



An Investigation into Poverty and Educational Outcomes in Ghana

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Objectives

- Provide a preliminary survey of the educational attainment of Ghana's adult population.
 - It describes patterns and trends and makes some allusions to possible associations between educational attainment and outputs and outcomes.



The Data

- The analysis is conducted using the Core Welfare Indicators Questionnaire (CWIQ) survey that was conducted in 2003.
 - A nationally representative household survey covering about 49,000 households and 170,100 individuals.
- A shortcoming of the CWIQ
 - it does not contain earnings, income or expenditure modules.
- It is the preferred data set, however, for this analysis because the fourth Ghana Living Standards Survey conducted in 1998/99 may be considered old and the EMIS data set of the Ministry of Education and Sports contains only school information.



Educational Attainment of Population

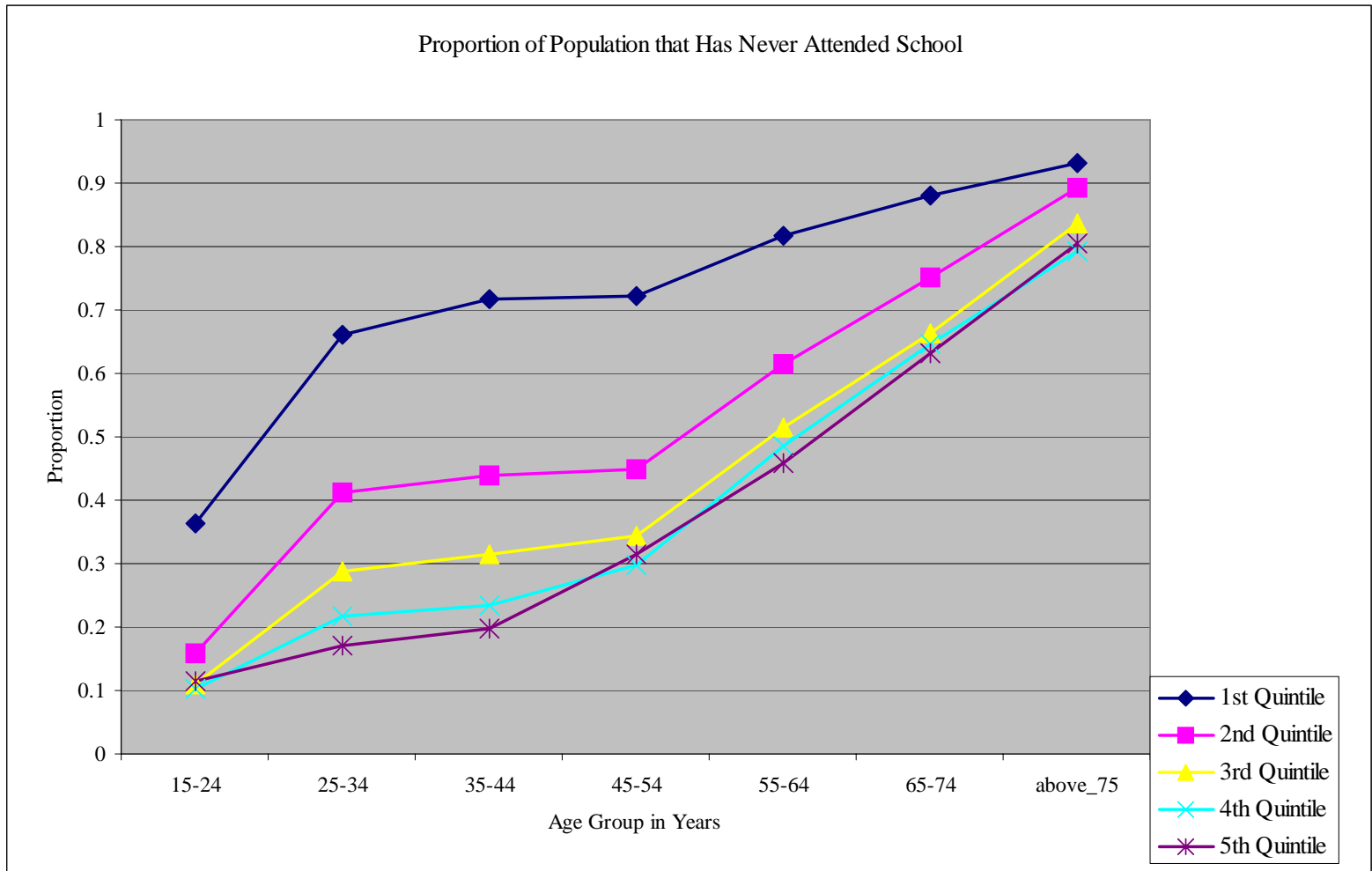
Level of Education Attained	All	Women	Men	Rural	Urban
Never attended school	33.90	42.31	24.52	45.21	20.41
Attended school but did not complete any level	0.03	0.02	0.03	0.03	0.01
Completed Pre-school	0.06	0.05	0.06	0.09	0.02
Incomplete Primary	7.15	7.49	6.78	8.88	5.10
Completed Primary school	4.70	5.01	4.36	5.16	4.16
Incomplete Junior Secondary	6.37	5.97	6.82	6.36	6.39
Completed Junior Secondary	12.11	11.35	12.96	10.34	14.22
Incomplete Middle School	3.26	3.72	2.74	3.39	3.11
Completed Middle school	15.21	11.98	18.80	12.76	18.13
Incomplete Senior Secondary	2.54	2.07	3.18	1.48	3.92
Completed SSS	4.69	3.45	6.07	1.97	7.94
Incomplete O Level	0.61	0.51	0.82	0.41	0.94
Completed O Level	1.71	0.95	2.56	0.77	2.83
Completed Vocational/Technical/Commercial	3.04	2.43	3.71	1.31	5.11
Completed Nursing/Teacher Training	1.58	1.37	1.81	1.08	2.19
Incomplete A Level	0.12	0.07	0.18	0.04	0.22
Completed A Level	0.67	0.28	1.09	0.17	1.26
Completed Tertiary	2.07	0.85	3.44	0.51	3.95

Notes:

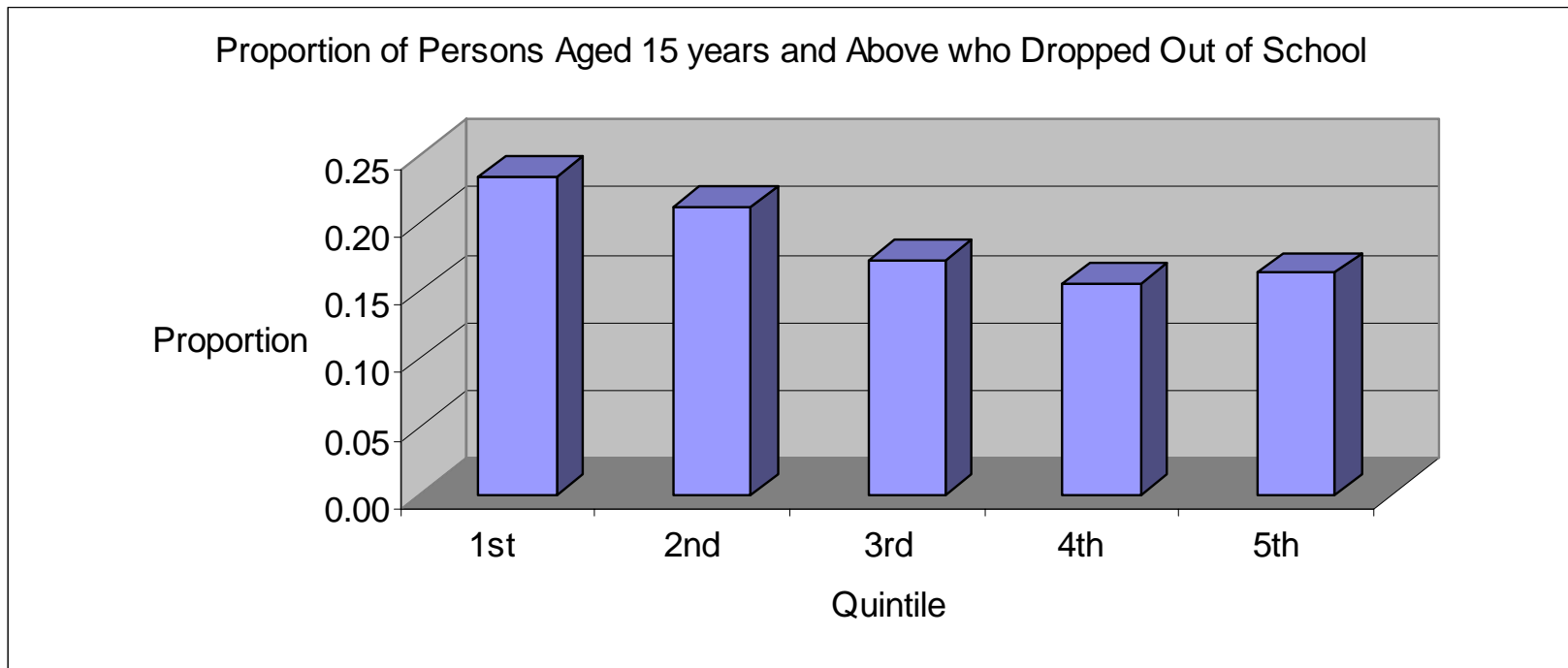
The sample in this table is the population aged 15 years and above and includes persons in school at the time of the survey.

Source: Calculated by the author using CWIQ 2003

Educational Attainment and Welfare (1)



Educational Attainment and Welfare (2)





Educational Attainment and Welfare (3)

Population Aged 15 years and over that attended school in the past but did not complete a Level of Education

Education Level not completed and no longer in school	% of Population aged 15 years	Sub-sample of Drop outs (%)
Primary	5.06	42.90
Junior Secondary	2.12	17.90
Middle School	3.26	27.64
O Level	0.61	5.15
Senior Secondary	0.62	5.22
A Level	0.12	1.01

Source: Calculated by the author using CWIQ 2003



Education Attainment and Disability

Education Profile of Persons with a Disability Aged 15 years and Above.

Level of Education Attained	Disabled	Entire Sample
Never been to school	52.84	33.90
Completed Pre-school	0.10	0.06
Did not complete Primary	5.90	7.15
Completed Primary	2.77	4.70
Did not complete Junior Secondary	1.94	6.37
Completed Junior Secondary	3.82	12.11
Did not complete Middle School	4.34	3.26
Completed Middle School	16.15	15.21
Completed Vocational/Technical School	2.89	2.54
Did not Complete Senior Secondary	1.03	4.69
Did not complete O Level	0.63	0.61
Completed Senior Secondary	1.56	1.71
Completed O Level	1.76	3.04
Did not complete A Level	0.14	1.58
Completed A Level	0.72	0.12
Completed Nursing/Teacher Training	1.72	0.67
Completed Tertiary	1.64	2.07

Source: Calculated by the author using CWIQ 2003



Education and Literacy(1)

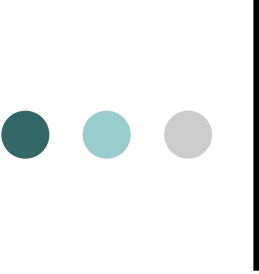
Proportion that can read and write in any Language

Age-Group in Years	All	Men	Women
15-24	0.694	0.753	0.635
25-34	0.524	0.674	0.403
35-44	0.512	0.663	0.387
45-54	0.486	0.643	0.340
55-64	0.370	0.541	0.205
65-74	0.261	0.423	0.112
above_75	0.143	0.253	0.052
Rural	0.401		
Urban	0.699		
Quintile			
quintile==1	0.282		
quintile==2	0.480		
quintile==3	0.594		
quintile==4	0.635		
quintile==5	0.633		



Education and Literacy (2)

Education Level Completed	Entire Sample	Rural	Urban
Never attended school	0.012	0.008	0.021
Completed Pre-school	0.145	0.124	0.250
Incomplete Primary	0.273	0.247	0.328
Completed Primary	0.466	0.432	0.517
Incomplete Junior Secondary	0.808	0.771	0.851
Completed Junior Secondary	0.905	0.884	0.923
Incomplete Middle School	0.536	0.494	0.590
Completed Middle School	0.929	0.925	0.933
Completed Vocational/Technical	0.991	0.991	0.991
Incomplete Senior Secondary	0.987	0.979	0.990
Incomplete O Level	0.937	0.920	0.945
Completed Senior Secondary	0.997	0.993	0.999
Completed O Level	0.996	0.994	0.997
Incomplete A Level	0.990	1.000	0.988
Completed A Level	0.997	0.978	0.999
Completed Nursing/Teacher Training	0.997	1.000	0.996
Completed Tertiary	0.998	0.994	0.999



Education Attainment and Employment (1)

- Over 60% of the population aged 15 years and above that have never been to school are employed in agriculture.
- For all categories of education except the A level completer, a significantly lower proportion of completers are employed in agriculture as their main job compared to the population that did not complete a level of education . Thus even though agriculture is the sector employing the largest single proportion of the population, it is not the sector of choice as the education level completed rises.



Education and Employment (2)

- The likelihood of employment in the finance/insurance/service sector increases with the level of education attained. Whereas less than 2 % of the population aged 15 years and above that has never attended school are employed in this sector, the proportion rises to just over 8% for the population that did not complete SSS, 31% for the sub-sample that completed A Level and 40% for the sub-sample of tertiary completers.
- A similar pattern emerges for employment in the community and social services sector. These patterns are not surprising since employment in the finance sector for example requires specific qualifications and skills.



Education and Employment (3)

- Several studies on the determinants of poverty in Ghana have found a significant relationship between household consumption expenditure and the education levels of members of the household.^[1] The more educated the household head or the members of the household are the less likely it is that the members of the household will be below the poverty line. What the regression analysis does not provide information on is the channels through which education impacts on poverty. If low educational attainment is an important push factor into the agriculture sector, then this is one channel whereby educational attainment impacts on poverty and welfare.
- ^[1] Glewwe, P.K. and K.A. Twum-Baah (1991). *The Distribution of Welfare in Ghana 1987-88* LSMS Working Paper No. 75, The World Bank, Washington D.C.; Seini, A.W., V.K. Nyanteng and G.J.M. van den Boom (1997). "Income and Expenditure Profiles and Poverty in Ghana", in *Sustainable Food Security in West Africa*, ed. by W.K. Asenso-Okyere, G. Benneh and W. Tims, Kluwer Academic Publishers, Dordrecht.



Education and Unemployment

Proportion of the Population Aged 15 years and Above that is Unemployed by Educational Attainment.

	All	Men	Women	Rural	Urban
Entire Sample	0.054	0.051	0.056	0.035	0.076
Never been to school	0.044	0.043	0.044	0.035	0.065
Completed Pre-school	0.055	0.000	0.100	0.000	0.291
Did not complete primary	0.059	0.055	0.062	0.036	0.105
Completed Primary	0.062	0.050	0.070	0.038	0.099
Did not complete JSS	0.095	0.070	0.111	0.065	0.138
Completed JSS	0.109	0.100	0.117	0.080	0.136
Did not complete Middle school	0.045	0.043	0.046	0.021	0.075
Completed Middle school	0.040	0.034	0.049	0.017	0.060
Completed Vocational/Technical	0.072	0.066	0.081	0.045	0.080
Did not complete SSS	0.100	0.101	0.099	0.052	0.135
Did not complete O Level	0.074	0.079	0.068	0.045	0.089
Completed SSS	0.174	0.176	0.170	0.118	0.192
Completed O Level	0.053	0.051	0.059	0.030	0.061
Did not complete A Level	0.032	0.015	0.068	0.046	0.029
Completed A Level	0.069	0.067	0.075	0.000	0.079
Completed Nursing/Teacher Training	0.005	0.005	0.005	0.004	0.006
Completed Tertiary	0.078	0.080	0.071	0.068	0.080

Source: Estimated by the author using CWIQ 2003



Education and Health

(Ante-natal and Post-natal care)

	Received	
	Pre-natal	Post-natal
Never been to school	0.895	0.751
Completed Pre-school	1.000	0.509
Did not complete primary	0.939	0.783
Completed Primary	0.966	0.823
Did not complete Junior Secondary	0.938	0.846
Completed Junior Secondary	0.972	0.861
Did not complete Middle school	0.938	0.796
Completed Middle school	0.989	0.886
Completed Vocational/	0.980	0.883
Did not complete Senior Secondary	0.959	0.957
Did not complete O Level	1.000	0.771
Completed Senior Secondary	1.000	0.899
Completed O Level	1.000	1.000
Did not complete A Level	1.000	1.000
Completed A Level	1.000	1.000
Completed Nursing/Teacher Training	1.000	0.954
Completed Tertiary	1.000	1.000

Source: Estimated by the author using CWIQ 2003



Education and Child Health

Educational Attainment of Mother	Proportion with	
	Stunted children	Underweight children
Never been to school	0.347	0.259
Completed Pre-school	0.295	0.437
Did not complete primary	0.301	0.232
Completed Primary	0.344	0.267
Did not complete Junior Secondary	0.351	0.241
Completed Junior Secondary	0.317	0.258
Did not complete Middle school	0.316	0.266
Completed Middle school	0.288	0.272
Completed Vocational/Technical	0.283	0.229
Did not complete Senior Secondary	0.243	0.235
Did not complete O Level	0.158	0.208
Completed Senior Secondary	0.226	0.250
Completed O Level	0.213	0.288
Did not complete A Level	0.000	0.000
Completed A Level	0.337	0.373
Completed Nursing/Teacher Training	0.206	0.341
Completed Tertiary	0.281	0.154

Notes: Stunting measures height for age

Underweight measures weight for age

Source: Estimated by the author using CWIQ 2003.



Conclusion (1)

- About half of the adult population as defined in this paper has less than nine years of education.
- The education attainment profile does not reflect the considerable quantum of resources that has been allocated to education over the years.
- A factor that will explain the education attainment profile is migration. Ghana has not been successful in retaining its graduates from the training colleges, technical schools and tertiary institutions and this is an important determinant of the education attainment profile.



Conclusion (2)

- The highest incidence of dropping out of school occurs at the primary level. Considering that about half the primary school completers cannot read or write in any language, poor quality of education may explain the high drop out rate.



Conclusion (3)

- A clear pattern seems to emerge between educational attainment and employment in some sectors. Persons with little or no formal education tend to be concentrated in the agriculture sector.
- On the other hand the expanding sectors of the economy, i.e. finance, insurance and the ICT sectors do not tend to employ persons with low levels of educational attainment.
- The low level of skills and general education amongst the adult Ghanaian population will pose a constraint on the evolution to a modern middle-income society.



Conclusion (4)

- The patterns between education attainment and unemployment suggest that several years of schooling is no guarantee of employment. Apart from the senior secondary completers the incidence of unemployment amongst tertiary completers and the products of technical and vocational institutions are amongst the highest. This raises a number of questions
- What is the nature of the link between education policy and the economic and development strategy.
- Do the outputs of the technical, vocational institutions and the tertiary institutions have the requisite skills for employment?



Conclusion (5)

- Studies using the second Ghana Living Standards Survey find that cognitive skills are significant determinants of household income. Thus a schooling system that transfers the relevant skills is important in improving household incomes and should contribute positively to poverty reduction.
- The high incidence of illiteracy amongst persons with at least six years of education points to inefficiency and ineffectiveness in the use of resources committed to the education sector. This problem must be addressed.
- In addition, as much as possible a tighter link should be developed between education policy and the development strategy of the country to ensure that the acquired skills yield the greatest benefit to the individual and to the country.