THE RELATIONSHIP BETWEEN LEVEL OF SCHOOLING, MAIN ECONOMIC ACTIVITY AND HOUSEHOLD ASSETS

PAPER FOR PRESENTATION AT THE UAPS CONFERENCE
10th -14th DECEMBER, 2007
ARUSHA, TANZANIA

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September, 2007

The relationship between level of schooling, main economic activity and household assets

Abstract

Associations between levels of schooling of people aged 15 to 65 years, main economic activities and ownership of household assets were examined using data collected in Tanzania in 2005. The following question was also answered: With the same level of schooling, is there a significant difference in main economic activities with respect to sex, residence and age? The findings showed that people who have never attended school and those with primary education were concentrated in agriculture; secondary school graduates with training and those with tertiary education occupied white-collar jobs. Whereas the percentage of people in agriculture decreased with increasing level of education, the contrary was the case for the employed. Smaller percentages of males than females, urban than rural and young than old were in agriculture in almost all education levels. Higher percentages of educated people lived in good quality houses and had household assets than those with low education.

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1.0 Introduction

Ever since the 1960's, studies on economic returns to schooling have been conducted ((Becker (1964), Denison (1962), Kuznets (1966), Schultz (1961), Schultz (2003)). The studies have shown that there are positive economic returns to schooling. However the returns differ from country to country as well as between levels of schooling. "There is a well documented, strong, positive relationship between earnings and schooling attainment …" Hause (1972).

In a global update on returns to investment in education, Psacharopoulos (1993) found that among the three key levels of education (which are primary education, secondary education and technical/vocational education), primary education continued to exhibit the highest social profitability in all world regions. Private returns were considerably higher than social returns because of the public subsidy to education. Psacharopoulos (1993) concludes that primary education continues to be the number one investment priority in developing countries.

Schultz (2003) analysed household surveys from six African countries, namely Ghana, Cote d'Ivoire, Nigeria, Bukina Faso, Kenya and South Africa. He found that in all the six countries, there were wage returns to schooling; and in South Africa, the wage returns to schooling differed between the whites and blacks.

This research examined the association between level of schooling of people of productive age and main economic activities; it also examined the association between level of schooling and ownership of household assets.

2.0 Literature Review

In many cases, economic returns to schooling are estimated using regression analysis methods (Harmon and Walker, 2005).

The research by Schultz (2003) found that although there were private returns to schooling in all the six African countries, the levels of returns to education differed from country to country. He found that the private wage returns per year of schooling in Ghana differed from year to year and was higher for the younger birth cohort than for the older age cohort.

In Cote d'Ivoire, the private wage returns for primary and middle school were higher than those in Ghana. In Kenya and Cote d'Ivoire too, it was observed that just like in Ghana, the estimated returns to education were higher for the younger birth cohort than for the older one. In South Africa the private wage returns to education for Africans were nearly twice as much as those of the whites. In Nigeria, it was observed that only 9% of Nigerian men and 3% of Nigerian Women work for wage or salary. Among wage earners in Nigeria, the private wage return increased with levels of education; the levels of schooling being primary education, secondary education and post secondary education (Schultz, 2003).

In another study in Burkina Faso, using 1994 and 1998 national surveys' data, Kazianga (20004) found that the rates of return to education rose with education levels and that the public sector did not compensate female primary education.

Using data from national wide household surveys in Bangladesh, Asadullah (2006) found that returns to education were higher in urban than rural, in female than male samples. Yamauchi (2005), using recent employee surveys in manufacturing industries found that whereas in Thailand schooling returns steadily increased as educational attainment increased; in the Philippines returns increased only at University level.

Katz (1999), using data obtained in 1989 from a sample of a Russian City observed that there were rewards to education in the USSR; the observation is contrary to claims by many Soviet and Western Scholars. However, private costs of schooling were low and also, there were important non-monetary incentives connected with

higher education. Stanovnik (1997) observed Similar low wage differentials in Slovenia.

Acemoglu and Angrist (1999) states that in the USA, the estimate of private returns to education is about seven percent and the social returns are less than one percent; the social returns are statistically insignificant.

In Tanzania, Household Budget Surveys (HBS) are conducted after about every five years. In these surveys, education levels of the sampled people as well as main economic activities, quality of main house, sex, residence, distance to drinking water and availability of electricity in a household are some of the items included in the survey. However, the associations of education level of an individual with the other variables are not analysed. According to the HBS of 2000/01, about 10% of the households in the country were connected to the electricity grid (National Bureau of Statistics, 2002). There was a variation of access to electricity by residential area, whereby the coverage was 59% in Dar es Salaam city, 30% in other urban areas and only 2% in rural areas. Variation of access to electricity by education level of individuals or household heads would shade more light on the importance of education in Tanzania.

This paper does not compute rates of return to education; instead it examines how people in a specific education level are distributed (percentage-wise) in different economic activities. Similarly, it computes the percentage of people who own/possess a specific household asset in each education level. It also assesses the quality of the main house of an individual vis á vis the individual's education level.

3.0 Methods

3.1 Data

Secondary data was used in this study. In 2005, the Department of Statistics at the University of Dar es Salaam collected data on Time-Use and some socio-economic

variables for a NUFU project. The collected data were from a sample of households in all regions of mainland Tanzania and Zanzibar. The data set contained more information than what was required by the project. It is from this data set that this paper is drawn.

3.2 Analysis

The analysis was divided into two parts. The first part of the analysis examined the relationship between levels of schooling and main economic activities while the second part examined the relationship between levels of schooling and ownership of household assets, including quality of main house. In both parts of the analysis, the analysis was for people aged between 15 and 65 years only; the age interval 15 to 65 years is being referred to as the productive age.

Six educational levels were dealt with in this paper, namely: (i) None, (ii) Primary school standards 1 to 4, (iii) Primary school standards 5 to 7/8, (iv) Secondary school up to standard 12, (vi) Completed secondary school (standard 12) and had some course and (vi) “A” level secondary school (standard 14) and above.

Respondents who stated that their main activity was attending school or college were eliminated from both parts of the analysis, also eliminated from both parts of the analysis were respondents who did not state their level of schooling or whose level of schooling was “attending literacy classes”.

The reason for dropping from analysis those who had attained literacy education only was that such education is offered during some evenings only and hence can be considered as part-time learning. One can join a literacy class at anytime and can also drop out at any time. Hence it is not easy to ascertain the “number of years of schooling” to such a programme.

3.2.1 Analysis: Part 1

In part 1, the relationship between levels of schooling and main economic activities was examined; respondents who did not state their main economic activities were

eliminated in this part of the analysis. After all the above eliminations, 6,431 respondents remained in the sample. Hence the analysis was based on 6,431 individuals.

The analysis in part 1 was then broken down according rural-urban residence, sex and age groups. The relationships between levels of schooling and main economic activities were then examined by residence, sex and age group.

For each educational level, percentages of people in different economic activities were calculated. The basic assumption in the computation was considering each education level as an independent population. Hence the number of people in an education level constitutes 100% of the education level population.
The percentages of being in a specific main economic activity were compared across the education levels.

3.2.2 Analysis: Part 2

In part 2, the relationship between levels of schooling and ownership of household assets, including quality of main house were examined. After the eliminations stated in 3.2, the sample remained with 6,716 respondents. Hence the second part of the analysis had 6,716 individuals.

In the analysis, the percentage of respondents who possessed/owned a specific household asset in each education level was computed. The percentages of possessing/owning a specific asset were compared across the education levels.

4.0 Results

4.1. Descriptive

The distribution of the sample according to education levels appears in Table 1. It is observed that almost two thirds (64.5%) of the sample had Primary school education, standards 5 to 7/8. This result is not a surprise because Universal Primary Education (UPE) was introduced in 1978. Also after the inception of UPE,

more secondary schools have been introduced hence the relatively high percentage of those with secondary education.

Table 1: Distribution of Sample by Education Level

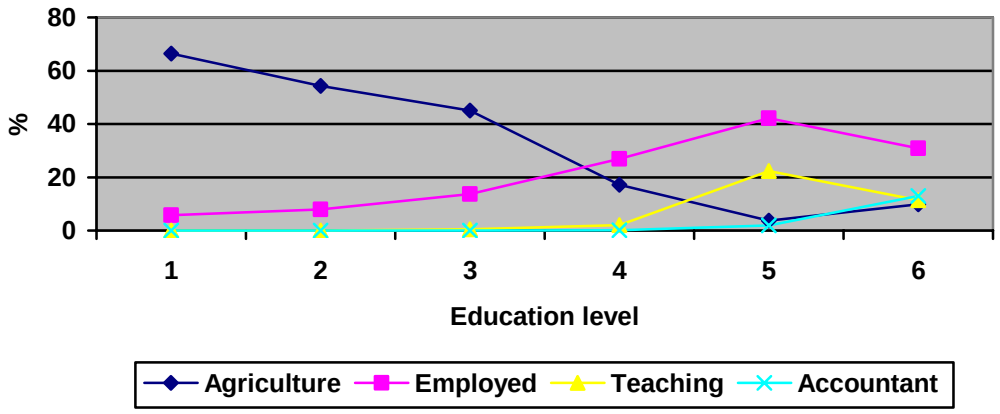
Educational Level	Number	%
None	571	8.5
Primary: Standards1 to 4	668	9.5
Primary: Standards 5 to 8	4,332	64.5
Secondary: standards 9 to 12	858	12.8
Secondary: standard 12 + Course	161	2.4
Secondary: Standards 13 to14 and Above	126	1.9
Total	**6,716**	**100**

Source: Processed from Dept of Statistics Time-use data

4.2. The Relationship between Level of Schooling and Main Economic Activity

Percentage distributions of main economic activities for each education level are presented in Table 1A in Appendix 1. Some of the percentage distributions for selected main economic activities appear in Figure 1.

Figure 1: Percentage Distribution of Sample by Some Main Economic Activities and Education Level



Key to Educational levels:
1 = None, 2 = Primary 1 to 4, 3 = Primary 5 to 8, 4= Secondary 12,
5 = Secondary 12 & Course, 6 = Secondary 14 or above.

Agriculture in Tanzania is mainly "primitive" subsistence agriculture whereby a hand-hoe is the main tool used in farming and irrigation is hardly used. For many people, especially the youth, agriculture is the last resort for the economic survival. From Figure 1, it is seen that the percentages of people engaged in agriculture decrease with increasing education level, up to secondary school with training. By the same token, the percentages of employed people increases with increasing education level up to secondary school with training. Given the choice, many Tanzanians would like to be employed.

The teaching profession obviously needs educated people. That is why there is no teacher with primary school standards 1 to 4 education. Currently, in order to be a primary school teacher, you must have secondary school education with two years of teacher training after completing secondary school education. It is no surprise that the secondary school with training education level has the highest percentage of teachers. Similarly, accountancy requires skilled people hence all those in this profession have at least secondary school education.

4.2.1 The Relationship between Level of Schooling, Main Economic Activity and Sex

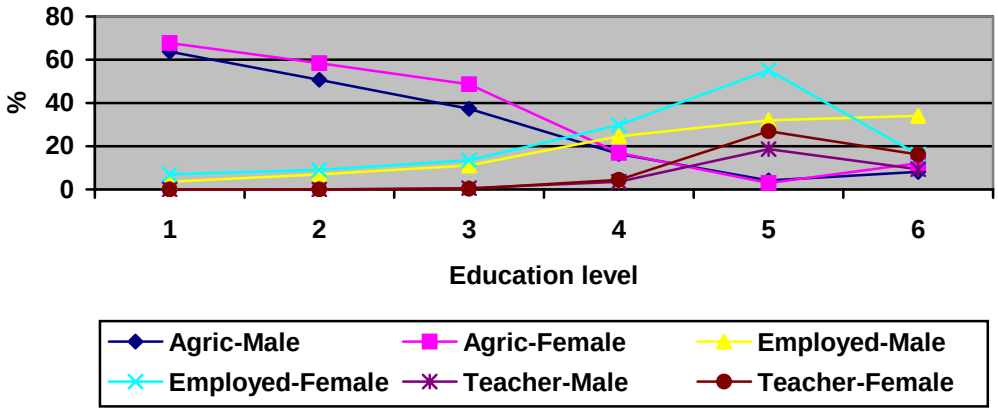
The percentage distributions of respondents by Main economic activity, education level and sex appear in Table 2A in Appendix 1.

In each education level up to secondary school education level, the percentage of women in agriculture is higher than that of men. This has poverty implications since the majority of the poor in the country are in agriculture.

In employment, the percentage of women in employment for each education level up to secondary school level with training is higher than that of men. The primary school education levels, the salaries and wages in Tanzania are very low. For secondary school with training and 'A' level and above education levels, the salaries and wages are reasonably high. However, the numbers of women and men in these education levels are very small when compared to those of primary school education levels. Hence the majority of people especially women are concentrated in low paying jobs.

When it comes to the teaching profession, the obvious is revealed in these data, i.e. teaching (just like nursing) are social services and are expected to be performed by women. The percentages of women in teaching are higher than those of men for all the education levels. Figure 2 shows the percentage distribution of the sample for some economic activities, disaggregated by sex.

Figure 2: Percentage Distribution of Sample by Some Main Economic Activities, Education Level and Sex



Key to Educational levels:
1 = None, 2 = Primary 1 to 4, 3 = Primary 5 to 8, 4= Secondary 12,
5 = Secondary 12 & Course, 6 = Secondary 14 or above.

The majority of teachers have secondary education with training, the percentages of female teachers are higher than those of corresponding male teachers.

4.2.2 The Relationship between Levels of Schooling and Main Economic Activity and Residence

The percentage distribution of respondents by economic activity, education level and rural urban residence are presented in Table 3A in Appendix 1.

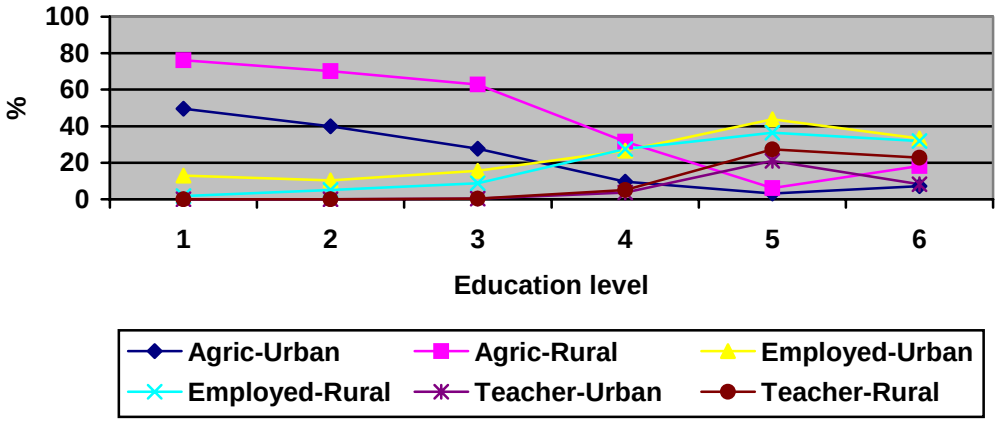
For all education levels; higher percentages of urban than rural people are in agriculture. For urban (as well as rural) the percentages of people in agriculture decrease with increasing education level up to the secondary school with training education level.

Percentages of employed people increase with increasing education level for both the urban and rural areas. For each education level except the secondary school education level, the urban has higher percentages of employed people than the

rural. As for the secondary school level, the urban and rural percentages of employed people are more or less the same.

Livestock keeping is mainly a rural phenomenon. For each education level, the rural has a higher percentage of teachers than the urban. This is expected since the urban has more other types of employment opportunities than the rural. Business is mainly an urban characteristic for all education levels. Finally, all accountants are in the urban. Figure 3 shows percentage distributions for some economic activities for each education level and urban-rural residence.

Figure 3: Percentage Distribution of Sample by Some Main Economic Activities, Educational Level and Residence



Key to Educational levels:
1 = None, 2 = Primary 1 to 4, 3 = Primary 5 to 8, 4= Secondary 12,
5 = Secondary 12 & Course, 6 = Secondary 14 or above.

The highest percentage of employees is that of urban residents who have secondary school education with some training.

4.2.3 The Relationship between Level of Schooling, Main Economic Activity and Age

Detailed distributions of percentages of respondents by main economic activities, education level and age groups are presented in Tables 4A to 6A in Appendix 1.

For each of the education level, a smaller percentage of the younger cohort than the older one was in agriculture. On the other hand, higher percentages of younger people without any education and those with primary school standards 1 to 4 education level were in employment as compared to the older cohort with the same level of education.

In Table 2 and Figure 4, percentage distributions of some main economic activities are presented for education levels and age groups.

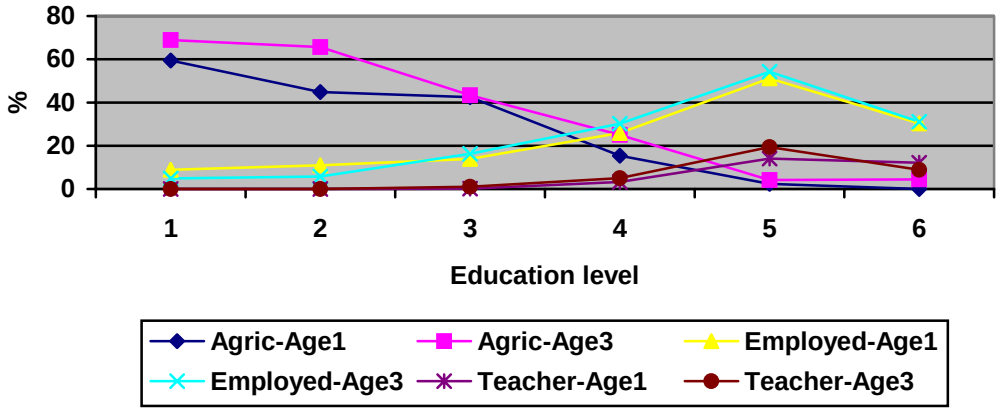
Table 2: Percentage Distribution of Sample by Selected Main Economic Activities, Educational Level and Age group

Main Activity/ Age group	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Agriculture: Age group1	59.4	44.8	42.4	15.4	2.3	0
Age group2	70.6	42.7	43.5	14.5	3.6	20.8
Age group3	68.9	65.7	43.4	25.0	4.2	4.4
Employed: Age group1	8.9	11.0	13.9	25.9	51.2	30.3
Age group2	3.5	9.2	10.6	25.1	30.4	29.2
Age group3	4.9	5.7	16.2	30.1	54.2	31.1
Teacher: Age group1	0	0	0.2	3.3	14.0	12.1
Age group2	0	0	0.5	4.2	28.6	12.5
Age group3	0	0	1.0	5.1	19.4	8.9
Accountancy: Agegroup1	0	0	0	0.3	2.3	3.0
Age group2	0	0	0.1	0	3.6	14.6
Age group3	0	0	0	0	0	17.8

Source: Extracted from Tables 4A to 6A in Appendix 1.

Key: Age group 1 = 15-30 years old, Age group 2 = 31-45 years old, Age group 3 = 46-65 years old.

Figure 4: Percentage Distribution of Sample by Some Main Economic Activities, Educational Level and Age-group



Key to Educational levels:
1 = None, 2 = Primary 1 to 4, 3 = Primary 5 to 8, 4= Secondary 12,
5 = Secondary 12 & Course, 6 = Secondary 14 or above.

The highest percentage of the employed for each of the two age groups is the secondary school with training education level.

4.3. The Relationship between Level of Schooling and Quality of Main House

The roofing, wall and floor material of the main house of each respondent were looked at. The types of toilet used by the household and access to electricity by the household were also considered.

Table 7A in Appendix 1 shows the percentage distribution of respondent's main houses' roofing material for each education level. The types of roofing material are: palm leaves/glass, iron sheets and iron sheets or tiles. A good quality house is the one with iron sheets or tiles as roofing material.

In Table 8A in Appendix 1, the percentage distribution of main house's wall material for each education level is presented. The types of wall material are: palm

leaves/glass, poles/poles and earth, earth bricks, cement bricks and finally other material. A good quality house is the one with walls made of burnt bricks or cement blocks.

Table 9A in Appendix 1, shows the percentage distribution of respondents' main house's floor material for each education level. The types of floor material are: earth, earth bricks, cement and earth, and cement or tiles. A good quality house is the one with a cement floor or a floor covered with tiles.

Table 3 has the percentage distributions of good quality roofing, wall and floor material for each education level. It also has the percentage distribution of households having electricity and a flush toilet for each education level.

Table 3: Percentage Distribution of Sample by Characteristics of a Good Quality House, Flush Toilet, Electricity and Educational Level

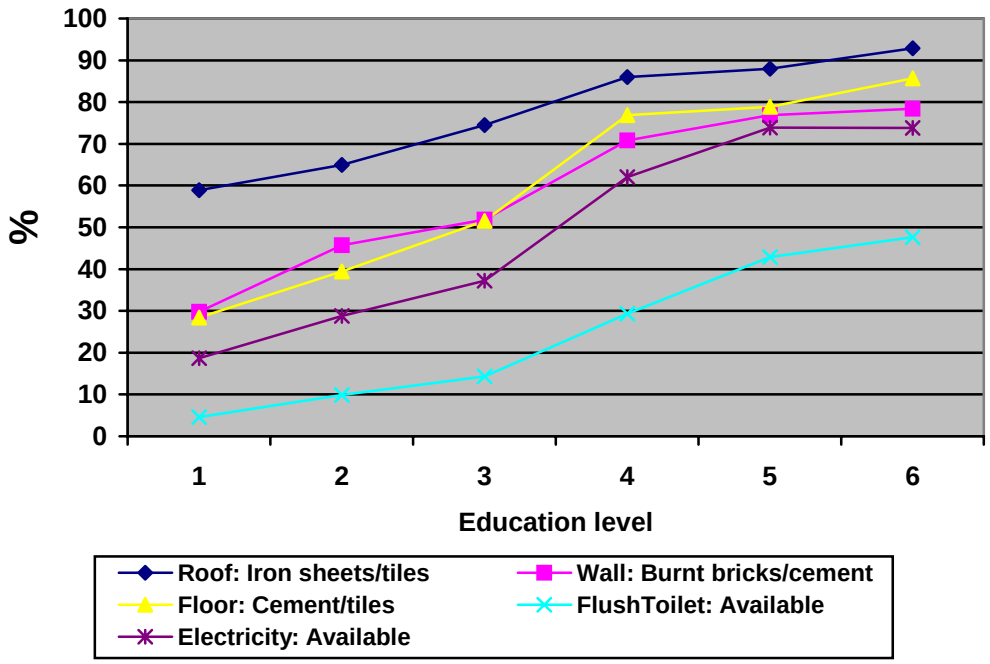
Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Roofing material:						
Iron sheets/tiles	58.9	64.9	74.5	86.0	88.2	92.9
Wall material:						
Burnt bricks/cement	29.8	45.7	51.8	70.8	76.9	78.4
Floor material:						
Cement/tiles	28.4	39.4	51.5	76.9	78.9	85.7
Toilet:						
Have a flush toilet? Yes	4.6	9.9	14.3	29.3	42.9	47.6
Have electricity in house?						
Yes	18.7	28.8	37.2	62.0	73.9	73.8

Source: Extracted from Tables 7A to 11A in Appendix 1.

Having electricity in a house is important, electricity serves cooking time (assuming an electric cooker is used), it lights the house. Access to information improves since a radio and/or television can use the electricity. The percentage of households with electricity for each education level was computed.

In Table 10A in Appendix 1, the percentage distribution of types of toilets for each education level is presented. The types of toilets are: having no toilet at all, pit latrine, Ventilated Improved Pit (VIP) latrine and flush toilet. A good quality house is the one which have a flush toilet either inside it or outdoors.

Figure 5: Percentage Distribution of Sample by Good Quality Main House, Flush Toilet, Electricity and Education Level



Key to Educational levels:
1 = None, 2 = Primary 1 to 4, 3 = Primary 5 to 8, 4= Secondary 12,
5 = Secondary 12 & Course, 6 = Secondary 14 or above.

It is observed that the percentage of houses with the specified roofing, wall and floor material increases with an increase in education level. The same applies to access to electricity and having a flush toilet.

It is concluded that education is associated with living in a good quality house which has electricity and a flush toilet.

4.4. The Relationship between Level of Schooling and Ownership of Assets

The household assets considered in the analysis appear in Table 4. From the table, it can be seen that the percentage of respondents who owned tables and chairs, Television and Radios increased with an increase in education level. As for bicycles, motorcycles and cars/lorries/tractors, there is an increase in percentage from those with no education to the primary school standards 1 to 4 level. After that level, the relationships fluctuate. The reason for this could be that once one has a means of transport he/she may not see the need of having the other means of transport. The best way to capture the relationship between owning means of transport and education level would have been to combine all the means of transport i.e. owning either a bicycle or a motorcycle or a car/lorry. Also ownership of a tractor should have been asked independently of ownership of a car/lorry, since the two are used for different purposes.

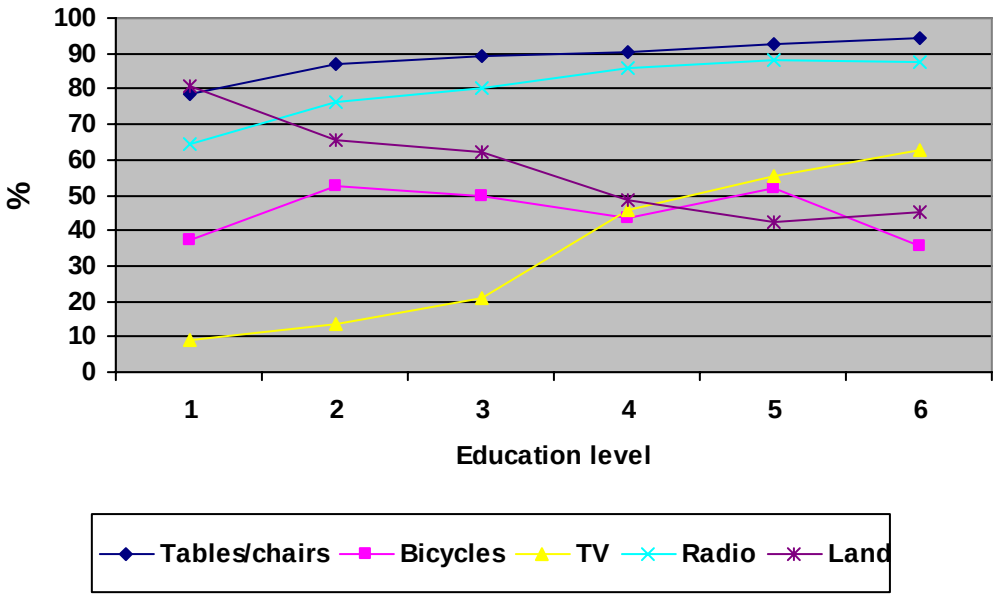
Table 4: Percentage Distribution of Sample by Assets, and Educational Level

Asset	Educational Level					
	None (n =571)	**Primary 1 to 4** (n = 667)	**Primary 5 to 8** (n =4,328)	**Secondary 12** (n =858)	**Secondary 12+ course** (n =161)	**Secondary 14& above** (n = 126)
Tables/chairs	78.6	87.0	89.3	90.7	92.5	94.4
Bicycle	37.5	52.5	49.9	43.6	52.2	35.7
Sewing Machine	6.3	11.7	15.6	34.0	31.7	34.1
TV	8.8	13.5	20.7	45.8	55.3	62.7
Motorcycle	1.2	2.8	3.3	7.5	8.7	4.8
Car/lorry/tractor	3.0	4.6	4.1	9.3	13.7	15.9
Radio	64.3	76.3	80.1	85.9	88.2	87.3
Own land	80.9	65.5	61.9	48.6	42.2	45.2

Source: Processed from Dept of Statistics Time-use data

It is interesting to note that almost two thirds of the respondents in the category of those without any education owned radios. Once used effectively, the radios can be a means of getting information on development issues from all over the world.

Figure 6: Percentage Distribution of Sample by Ownership of Household Assets, Land by Education Level



Key to Educational levels:
1 = None, 2 = Primary 1 to 4, 3 = Primary 5 to 8, 4= Secondary 12,
5 = Secondary 12 & Course, 6 = Secondary 14 or above.

In Tanzania, land in the rural is almost free and farmers use land inherited from their parents for agriculture. In the urban, there is little farming. It is observed that land ownership decreases with increasing education level. This finding is not a appropriate because most of the educated people are employed and hence hardly have time for farming. Moreover in the urban where most of the educated people live, there is not much land for cultivation.

5.0 Discussion

This research has shown that there are positive returns to schooling. Although the research did not quantify the rate of return to schooling, it is obvious from the analysis that higher percentages of educated people are in employment as compared to the less educated ones. They are in good professions such as teaching and accountancy, which can be termed to be among the “white-collar” jobs.

The finding in this research that returns to schooling increase with an increase in education levels is in agreement with Kaziaga (2004) who using national surveys’ data in Burkina Faso found the same thing. It is also in line with Schults (2003) finding for Nigeria whereby private wage returns increased with increasing education level. Similarly, it has been found that higher percentages of the employed are in the urban rather than the rural for all education levels; Asadullah (2006) too found that returns to education in Bangaladesh were higher in urban than rural areas.

Schults (2003) found that the returns to education were higher for the younger than the older age cohort. This research has shown the opposite result in the accountancy profession whereby the older age cohort was more in the profession than the younger age cohort.

In appendix 2, an analysis of the relationship between level of schooling of the head of household and main house quality characteristics (including type of toilet and access to electricity) is performed. The percentage distributions of heads of households by their education levels and qualities of their main houses are very close to the percentage distributions obtained from analyzing the education levels of the whole sample and qualities of their main houses (as appearing in Appendix 1, Tables 7A to 11A). In many studies, heads of households are proxies in analysing household characteristics, including food security. This research is in agreement with this long standing approach of using heads of households as proxies for analysing household characteristics. That is to say, once it comes to analysing

households' characteristics, one does not gain much by analyzing the whole sample hence one should focus the analysis on heads of households only.

6.0 Conclusion

In Tanzania, there are positive returns to schooling. It is shown that with secondary school education and above, one is likely to be employed rather than be in agriculture which is mainly subsistence. Also, with at least secondary school education, one is exposed to white-collar jobs such as teaching and accountancy. Finally, with at least secondary school education, one is likely to live in a good quality house which has electricity, a television and a flush toilet.

Currently, Tanzania is involved in massive expansion of secondary schools. The findings of this research are that with secondary school education, the returns to education are positive. Hence Tanzania is moving in the right track.

This research has shown that there are positive returns to education. The limitation of this research is that it has not quantified the rates of returns to schooling. Further research is needed to quantify rates of returns to schooling.

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APPENDIX 1: PERCENTAGE DISTRIBUTION OF PEOPLE AGED 15 TO 65 YEARS

Students in schools and colleges are excluded in all Tables in the Appendices

The source of data for tables in both appendices is Time Use data collected by the Department of Statistics at The University of Dar es Salaam.

Table 1A: Percentage Distribution of Sample by Main Economic Activity and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Agriculture	66.4	54.3	45.0	17.2	3.7	9.8
Employed	5.8	7.9	13.7	26.9	42.2	30.9
Technician	5.7	9.6	11.7	12.0	17.4	6.5
Business	12.4	22.6	21.8	37.1	10.6	24.4
Livestock	7.1	2.8	2.0	0.6	0	2.4
Security	1.2	1.9	1.4	0.6	0	1.6
Teacher	0	0	0.5	2.1	22.4	11.4
Accountancy	0	0	0.0	0.1	1.9	13.0
Driver	1.4	0.7	3.9	3.3	1.9	0
Total: %	**100**	**99.8**	**100**	**99.9**	**100.1**	**100**
N	**566**	**667**	**4,075**	**839**	**161**	**123**

Table 2A: Percentage Distributions of Sample by Main Economic Activity, Educational Level and Sex

Main Activity	Educational Level											
	None		Primary 1 to 4		Primary 5 to 8		Secondary 12		Secondary 12 + course		Secondary 14 & Above	
	M	F	M	F	M	F	M	F	M	F	M	F
Agriculture	63.7	67.8	50.7	58.4	37.2	48.6	16.4	16.9	4.1	3.0	8.2	12.9
Employed	3.6	7.0	7.0	9.0	11.1	13.4	24.5	29.7	32.0	55.2	34.0	16.1
Technician	5.7	5.6	15.1	3.2	15.7	6.2	16.0	4.7	27.8	1.5	8.2	0
Business	12.4	12.3	18.5	27.4	24.9	28.3	32.2	41.5	12.4	7.5	25.8	25.8
Livestock	8.8	6.2	3.6	1.9	1.8	1.9	1.1	0.3	0	0	1.0	6.5
Security	3.1	0.3	3.6	0	2.5	0.2	0.9	2.1	0	4.5	2.1	6.5
Teacher	0	0	0	0	0.6	0.3	3.6	4.5	18.6	26.9	9.3	16.1
Accountant	0	0	0	0	0	0.0	0	0.3	2.1	1.5	11.3	16.1
Driver	2.6	0.8	1.4	0	6.3	1.0	5.3	0	3.1	0	0	0
Total: %	**99.9**	**100**	**99.9**	**99.9**	**100.1**	**99.9**	**100**	**100**	**100.1**	**100.1**	**99.9**	**100**
N	**193**	**373**	**357**	**310**	**2,196**	**2,098**	**531**	**337**	**97**	**67**	**97**	**31**

Table 3A: Percentage Distributions of Sample by Main Economic Activity, Educational Level and Residence

Main Activity	Educational Level											
	None		Primary 1 to 4		Primary 5 to 8		Secondary 12		Secondary 12 + course		Secondary 14 & Above	
	U	R	U	R	U	R	U	R	U	R	U	R
Agriculture	49.5	76.2	40.0	70.2	27.7	62.9	9.7	31.5	3.1	6.1	7.1	18.2
Employed	13.0	1.7	10.4	5.1	15.5	8.7	26.6	27.5	43.8	36.4	33.3	31.8
Technician	7.7	4.5	13.0	6.1	13.9	7.3	12.1	11.7	17.2	18.2	7.4	0
Business	20.2	7.8	31.8	12.2	35.1	15.0	42.2	21.6	10.9	9.1	26.9	18.2
Livestock	3.8	9.0	1.1	4.5	1.2	2.0	0.6	1.4	0	0	0.9	9.1
Security	2.4	0.6	2.5	1.3	1.6	1.0	0.6	0.5	0	0	1.9	0
Teacher	0	0	0	0	0.4	0.4	3.7	5.0	21.1	27.3	8.3	22.7
Accountant	0	0	0	0	0.0	0	0.2	0	2.3	0	13.9	0
Driver	3.4	0.3	0.8	0.6	4.5	2.7	4.2	0.9	1.6	3.0	0	0
Total: %	**100**	**100.1**	**99.9**	**99.9**	**99.9**	**100**	**99.9**	**100.1**	**100**	**100.1**	**100**	**100**
N	**208**	**357**	**355**	**312**	**2,367**	**1,829**	**620**	**222**	**128**	**33**	**108**	**22**

Table 4A: Percentage Distribution of Sample Aged 15-30Years by Main Economic Activity and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Agriculture	59.4	44.8	42.4	15.4	2.3	0
Employed	8.9	11.0	13.9	25.9	51.2	30.3
Technician	5.2	9.8	9.9	13.6	23.3	6.1
Business	17.2	28.2	27.2	36.4	7.0	39.4
Livestock	7.3	3.7	2.4	1.3	0	3.0
Security	1.6	1.2	0.9	0.8	0	6.1
Teacher	0	0	0.2	3.3	14.0	12.1
Accountancy	0	0	0	0.3	2.3	3.0
Driver	0.5	1.2	3.0	3.0	0	0
Total %	**100.1**	**99.9**	**99.9**	**100**	**100.1**	**100**
N	**192**	**163**	**2,103**	**390**	**43**	**33**

Table 5A: Percentage Distribution of Sample Aged 31-45Years by Main Economic Activity and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Agriculture	70.6	42.7	43.5	14.5	3.6	20.8
Employed	3.5	9.2	10.6	25.1	30.4	29.2
Technician	4.7	14.1	10.4	12.2	19.6	6.3
Business	13.5	32.4	28.5	40.8	14.3	16.7
Livestock	7.6	0.5	1.1	0.3	0	0
Security	0	1.1	1.1	0.6	0	0
Teacher	0	0	0.5	4.2	28.6	12.5
Accountancy	0	0	0.1	0	3.6	14.6
Driver	0	0	3.9	2.3	0	0
Total %	**99.9**	**100**	**100**	**100**	**100.1**	**100.1**
N	**170**	**185**	**1,536**	**311**	**56**	**48**

Table 6A: Percentage Distribution of Sample Aged 46-65Years by Main Economic Activity and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Agriculture	68.9	65.7	43.4	25.0	4.2	4.4
Employed	4.9	5.7	16.2	30.1	54.2	31.1
Technician	6.8	6.9	8.8	6.4	9.7	6.7
Business	6.8	14.2	19.9	26.9	8.3	26.7
Livestock	7.3	3.8	1.3	0.6	0	4.4
Security	1.9	2.8	3.6	0	0	0
Teacher	0	0	1.0	5.1	19.4	8.9
Accountancy	0	0	0	0	0	17.8
Driver	3.4	3	5.7	5.8	4.2	0
Total %	**100**	**100**	**99.9**	**99.9**	**100**	**100**
N	**206**	**318**	**634**	**156**	**72**	**45**

Table 7A: Percentage Distribution of Sample by Main House Roofing Material and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Palm leaves/ glass	36.9	22.5	16.0	6.9	7.5	3.2
Iron sheets & glass	2.1	12.0	8.8	6.7	4.3	4.0
Iron sheets or tiles	58.9	64.9	74.5	86.0	88.2	92.9
Other	2.1	0.6	0.6	0.5	0	0
Total %	**100**	**100**	**99.9**	**100.1**	**100**	**100.1**
N	**526**	**644**	**4,266**	**856**	**161**	**126**

Table 8A: Percentage Distribution of Sample by Main House Wall Material and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Palm leaves/ glass	2.3	2.5	1.6	1.5	3.1	1.6
Poles/ Poles & earth	29.9	24.3	16.2	7.7	4.4	5.6
Unburnt (earth) Bricks	29.9	20.2	17.1	8.4	7.5	7.2
Cement & earth	7.0	6.5	12.0	9.6	5.0	4.8
Burnt Bricks	13.3	19.2	20.1	16.6	18.8	19.2
Cement blocks	16.5	26.5	31.7	54.2	58.1	59.2
Other	1.1	0.8	1.3	2.1	3.1	2.4
Total %	**100**	**100**	**100**	**100.1**	**100**	**100**
N	**571**	**667**	**4,324**	**858**	**160**	**125**

Table 9A: Percentage Distribution of Sample by Main House Floor Material And Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Earth	60.2	42.1	34.9	13.2	7.5	7.9
Unburnt (earth) Bricks	3.2	6.0	3.4	1.7	1.2	4.0
Cement & earth	8.1	12.3	10.1	8.2	12.4	2.4
Cement/Tiles	28.4	39.4	51.5	76.9	78.9	85.7
Other	0.1	0.1	0.1	0	0	0
Total %	**100**	**99.9**	**100**	**100**	**100**	**100**
N	**571**	**667**	**4,327**	**858**	**161**	**126**

Table 10A: Percentage Distribution of Sample by Type of Toilet and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
None	2.5	3.0	2.5	2.6	3.1	1.6
Latrine	92.8	86.6	82.7	67.2	54.0	47.6
VIP latrine	0.2	0.5	0.6	0.9	0	3.2
Flush toilet	4.6	9.9	14.3	29.3	42.9	47.6
Total %	**100.1**	**100**	**100.1**	**100**	**100**	**100**
N	**571**	**665**	**4,318**	**850**	**161**	**126**

Table 11A: Percentage Distribution of Sample by Access to Electricity and Educational Level

Does the household have electricity?	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14& above
Yes	18.7	28.8	37.2	62.0	73.9	73.8
No	81.3	71.2	62.8	38	26.1	26.2
Total %	100	100	100	100	100	100
N	571	667	4,328	858	161	126

APPENDIX 2: PERCENTAGE DISTRIBUTION OF HEADS OF HOUSEHOLDS AGED 15 TO 65 YEARS by Quality of Main House

Table 12A: Percentage Distribution of Heads of Households by Main House Roofing Material and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Palm leaves/ glass	31.5	24.2	14.7	6.2	7.8	4.3
Iron sheets & glass	13.1	10.7	9.0	5.1	3.9	4.3
Iron sheets & tiles	55.4	64.4	75.3	88.2	88.3	91.4
Other	0	0.6	0.9	0.5	0	0
Total %	**100**	**99.9**	**99.9**	**100**	**100**	**100**
N	**168**	**326**	**1,495**	**389**	**77**	**93**

Table 13A: Percentage Distribution of Heads of Households by Main House Wall Material and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Palm leaves/ glass	4.2	3.1	1.7	1.8	2.6	1.1
Poles/ Poles & earth	25.0	22.6	14.4	7.2	9.1	2.2
Unburnt (earth) Bricks	31.5	21.1	16.6	7.9	5.2	5.4
Cement & earth	7.7	7.6	12.0	5.4	6.5	3.2
Burnt Bricks	13.1	18.0	20.1	21.3	19.5	21.5
Cement Blocks	17.9	26.9	34.0	54.4	54.5	63.4
Other	0.6	0.6	1.2	2.1	2.6	3.2
Total %	**100**	**99.9**	**100**	**100.1**	**100**	**100**
N	**168**	**327**	**1,495**	**390**	**77**	**93**

Table 14A: Percentage Distribution of Heads of Households by Main House Floor Material and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
Earth	57.7	41.6	31.0	13.1	11.7	6.5
Unburnt (earth) Bricks	3.0	6.4	3.0	1.8	1.3	0
Cement & earth	5.4	11.3	9.9	6.7	13.0	2.2
Cement	32.7	40.4	55.8	78.5	74.0	91.4
Tiles	1.2	0	0.2	0	0	0
Other	0	0.3	0.1	0	0	0
Total %	**100**	**100**	**100**	**100**	**100**	**100.1**
N	**168**	**327**	**1,495**	**390**	**77**	**93**

Table 15A: Percentage Distribution of Heads of Households by Type of Toilet and Educational Level

Main Activity	Educational Level					
	None	Primary 1 to 4	Primary 5 to 8	Secondary 12	Secondary 12 + course	Secondary 14 & Above
None	4.2	2.8	2.2	2.8	2.6	1.1
Latrine	92.3	85.8	83.4	68.2	57.1	38.7
VIP latrine	0	0	0.5	1.0	0	4.3
Flush toilet	3.6	11.4	13.8	28.1	40.3	55.9
Total %	**100.1**	**100**	**99.9**	**100.1**	**100**	**100**
N	**168**	**325**	**1,493**	**387**	**77**	**93**