Access to Education in Ghana: Growth, Missed Opportunities and Promising Pathways

Joseph Ghartey Ampiah
University of Cape Coast, Ghana

Kwame Akyeampong
Richardo Sabates
University of Sussex, UK

Growth?

- An overview of growth from the Ghana EMIS
- Expanded access characterised by increasing GER across the country
- Introduction of capitation caused surge in enrolment
- GPI improved significantly approx 1:1
- We were interested in understanding what was happening at the school level in terms of attendance and achievement?
- Overage attendance is a significant factor
- Overage more likely to underperform
- Overage have high risk of dropping out

Primary school enrolment

	2003/04	2004/05	2005/06	2006/07	2007/08
Enrol. Total	2,957,491	3,077,489	3,111,753	3,473,229	3,622,724
Enrol. Public	2,418,696	2,445,913	2,727,044	2,870,656	2,990,782
Enrol. Private	538,795	631,576	489,546	602,573	631,942
GER	86.50%	87.50%	92.10%	93.70%	95.20%
Enrol. 6-11		2,079,986	2,484,855	3,007,172	3,174,459
NER		59.10%	69.20%	81.10%	83.40%

Primary School Completion Rate

	2003/04	2004/05	2005/06	2006/07	2007/08
Total	**77.9%**	**78.7%**	**75.6%**	**85.4%**	**88.0%**
Male	81.7%	82.3%	78.7%	91.2%	
Female	74.0%	75.1%	72.4%	79.6%	

Junior High School Completion Rate

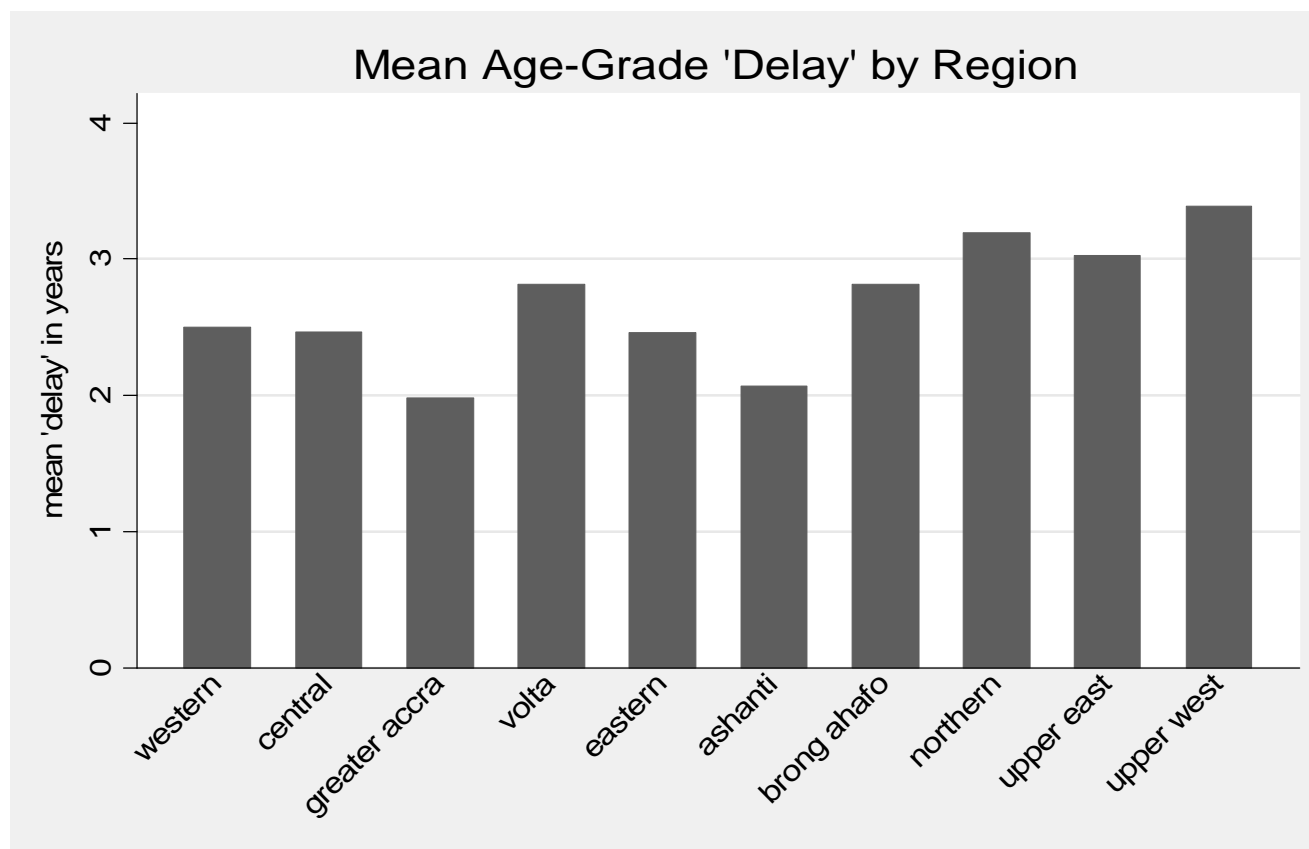|	2003/04	2004/05	2005/06	2006/07	2007/08
Total	**58.0%**	**60.0%**	**77.9%**	**64.9%**	**67.7%**
Male	61.9%	60.0%	81.2%		
Female	53.8%	55.0%	74.7%		

- Wide age-grade variations across the basic school cycle
- Variations in age-grade 'delay' by region
- Average mean age-grade 'delay' is highest for the poorest
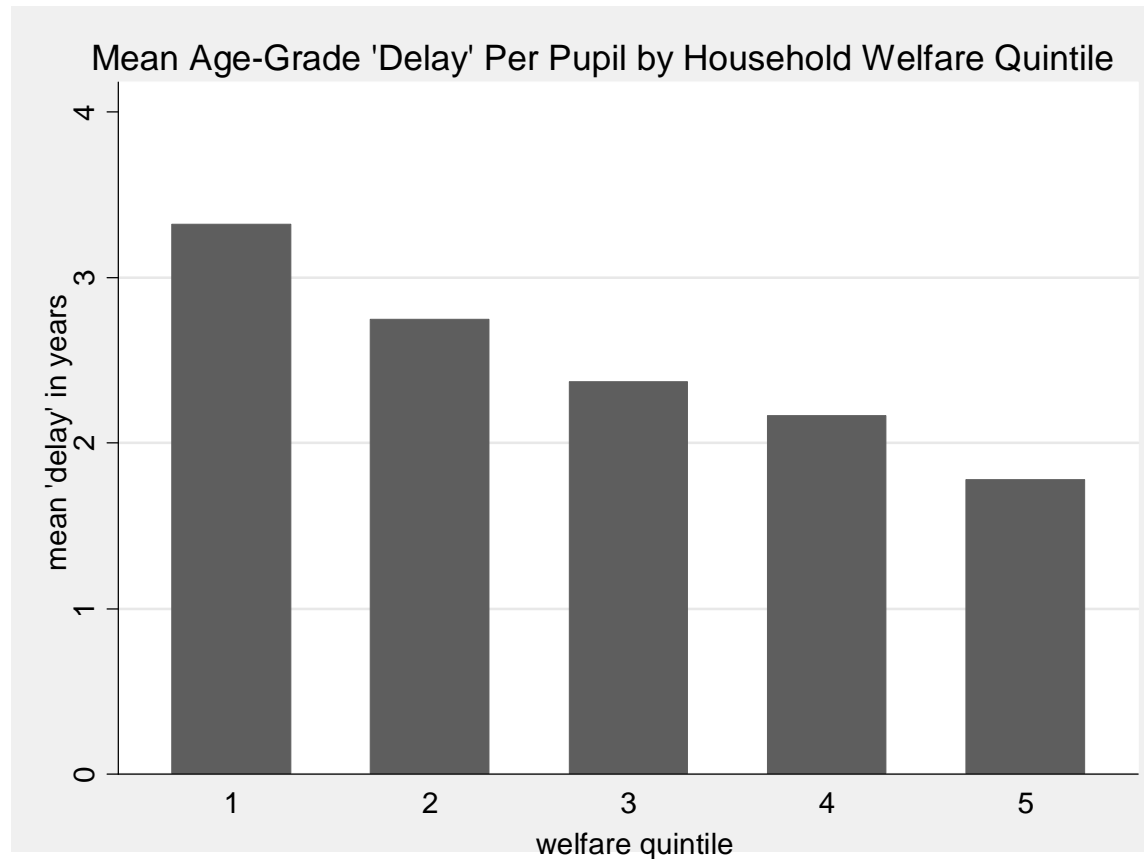- Younger and older children have lowest attendance in rural Ghana

Age-Grade Pattern Estimates - Primary School 2005/6

Source: GLSS 5
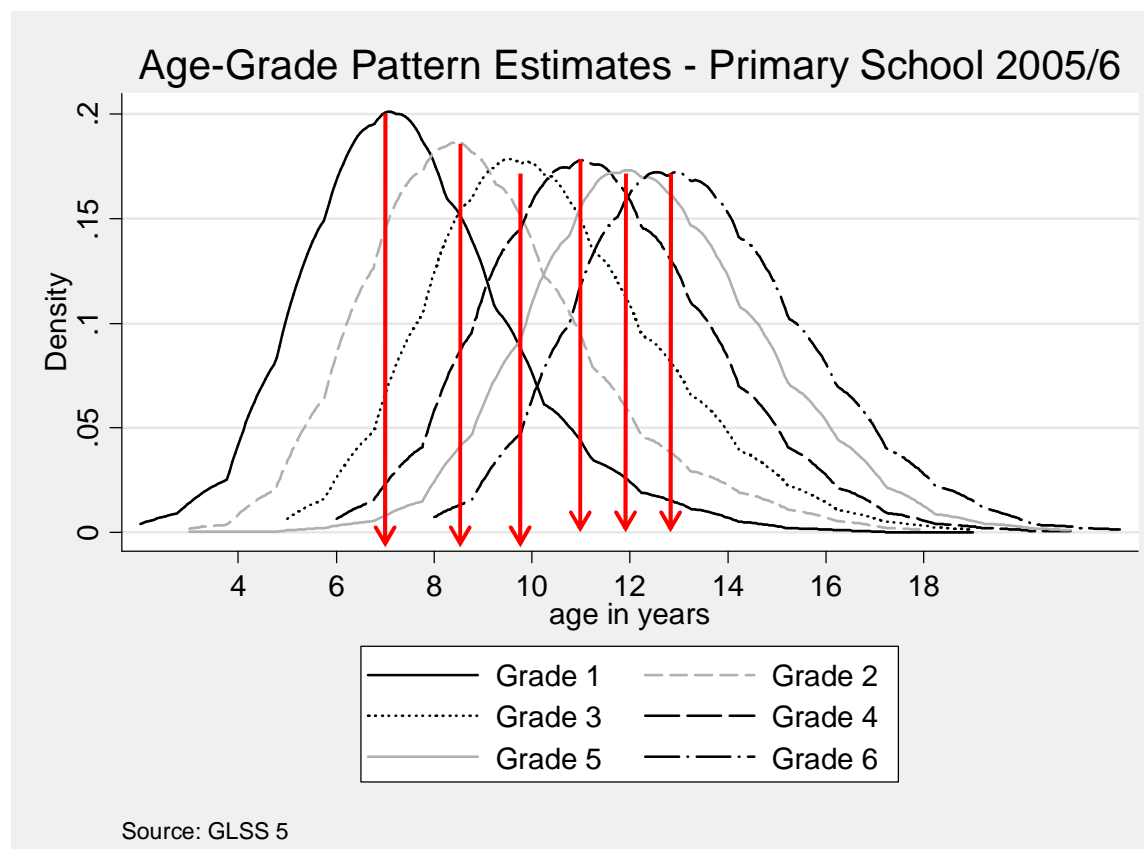
Age-grade primary (official age range 6-14)

Wide age-grade variations across the school cycle

Mean Age-Grade 'Delay' by Region

(bar chart: x-axis regions — western, central, greater accra, volta, eastern, ashanti, brong ahafo, northern, upper east, upper west; y-axis: mean 'delay' in years, 0 to 4)
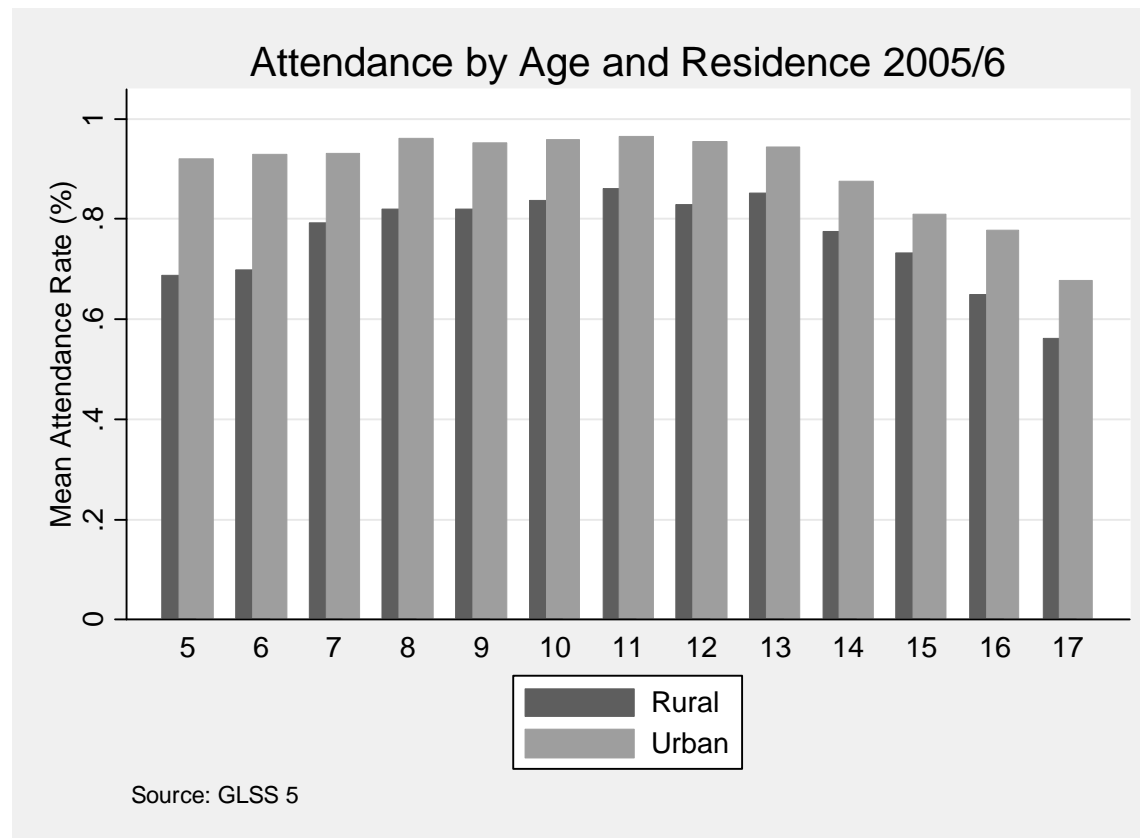
Variations in age-grade 'delay' by region

Highest in Northern, Volta and Brong-Ahafo regions (3+); all others 2+ except Greater Accra

Mean Age-Grade 'Delay' Per Pupil by Household Welfare Quintile

Age-grade 'delay' associated with welfare status

Average mean age-grade 'delay' is highest for the poorest

Attendance by Age and Residence 2005/6

Source: GLSS 5

Older children have lowest attendance in rural Ghana

Attendance by rural children increases with age and starts to decline rapidly from age 13. Urban children show consistently high attendance till age 13. Decline is steeper for rural than urban children

Case Study- Brief Background

- The Mfantseman district, located in the Central Region (4th poorest) of Ghana.

- 16 schools selected are from 4 out of 8 circuits

- English=327; Maths=320 for 07 & 08 respectively

Sample

- English=327; Maths=320 for 07 & 08 respectively with scores in both subjects

Variables

- Outcome Variable = achievement

- Explanatory Variable: attendance as a proportion of days attended in academic year

- Confounding variables: HH characteristics

Studies definition of over-age

- 51% children in appropriate age-in-grade

- 31% over age by 2-3yrs

- 18% overage by 4 or more years

Purpose

- Estimate impact of school attendance on test scores in English & Maths using school fixed effects and estimates using Ordinary Least Squares techniques

- To test whether the potential negative impact of overage on school achievement could be counteracted by potential benefits of children attending school regularly

- To test whether potential association of school attendance & age in school with changes in achievement could be accounted for by family background factors

Average test scores in English and mathematics over time

	Sample	Average	E. Sample(1)	Average	Diff in achievement(2)
Primary 4					
English (07/08)	210	14.87	128	17.20	2.32
English (08/09)	167	20.86	128	22.39	1.53
Maths (07/08)	207	12.01	122	12.93	0.91
Maths (08/09)	161	14.71	122	15.38	0.66
Primary 6					
English (07/08)	165	27.78	92	28.26	0.48
English (08/09)	134	32.13	92	32.55	0.42
Maths (07/08)	170	16.56	98	16.55	-0.01
Maths (08/09)	137	18.26	98	18.85	0.58
JSS 1					
English (07/08)	179	32.99	107	33.05	0.06
English (08/09)	149	35.91	107	36.29	0.38
Maths (07/08)	170	18.61	100	18.77	0.16
Maths (08/09)	150	21.41	100	21.23	-0.18

Source: ComSS 2007-2009. Notes: Based on CRIQPEG examinations in English and maths. (1) E. Sample stands for estimation sample, that is children with information on achievement in both time periods. (2) Measures the difference in achievment between children in estimation sample and all children with information on test scores.

Relationship between school achievement, overage, and school attendance

| | Change School Performance 2008 -2009 | | | | School Attendance 2008-09 | |
| | English | | Maths | | | |
	Mean	Std. Dev.	Mean	Std. Dev.	Proportion	Std. Dev.
Age-in-grade	5.43	8.62	2.37	4.13	0.84	0.18
Over age 2 to 3 years	3.05	6.44	2.48	3.80	0.79	0.19
Over age 4+ years	1.35	9.96	2.41	5.17	0.72	0.23

Overage children improved less than age-in-grade

Not much difference for maths/overage/attendance

Positive and higher correlation between attendance & change in school achievement

Attendance and progress in achievement

- <u>Age-in-grade children</u>: 1% pt in attendance associated with 10.6 pts increase in English test scores and 3.3 pts in mathematics scores (association in maths significant only .10)

- <u>Children overage by 2-3 years</u>: 1% pt increase in attendance associated with 7.5 additional pts in English scores and 3.0 pts in mathematics scores (association in maths was not significant)

- <u>Children overage by 4+ years</u>: 1% pt increase in attendance associated with 2.8 additional pts in English scores and 1.6 pts in mathematics scores (associations in maths not significant)

Predicted increase in English test scores by overage and school attendance (The slope of the line predicts the impact of over age and school attendance on English test scores)
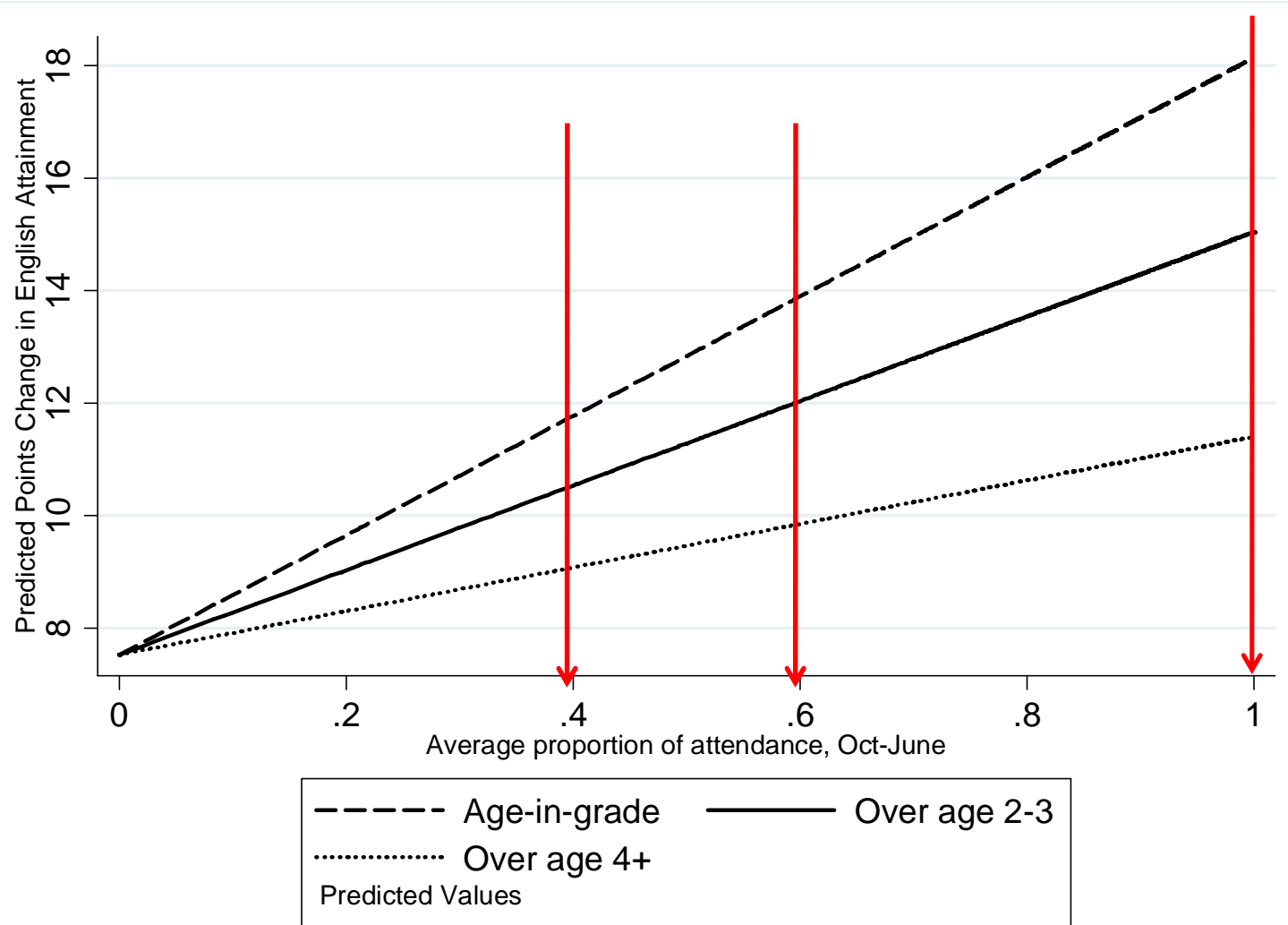
Associations between achievement and other variables

- Family wealth, parental expectations, and distance to school variables were not significantly associated with changes in school performance but were positive.

- For other variables e.g., cost of schooling is positively associated with English scores but not with mathematics scores.

Conclusions

- Impact of school attendance on test scores in English & Maths

- Overage children's (4+ years) gain in achievement was the lowest as expected

- The potential negative impact of overage on school achievement could be counteracted if children attend school regularly

- Potential association of school attendance & overage in school with changes in achievement could not be accounted for by family background factors

Key issues

- *Over age matters to meaningful access and educational outcome*

Policy issues

- Universalization of basic education at the correct age

- Policy of school attendance of 40% for promotion must be revisited

THANK YOU AND COMMENTS