

**Remittances, Emigrants, and Education:
A Case Study of Children's Education in Kosovo**

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Executive Summary

This study examines the impact of remittances on children's education in Kosovo. The main hypothesis states that remittances do affect children's education positively, through easing the ability to purchase books/stationeries and pay for school transportation costs. Using data from UNDP Remittance Study 2010 and 2012, I apply IBM SPSS bivariate correlation and linear regression analysis to find out the impact of remittances on children's education. Firstly, the results demonstrate that remittances do have a strong relationship with children's education in Kosovo. Secondly, each additional amount of remittance used for education in Kosovo, eases the ability to purchase books/stationeries and pay for transportation costs. Furthermore, the paper notes that the positive effects of remittances in children's education vary from the amount of remittances spend for education. Therefore, larger amount of remittances sent by migrants, the easier will be for families who receive remittances to purchase books/stationeries and pay for transportation costs.

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Abbreviations

CBK	Central Bank in Kosovo
GDP	Gross Domestic Product
FDI	Foreign Direct Investment
FYRM	Former Yugoslav Republic of Macedonia
IBM SPSS	Software Package used for Statistical Analysis
IMF	International Monetary Fund
IOM	International Organization for Migration
ISCED	International Standard Classification of Education adopted by UNESCO
KAS	Kosovo Agency of Statistics
MFED	The Ministry of Finance and Economic Development
MEST	The Ministry of Education, Science and Technology
RIINVEST	Institute for Development Research
UNDP	United Nations Development Program
WB	World Bank

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Introduction

Migration from developing to developed countries has increased in years, a trend which has been going on for centuries. Economic and political difficulties trigger individuals to migrate to countries with higher living standards (IOM, 2011). Currently this movement of people from one country to the other has reached 3% of the total population (IOM, 2011; UN, 2011). Income inequalities, natural disasters, conflicts, or higher standards of living in other countries motivate people to move (Arango et. al, 1993; National Geographic, 2005). In return to migration home countries get remittances, thereby in some regions of the world remittances have reached high percentage of the total GDP. Remittances are used for different purposes such as consumption, investment, savings, health care, education and the like. Depending on financial constraints each household decides how to allocate remittances. Among all countries, Kosovo is one of the top ten countries that receive remittances the most as a percentage of GDP (Ratha, 2012), however remittances do have an effect at micro level of the overall economy, for instance in education. Therefore, this paper tries to find out the effect of remittances on primary and lower secondary education in Kosovo.

Kosovo is a small country located in Southeastern Europe, bordering Albania, Montenegro, Former Yugoslav Republic (FYR) of Macedonia, and Serbia. The population of Kosovo is 1.8 million (KAS, 2013). Kosovo ranks among one of the poorest countries in Europe. In addition to that the armed conflict with Serbia created more economic difficulties, among others high rate of unemployment. It is estimated that 29.7% of the population live below the poverty line and 10.2% live in extreme

poverty, the poverty line is 1.72 euro/day, and extreme poverty line is 1.20 euro/day (KAS, 2013). According to the UNDP (2012) Kosovo currently has around 400,000 emigrants. Economic and political reasons have forced many Kosovars to migrate mainly to Western Europe, and in return these emigrants send remittances back home (BTI, 2012; Aliu - WB, 2012, Statistical Office of Kosovo, 2009). Research shows as of 2011 remittances formed 14% of the GDP in Kosovo. Like in other regions of the world remittances are used for consumption, investment, savings, and a percentage of it is used for education.

Studying the case of Kosovo is very interesting for several reasons. The country faces high percentage of poverty, thus analyzing remittance expenditure in education might provide useful information for policymakers. Furthermore, reviewing the return on remittances expenditures in education is particularly important, because two factors should be clear if Kosovo is brain gaining or brain draining by remittances. Based on the literature survey it is not clear yet if endogeneity effect exists between remittances and education, meaning that if remittances cause higher level of education, or highly educated people migrate. But in the case of Kosovo this paper analyzes if remittances do have an impact on primary and lower secondary education in Kosovo, through easing the ability to purchase books/stationeries and pay for transportation costs. This paragraph is followed by the literature of migration and remittances in Kosovo.

Migration in Kosovo has been studied to an extent. UNDP (2010, 2012) has studied remittances and its usage by Kosovars. RIINVEST (2007) has analyzed migrants (diaspora) particularly, as migrants' level of education, percentage of remittances sent home, and migration policies. Kotori (2011) has analyzed the need of family members

to migrate due to economic difficulties. Alishani and Nushi (2012) state that in the absence of enough resources it is difficult to conclude if there is a positive or negative relationship between education/health and remittances. Other projects have been going on by the Ministry of Diaspora, and other institutions. Remittances are expected to reduce poverty; hence, they do have other effects on the overall economy. In the case of Kosovo it is not convincingly proved what are the effect of remittances in general.

In the general literature on the effects of remittances on education, the reports of Yang (2008), Cox and Ureta (2003), Kabki (2003), McKenzie and Rapoport (2006) are significant. Yang (2008) studied remittances sent in Philippine, and their usage. She concluded that remittances have a positive effect because of the favorable exchange rate it was more affordable to sent children at school. Cox and Ureta (2003) also state that remittances had a positive effect on education in El Salvador because recipient families had higher income, and better opportunities to sent children to school. Also Kabki (2003) analyzed Ghana, and concluded that families who have members living abroad have higher opportunities to sent children to school, therefore, remittances do have positive effect on education. Where as McKenzie and Rapoport (2006), study Mexico and conclude that children are not incentivized to go to school, as they are motivated to migrate, therefore remittances have negative impact on education. Thus, the literature shows that the effects of remittances on education vary from country to country.

It must be noted that the term *migration* refers to the movement of people from one place to the other, at local and international level, and also has different effects in

origin and destination country, such as growth and poverty alleviation (World Bank, 2013). Where as *remittance* is the money sent home by migrants and reduces the level of poverty contributing to “higher human capital accumulation; greater health and education expenditures; enhanced small business investment; and reduced child labor” (World Bank, 2013). Among all other available definitions, World Bank’s has the key points needed for my paper.

This paper will be divided in four chapters. The first chapter will provide a brief background on migration and remittance, as well the literature review of remittances effects on education. The second chapter will explain the methodology used to analyze this paper. The third chapter will give historical background of Kosovo, and it will explain the education system in Kosovo. The last chapter will analyze remittances impact on education in Kosovo, and will draw some results and final remarks.

Chapter 1: Migration and Remittance Background – Historical Context

This chapter will provide the historical context of remittances flow as part of migration across the world. In the last two decades remittances have increased tremendously. Thus, it has become an important issue to be studied by policy makers. Remittances the an external source of income are used for different factors, therefore it can have positive and negative impacts on these factor, so the last section of this chapter will explain the literature review of positive and negative impact of remittances on education.

1.1 Migration Across the World

International migration seems to be increasing year after year, as global economic changes occur in different countries; people are motivated to move to places where standards of living are higher (IOM, 2011). Based on IOM report in 2011 the number of international migrants has reached 215 million (Ratha, 2012; UN, 2011). Qatar and United Arab Emirates are the most preferred destination countries for migrant and other countries that follow are Jordan, Singapore and Western Europe (IOM, 2011). However, each migrant has a reason of moving and this will be explained in the next paragraph.

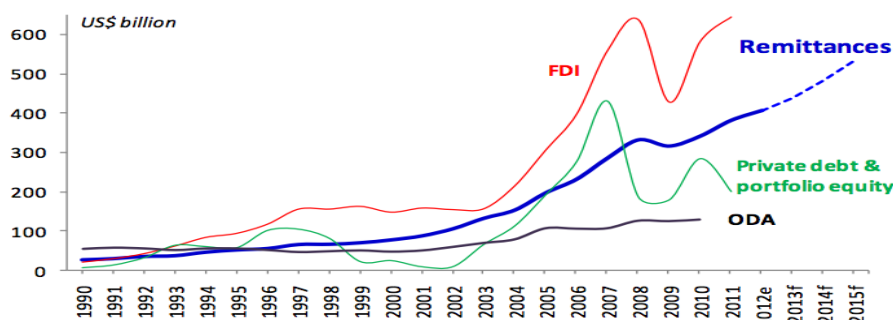
Political reasons, conflicts among countries, natural disasters are among all other reasons why people decide to emigrate. However, economical difficulties are another important issue that people choose to move to places with higher standards of living. World Bank (2013) concludes that migration boosts the economy, since people move

to places where they find themselves more productive. In return to migration are remittances sent at home by migrants, hence this will be explained below.

1.2 Remittance Across the World

Remittances have fluctuated from year to year, however the latest figures show that remittances have increased drastically in developing countries (Ratha et al., 2012). Only in year 2000 remittances have reached \$100 billion and are increasing constantly, until 1990s remittances were less than \$50 billions (Ratha et al., 2012). Figure 1 shows the fluctuation of remittance through two decades in developing countries. Based on the analysis made by World Bank and other researchers remittances seem to have increased by 6.5% in 2012 compared with 2011, whereas in 2013 remittances are expected to increase by 7.9% (Chand, 2012; Ratha, et al. 2012).

Figure 1. Remittances flows to developing countries from 1990-2015



Source: Ratha, et al. 2012

After foreign direct investment (FDI), remittances have become the second largest source of inflow in to countries (Aggarwal et al., 2010). China is one of the countries that receives remitted money the most, around \$51 billion, and it is followed by India with \$50 billion, Mexico \$22.6 billion, whereas as the percentage of GDP Kosovo is in top ten countries, and it can be concluded that remittances play an important role at

the economic level (Ratha et al., 2012). Furthermore, Southeast European countries are heavily based on remittances, mainly because they are undergoing through transformational issues, such as economic system. Therefore, the economy of these countries is affected by remittances positively and negatively (IOM, 2008). One stream of literature argues that remittances boost economic growth, and the other stream of literature argues the opposite (Chand, 2012; Ratha, et al. 2012). However, as remittances are used for consumption, investment, education, and the like, it affects these factors to an extent. For instance, remittances used for education can have a positive impact on the overall economy. However, next section explains the literature review of remittances effects on education worldwide.

1.3 Literature Review of Remittances and Education

Although remittances have become a very important source of the economy, the distribution of them is more important, say, allocation of them in investment. However, it is also very important for migrants to know that the remitted money is being used for good purposes, as poverty alleviation, education, health, or investment. Otherwise migrants might be negatively motivated and reduce the amount of remittances sent at home. In such cases household receivers will be affected, as their total monthly income gets reduced. Therefore, the allocation of remittances is important, since it shows to have positive affects in some factors and negative affects in others. As the main purpose of this paper is to analyze remittances effects in education in the case of Kosovo, below will be explained a general overview and will be followed by few cases studies of remittances used for education. These cases have been used as model for the case of Kosovo.

Household head usually decides how to allocate remittances, as well as how much money to spend on children's education purposes, especially when these households have financial constraints. Lucas (2005) states that the poorer the country the more remittance, it receives and low-income countries receive more remittances than do middle income countries. He argues that developing countries have difficulties with job opportunities and wage gap compared to developed countries; therefore the low-income countries need additional financial resources in order to fulfill living necessities. As remittances lift budget constraints families have better opportunities to spend larger amount of money in education, as education might be beneficial in long-term. Furthermore, Haas (2007) argues that remittances can have a positive affect:

Depending on the social, economic and political conditions in origin countries, the departure of the highly skilled may have beneficial effects in the form of a counter flow of remittances, investments, trade relations, skills, knowledge, innovations, attitudes and information in the long run.

With this it can be concluded that good policies in developing countries can lead to an efficient use of remittances. In the following section few examples will be given of positive and negative impact of remittances on education.

Firstly, the hypothesis that remittances do effect education positively is approved by different studies. Yang (2008) shows that after Asian economic crises Philippine benefited. Remittances sent in Philippine seemed to have a positive impact on children's education. The external effect of remittances on education was the exchange rate, since it became cheaper to keep children in school for longer time, and

also decrease child labor, Yang (2008) concluded. Domestic currency in Philippines depreciated against other currencies, mainly where emigrants lived; therefore the purchasing power for remittances received was higher. As remitted money was more valuable, people in Philippine had more opportunities to spend those money in different areas (Yang, 2008). Child labor was a big problem in Philippines; therefore it was a good opportunity for remittance receiver to send their children in school rather than work. Yang (2008) analysis shows that children had more opportunities to get educated and not enter the labor force until later stage, thus remittances had a positive impact on education in Philippines.

Secondly, moving from Asia to Latin America, Cox and Ureta (2003) made an analysis in remittances effect in education in El Salvador. An income comparison was made between remittance receivers and non-remittance receivers. Recipient families had lower income, since they had less family member working, however remittances sent by migrants were an additional source to their income. Based on Cox and Ureta (2003) analysis a high percentage of remittances were used for education. Their results show that children who live in the urban areas and receive remittances have higher probability of attending school, and also spend higher percentage of remittances in education rather than in other factors¹ (Cox and Ureta, 2008). Whereas, children who live in rural areas drop out of school at earlier stages compared to children who live in urban areas. However, the authors concluded that remitted money has a positive affect in education, because families who receive remittances have more opportunities to spend money on education, compared to families who do not receive remittances.

¹ Other factors that remittances have an effect are investment, savings, health, debt repayment, and the like.

Thirdly, as Ghana has a large number of migrants living in Netherlands, Kabki analyzed remittances affect on micro level of the economy. In one of his papers published in 2004, he concluded that remittances do have a positive affect in the overall economy, at macro and micro level. In the article “The Economic Impact of Remittances of Holland based Ghanaian Migrant Rural Ashanti” (2003) Kabki concluded that families who receive remittances in Ghana have better opportunities to send children to school. Statistics showed that besides primary school, children attended also secondary and university degree even though tuition fees were high. Thus, families who received remittances had better opportunities to send their children to school. On the other hand families who did not receive remittances were not able to send their children to school (Kabki, 2003; Awumbila et. al, 2008). With this it can be concluded that remittances have a positive affect on education for those families who receive remitted money.

Finally, migrants’ families in the Dominican Republic use a higher percentage of remittances in education rather than in health, investment, or savings (Dorantes and Pozo, 2010). Around 13% of the population live abroad, and send remittances at home (OECD, 2009). Remittances are around 17% of the total GDP (OECD, 2009). This amount of money in the Dominican Republic is being used for consumption mainly, and the second usage is for education purposes (OECD, 2009). Developing countries that receive a high percentage of remittances have positive correlation with expenditures on education (Dorantes and Pozo, 2010). In the Dominican Republic statistics show that migrants’ families spend more money on education rather than non-migrant families. It has been recognized specifically on the secondary school that

children who have at least one member working abroad do not drop out of school (Dorantes and Pozo, 2010). Therefore, Dorantes and Pozo (2010) conclude that remittances have positive impact on education in the Dominican Republic. The Dominican Republic, El Salvador, Ghana and Philippine are examples that remittances seem to affect children's education positively, however below will be given few examples where remittances have negative impact on education.

Firstly, McKenzie and Rapoport (2006) analyzed remittances sent in Mexico. Based on their research remittances have a negative effect on education. In Mexico children are not motivated to continue schooling, but they are more willing to migrate abroad and start working. Mexico has poor policies on education and does not provide good access to education, which makes it harder for children to attend school. Remittance receivers instead of using remittances for education purposes, they use remittances to migrate (McKenzie and Rapoport, 2006). Therefore, authors conclude that remittances do have a negative effect on education, since children migrate rather than get educated.

Secondly, migration can reduce school attainment, because of the standard of living provided at home country compared to destination countries. In Bosnia and Herzegovina remittances have a negative impact on education (Trokic, 2012). Education in Bosnia and Herzegovina is mainly subsidized, however a large amount of remittances inflows for education purposes. But remittance receiver do not allocate remittances properly, therefore remittances do not show to effect education positively (Trokic, 2012). As the employment opportunities are low in Bosnia and Herzegovina, educated people tend to migrate to places where wages are higher. Thus, people in

Bosnia and Herzegovina instead of using remittances for further education, they use them for migration purposes (Trokic, 2012).

Finally, Kugler (2005) concludes that the main problem of some developing countries is brain drain. Usually recipient families use remittances for education purposes, but these educated people prefer to migrate to places where they find themselves more productive. Kugler (2005) gives the example of Colombia, where he states that remittances can have double affect on education. Firstly, remittance receivers get more education by using remittances for education expenditures, and this causes brain gain. Secondly, these educated people leave home country to go to countries where they can find better jobs, and this causes brain drain in Colombia. By causing the brain drain in Colombia, Kugler (2005) states that remittances have negative effect on education.

To sum up, the effects of remittances on education vary from country to country. However, this literature is important to the case of Kosovo, since the models used in each case have been carefully analyzed and some of them have been used for this paper. The variables used to analyze if remittances have an impact on education in the case of Kosovo are similar to the model used in these examples. Furthermore, this thesis will contribute in the literature of remittances effect on education, since to my knowledge no similar empirical research has been done so far.

Chapter 2: Research Methodology

In order to find out the impact of remittances on children's education in Kosovo, a methodology is needed. This chapter explains the hypotheses, the methods, and the data used to find the results. More specifically, IBM SPSS program will be used to run a linear regression analysis and a bivariate correlation, and through this answer the research question, which is – do remittances have an impact on children's education (primary and lower secondary education) in Kosovo, through easing the ability to purchase books/stationeries and pay for transportation costs?

2.1 Regression Analysis

With the available data, IBM SPSS package was the most useful program to come up with the conclusive results. In order to perform the linear regression analysis and the bivariate correlation two equations will be used with six explanatory independent variables, and two different dependent variables. The first dependent variable is transportation costs (to school) and second dependent variable is school stationary. The two dependent variables have been distinguished from 1 to 5, one being very difficult to five as very easy². Tuition fees have not been taken into consideration, since primary and lower secondary school is provided for free. Where as independent variables are education expenditures, monthly household income, family size, household head gender, and household head education level, which will be explained later in this chapter. The final analysis of finding out if remittances have an impact on education will be performed through a comparison of education expenditures without

² Range: 1 – very difficult; 2 – fairly difficult; 3 – average; 4 – fairly easy; 5 – very easy

remittances and with remittances. Next paragraph is followed by the explanation of the linear regression analysis and bivariate correlation.

Firstly, the linear regression analysis will be divided in to two equations. The first equation testifies if remittances would ease the difficulties of transportation cost to school. The second equation testifies if remittances would ease the purchase of books and stationary. The general formula for this model is:

$$Y = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \beta_5\chi_5 + \beta_6\chi_6 + \varepsilon$$

This equation will be ran in different models in order to understand which variable has more and less effect on children's education. Secondly, the bivariate correlation will show the correlation of remittances with other explanatory variables, as well as the correlation of dependent variable with the independent variables. The results will show if the independent variables do affect positively, negatively or do not affect at all children's education at all (transportation costs and school stationary). Based on the results it will be concluded if the controlling variables affect children's education or not. The results of this analysis are presented in the last chapter. The next section will be followed by the hypotheses.

This paper will aim to demonstrate that remittances are an important financial source for education. Thus, two hypotheses will be tested:

H₀: Remittances have a positive effect on children's education in Kosovo, through financial support for books and transportation costs.

The reason why remittances affect positively the education is that remittances lift households' liquidity constraints as an additional source of income. Furthermore, children that receive remittances have more opportunities to pay for education expenditures compared to other children. Therefore, remittances are positively correlated with education.

H₁: Remittances have a negative effect in children's education in Kosovo.

UNDP (2010 & 2011) figures show that 12-15% of households in Kosovo are lead by women, therefore it is predicted that the oldest child takes some house responsibilities. As mothers have to cook, take care of other children, and clean, the oldest child gets more responsibilities, therefore the probability of dropping out of school is high. In such cases, remittances cannot have a positive affect on children's education in Kosovo. This paragraph is followed by the explanation of the data used for this analysis.

2.2 Nature of the Data

To make this analysis, I used data from UNDP Kosovo Remittance Survey in close cooperation with Central Bank of Kosovo, the Ministry of Finance and Economic Development, the Kosovo Agency of Statistics, and International Monetary Fund, for the year 2010 and 2011. The 2010 survey is based on 4,000 households, where as the survey of 2011 has been doubled to 8,000 households, households who have family members living abroad and households who do not have family members living abroad. Unlike other surveys on migration and remittances, the advantages of UNDP Kosovo Remittance Survey 2010/2011 is that it covers national representatives

including households who have members living abroad who send and who do not send remittances at home, and households who do not have any members living abroad. This survey with its data analysis is representative of the entire Kosovo population, and it is one of the few that represents detailed data on remittances. Other additional sources have been used from World Bank, IOM, RIINVEST, and other books, journals and research papers. This paragraph will be followed by the explanation of all explanatory independent variables.

2.3 Explanatory Variables

Education Expenditures: Even though, the primary and lower secondary education is provided for free in Kosovo, transportation costs, books and stationary are not covered by government. So families have to pay for transportation costs (when needed) and buy books/other school supplies for their children. UNDP questioner in both years 2010 and 2011 covers the education expenditures for each family. Based on the survey in 2010 families have spent more money on education expenditures compared to year 2011. This variable has been taken as an explanatory measurement since it is the key factor to calculate children's education.

Monthly Household Income: Income in each family differs, however a difference can be also seen in the families who have migrants compared to families who do not have migrants (UNDP, 2010 and 2012). Some families in need send family members to work abroad and in return get remittances, which increases the total family's income. Depending on the monthly income, household head decides upon money allocation. As the total monthly income increases the probability of spending more money on education is higher. Household income has its negative and positive effects on children's education, for instance when monthly income is high families have better

opportunities to send their children to school. Sometimes families that run a profitable business do not consider education as one of the most important factors for their children, and these children end up working on their parents' businesses (Kusumawardhani, 2012). Among factors that have a negative effect on education is when a household receives low income; therefore, children are forced to work, say, in agriculture. Furthermore, in Kosovo in 2010 households who received remitted money had around 480 Euros as monthly income compared to households who did not receive remitted money, about 434 Euro (UNDP, 2010). Whereas, in 2011 the total income increased in both families: those who receive and those who do not receive, however still families with remittances have higher monthly income, which is 575 Euro with 546 Euro (UNDP, 2012).

Family Size: Family size is an important variable to test the outcomes of education because one stream of literature states that a larger number of family members is inversely related to the parental investment in education (Benedicts et al., 2010). The other part of the literature concludes that family size and children's education is not related, which means that the number of members within the family cannot affect children's education (Mogstad and Wiswall, 2009). However, in Kosovo on average a family consists of five members, those who receive and those who do not receive remittances (UNDP, 2012). Family size is important because the larger the number of family members, it requires more resources to feed them and fulfill other necessities. Families with less family members have higher opportunities to send children to school and purchase stationary, books and pay for the transportation costs. When the size of family is smaller, household head has better opportunities to spend more money, say, on education.

Household Head Education: Education of household head plays an important role on the child's education. Parents can have an influence on their children's education based on their own experience. In Kosovo UNDP study done for 2010 and 2011 shows that recipient households are one average one year less educated compared to head of households who do not receive remittances. For instance, in 2011 the average years of education of recipient families is 11.0 where as of non-recipient is 11.4 (UNDP, 2012). The percentage of education of remittance receivers and non-receivers is slightly different however it might affect children's education. Therefore, the level of household head education is positively related to children's education, because these households know the importance of getting education. Furthermore, parental education is important since children can be oriented to attend school or not, based on the job opportunities, so parents can make decision if education is worthy or not. Thus, parental education plays an important role in the choice of their children education.

Household Head Gender: The last variable that is important to run the regression, and see the effect on children's education in Kosovo is household head gender. House responsibilities are distinguished among family members, as women take care of children, cooking and cleaning, where as men as household-head take care of other responsibilities. The literatures argues that if the male household migrates, the oldest child in the family takes house responsibilities, as the mother has to take care for other children and do other housework (Benedicts et al., 2010). According to the UNDP remittance study in 2012 the total percentage of women household-headed was 12.5%. In terms of families who have family members living abroad, around 31% of

household head are women. In such cases even though families have members living abroad that send remittances, still remittances can have a negative effect on children's education.

Chapter 3: Kosovo's historical contexts of migration and educational system

This chapter explains the historical context of waves of migration in Kosovo and the flow of remittances. As Kosovo had different waves of migration, it is important to look at migrants' profile and remittances sent by migrants at home. The chapter will be followed by the explanation of the education system in Kosovo.

3.1 Waves of Migration in Kosovo

Unfavorable economic conditions and political issues forced many Kosovars to leave the country and migrate to different countries in the world. To understand why Kosovo receives a large amount of remittances it is important to know the waves of migration, thus the waves of migration are distinguished in three different forms:

- The first wave of migration was in 1960s, where unskilled men migrated to Western European countries, in order to escape from poverty. Economic difficulties forced many Kosovars to move to places where they would be more productive, as well as to places where wages were higher, in order for them to send money back home. But more importantly migrants were allowed to work legally in Western European countries (RINVEST 2007; Vathi and Black, 2007; ESI, 2006).
- The second wave of Kosovo's migration was in the late 1980s and early 1990s, when Serbs abolished from the job many Kosovar Albanians (skilled and unskilled workers) (UNDP, 2012). As the number of unemployed people increased, income per families decreased, therefore many unskilled even skilled workers had to migrate in order to escape from poverty.

- The third wave, which can also be called a mass migration in Kosovo, was during the war of 1998-1999 when more than 800,000 people left the country. Refugees that escape from the conflict in Kosovo, majority went to neighboring countries, another high percentage went to Western Europe, and the other part to USA and Canada. According to IOM (2008), more than 70% of refugees returned back in Kosovo after the conflict ended.

Finally, statistics show that percentage of migration has increased tremendously after the war. The exact number of migrants is not yet determined, however, based on UNDP (2012) the current total number is between 200,000 and 500,000, where as World Bank (2007) statistics show it as 400,000.

Kosovo as the poorest country in the region currently has the unemployment rate above 40% (BTI, 2012; Aliu - WB, 2012, Statistical Office of Kosovo, 2009). High unemployment rate, low monthly income per families, incentivizes some people to move to places where standards of living are higher, in order to be able to send money at home. Two countries that have always been the largest destination countries for Kosovars are Germany and Switzerland. From the total percentage of migrant in the world 33% live and work in Switzerland, 7% in Germany, 6% in USA, less than 5% in Austria and Italy, and in many other countries in the world (Mustafa, et al., 2007). As the number of migrants of Kosovo is large the amount of remittances sent at home is large as well. However, it is also important to look at the migrants' profile, because one stream of literature argues that migrant's profile is correlated with remittances sent at home (IOM, 2010).

3.1.1 Profile of Emigrants

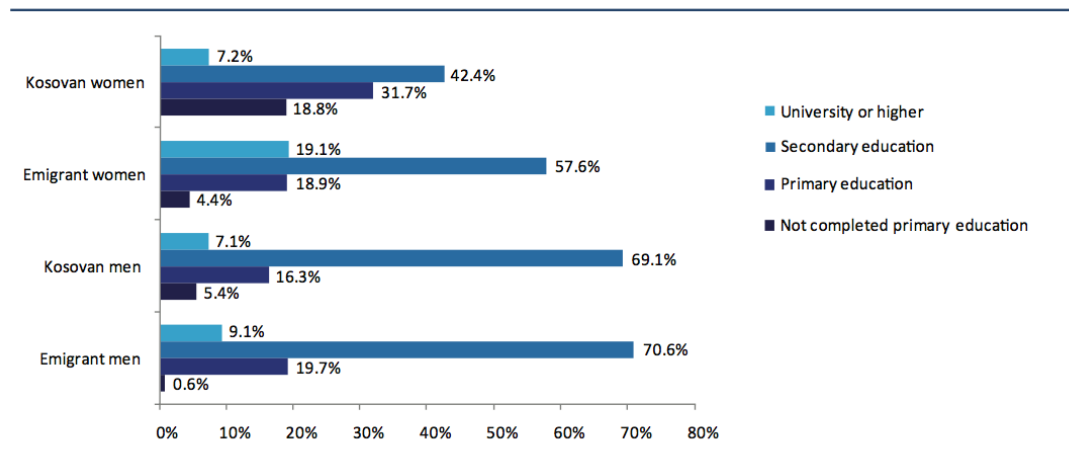
Emigrants' profile is important because many studies on migration and remittances find out that migrants profile (gender, marital status, or education) is correlated with remittances (IOM, 2010). Meaning that sometimes the higher level of education of migrants, higher amount of remittances will be sent at home countries (IOM, 2010). Below will be explained the percentage of household headed, emigrants education, and if emigrants work or not, because Kosovo is heavily based on remittances, and the variation of remittances is important.

Firstly, according to UNDP report in 2012 men dominate over women as household head. But, if we look at the statistics of home country, it can be seen that only 13.5% of women are household compared to 86.5% of men. Emigrants either live with the entire family abroad or have their father or brother as household head at home. This means that the gender composition of migrants' households is dominated highly by men.

Secondly, UNDP (2012) analyzed the level of education of the people living abroad. Figure 2 shows the comparison of education of emigrants and family members in home country. Based on this figure emigrated women have more years of education compared to women living in home country. Around 19% of women living abroad hold university degree, compared to only 7.2% of women living in Kosovo. Different from women, the percentage of men living abroad and at home have similar results of education of primary and secondary education. Therefore, higher level of education migrants have can lead to higher amount of remittances sent in home country. As the

percentage of remittances increases, the opportunities to spend more money on education is higher.

Figure 2. Education level of Kosovars and emigrant households



Source: UNDP, 2012

Finally, besides education of emigrants' households, employment is another important factor, since remittances are based heavily on emigrants' wages. According to UNDP report (2010, 2012) around 94% of migrants are working, the other percentage are either retired or disabled people. From this 94% most of them work on private sectors, compared to only 20% who work in public sector. A percentage of wages earned is transformed in remittances, as mentioned above 37% of Kosovar households live abroad, from this 25% send remittances at home (UNDP, 2012). If the employment rate of emigrants' decreases, it causes a decrease in remittances, if remittances decrease, families who receive remittances will end up with lower monthly income. However, this will be explained in more details in the next section.

3.2 The Flow of Remittances in Kosovo

In Kosovo around 35 % of population lives in poverty (World Bank, 2012). Therefore as poverty is a driving force for migration, citizens of Kosovo are attracted to move to places where they would be able to find a job, and the wages are higher compared to home country. As mentioned above, around 400,000 Kosovar migrants live abroad, and most of them send remittances at home, in order to secure a better life to their families. According to Ratha's (2012) statistics from World Bank, Kosovo is ranked in the top ten countries that receive remittances the most as a percentage of GDP. This means that Kosovars are depended from remittances since it has a high percentage of the total GDP. According to UNDP (2012) remittances are considered to be the largest inflow of money, even larger than FDI. In 2011, 14% of the total GDP or €442 million were from remittances (UNDP, 2012). However, a decrease in remittances inflow can be seen in 2011, for instance in 2010 remittances were €584.3 million, in 2009 €585.7 million, where as in 2008 €608.7 million (UNDP, 2012; Havolli, 2012, Alishani, 2012). Furthermore, remittances are transferred through different channels, which means that remittances can be larger, since an amount of money is transferred in person. However, household is the decision maker upon remittances allocation and this will be followed by the next paragraph.

The impact on human development depends on the decision of the usage of remittance. Based on the monthly income, remittances are distributed differently. UNDP (2012, 2010) data show that in Kosovo remittances are used for consumption, housing investment, education, business investment, savings, and debt repayments. Based on these data consumption has been divided in current and other consumption where in total for year 2010 were 46.3%, where as for 2011 were as 60.2%. A high

increase in consumption can be seen, since Kosovo is facing many economic difficulties, as not enough jobs available and also other economic crises. Secondly house investment in 2010 was 12.2% and in 2011 was 19.6%, here also can be seen an increase in the building of new houses. Thirdly, human capital in 2010 were 11.4% were spent, and in 2011 10.4%, slightly it has decreased (see Appendix A1 & A2). Since the usage of remittances for education has increased, it would be interesting to look at the education data in Kosovo, and see if remittances do have an impact on children's education or not. Hence, next section explains the education system in Kosovo and gives few data about school attendance.

3.3 Kosovo's Educational overview

Historically, Kosovo has had many difficulties with education system since it was not an independent country. After its independence in 2008 Kosovo fully controls the educational system, and has established some laws in order to function properly. Figures show that school attainment has increased considerably after the war (KAS, 2011). The new law on Pre-University Education No.04/L-032 has been formulated in 2011, by the government itself (MEST, 2011). Furthermore, based on this law primary and lower secondary education is mandatory for every child (between 6-15 years old) in Kosovo, without discrimination on gender, ethnicity, religion, sexual orientation, disabilities, and the like. Pre-University education system is explained below.

Pre-University Education system in Kosovo is divided in to different levels, starting from level 0 up to level 4, and also lifelong learning:

- 0-level – pre-primary education, age from 5-6

- 1-level – primary education, age from 6, and it is 5 years long
- 2-level – lower secondary education, from age 11-12 and it is 4 years long
- 3-level – upper secondary education, from age 15 and it is 3/4 years long
- 4-level – post secondary education or vocational training, 1 to 2 years long
- Lifelong learning – for adults that may be at ISCED levels 3 and 4 (MEST, 2011).

Children attending the school from 2005 up to 2011 are shown in the table 1, from pre-primary education (0-level) to upper secondary education (level 3). However, our analysis is concentrated on primary and lower secondary education (level 1 and 2).

Table 1 Distribution of children in each educational level from 2005-2011

Year	Pre-Primary	Primary and Lower secondary	Upper Secondary
2005-2006	25,751	322,864	74,635
2006-2007	25,670	322,381	88,974
2007-2008	24,315	324,398	90,625
2008-2009	23,826	319,154	96,765
2009-2010	24,033	306,299	104,806
2010-2011	24, 655	302,253	108,503

Source: Author's calculations based on KAS, 2011, 2010, 2010E, 2009, 2008, and 2007

The mandatory levels of education in Kosovo are given for free to children, which means primary and lower secondary education are state supported. However, the school does not cover transportation costs, books or stationaries, so parents have to

purchase them and pay for transportation costs. Based on the total income, each household decides how much to spend on these supplies. Sometimes the number of children in families is high; therefore the household has less money for each child, comparing to families that have fewer children. Cox and Uerta (2003) state that “The Becker-Tomes (1976) model suggests that the amount poor parents are willing to invest in the child’s education will be smaller than the optimum under a non-binding borrowing constrain, but this amount will be increasing in parental income up to the point at which the marginal return to investment is equal to the rate of interest.” Meaning that parents sometimes decide to spent money on their children’s education up to the point where parents do not need to borrow money and the return on that investment is high. Thus, in Kosovo is the same situation since the poverty rate is at high level, and not every parent can afford to pay for childs’ education supply. However, an additional flow of money that increases the income of some families are remittances, so remittances give better opportunities to families to supply children with books, stationary, and pay for transportation costs.

Access to education has every child in Kosovo; however children from rural areas face more difficulties to go in school compared to children living in urban areas. UNMIK report 2004-2009 states that in rural areas even the quality of education provided is lower than in urban areas (MEST & MAFRD, 2003). More than 92% of children in Kosovo attend mandatory levels of education; the 7-8% of children who do not attend or are illiterate are mainly from Roma community (UNDP, E). Beside economic reasons, pupils drop out of school because of lack of security, transportation, and the like. Based on the Office of the Prime Minister *Strategy and National Action Plan* (2009) the number of dropouts of school is decreasing.

Comparing the academic year 2002-2003 with 2007-2008 a clear decrease can be seen. In 2002/03 the number of children in level one and level two was around 340,000 of children, where as the dropouts was 5,682, which means that 1.67% of children dropped out the school. Whereas, in 2007/08 around 324,000 of children attended school, and only 2,250 children dropped out of school, and it is only 0.69% (The Office of Prime Minister, 2009). Table 2 shows the detailed statistics of pupils who drop out of school. The average of female and male dropping out of school is approximately the same. In the academic year 2002/2003 the percentage of male dropping out of school was slightly higher, around 8% more, than it started decreasing. However, the entire percentage of children dropping out of school is decreasing.

Table 2: Children's drops out from school

Academic Year	Total	Female	Male
2002/2003	5,682 (1.67%)	2,607 (46%)	3,075 (54%)
2003/2004	5,703 (1.61%)	3,049 (53%)	2,654 (47%)
2004/2005	4,141 (1.17%)	2,209 (53%)	1,932 (47%)
2006/2007	2,431 (0.81%)	1,483 (62%)	948 (38%)
2007/2008	2,250 (0.69%)	1,170 (52%)	1,080 (48%)

Source: Author's calculations based on the Office of Prime Minister, 2009

Note: data for 2005/2006 were not available

As mentioned above mandatory levels of education in Kosovo are provided from the state, however children need to be self supplied with books, notebooks, pens and other supplies. Some households have remittances as an additional source of financing their children for school. The money remitted is not always for educational purposes, however few families decide not to spend all the money in consumption

rather they spend for their children's education. Thus, households who receive remittances have better opportunities and higher chances to supply their children with all necessary utilities that their children need for school. This can be also an opportunity for children not to drop out of school. However, *Strategy and National Action Plan on Children's Rights in Kosovo* done by the Office of the Prime Minister states that government of Kosovo will provide better quality, and better studying condition for children. Still children in Kosovo especially from rural areas need to be financially supported. Hence, remittances can have a positive effect in the school attainment in Kosovo, and this will be analyzed in the next chapter.

Chapter 4: Empirical Results

According to the research question, this paper tries to find out if remittances have any effect on children's' education, through easing the way of purchasing books/stationeries and transportation costs ³. The null hypothesis states that remittances have a positive affect on children's education, this means that remittances ease the difficulties of transportation costs and purchasing books and stationeries. The alternative hypothesis states that remittances do not have any effect on children's education. The results will show if remittances have any affect on children's education in Kosovo or not.

4.1 Results of Bivariate Correlation

I performed a bivariate correlation, in order to find the impact of remittances on children's education in Kosovo. Looking at all variables, a strong correlation can be seen between the dependent variable (the ability to buy books and stationeries) and most of the explanatory variables. Table 3 shows the correlation between the independent variables and ability to purchase books/stationeries, and we can see that these variables have a direct relationship. In particular, remittances used for education expenditures enable families to supply their children with books and other supplies; for example, education expenditure has a coefficient of 0.124. Thus, it can be concluded that remittances affect positively children's education in Kosovo (see Appendix A3 for detailed table). Furthermore, a strong correlation can also be seen between remittances and transportation costs. The statistical significant level $p < 0.01$ is proved by most of the variables. However, the main explanatory variable

³ Research Question: Do remittances have an impact on children's education (primary and lower secondary education) in Kosovo?

(remittances spent on education) has an inverse relationship with transportation costs. But looking at the significance level which is 0.237, this is larger than 0.01, and it means that this result is not significant. Therefore it can be concluded that remittances and transportation costs to school have a direct relationship (for more details see Appendix A4).

Table 3: Correlations of the dependent variable with the independent variables

	Transportation Difficulties	Books and Stationeries Purchases
Transportation Costs/ Books & Stationeries	Pearson	1
	Correlation Sig. (2-tailed)	
	N	3999
Education Expenditures	Pearson	.621**
	Correlation Sig. (2-tailed)	0
	N	1848
Household Monthly Income	Pearson	0.062**
	Correlation Sig. (2-tailed)	0
	N	3793
Family Size	Pearson	0.012
	Correlation Sig. (2-tailed)	0
	N	3999
Household Gender	Pearson	0.652**
	Correlation Sig. (2-tailed)	0
	N	3999
Household Education	Pearson	0.110**
	Correlation Sig. (2-tailed)	0
	N	3869
Remittance/Education	Pearson	-0.044
	Correlation Sig. (2-tailed)	0.237
	N	709

Source: Author's calculations based on the UNDP data 2010

Note: **. Correlation is significant at the 0.01 level; *. Correlation is significant at the 0.05 level

4.2 Results of Linear Regression Analysis

In the linear regression analysis the empirical study used in these models differs from one another, because different explanatory variables have been included in these models. Table 4 and 5 show heterogeneous impact of remittances on purchasing books and transportation costs as a measure of children's education in Kosovo. Therefore, both equations will be explained below

$$(Y = \beta_0 + \beta_1\chi_1 + \beta_2\chi_2 + \beta_3\chi_3 + \beta_4\chi_4 + \beta_5\chi_5 + \beta_6\chi_6 + \varepsilon).$$

4.2.1 Purchasing Books and Stationeries

The results of the linear regression analysis are shown in Table 4. These results summarize the impact of remittances on purchasing books and stationeries using several explanatory variables. The data in table 4 shows positive coefficients between remittances spent for education and education expenditures. The scale of measuring the ability of purchasing books and stationeries ranges within - 1 with very difficult to 5 very easy⁴. Therefore, an increase of remittances by one euro for education expenditures, it eases the difficulties of purchasing books and stationeries by 1.63 – 1.64 percentage point to families who receive remittances (Model 2 and 3 in table 4). This means that if one family has an average of 2 (fairly difficult) than remittances would assist the ability of buying books and stationeries by 1.63 percentage point. Than the new range would be between 3 and 4 (average or fairly easy) which means that remittance receivers have better opportunities to purchase books and stationeries.

⁴ Range: 1 – very difficult; 2 – fairly difficult; 3 – average; 4 – fairly easy; 5 – very easy

Furthermore, results show that remittances were not only necessary, but also a sufficient source for easing the way of supplying children with books and stationeries (Model 2 and 3). If model 1 is analyzed same positive results could be seen. Families who receive remittances would be assisted by 1.569 percentage point (Appendix A5). Moreover, around 25% of the variation is explained by all models presented in table 4, it and can be concluded that the overall fit of the regression is satisfactory. This means that remittances have a positive affect on the ability to purchase books and stationeries.

Table 4: Linear Regression Analyses-Dependent Variables: Purchasing Books and Stationeries

Purchasing Books and Stationeries				
	Model 1	Model 2	Model 3	Model 4
Constant	12.99	14.128	14.253	13.475
Education Expenditures	0.627	0.998	1.032	0.524
Household Monthly Income	2.172	1.902	2.258	0.026
Family Size	0.149	-0.462	0.414	
Household Gender	-3.23		-3.404	0.001
Household Education	-0.894	-1.627		0.355
Remittances/Education	1.569	1.664	1.633	0.116
R & adjusted R2	0.257 & 0.049	0.190 & 0.021	0.258 & 0.053	0.257 & 0.052

Source: Author's calculations based on the UNDP data 2010

4.2.2 Transportation Costs

The association of remittances and transportation costs varies from model to model. However, a positive relationship can be seen between remittances and transportation costs to school. For instance, model one in table 5 shows that for every euro spent for transportation, remittances ease the financial difficulties by 0.62 percentage point. This means that if a family has an average of 3 (average), with the additional money (remittances) the ability to pay for transportation costs will be lessen to 4 (fairly easy) (model 1 in table 5). Similar situation is with model two and four. Furthermore, the

transportation costs of model 2 and 4 best explain the variation of the explanatory variables. This means that 44% to 67% of the variation explains transportation costs, and the overall fit of the regression is satisfactory. Based on the linear regression analysis, it can be concluded that remittances do have a positive affect on easing the ability to pay for transportation costs to all families who receive remittances. However, to prove in other forms that remittances have a positive impact on children's education it would be interesting to look at the average of remittances spent on education.

Table 5: Linear Regression Analyses-Dependent Variable: Transportation Costs

Transportation costs				
	Model 1	Model 2	Model 3	Model 4
Constant	1.747	1.722	11.862	1.2
Education Expenditures	-0.402	-0.421	-1.558	0.119
Household Monthly Income	1.009	0.964	0.734	1.039
Family Size	-0.312		2.101	0.011
Household Gender	15.474	15.738		16.036
Household Education	-1.036	0.997	1.696	
Remittances/Education	0.624	0.475	-0.1	0.637
R & adjusted R2	0.444 & 0.434	0.444 & 0.436	0.183 & 0.019	0.668 & 0.437

Source: Author's calculations based on the UNDP data 2010

4.3 The Average Amount of Remittances Expenditures for Education

Financial difficulties present many problems to some families, for instance not being able to sent children to school. Even though in Kosovo school is provided for free, transportation costs and books and stationeries have to be self-supplied. This means that not everyone can afford it, and some children end up working. However, remittances are an additional source of money, which is used for education expenditures, as well. For instance, in 2010 the average expenditures on education

were 62 euros, whereas remittances spent for education purposes were 6.01 euros. In 2011 the average expenditures spent on education were drastically lower compared to 2010, when they were only 16.63 euros, and remittances spent for this were only 1.01 euro. However, this does not mean that remittances do not have a positive impact on children's education in Kosovo. For instance, the additional remittance of 1.01 euro spent for transportation costs or purchasing books or stationeries helps all the remittance receiving families on average 6.07%. As the total income increases from remittances, and the ability to pay for education expenditures increases by 6.07% it can be concluded that remittances do have a positive effect on children's education.

To sum up, looking at linear regression analysis, bivariate correlation, and the final results, it can be concluded that remittances do have a positive affect on children's education in Kosovo. Therefore, the null hypothesis is accepted, which means that remittances ease the difficulties of paying for transportation and purchasing books and stationeries for families that receive remittances.

Conclusion

The objective of this paper was to answer the research question of do remittances have an impact on children's education in Kosovo. Understanding that remittances cannot have a direct affect on children's education, I looked close to other indicators as education expenditures, household monthly income, family size, household gender, and household education. In doing that, I have analyzed the correlation of remittances spent for education with each of these indicators. The analyses show that remittances are strongly correlated, and also have a positive impact on children's education.

The main hypothesis was that remittances have a positive impact on children's education in Kosovo, through easing the ability to purchase books/stationeries and pay for school transportation costs. Therefore, remittances have positive impact on children's education, through easing the ability of purchasing books/stationeries and paying for transportation costs. However, the results show that families who receive remittances spent more remitted money on books/stationeries rather than in transportation costs.

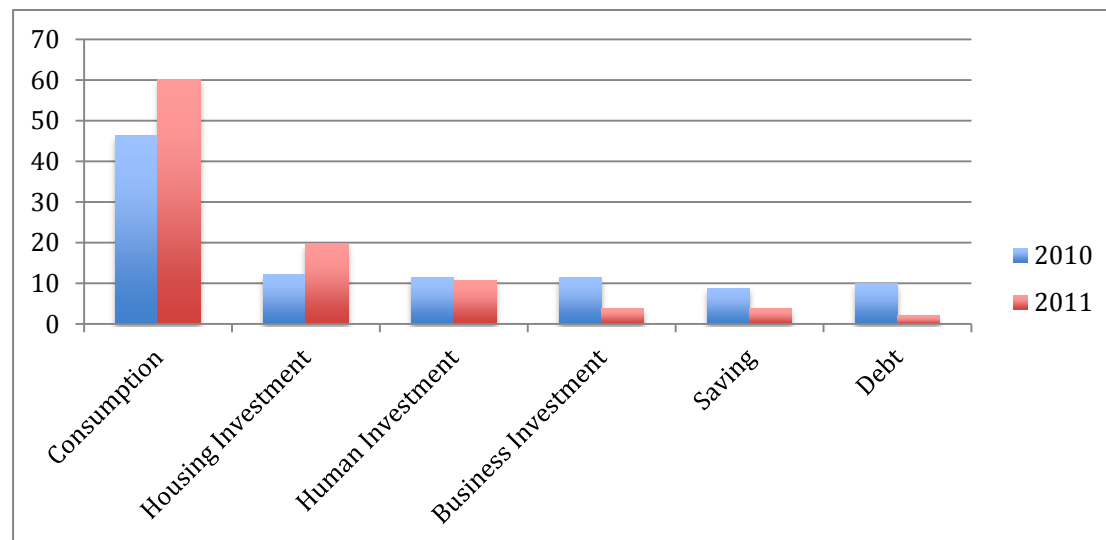
Remittances as an additional means of total monthly income are important, since a large percentage of remittances are used for education purposes. Education system in Kosovo is divided in different levels, however, level one and two are mandatory, and that includes primary and lower secondary education. Hence, children 6-15 years old are obliged to get an education. The government of Kosovo provides education for free, but children need to buy the books/stationeries and pay for the transportation costs themselves. As the poverty rate is around 35% and the unemployment rate is

around 40%, some families do not have the abilities to facilitate their children with school supplies. However remittances sent by migrants are used for education purposes in Kosovo. The results state that families who receive remittances are better off since they have more money to spent on their children's education, and abilities to pay for these costs are eased.

In conclusion, remittances have a positive effect on children's education in Kosovo through easing the ability of purchasing books/stationeries and pay for transportation costs. Therefore this study suggests that if migrants sent more remittances at home, the children's education will be affected positively even more since families would have an additional source of financing their children. Furthermore, this paper can be used as a model for higher levels of education in Kosovo, which are not mandatory for children, but are provided for free by government, and analyze remittances affect on children's education.

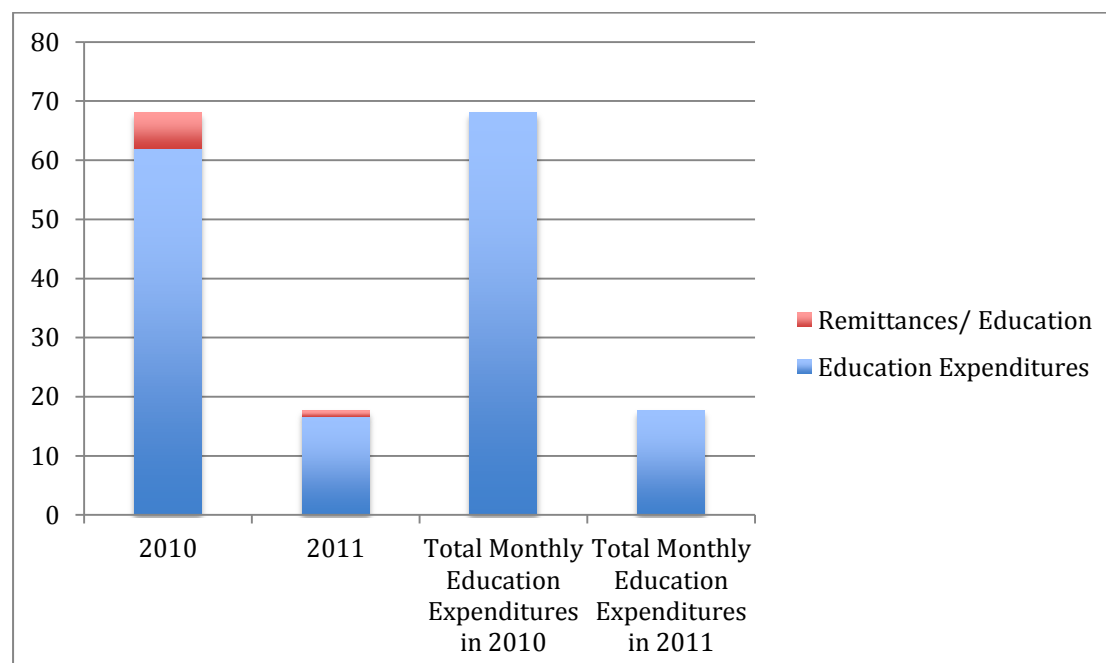
Appendix

Appendix A1: Remittances distribution in percentage



Source: Author's calculations based on the UNDP data 2010 and 2011

Appendix A2: Total monthly expenditures on education



Source: Author's calculations based on the UNDP data 2010

Appendix A3: Correlation of the dependent variable with all independent variables – Transportation Difficulties

		Transportation Difficulties	Education Expenditures	Household Monthly Income	Family Size	Household Gender	Household Education	Remittance/Education
Transportation Difficulties	Pearson	1	0.061**	0.062**	0.012	0.652**	0.110**	-0.044
	Correlation Sig. (2-tailed)		0.009	0	0.442	0	0	0.237
	N	4000	1848	3793	4000	4000	3869	709
Education Expenditures	Pearson	.621**	1	0.176**	0.94**	-0.032	0.053*	.234**
	Correlation Sig. (2-tailed)	0.009		0	0	0.17	0.024	0
	N	1848	1848	1779	1848	1848	1815	374
Household Monthly Income	Pearson	0.062**	0.176**	1	0.326**	0.009	-0.02	-0.052
	Correlation Sig. (2-tailed)	0	0		0	0.566	0.23	0.188
	N	3793	1779	3793	3793	3793	3675	631
Family Size	Pearson	0.012	0.094**	0.326**	1	0.066**	-0.113	0.076*
	Correlation Sig. (2-tailed)	0.442	0	0	0	0	0	0.042
	N	4000	1848	3793	4000	4000	3869	709
Household Gender	Pearson	0.652**	-0.032	0.009	0.66**	1	0.0162**	-0.031
	Correlation Sig. (2-tailed)	0	0.17	0.566	0	0	0	0.408

	tailed)							
	N	4000	1848	3793	4000	4000	3869	709
Household Education	Pearson	0.110**	0.053*	-0.02	-0.113	0.162**	1	0.0108**
	Correlation Sig. (2-tailed)	0	0.024	0.23	0	0	0	0.005
	N	3869	1815	3675	3869	3869	3869	681
Remittance/Education	Pearson	-0.044	0.234**	-0.052	0.076*	-0.031	0.108**	1
	Correlation Sig. (2-tailed)	0.237	0	0.188	0.042	0.408	0.005	0
	N	709	374	631	709	709	681	709

Source: Author's calculations based on the UNDP data 2010

Appendix A4: Correlation of the dependent variable with all independent variables – Purchasing Books and Stationeries

		Remittances/education	Education Expenditures	Family Size	Household Gender	Household Monthly Income	Books and Stationeries Purchases	Household Education
Remittances/Education	Pearson	1	.234**	.076*	-0.031	-0.052	0.004	.108**
	Correlation Sig. (2-tailed)		0	0.042	0.408	0.188	0.912	0.005
	N	709	374	709	709	631	709	681
Education Expenditures	Pearson	.234**	1	.094**	-0.032	.176**	.124**	.053*
	Correlation Sig. (2-tailed)	0		0	0.17	0	0	0.024
	N	374	1848	1848	1848	1779	1848	1815
Family size	Pearson	.076*	.094**	1	.066**	.326**	-.076**	-.113**
	Correlation Sig. (2-tailed)	0.042	0		0	0	0	0
	N	709	1848	4000	4000	3793	3999	3869

Household Gender	Pearson	-0.031	-0.032	.066**	1	0.009	-.039*	.162**
	Correlation Sig. (2-tailed)	0.408	0.17	0		0.566	0.013	0
	N	709	1848	4000	4000	3793	3999	3869
Household Monthly Income	Pearson	-0.052	.176**	.326**	0.009	1	.073**	-0.02
	Correlation Sig. (2-tailed)	0.188	0	0	0.566		0	0.23
	N	631	1779	3793	3793	3793	3793	3675
Books and Stationeries Purchase	Pearson	0.004	.124**	-.076**	-.039*	.073**	1	-0.007
	Correlation Sig. (2-tailed)	0.912	0	0	0.013	0		0.661
	N	709	1848	3999	3999	3793	3999	3868
Household Education	Pearson	.108**	.053*	-.113**	.162**	-0.02	-0.007	1
	Correlation Sig. (2-tailed)	0.005	0.024	0	0	0.23	0.661	
	N	681	1815	3869	3869	3675	3868	3869

CEU LTD Collection

Appendix A5 Linear Regression Analyses: Dependent Variables Purchasing Books/Stationeries and Transportation Costs

Purchasing Books/Stationeries								
	Model 1		Model 2		Model 3		Model 4	
	t	sig.	t	sig.	t	sig.	t	sig.
Constant	12.99	0	14.128	0	14.253	0	13.475	0
Education Expenditures	0.627	0.531	0.998	0.319	1.032	0.303	0.524	0.524
Household Monthly Income	2.172	0.882	1.902	0.645	2.258	0.679	0.026	0.026
Family Size	0.149	0.031	-0.462	0.058	0.414	0.025		
Household Gender	-3.23	0.001			-3.404	0.103	0.001	0.116
Household Education	-0.894	0.372	-1.627	0.105			0.355	0.001
Remittances/Education	1.569	0.118	1.664	0.097	1.633	0.001	0.116	0.355
R & adjusted R2	0.257 & 0.049		0.190 & 0.021		0.258 & 0.053		0.257 & 0.052	

Transportation Costs								
	Model 1		Model 2		Model 3		Model 4	
	t	sig.	t	sig.	t	sig.	t	sig.
Constant	1.747	0.082	1.722	0.086	11.862	0	1.2	0.231
Education Expenditures	-0.402	0.755	-0.421	0.32	-1.558	0.091	0.119	0.905
Household Monthly Income	1.009	0.301	0.964	0	0.734	0.12	1.039	0.3
Family Size	-0.312	0			2.101	0.463	0.011	0.524
Household Gender	15.474	0.688	15.738	0.674			16.036	0.991
Household Education	-1.036	0.314	0.997	0.336	1.696	0.92		
Remittances/Education	0.624	0.624	0.475	0.635	-0.1	0.036	0.637	0
R & adjusted R2	0.444 & 0.434		0.444 & 0.436		0.183 & 0.019		0.668 & 0.437	

Source: Author's calculations based on the UNDP data 2010

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