Gender Bias in Education Expenditure in Iraq: Evidence from Household Socio-economic Survey

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Abstract

This paper examines the nature, scope, and plausible determinants of gender discrimination in allocating household resources by examining the education expenditure on boys' and girls' education in Iraq. Using data from the household expenditure survey conducted in 2007, we find a strong male bias in household resource allocation in Iraq. However, there exist considerable variations in this bias depending on the age of the child, income level of the household, rural-urban divide, and the regions of Iraq. These results suggest that parents' allocation of resources for education expenditure for boys and girls is motivated by the economic interest of the households.

Introduction

- Gender differences in educational opportunity is widely documented.
- Intra-household differences in educational expenditure observed in many countries.
- We don't have in-depth studies for the Middle Eastern countries due to lack of household level expenditure data.
- Iraq conducted a socio-economic survey in 2007 and thus paved the way to examine the gender differences in the intra-household education expenditure.

Methodology

We adopt Working Leser specification of the Engel curve to estimate the following equation:

$$ES_i = \alpha + \beta * ln(\frac{x_i}{n_i}) + \gamma * ln(n_i) + \sum_{k=1}^{k-1} \theta_k (\frac{n_{ki}}{n_i}) + \psi c_i + \epsilon_i$$

where ES_i is the budget share on education by a family i; x_i is the total expenditure of the household; n_i is the number of members in the family; $ln(\frac{x_i}{n_i})$ is the natural log of the total per capita expenditure; $\frac{n_{ki}}{n_i}$ is the fraction of the household members in kth age-gender class within a household; c_i is the vector of other household characteristics such as household heads education, age, gender, occupation, location of the household and ϵ_i is the error term.

We employ 14 age-gender groups: males and females aged 0-4, 5-9,10-14, 15-19, 20-24, 25-60, and 61 and above. The θ_k coefficients measure the effect of family composition on a household's budget on education. The variation across gender will be analyzed utilizing an F-test under the following null hypothesis:

$$\theta_{km} = \theta_{kf}$$

where m stands for males and f stands for females and k relates to an indicated age-category.

Results

The difference in marginal effect (DME)*100 of gender variables by age group (all households): Conditional OLS estimates

State	Age 5-9	Age 10 - 14	Age 15 -19
Iraq	2.63**	3.03*	4.62*
Duhok	42.83***	8.26*	8.44**
Mosul	15.95**	9.45*	11.98***
Baghdad	1.27	-0.80	9.45**
Najaf	2.87	1.75	0.15
Basrah	4.29	8.74	2.85

· p < 0:10, ** p < 0:05, *** p < 0:01

Parents of school-going children in Iraq spend about 2.6% more on education if a boy of the age 5-9 is added compared to a girl of the same age added to the household.

Conclusion

We find that when a boy is added to a particular age group the households are having higher education expenditure than a girl is added to the same age group.

This gender discrimination is more pronounced for older children, rural areas, and there exist regional variations.

As girls are married off to another household and the norm dictates that the male child is supposed to take care of the older parents and there are fewer job opportunities for girls, the observed gender discrimination in the context of education expenditure indicating the results of an economic decision.

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