SECONDARY SCHOOL ADMISSION IN RWANDA: EFFECTS OF FREE EDUCATION, SCHOOL PERFORMANCE AND SOCIOECONOMICS BACKGROUND

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In 2000:Some development constraints for Rwanda

- Poverty, scarcity of land,
- high fertility and
- absence of mineral resources.

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In 2000: adoption of Vision 2020

- To transform an economy based on subsistence-oriented agriculture into a knowledge-based economy;
- To focus on investment in the quality of the nation's principal asset - its people.

Free education as first step of Vision 2020

- In primary: increase in enrolment: 67% in 1990 to 95% in 2010;

- In secondary: Rwanda managed to boost the number of lower secondary students by 25% within a year.

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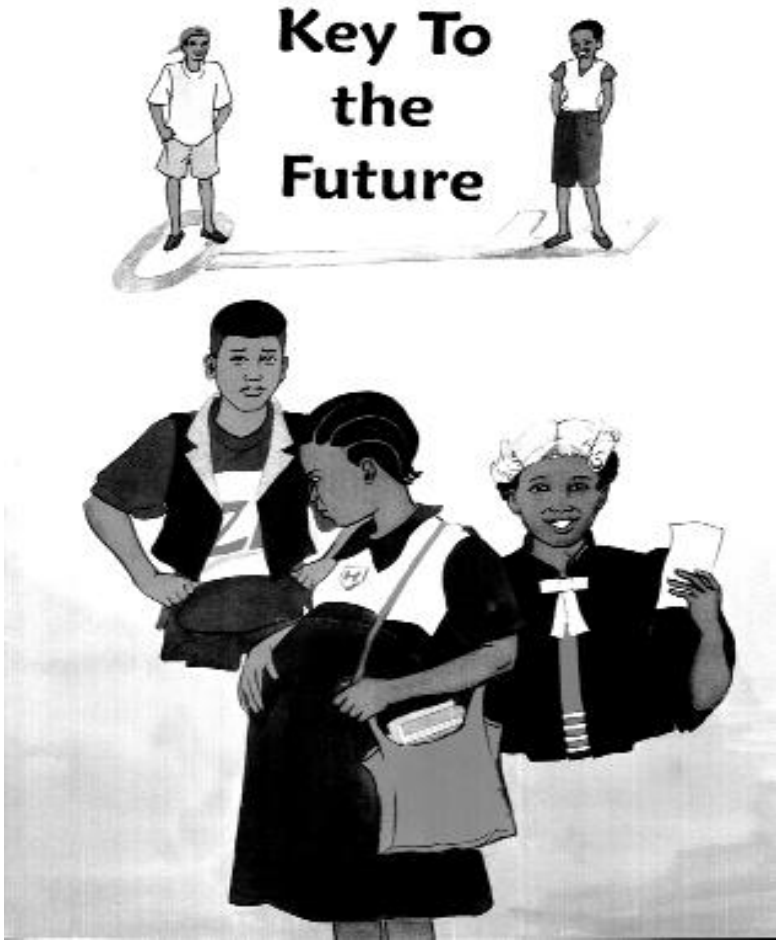
Why this research?

- Education is a necessary step to achieve the ambitious plan;
- Education can be a powerful driver of progress toward achieving the other MDGs too;
- The current economic climate and competitive job market have made obtaining more than primary certificate more important than ever.



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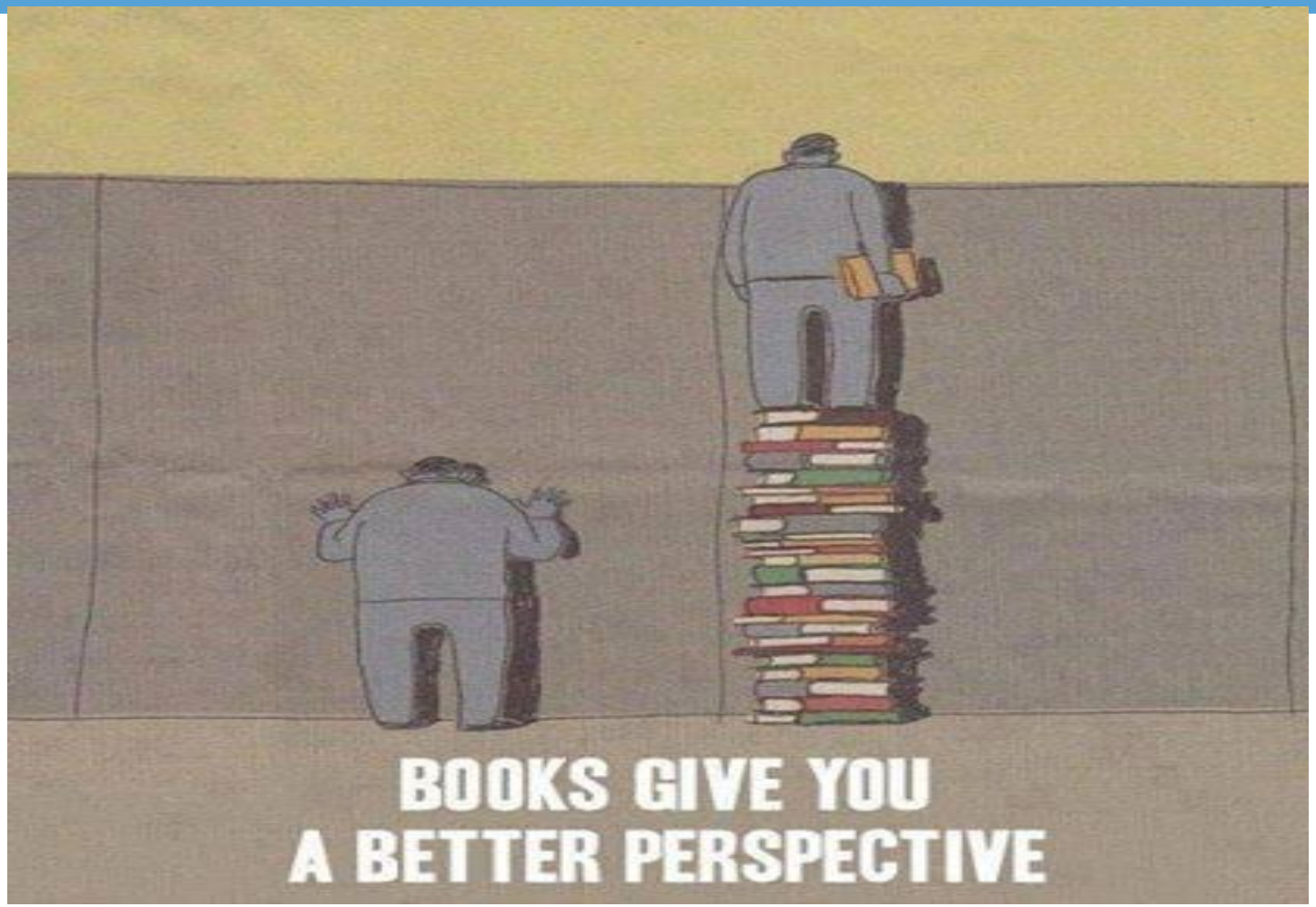

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Research question and Hypotheses

- What is the probability to access secondary school before and after introduction of 9YBE?

- What are the leading predictors in admission in one of the three types of secondary schools (public/government subsidized, 9YBE or private schools)?

Main hypothesis

- Apart from the school performance level in primary school leaving exams, little is known about other leading predictors of admission into one of the three types of secondary schools.
- While school performance is expected to be leading factor in admission to public/government subsidised schools, we are expecting that the home environment could be the leading factor in student admission in private or 9YBE schools for the less performing students.

Methods & dependent variable

- Why a Heckman probit analysis?
- A regression analyzing on attending secondary schools by using characteristics for the 14–17 years old children with a primary school certificate would lead to biased results, as the ones who are still attending primary schools with a second chance of completing primary later will not be included in the sample.
- Heckman probit analysis to control for sample selectivity and provide asymptotically efficient estimates for all the parameters.

Methods & dependent variable

- Why a Chi-squared Automatic Interaction Detection (CHAID) analysis?
- To choose the predictors that have the strongest interaction with the type of school frequented by students after a P6 National exams.
- Why a Generalized Ordered Logit (GOL) analysis?
- To determine how strong the magnitudes are the predictors of the student' admission in one the three types of secondary schools.

Data

- Integrated Household Living Conditions Surveys conducted by the National Institute of Statistics for Rwanda (NISR) in 2005 and 2011.
- ✓ Our sample (n=9,957) from these datasets included all children aged 14 to 17 years.

- Basic social-demographic information on in total 1,519 students enrolled in 20 secondary schools during 2011 school year.

Data

- Have completed primary school and continue in secondary education (13.47% in 2005 (72.5%) and 23.02% in 2011 (89.8%) of the selected group had done so,
- Have completed primary school but did not (yet) continued education in a secondary school (0.5% in 2005 (27.5%) and 0.27% in 2011 (10.2%) of the selected group had done so,
- 81.4% in 2005 and 74.5% in 2011 were still attending primary school or out of school without a P6 certificate.

Poverty and socio-economics background

	Attend secondary in 2005 (%)	Attend secondary in 2011 (%)
Child from extreme poor family	51.9	83.7
Child from poor family	64.9	89.1
Child from non-poor family	78.9	91.6
No education level or up to 5 primary level	65.1	86.9
Primary completed	74.8	92.5
More than primary level	81.8	95.8
No under school age siblings	74.9	90.6
Presence of under school age siblings	68.0	89.9

other variables

- household head occupation status,
- Number of time repeated primary class;
- area of residence;
- Type of primary school frequented;
- Age;
- the presence of parents,
- income transfers received.

Findings for outcome model

	2005	2011
Constant	1.15***	0.76***
14 years (Ref. cat.)		
15 years	-0.22	0.33**
16 years	-0.26	0.58***
17 years	-0,21	1.06***
Child from extreme poor household (Ref. cat.)		
Child from poor household	0.29*	0.22
Child from non-poor household	0.57***	0.25***
Number of times repeated primary class	0.01	-0.28***
Child without under school age sibling (Ref. Cat.)		
Child with under school age sibling	-0.12	-0.03

Findings for Selection model

	2005	2011
Constant	-1.54***	-0.89***
14 years (Ref. cat.)		
15 years	0.40***	0.37***
16 years	0.79***	0.80***
17 years	0.97***	1.14***
HH not educated or up to 5 primary (Ref. cat.)		
HH with primary completed	0.35***	0.33***
HH with more than primary level	0.76***	1.01***
Number of times repeated primary class	-0.23***	-0.36***
Log(transfers received)	0.11***	0.16***
Child without under school age sibling (Ref. Cat.)		
Child with under school age sibling	-0.39***	-0.35***

Findings for CHAID Analysis

- *P6NE marks* is the best predictor of the secondary school frequented by a child after a P6 national exam.
- For the students who got *Grade I* in P6 national exams and when they were admitted to the school they *have chosen during the P6NE*, over 90% of those students who spent less than 1 hour on domestic works were admitted in Public schools,
- 55.4% of those who spent 1 hour and more time on domestic work were admitted in public schools.

Findings for CHAID Analysis

- For the students who got *Grade 1* in P6NE and when they were admitted to the school they *have not chosen during the P6NE*, over 50% of those students who are up to 15 years old were admitted in Public schools, while only 60.7% of those who were more than 15 years old were admitted in 9YBE schools.

Findings for CHAID Analysis

- While 63.3% of the students who got Grade II in P6 national exam and who were using non foot means for primary schooling were admitted in private secondary schools, they were only 57.5% to be admitted in private secondary schools when their Grade in P6 national exam was III and more.

Findings for Generalized Ordered Logit Analysis

- For the admission in 9YBE contrasted to admission in private or public/government subsidized secondary schools, girls are likely than boys to be admitted in private or public/government subsidized secondary schools. For the admission in 9YBE and Private secondary school contrasted to public/government subsidized secondary schools, girls are more likely than boys to be admitted in public/government subsidized secondary schools.

Findings for Generalized Ordered Logit Analysis

- For the admission in 9YBE contrasted to admission in private or public/government subsidized secondary schools, children from household with a monthly income beyond 5000Rwf are likely than the ones from household with less income to be admitted in private or public/government subsidized secondary schools.

Conclusion

- The 9YBE policy appears as open windows to access to secondary school for most of the pupils from poor families and the ones who were previously excluded due to the limited capacity at secondary level (level III and more).
- The best performers pupils are admitted in boarding schools (when parents are able to support the related cost), which is an enabling environment for further education progress.
- Rwanda needs to implement an efficient and effective job creation policy.

Limitations

- With only two 9YBE generations, it was still too early to fully evaluate the implementation of these strategies and their sustainability.
- Further work may be needed to establish the shift in the factors that might encourage or hinder the poorest groups' transition to upper secondary level and assess whether the current policies by the government are adequate.