommodate explanatory variables as follows

$$\eta_{ijl} = \beta_0 + \beta_1 s_{ijlo} + \beta_2 s_{ijlm} + \beta_3 s_{ijlf} + \beta_4 A_{ijl} + z'_{ijl} \delta + u_l + \omega_{jl} \quad (2)$$

where; s_{ijlo} is own years of schooling, s_{ijlm} is mother's years of schooling, s_{ijlf} is father's years of schooling, A_{ijl} is an individual's age measured in years, and $\beta_1, \beta_2, \beta_3, \beta_4$ are the corresponding coefficients, β_0 is an intercept, δ is a vector of coefficients for control vari-

ables $z_{ijl}, \omega_{jl} \sim N(0, \sigma_\omega^2)$ are community level random effects, assumed to be uncorrelated across communities, and uncorrelated with covariates, $u_l \sim N(0, \sigma_u^2)$ are district level random effects, assumed to be uncorrelated across districts, uncorrelated with covariates, and uncorrelated with the community level random effects.

The random effects accommodate cross-community and cross-district differences in the probability of wage employment. They thus capture the combined effect of all omitted covariates at the community and district levels that make some individuals to be more likely to be in wage employment than others on account of the place they live only. For instance, young people living in the same geographical area may exhibit similar lifestyle behaviour, attitudes towards work, or be influenced by the same local policy. The random effects may also capture non-worker-related (demand-side) characteristics such as condition of roads in the community/district, and the general level of economic development of the community/district which reflect local employment opportunities and the local demand for labour. The extent of this clustering is measured by decomposing the overall error variance into two components, leading to an intra-class correlation coefficient (ICC), $\rho_1 = \frac{\sigma_\omega^2}{\sigma_u^2 + \sigma_\omega^2 + \frac{\pi^2}{3}}$, which measures the strength of clustering within the community, and $\rho_2 = \frac{\sigma_u^2}{\sigma_u^2 + \sigma_\omega^2 + \frac{\pi^2}{3}}$, which measures the strength of clustering within the district. $\frac{\pi^2}{3}$ is a level-one variance of the idiosyncratic error term, which is assumed to follow a logistic distribution. ρ_1 and ρ_2 approach one if unobserved differences between communities and districts matter more than unobserved differences within communities and district. The ICCs will be close to zero if the reverse holds. A likelihood ratio (LR) test of the null hypothesis $H_0 : \sigma_\omega^2 = \sigma_u^2 = 0$, is used to determine the presence of random effects. If there is no clustering, the random effects logit reduces to an ordinary one level logit. The random effects logit is estimated using maximum likelihood with adaptive quadrature.

To determine the nature of the relationship between youth wage employment, parental schooling, and own education, I use the signs and magnitudes of the marginal effects $\frac{\partial \Lambda(\eta_{ijl})}{\partial s_{ijlo}} \Big|_{\zeta_{jl}=0}$, $\frac{\partial \Lambda(\eta_{ijl})}{\partial s_{ijlf}} \Big|_{\zeta_{jl}=0}$, and $\frac{\partial \Lambda(\eta_{ijl})}{\partial s_{ijlm}} \Big|_{\zeta_{jl}=0}$, where, $\zeta_{jl} = u_l + \omega_{jl}$. The wage employment model is also estimated separately for young men and women to investigate whether the effect of education on wage employment differs by gender.

To investigate whether the effect of own education depends on parental schooling i.e. whether parental schooling complements own schooling or substitutes for it, equation (2) is augmented with own schooling-parental schooling interaction variables to get

$$\eta_{ijl} = \beta_0 + \beta_1 s_{ijlo} + \beta_2 s_{ijlm} + \beta_3 s_{ijlf} + \beta_4 A_{ijl} + \beta_{12} s_{ijlo} s_{ijlm} + \beta_{13} s_{ijlo} s_{ijlf} + z'_{ijl} \delta + u_l + \omega_{jl} \quad (3)$$

I derive the own schooling-mother's schooling interaction effect as

$$\begin{aligned} \left. \frac{\partial^2 \Lambda(\eta_{ijl})}{\partial s_{ijlo} \partial s_{ijlm}} \right|_{\zeta_{jl}=0} &= \beta_{12} \Lambda(\eta_{ijl}) \dot{\Lambda}(\eta_{ijl}) \\ &+ (\beta_2 + \beta_{12} s_{ijlo}) (\beta_1 + \beta_{12} s_{ijlfm} + \beta_{13} s_{ijlff}) \Lambda(\eta_{ijl}) \dot{\Lambda}(\eta_{ijl}) \ddot{\Lambda}(\eta_{ijl}) \end{aligned} \quad (4)$$

where $\dot{\Lambda}(\eta_{ijl}) = 1 - \Lambda(\eta_{ijl})$, $\ddot{\Lambda}(\eta_{ijl}) = 1 - 2\Lambda(\eta_{ijl})$. The interaction effects and their standard errors are obtained through the delta method by using the *predictnl* command in Stata 12. Ai & Norton (2003) derive similar interaction effects for probit and logit models without random effects. I use the statistical significance and signs of the interaction effects to determine whether father's schooling complements own schooling (if $\left. \frac{\partial^2 \Lambda(\eta_{ijl})}{\partial s_{ijlo} \partial s_{ijlm}} \right|_{\zeta_{jl}=0} > 0$) or acts as substitute for own schooling (if $\left. \frac{\partial^2 \Lambda(\eta_{ijl})}{\partial s_{ijlo} \partial s_{ijlm}} \right|_{\zeta_{jl}=0} < 0$). The own schooling-father's schooling interaction effect is measured in an analogous manner.

In addition to the variables already discussed, the following control variables are also used. Wage employment opportunities are more prevalent in urban areas than in rural areas. This reflects the fact that most industries and government institutions are based in urban areas. I capture this rural-urban difference in wage employment opportunities by adding a rural-urban dummy variable, which is equal to one if a youth stays in an urban area, and zero otherwise. Malawi is divided into three regions (north, centre, and south), and in order to capture possible regional fixed effects in youth wage employment, I introduce two regional dummies namely; north and centre.

4 Data Description and Summary Statistics

The data used in the paper are taken from the third integrated household survey (IHS3). It is statistically designed to be representative at both national, district, urban and rural levels. The survey was conducted by the National Statistical Office from March 2010 to March 2011. A stratified two-stage sample design was used. At the first stage, enumeration areas, representing communities, as defined in the 2008 Population Census, stratified by urban/rural status with sampling probability proportional. At the second stage, random systematic sampling was used to select households. The survey collected information from a sample of 12271 households. A total of 768 communities were selected from 31 districts across the country. In each district, a minimum of 24 communities were interviewed while in each community a total of 16 households were interviewed. In addition to collecting household level data, the survey collected employment, education, and other socio-economic data on individuals within the households. About 56000 individuals were covered.

While in most other contexts, a young person is defined as a person aged 15 to 24

years, for purposes of this study, the sample is restricted to the youth aged 15-35 who are in the labour force. This age restriction is imposed for two reasons. First, some young people remain in education beyond the age of 24 years, and extending the upper limit ensures that there is more information on their post-graduation employment experiences. Second, the restriction enables the study to properly examine the interaction between age and parental education in order to ascertain the channel through which parental education affects youth wage employment. The youth labour force includes the youth who at the time of the survey were working or had a job to return, or if offered a job they would accept it or they were actively looking for a job. With these restrictions and after data cleaning, I end up with a youth labour force of 10266 youths with non-missing data. The paper adopts the definition of wage employment used in IHS3, which only refers to those in regular wage employment, and excludes those doing *ganyu* (casual labour).

Table 2 shows the education profile of youths and their parents. Overall, 63.0% and 60.6% of the youths have the same years of education as their mother's and father's respectively. This implies that education mobility in Malawi is low. A closer look at the youth-parent education relationship reveals some interesting patterns. Young males have a relatively higher education mobility compared to young females. Specifically, 70% of young females have the same years of education as their mothers while only 55.2% of young males have the same years of education as their mothers. The same pattern is observed for fathers. Here, 65.4% of young females have same level of schooling as their fathers, and by contrast, 55.2% of young males have identical years of education as their fathers. Additionally, the results indicate that 42.1% and 35.1% of male youth are more educated than their mothers and fathers respectively. For young females the figures are lower, with 25.9% and 19.7% being more educated than their mothers and fathers respectively.

Table 3 presents summary statistics of the independent variables used in the study. In addition to overall summary statistics, differences and their statistical significance by status in wage employment are also reported. The youth who are in wage employment are significantly older than those who are not. Compared to their counterparts who are not in wage employment, the results indicate that the youth in wage employment are significantly more educated, and have significantly more educated parents. A deeper analysis of the relationship between the likelihood of being in wage employment and education is done in the next section. The results also reveal that wage employment is significantly differentiated by area; precisely, 48% and 18% of urban and rural youth respectively are in wage employment.

5 Econometric Results

Results on model specification tests using LR tests, and the extent of clustering at the community and district levels using intraclass correlation coefficients are reported in Table

4. Three models are estimated; one for all youth, and two differentiated by gender. The LR tests results lead to the rejection of the null hypothesis of no community and district level random effects in all the three models. This conclusion has two implications; first, even after controlling for individual characteristics, there are significant community-specific and district-specific factors which affect the probability that a youth is employed for a wage, and, second, estimating a standard binary logit model in this context is invalid. These spatial differences in the probability of wage employment could for example reflect geographically-differentiated exposure to social policy programmes or local wage employment opportunities. In terms of clustering, the results reveal that for all three models, the ICCs at the community level are larger than those at the district level; suggesting that clustering is more pronounced at the community level than at the district level. Overall, the ICCs range from 17% to 22%; this means the vast majority of the variation in wage employment (78% to 83%) exists within communities and districts rather than between them.

Table 5 presents marginal effects for the three models. Before looking at the results on the relationship between education and wage employment, I briefly focus on the results for the control variables. The pooled model with a gender dummy indicates that young men have a 14 percentage points higher probability of being in wage employment than young women. This female disadvantage in wage employment can possibly be explained by the inflexibility imposed by traditional gender roles or by gender based employment discrimination. An LR test of whether it is appropriate to estimate a pooled regression of young men and women is rejected ($\chi^2 = 31.12$). The rest of the discussion henceforth is based on the gender-differentiated results.

Age has a statistically significant positive effect on the probability of wage employment for both young women and men. This positive relationship could be due to a number of reasons. First, the younger the person the more likely it is that they can afford unemployed jobsearch rather than being tied to an undesirable job (Kingdon & Knight, 2004). Second, the younger one is the more likely it is that they may not have financial commitments, and therefore more likely to be selective in terms of the jobs that they accept. Third, younger men and women may have higher reservation wages arising from being more ignorant about what their skills can command in the labour market (Kingdon & Knight, 2004). Finally, it may also reflect the fact that employers look for experience-which the youth may not have- when recruiting workers. Interestingly, the results show that the marginal effect of age for young men is about 0.01 percentage points larger than that for young women. This difference is statistically significant with a z-statistic of 6.73 (i.e. $z = (0.0123 - 0.0025) / (0.0004^2 + 0.0014^2)^{0.5}$). This means that the incentive for young men to find wage employment is more pronounced than that for young women. This perhaps reflects the fact that in a male dominated society like Malawi, men are expected to provide for their families as breadwinners, and this expectation increases with

age.

Even after controlling for spatial community and district random effects, the results show that there are regional and rural-urban differences in the probability of wage employment. Young males and females who reside in the northern region have a significantly lower probability of wage employment than those who stay in the southern region. There is however no statistically significant difference in the likelihood of wage employment between the south and centre. This lower probability of wage employment in the north might be explained by the fact that most of the industries and public sector offices are located in the south and the centre. The results also indicate that urban youth are more likely to be employed for a wage than their rural counterparts. Further to that, the results reveal that even though urban youth are more likely to be in wage employment, the urban coefficient is 22 percentage points larger for young males than for young females, this means that the difference in the employment likelihood between urban and rural males is 22 percentage points larger than the difference between urban and rural females. This difference is statistically significant with a z-statistic of 5.83 (i.e. $z = (0.2604 - 0.0397)/(0.0081^2 + 0.037^2)^{0.5}$).

I now turn to the main focus of this paper, and discuss the results reported in Table 5, on the relationship between the probability of youth wage employment and education. The results for both young females and males show that own education has a positive and statistically significant effect on the probability of wage employment. The marginal effect of own education for young males (0.0147) is larger than that for young females (0.0063); suggesting that an additional year of schooling increases the likelihood of wage employment for males more than it does for females. The youth's own education could be measuring two things namely; it could be capturing job rationing where employers ration jobs by education level or it could be reflecting the possibility that educated individuals have more realistic wage expectations. This paper cannot distinguish between the two possible explanations.

In terms of parental education, the results indicate that both a mother's and a father's education have a positive effect on the probability of wage employment. However, only a mother's education has a statistically significant effect on wage employment for young females and males. Interestingly, the marginal effect of a mother's education on young males is statistically not larger than that for young females. The z-statistic for the difference is 0.81 (i.e. $z = (0.0037 - 0.0017)/(0.0006^2 + 0.0024^2)^{0.5}$). This implies that young males in Malawi do not benefit more from an additional year of schooling of their mothers than young females. It is also notable that even though a mother's education has a statistically significant effect on wage employment, the magnitude of the marginal effects for both young females and males are smaller than those for own education. This means that when it comes to wage employment, a youth's own education matters more than a mother's.

There are two possible mechanisms through which parental education may affect their children's labour market outcomes. First, parental education may act as a proxy for children's unmeasured ability which captures some general skills inherited from, instilled or bequeathed by parents (Rubinstein & Tsiddon, 2001). These general skills include; innate ability, temperament, values, and working habits. Second, it may represent social networks/nepotistic family connections in the labour market which reflect the social capital that parents have. Social networks in a labour imply that there are labour market imperfections. Due to data constraints, the paper is unable to say anything about whether the significant effect of a mother's education is capturing the general skills the individual youth obtains (unmeasured ability) or is it capturing the skills that their parents have (social networks).

The next issue addressed in this paper is whether parental education reinforces or reduces the effect of own education on the probability of wage employment. In other words, does the effect of one's education on the probability of wage employment depend on parental education? The results of this analysis are reported in Table 6. The table contains average own education-parental education interaction effects. The own education-father's education interaction effect is positive but statistically insignificant. This means that the effect of own education on the probability of wage employment does not depend on a father's education; so a father's education neither complements nor diminishes the effect of own education. In contrast, the own education-mother's education interaction effect is positive and statistically significant. This suggests that mother's education complements/reinforces the effect of own education on the probability of wage employment. It is noteworthy that the average interaction effect for young males is larger than that for young females. This implies that there is a stronger complementary relationship between own education and mother's education for young men than young women.

6 Conclusion and Policy Implications

The paper has looked at the relationship between the probability of regular wage employment and parental education of Malawian youth. It has used data from the third integrated household survey (IHS3). The results show that both young females and males, own education have a positive and statistically significant effect on the probability of regular wage employment. Only a mother's education has been found to have a statistically significant effect on the likelihood of wage employment for young females and males. It has been found that the effect of a mother's education on young males is significantly larger than that for young females. The findings indicate that a mother's education complements/reinforces own education.

The results from this paper lead to long term and short term policy implications. A number of studies (e.g. Maurin & McNally, 2008; de Haan, 2011) have found evidence of

intergenerational transmission of human capital whereby parents with higher education levels are more likely to have children with higher education levels. As noted earlier, regular wage employment in developing countries is generally better than self-employment and casual wage employment. The evidence from this paper that youths whose mothers are more educated are more likely to be in regular wage employment points to the existence of an intergenerational poverty trap; with children of uneducated mothers or mothers with low education finding themselves outside regular wage jobs. Breaking this cycle entails subsidizing girls' education, and other policies like affirmative action which ensure that there more girls in school. More educated girls now means more educated mothers in future, and this will turn lead to more youths in regular wage employment.

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Table 1: Malawi's economic and employment profile

Indicator	2004	2011
GDP growth	6.2 ^a	7.5 ^b
Poverty headcount	52.4	50.7
Share of youth in total population	19.6	18.3
Overall unemployment rate	7.8	9.3
Youth unemployment rate	12.6	15.2
Overall share in wage employment	9.3	13.4
Youth's share in wage employment	8.7	6.4
Overall wage employment and type of employer		
Private Company	30.2	31.8
Private Individual	37.1	33.0
Government/parastatal	18.5	28.2
Other	14.3	6.9
Youth wage employment and type of employer		
Private Company	23.3	23.6
Private Individual	59.1	60.9
Government/parastatal	3.7	11.1
Other	13.9	4.4

^a Average GDP growth for 2004-2007, ^b average GDP growth for 2008-2011. Other includes those employed by church/religious organizations, political parties, public works programmes, and non-governmental organizations. The youth are defined as those aged 15-24.

Source: NSO (2005, 2012a, 2012b)

Table 2: Parental education and youth (age 15-35) education

	Female youth	Male youth	All youth
Same as mother's	70.02	55.20	63.07
Mother less educated	25.85	42.08	33.46
Mother more educated	4.13	2.72	3.47
Total	100.00	100.00	100.00
Same as father's	65.35	55.16	60.57
Father less educated	19.67	35.06	26.88
Father more educated	14.99	9.78	12.55
Total	100.00	100.00	100.00
Observations	5451	4815	10266

Table 3: Descriptive statistics of variables by status in wage employment

Variable	All	In wage employment		Difference (No-Yes)
		No	Yes	
age of individual	26.20	25.82	28.06	-2.24***
male	0.47	0.41	0.75	-0.34***
own education	3.75	2.99	7.44	-4.45***
father's education	2.38	2.03	4.08	-2.05***
mother's education	1.03	0.78	2.24	-1.46***
north	0.20	0.21	0.18	0.03**
centre	0.36	0.37	0.35	0.01
urban	0.23	0.18	0.48	-0.30***
Observations	10266	8514	1752	10266

*** indicates significant at 1%; ** at 5%; and, * at 10%.

Table 4: Likelihood ratio (LR) tests and inter-cluster correlation coefficients (ICC)

Model	Hypothesis	LR statistic	Conclusion	ICC	
				ρ_1	ρ_2
All	$H_0 : \sigma_\omega^2 = \sigma_u^2 = 0$	234.23	Reject H_0	0.17	0.01
Female	$H_0 : \sigma_\omega^2 = \sigma_u^2 = 0$	176.65	Reject H_0	0.13	0.04
Male	$H_0 : \sigma_\omega^2 = \sigma_u^2 = 0$	17.54	Reject H_0	0.20	0.02

Table 5: Marginal effects of wage employment for the youth

Variable	All	Female	Male
age of individual	0.0059*** (0.0006)	0.0025*** (0.0004)	0.0123*** (0.0014)
male	0.1355*** (0.0087)		
own education	0.0090*** (0.0007)	0.0063*** (0.0006)	0.0147*** (0.0015)
father's education	0.0004 (0.0007)	0.0002 (0.0005)	0.0004 (0.0018)
mother's education	0.0033*** (0.0009)	0.0017*** (0.0006)	0.0037* (0.0024)
north	-0.0333*** (0.0110)	-0.0183*** (0.0045)	-0.0583*** (0.0284)
centre	-0.0153 (0.0109)	-0.0060 (0.0048)	-0.0371 (0.0263)
urban	0.1369*** (0.0205)	0.0397*** (0.0081)	0.2604*** (0.0370)
Observations	10266	5451	4815

Standard errors in parentheses. *** indicates significant at 1%; ** at 5%; and, * at 10%.

Table 6: Own education, and own education-parental education interaction effects

Variable	Female	Male
own education	0.0057 ^{***} (0.0006)	0.0134 ^{***} (0.0016)
own education x father's education	0.0002 (0.0002)	0.0003 (0.0003)
own education x mother's education	0.0004 ^{**} (0.0002)	0.0006 [*] (0.0004)
Observations	5451	4815

Standard errors in parentheses. *** indicates significant at 1%; ** at 5%; and, * at 10%.