



**L'enfant et ses proches.**  
**Dynamiques familiales en Afrique Subsaharienne**  
*Children and family dynamics in sub-Saharan Africa*



**26-28 octobre 2016**

Institut national d'études démographiques (Ined)  
133, boulevard Davout, 75020 Paris

**Investigating between- and within-family differences in children's time allocation to schooling and work in northwestern Tanzania /**

*Explorer les différences inter- et intra-familiales dans l'allocation du temps scolaire et du temps productif dans le Nord-Ouest de la Tanzanie*

***Sophie Hedges (LSHTM, UK), Rebecca Sear (LSHTM, UK), Jim Todd (NIMR, Tanzania), Mark Urassa (NIMR, Tanzania) and David W. Lawson (Department of Anthropology / University of California, US)***

Scolarisation, travail et santé des enfants : la configuration familiale compte-t-elle ?

*How do school, work and child health interact with family structure?*



## Gender differences in educational outcomes and household work in northwestern Tanzania



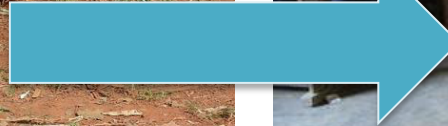
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<sup>1</sup> London School of Hygiene and Tropical Medicine, London, UK

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# Study background



- Industrialisation / urbanisation – associated with decline in children's work and increase in education
- Trade-offs in contemporary developing societies?

# Gender, education and child labour



**SUSTAINABLE DEVELOPMENT GOALS**

**4 QUALITY EDUCATION**



**5 GENDER EQUALITY**



**World Day Against  
CHILD LABOUR**

**12 JUNE 2015**



International  
Labour  
Organization





# Study aims

- To describe the forms and levels of children's work and school attendance in two villages representing a gradient from more urban to more rural
  - Expect more work and less education in rural village
- To assess the household structure and child-level determinants of time allocation to school and work activities
  - Gender: expect more investment in boys' education
  - Gender: expect gendered division of time i.e. boys – agriculture, girls – domestic chores



# Data collection

## Household surveys:

- Household roster
- Livelihoods
- Assets and food security
- Attitudes

## For children aged 7-19:

- Interview with parent / guardian about education
- Interview with child / young person
  - Work history
  - Time allocation





# Data collection

Nambari ya kitambulisho ya mtoto

71001028 - 5

Shughuli

Asubuhi Mchana Jioni Usiku

12 1 2 3 4 5 6 7 8 9 10 11 12 1 2 3 4

Kunawa

Kufata maji

Kuacha vyombo

Kwenda shamba

Kupika

Kula

Kupumzika

Kuoga

Kulala

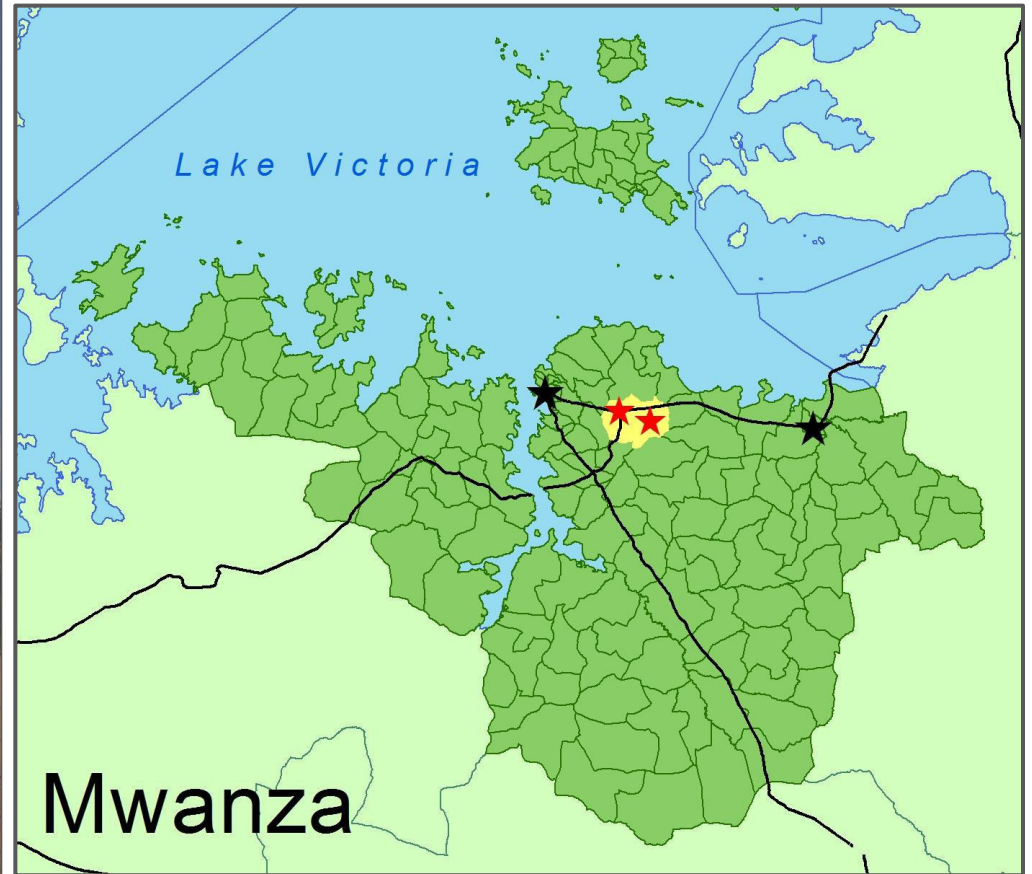
Lumacolor

trocken abwischbar von Whiteboards  
waagrecht liegen \* kann tagelang offen liegen ohne einzutrocknen\*

dry wipe  
dry wipe from whiteboards \* store horizontally  
can lie open for days without drying out

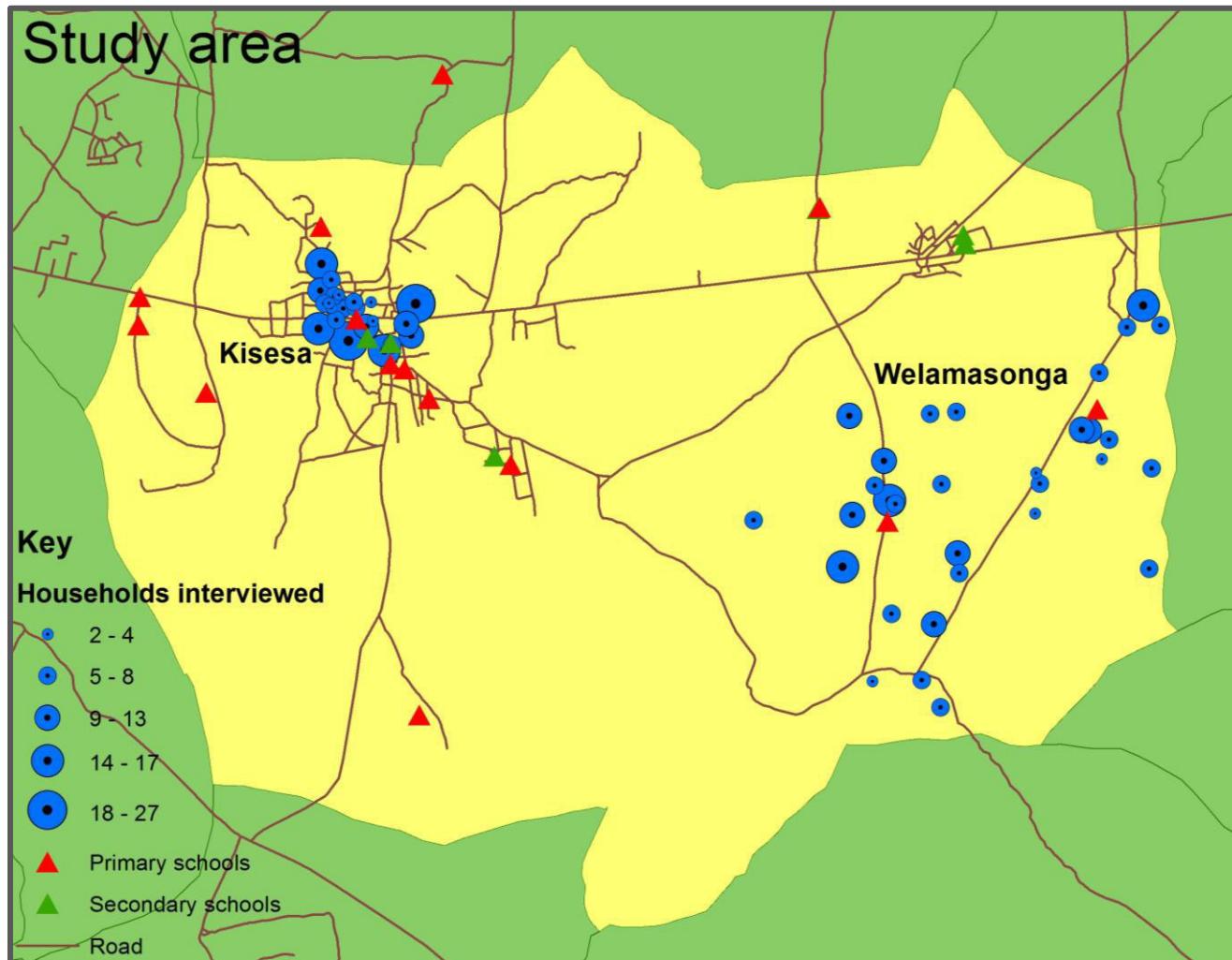


# Study site

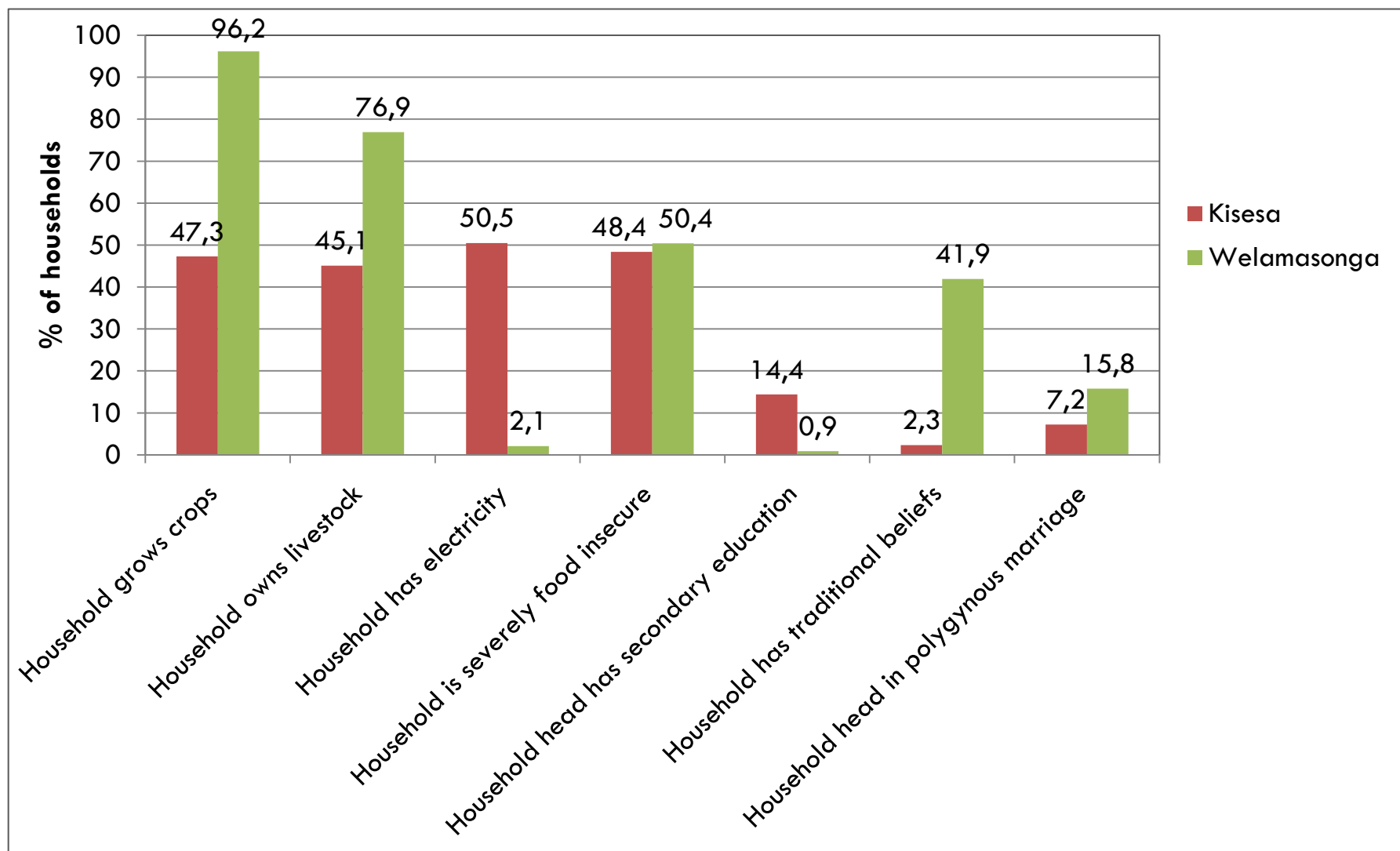




# Study site



# Village differences

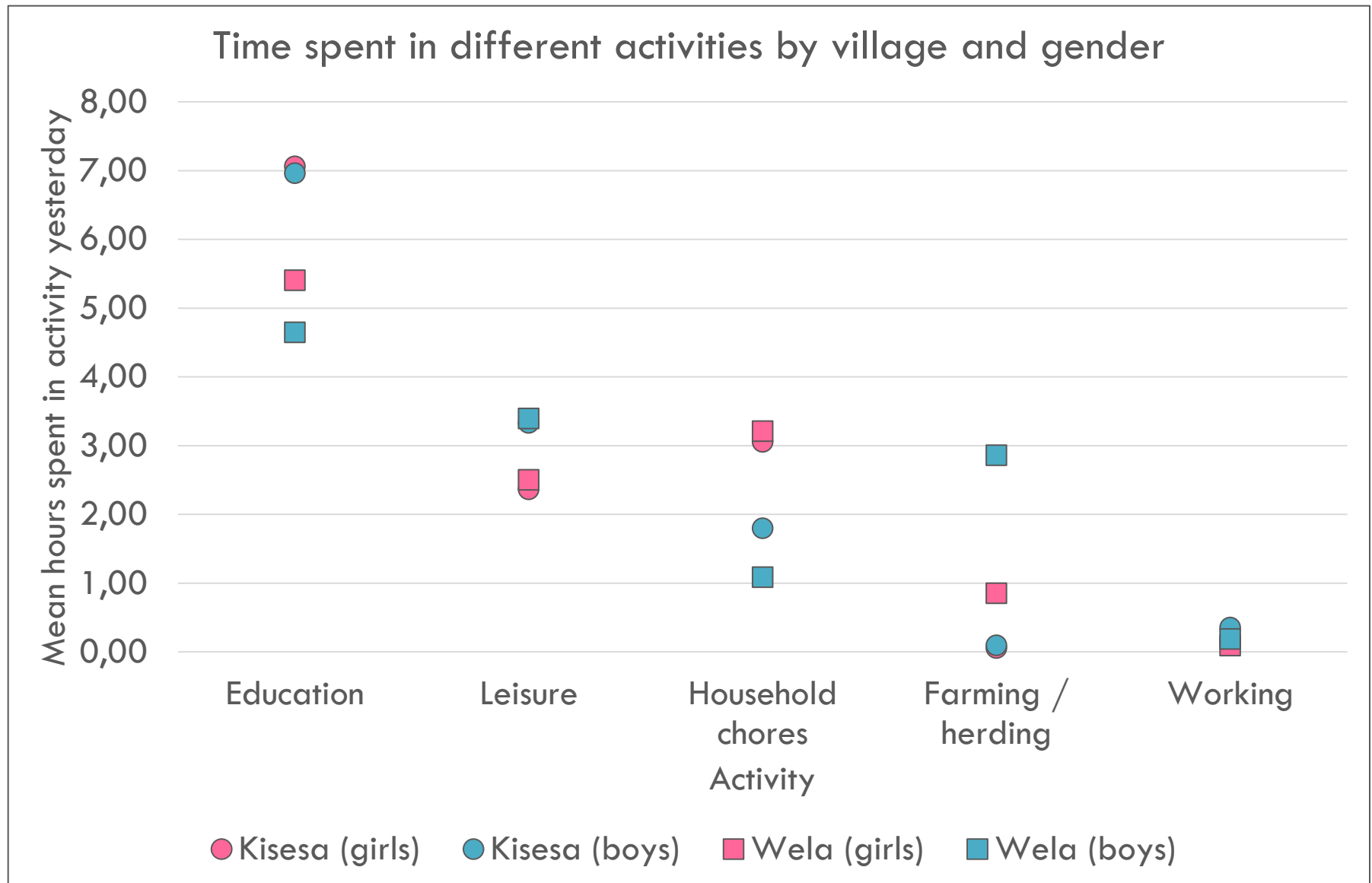


# Sample size and educational outcomes

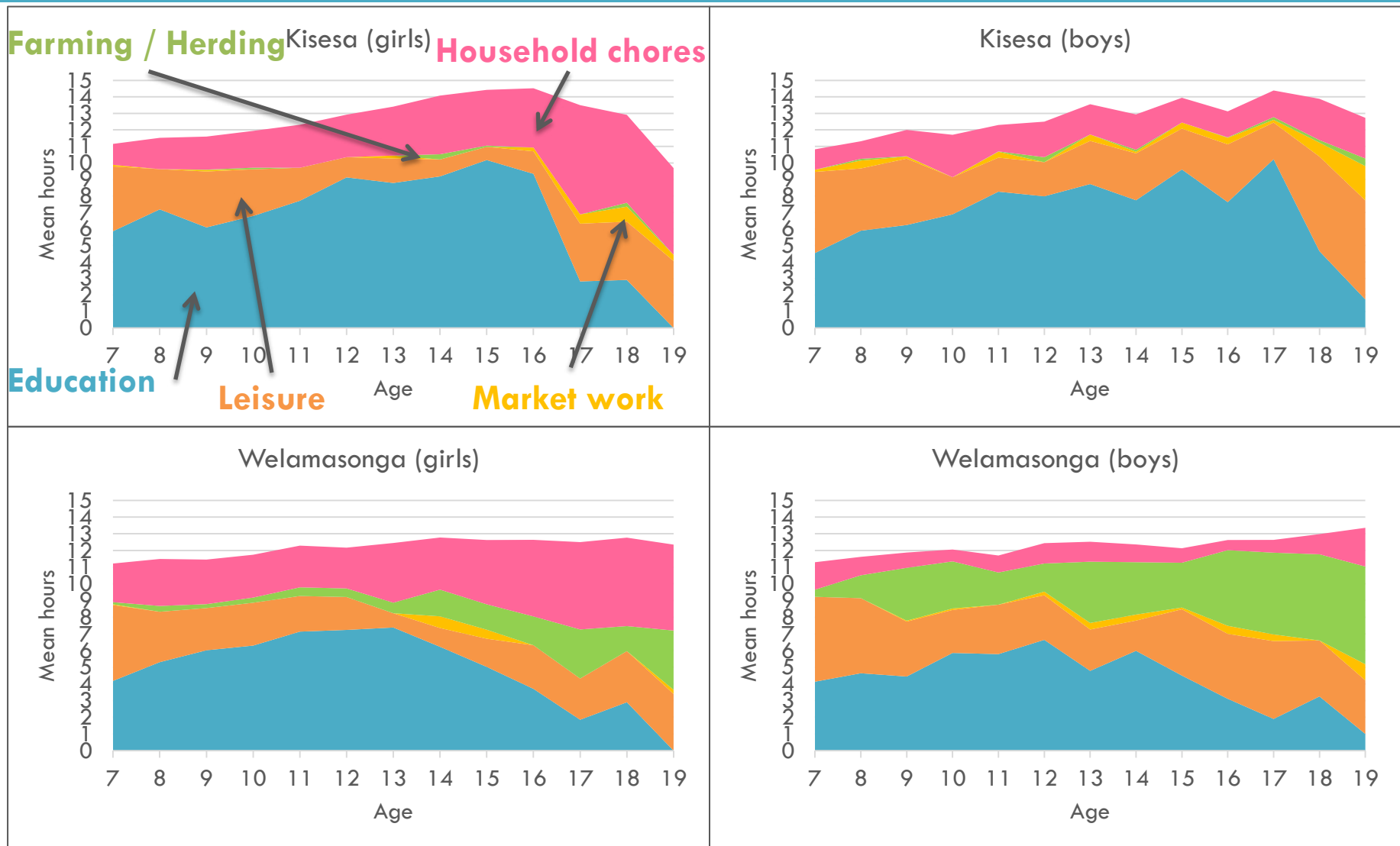
Sample:	Kisesa		Welamasonga		Total
Number of households	222		234		456
Number of children	619		768		1,387
Number of children interviewed	538		740		1,278
Household size (mean)	7.1		8.0		7.6
Education variables:	Girls	Boys	Girls	Boys	Total
Currently enrolled in education (N=1,387)	83.95	87.80	79.10	70.51	79.76
Attended school yesterday (N=1,032)	91.10	86.30	87.70	86.60	87.90
Grade repetition (N=1,365)	17.03	22.79	20.75	19.36	19.93
Progressed to secondary school (N=526)	76.22	68.50	33.33	30.22	52.66
Years of education (mean)	7.15	6.73	5.32	4.99	5.96



# Results: Descriptive statistics



# Results: Time allocation



Education Leisure Market work Farming / Herding Household chores

# Results: Regression models

	Years of education	Time spent in educational activities yesterday	Currently enrolled in education	Has not repeated a grade	Progression to secondary school (14-19 year olds)
Age	<b>0.74**</b>	-0.04	<b>-0.72**</b>	-0.03	0.07
Rural	-0.43	-0.21	<b>-4.24**</b>	-0.90+	<b>-1.80**</b>
Male	<b>-0.44**</b>	-0.44+	<b>-2.94**</b>	-0.12	<b>-4.99*</b>
Rural # age	<b>-0.07**</b>	<b>-0.15*</b>	<b>0.18*</b>	0.07+	
Male # age			<b>0.19**</b>		<b>0.29*</b>
Observations	1,385	1,278	1,387	1,362	526

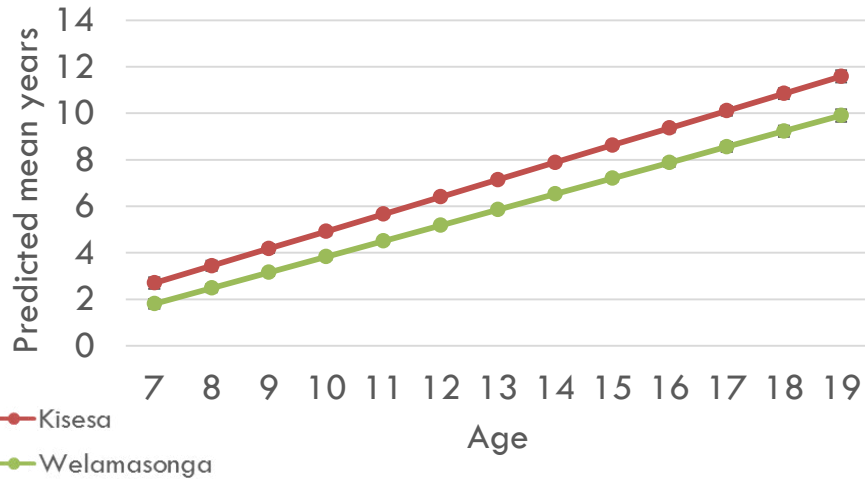
Beta coefficients presented

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$

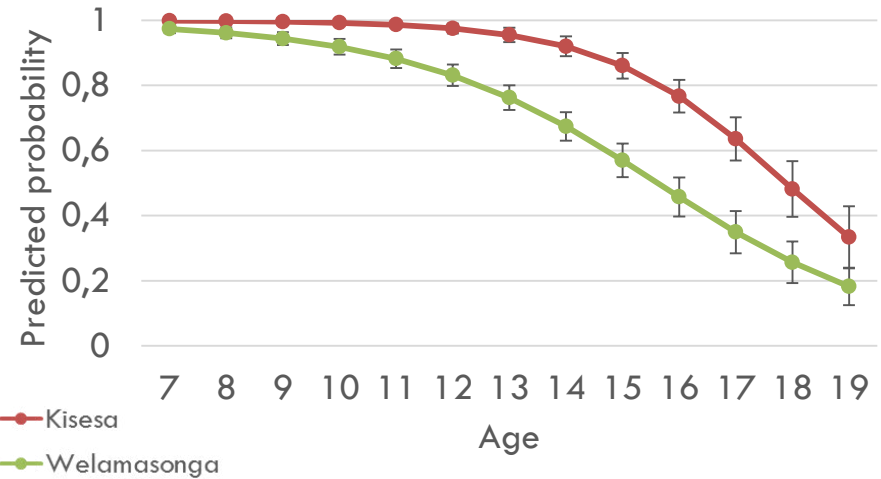


# Education by age and village

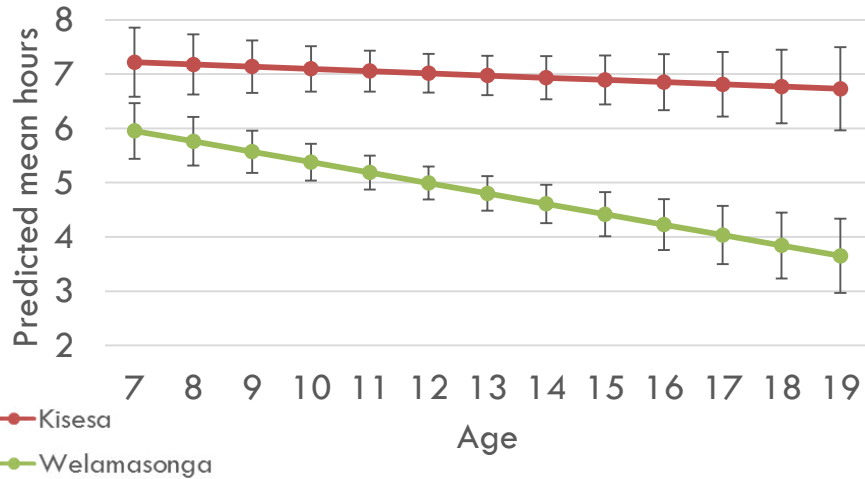
## Years of education



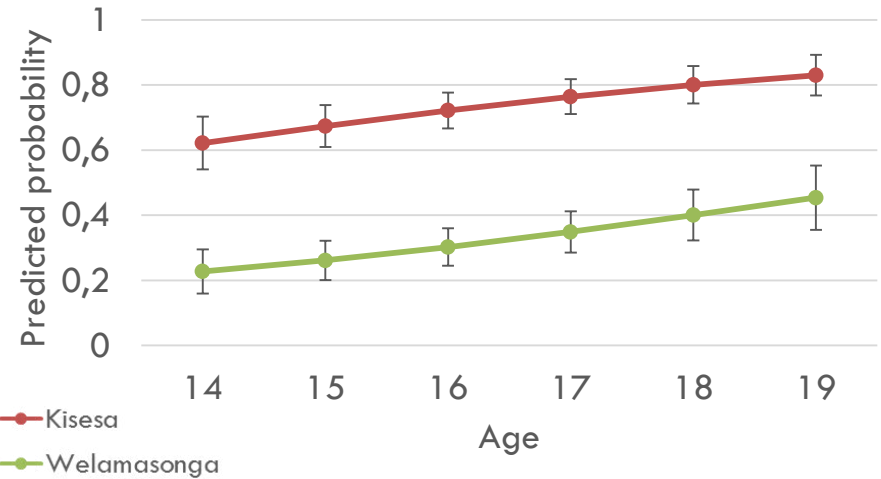
## Current enrolment



## Time spent in education yesterday



## Progression to secondary school



# Results: Regression models

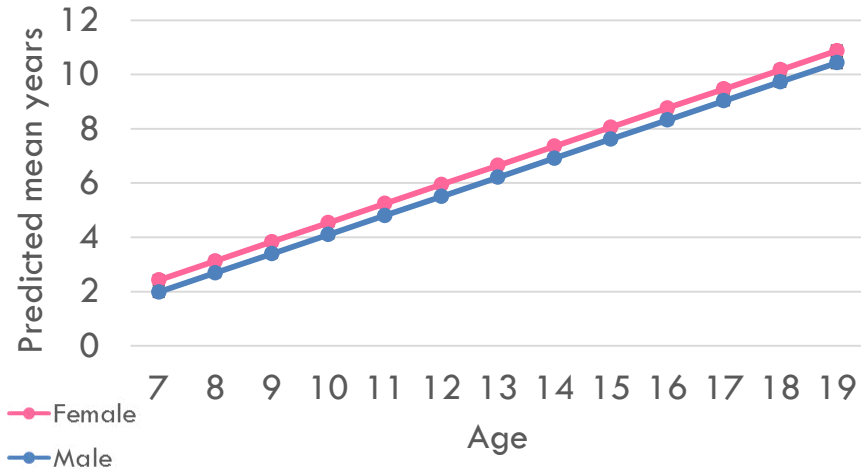
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Beta coefficients presented

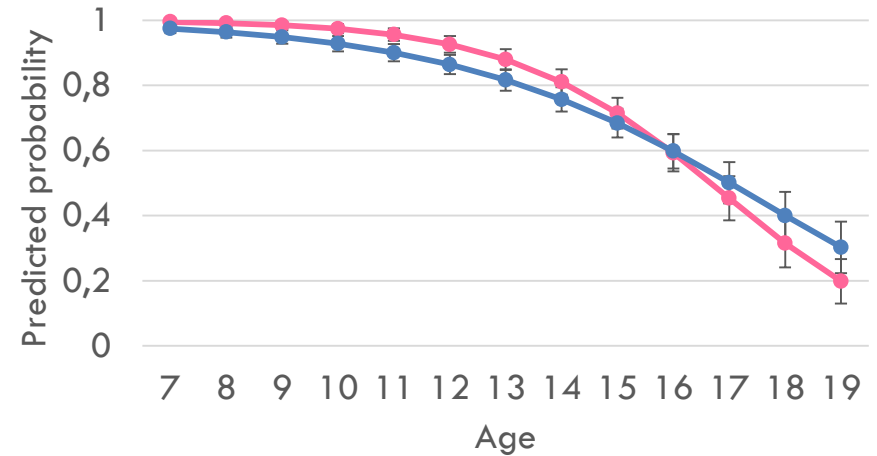
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# Education by age and gender

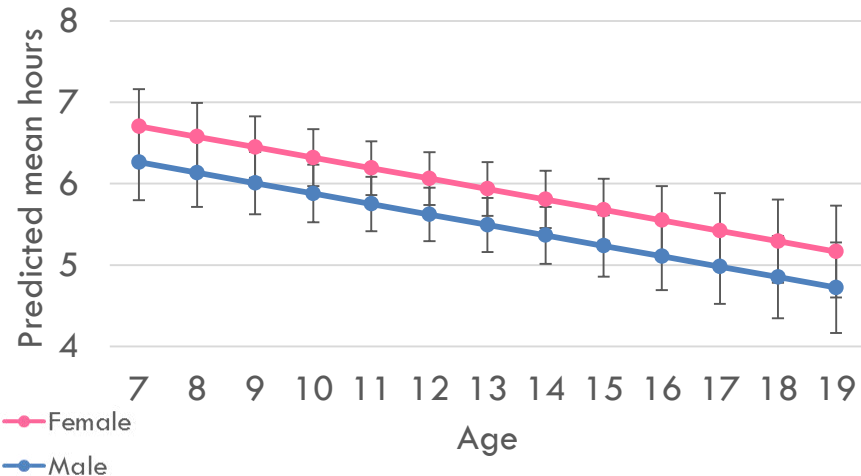
## Years of education



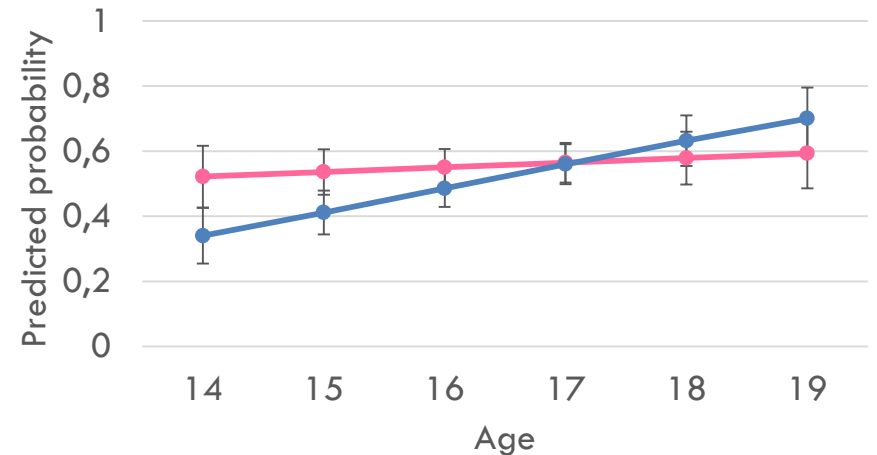
## Current enrolment



## Time spent in education yesterday

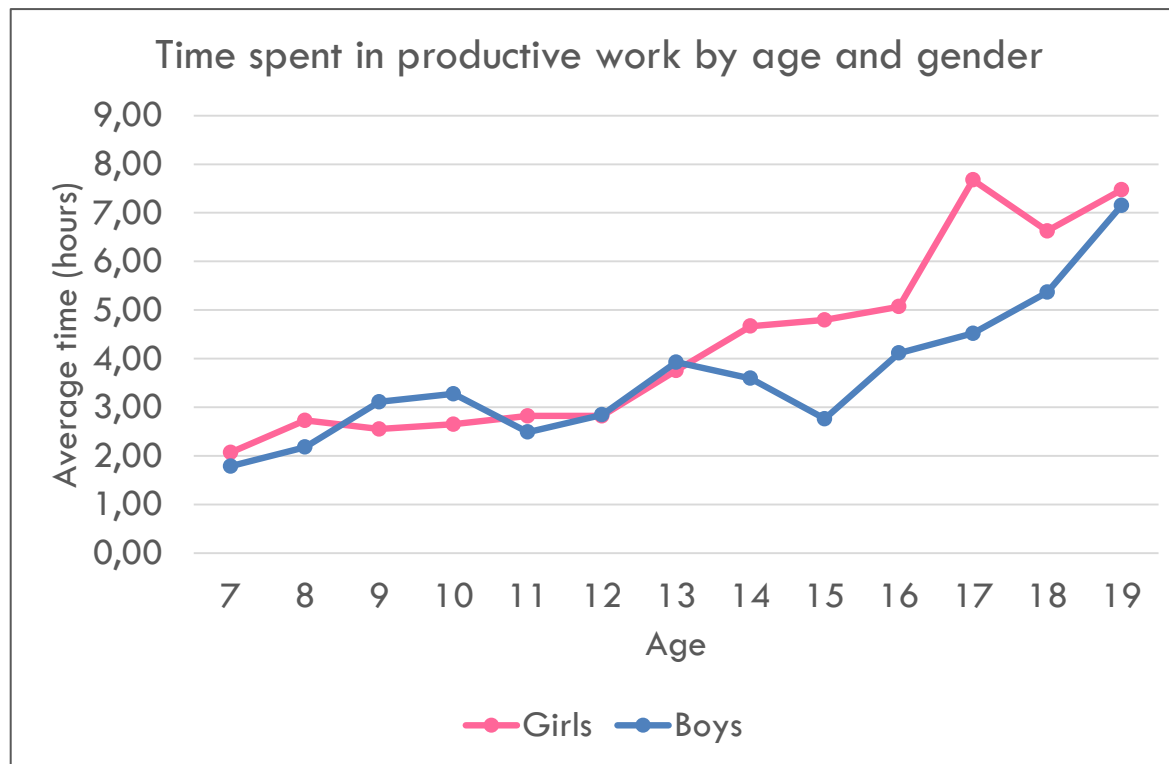


## Progression to secondary school





# Productive work



# Productive work and education time

	Time spent on educational activities
Age	0.01**
Rural	-0.08
Male	-0.24*
Time spent in productive work	-0.89**
Leisure time	-1.16**
Male # leisure time interaction	0.12**
Rural # age interaction	-0.00*
Age # productive work interaction	-0.00**
Age # leisure interaction	-0.00+
Observations	1,278

Beta coefficients presented

+  $p < 0.1$ , \*  $p < 0.05$ , \*\*  $p < 0.01$

# Summary and further research

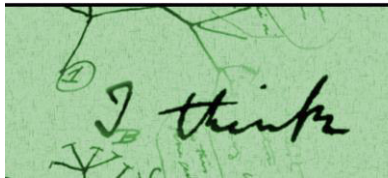
- More education in relatively urban village
- Gender differences – female advantage
  - Farming less compatible with school than domestic chores
  - Suggestion of age / cohort effect – girls progressing earlier / quicker through school?
  - Trade-off between education and leisure time for girls
- Implications:
  - “Double shift”
  - Lack of leisure time may impact wellbeing?
  - Impact on educational attainment?



# Acknowledgements



Evolutionary Demography Group



LONDON  
SCHOOL of  
HYGIENE  
& TROPICAL  
MEDICINE



**EHBEA**

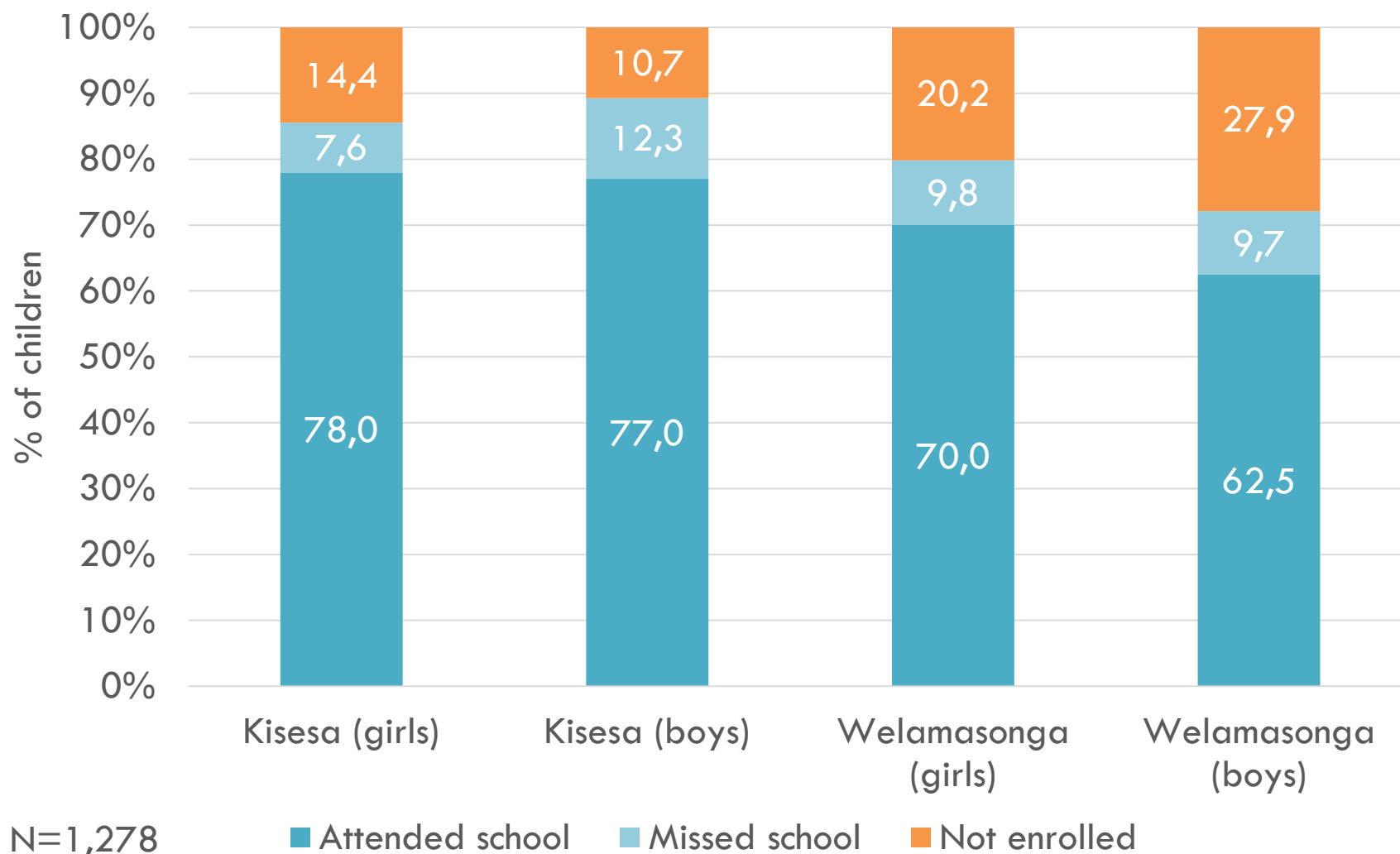
European Human  
Behaviour and  
Evolution Association

# Thank you ~ Merci ~ Asante sana

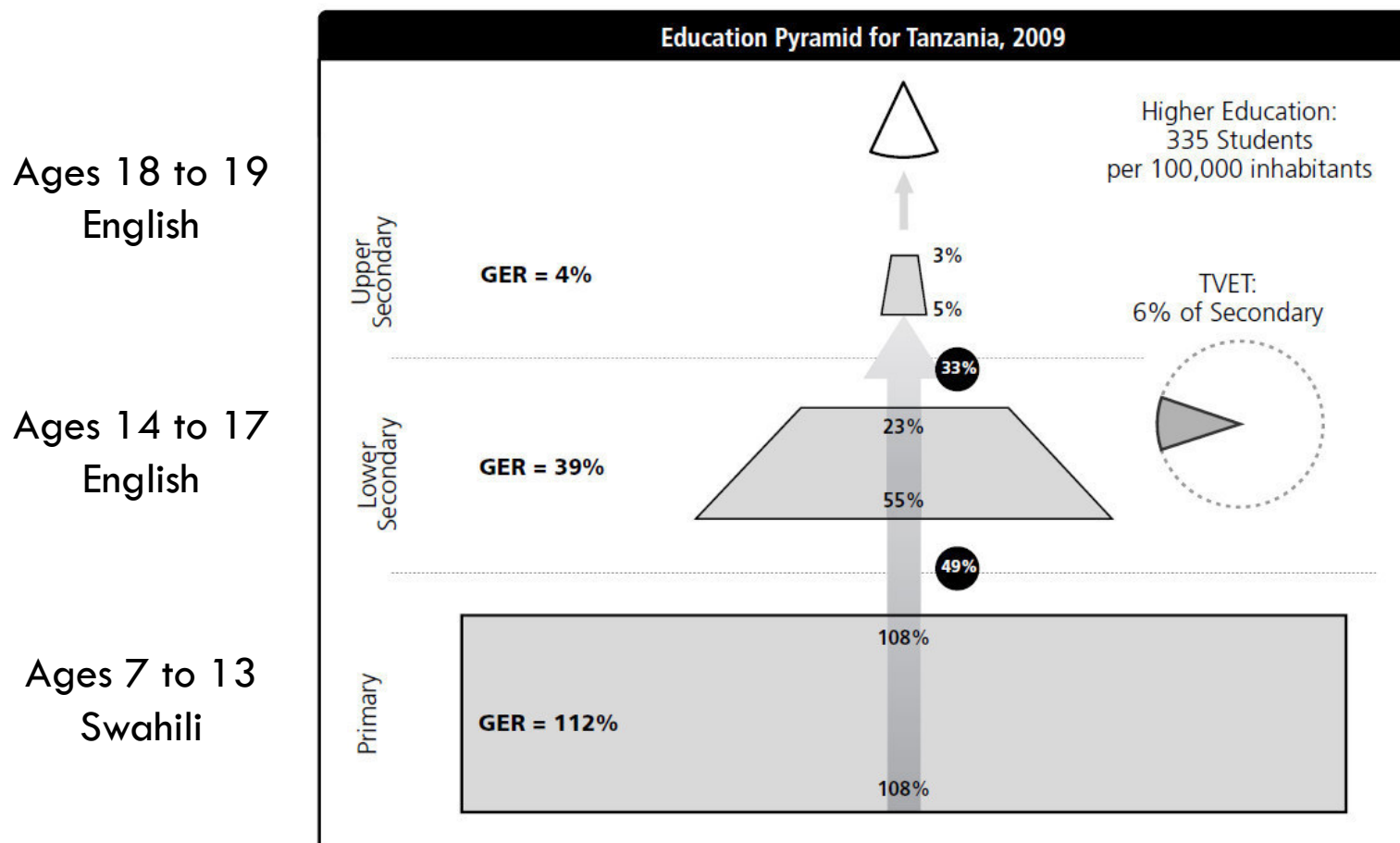




# School enrolment and attendance



# Education in Tanzania



Source: Tables 2.8 and 2.11 and Figure 2.7.

Note: TVET refers to technical non-higher education and VET courses (both VETA and NACTE-registered).

# Attendance

