

School Attendance Incentives, Primary Education, and Economic Development

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Abstract

Access to education has become one of the main focal points for economic development. One of the eight Millennium Development Goals for 2015 adopted by the United Nations was to achieve universal primary education. Developing countries use various policies to attract students to primary education. This study investigates how various incentive programs affect primary school attendance and thereby affect education. Also, the paper explains how primary level education affects economic development of a country. For this purpose the study utilizes data from both primary and secondary sources. A survey of college students is conducted to find their opinion on effectiveness of various incentive programs. Empirical findings of seven countries show that impact of three different incentive programs on primary school enrollment is not definitive.

Introduction

Access to education has become one of the main focal points for economic development. One of the eight Millennium Development Goals for 2015 adopted by the United Nations was to achieve universal primary education. The target of this goal was to “ensure that all boys and girls complete a full course of primary schooling” (Todaro & Smith, 2014, p. 25). While this goal was not achieved in 2015, in developing countries the total enrollment rate of primary education reached 91% (UNDP, 2016b, para. 1). To accommodate for all of the children not currently in school, the poorest countries would have needed almost 4,000,000,000 new classrooms by 2015 (Global Citizen, 2016). In development economics the subject of education frequently shows up in relation to a country’s economic development. For example, the Holistic Measures of Living Levels and Capabilities uses income, life expectancy, and education to measure human development. This approach assumes that one component cannot trade off against another component. This means that having high life expectancy will not replace the need for education, as well as any other combinations.

Given the importance of education, specifically primary education, in the development process, this study investigates answers to the following two thesis statements:

- How different incentives affect school attendance at the primary education level
- How primary education is related to economic development

To analyze the two thesis statements, primary school enrollment is used as a proxy for primary school attendance and primary school education. According to the United Nations, school attendance is defined as:

“attendance at any regular accredited educational institution or programme, public or private, for organized learning at any level of education at the time of the census or, if the

census is taken during the vacation period at the end of the school year, during the last school year” (UN, 1998).

The Macmillan Dictionary defines enrollment as “when someone is officially put on the list of students who go to a school, college, or university” (Macmillan Dictionary, 2016). As record of school attendance is not available for most countries, enrollment data will be used to measure attendance in primary school education.

Literature Review

This literature review focuses on the following relevant topics: various primary school incentive policies and programs, impact studies of school incentive programs on attendance, and, impact studies of primary school education on economic development.

Primary School Incentive Policies and Programs

Three different types of primary school incentive programs that have been implemented in different parts of the world were studied. These are a conditional transfer program, a school feeding program, and a school health program. All of the programs aim to have a positive impact on poverty in the short and long-term.

A Conditional Transfer Program (CCT), is a program that provides cash to low-income individuals on the condition of the individual fulfilling specific behavioral requirements. For example, a requirement to receive funds may be that the children in a family must attend school daily or that the children must have regular doctor visits in addition to attending school. CCT programs were created to help minimize the epidemic of poverty in developing countries. As a result of the requirements, these programs are not only alleviating poverty, but are also improving

the health of the individuals. Though these programs were originally created for those living in developing countries, they have been implemented in some countries that are already developed. In many CCT programs, the transfers are given to the woman of the household as it is believed that women are more likely to use the transfers in ways that benefit their children. The two conditional transfer programs that were studied are located in Colombia and Nicaragua.

Colombia initiated the Familias en Acción program in 2000. This program has four key goals: complement the income of extremely poor families with young children, reduce non-attendance and drop-out rates among primary and high-school students, increase health care provision to children younger than seven years old, and improve health care practices in nutrition and early educational development (ODI, 2006). The cash transfers are valued at \$5 to \$17 per month for low income families which have children. In order to receive the transfers, the following requirements must be met: medical check-ups must be completed regularly for children under the age of seven living in the household, and children older than seven years of age are not allowed to miss more than 20% of their classes during the school year.

Nicaragua implemented the Red de Protección Social (RPS) program in 2000. This program has been one of the world's more recognized programs, primarily because it impacted education and health of beneficiary children greatly in a short period of time. This program has four key objectives: create an initial operating framework of RPS that uses a comprehensive, cost-effective and targeted social protection strategy, supplement the income of extremely poor families for a period of up to three years to increase their expenditures on food items, increase the care of children under five years old and of women of child-bearing age in beneficiary families, and reduce the school drop-out rate in the first four grades in program areas (Moore, 2009).

Like other CCT programs, in RPS receiving the transfer is contingent on fulfillment of requirements related to health or education or a combination of the two. If students missed too many days then their families would no longer receive transfers. However, if a school received a doctor's note there was no penalty. Within this program there are different forms of transfers that are available. First, there are food transfers, which are given bi-monthly. To receive food transfers it is required that children remain at a weight that is considered "healthy". If the child has two consecutive check-ups where he/she weighs in below the "healthy" weight the family would forfeit its transfers. Second, the health service providers are given what is called supply-side health transfers. The health service providers would only receive the transfer if they provide the services to households. Third, a transfer called school pack is given. Although this program is a cash transfer, it is stated that the transfer can be given in the form of products such as: uniforms, school supplies, or backpacks. This program is also contingent on student's enrollment in school (Moore, 2009).

The School Feeding Programs have been defined by the World Bank as "targeted social safety nets that provide both educational and health benefits to the most vulnerable children, thereby increasing enrollment rates, reducing absenteeism, and improving food security at the household level" (World Bank, 2012, p.1). School feeding programs focus on students in areas where there is unreliable access to sufficient quality of nutritious, affordable food, and access to basic necessities. The three school feeding programs that we studied are located in Bangladesh, Kenya, and Kyrgyzstan.

The Bangladesh Food for Education (FFE) program was created in 1993 by the Government of Bangladesh. This program has four objectives: promote attendance in primary school, increase primary school enrollment, enhance the quality of education, and reduce dropout

rates (Ahmed and Ninno, 2002). This program was created to develop long-term human capital by combating the country's poverty and malnutrition. Families participating in this program receive a monthly ration of free wheat or rice. Receiving this food grain ration is contingent on the children of the families attending primary school. Without this ration many children do not have the opportunity to attend school because they must work to contribute to the family's income. Families are given the choice of how they want to use their rations. Some families choose to consume the rations, which helps lower the amount they must spend on food each month. Other families choose to sell the rations in exchange for cash that can be spent on other expenses (Ahmed and Ninno, 2002).

Kenya has developed the Home Grown School Meals (HGSM) program in 2009. After severe drought in 1979 Kenya's government requested support from World Food Programme (WFP) to help provide midday meals to school age children who were pre-primary and primary school age in affected Arid and Semi-Arid (ASALS) districts (PCD, n.d.). As a result, in 1980 the School Feeding Programme (SFP) was created. By 2008 this program reached 1,300,000 school children. However, due to the cost of food and associated transportation it was difficult to feed such a high number of children. As a result, in 2009 WFP reduced the size of programme beneficiary to 750,000 (PCD, n.d.). This is when the Home Grown School Meals (HGSM) Programme was created by Kenya's government to ensure meals for school--going children. Not only does HGSM promote school attendance, but it also promotes development in the agricultural sector. This program allows farmers consistent and predictable market for their small businesses.

The Kyrgyzstan Mercy Corps has been operating since 1994. However, it was not until 2001 that the United States Department of Agriculture (USDA) allowed Mercy Corps to start their Global Food for Education program. This program "aims to mobilize and strengthen community

involvement in education, and improve access to education for children living throughout Kyrgyzstan” (Mercy Corps website, 2003, para. 1). In order to achieve their objective Mercy Corps is helping to bring vegetable oil, flour, and rice to every boarding school and kindergarten in Kyrgyzstan. The amount of goods delivered is based on the student population of each school. Mercy Corps is taking their program one step further by funding small grants to schools. They do this by selling donated food at local markets. The grants are then used for different purposes such as: improving student access to clean water and sanitation, repairing and improving the infrastructure of schools, purchasing school equipment and supplies, or increasing food security for students (Mercy Corps, 2003). Mercy Corps also holds competitions for cooks working in schools. These competitions are used as workshops to train cooks. Once the workshops are completed, it is expected that the cooks will bring the training they have had to others involved with primary school nutrition.

School Health Programs have the primary goal of improving and maintaining the health of students and faculty of the school. This includes, but is not limited to, health education and other health services such as immunization services. These programs were created to help students develop and practice lifestyle choices that involve good health. Not only do these programs want to make students knowledgeable about making health--conscious decisions but they want the faculty, parents, and community leaders to take an active part in making schools healthy places for students. The two school health programs that were studied are located in Ecuador and India.

The Ecuador Save the Children Program has been one of the most recognized organizations since it was established in 2004. Save the Children’s goal is “to inspire breakthroughs in the way the world treats children and to achieve immediate and lasting change in their lives” (Save the Children website, n.d.). Many children are effected by preventable and treatable illnesses; due to

these illnesses the children's education and learning capabilities are hindered. Through their School Health and Nutrition (SHN) programs Save the Children have reached over 2,000,000 children globally (Save the Children Federation, Inc., 2013). Save the Children make sure that their SHN programs are cost-effective and address other things such as the special needs of female students. Their programs accomplish a number of things. First, they increase health and nutrition services at schools including, vision and hearing screening, micro nutrition supplementation, control of malaria, and deworming. Second, they increase access to safe water, sanitation, and hygiene (WASH) in schools. Third, they use skills-based health education, including HIV and AIDS prevention to promote lifelong health behaviors. Lastly, they ensure basic health-related school policies and support, from individual schools and communities to the national level (Save the Children Federation, Inc., 2013).

Delhi (India), in 1998, established the School Health Annual Report Programme (SHARP). SHARP is described as:

“a non-governmental organization (NGO) with scientifically planned health programme for school children, professionally managed under the guidance of eminent medical experts, sociologists, educationist, psychologists, nutritional specialists and others who have vision of promoting healthcare of children throughout the third world countries.”

(SHARP website, n.d.)

Currently, SHARP is operating in many cities across India. This program has set itself apart by being the first to place children's health records online; this innovation has made this program the most popular in the country. There are six missions that SHARP continuously works to accomplish. First, to detect, prevent, address, and resolve health problems, enhance the quality of life of school-aged children and youth, and increase educational achievement. Second, to

implement cost efficient and effective health care delivery system for children going to school in India. Third, to provide a platform for research in the field of school health. Fourth, to provide services of specialists and ensure follow-up arrangements. Fifth, to ensure that health status of the children is made aware to parents and school authorities. Lastly, to provide sustainable living to under privileged women (Save the Children Federation, Inc., 2013).

Impact Studies

Richard Easterlin (1981) argued that the most beneficial element to economic growth is mass primary schooling of a “secular and rationalistic type”:

“Raising productivity levels involves active participation in new production methods by large numbers of the population—by workers in agriculture, industry, transportation, and so on. This is not to say that secondary and higher education can be ignored; clearly one needs technologists as well as mass education. But increases at higher levels of education typically go together with the expansion of primary education.” (Easterlin, 1981, p. 10)

His argument is based on the observation that modern economic growth occurred in the United States and Germany as a result of the development of widespread formal schooling.

Psacharopoulos and Patrinos (2004) found through their research that there are benefits to having a basic level of education. They explained this by stating that on average an individual will have a rate of return on primary school education of 26.6%. They also found that men have a higher rate of return on primary school education than women. When thinking about education it is a natural thought that for students to do well they need a basic knowledge that they can built on. When comparing different countries, Psacharopoulos and Patrinos stated that the differences in

education systems of countries can play a key role in why some countries have a greater level of economic growth.

The Global Citizen partnered with the Global Poverty Project to create a video and article titled “Introduction to the Importance of Primary Education” (Global Citizen, 2012). In this article Global Citizen made several key points. First, it is possible to overcome poverty in a sustainable manner but education is the key component in creating such a society. Second, opportunities and powerful social changes can be created with investment being placed in human capital (e.g. education and health). With these opportunities come the change for individuals in developing countries to become leaders of the future generations and realize their full potential.

Glaeser et al (2004) explained economic growth by showing that when education improves, institutions improve as well. Glaeser and his coauthors believed that education is a key component for explaining economic growth.

Methods

Data Collection

Data for this study have been collected from primary and secondary sources. For the primary data a survey was created and distributed. (See Appendix A) The purpose of the survey was to investigate opinions of university/college level students about which primary school incentive program they believe would work best in a developing country. For this purpose, 35 students at University of Wisconsin-Superior voluntarily participated in the survey. Of these participants 51% were females while 49% were males (Figure 1). In terms of residency, 31% of the respondents were international students and 69% were domestic students (Figure 2).

Figure 1: Gender of Survey Respondents (%)

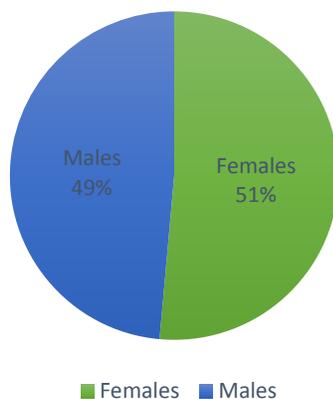
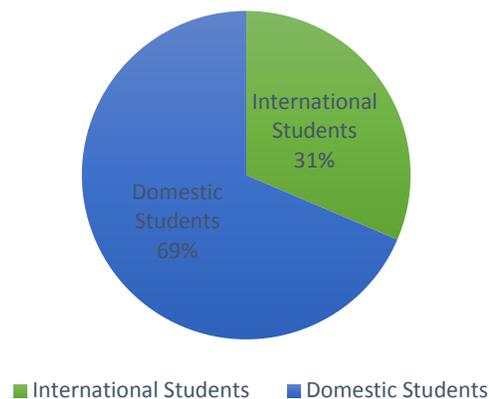


Figure 2: Recidency of Survey Respondents (%)



Secondary data was collected from the World Development Indicators (WDI) website (World Bank, 2016) (See Appendix B). WDI contains national, regional, and global estimates of the most current and precise global development data. It is composed from officially-recognized international sources and is the World Bank's primary collection of development indicators. Information gathered from WDI was used to find the GNI per capita (constant, PPP) and primary

school enrollment for 45 countries. Secondary data was also collected from the United Nations Development Programme (UNDP, 2016a). UNDP is a global development network created by the United Nations. They work to connect countries to information and resources that will help create better lives for people.

Additionally, WDI was also used to collect data of six countries that are studied: Colombia, Bangladesh, Nicaragua, Kyrgyzstan, Ecuador, and India. Country data on GNI per capita and student enrollment in primary school assisted in evaluating performance of an incentive program implemented in a specific location. Data on Kenya was collected from the Kenya National Bureau of Statistics (2016). The GDP per capita data of Kenya was used due to the lack of information on the GNI per capita. No information is available on primary school enrollment in Bangladesh and Kenya.

Model

In order to explore the relationship between economic development and primary school education, a regression analysis was performed. The model used to explain the regression was as follows:

$$\text{Economic Development} = f(\text{Primary School Education})$$

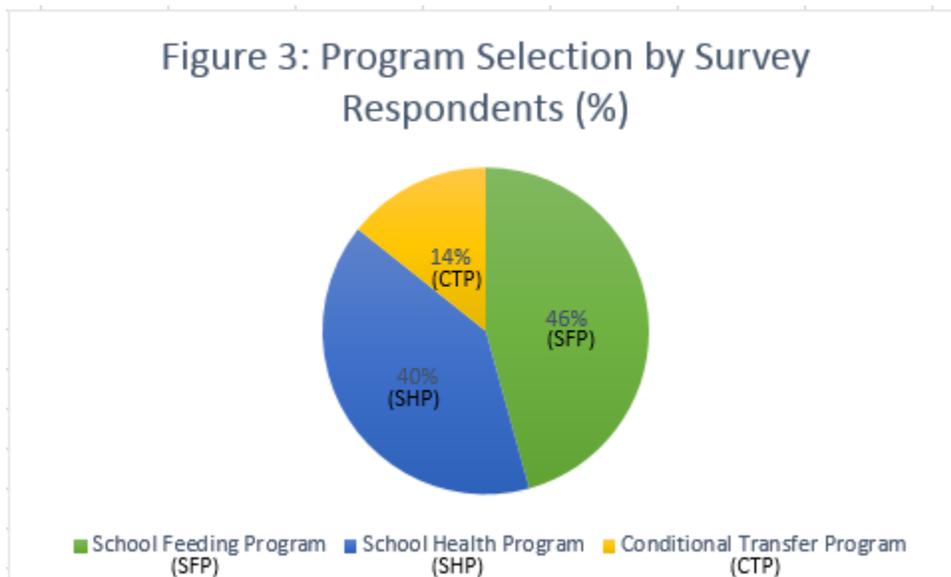
In this model the independent variable is primary school education, which is being measured by the number of students enrolled in primary school. Both male and female students were considered in the data set. The dependent variable for this regression was economic development, which is being measured by the GNI per capita (PPP, constant) or the GDP per capita.

A cross-section analysis was conducted using data from 2013 for 45 different countries. The data set was composed of 15 high income countries, 15 middle income countries, and 15 low income countries. This country classification was based on the World Bank per capita income categories.

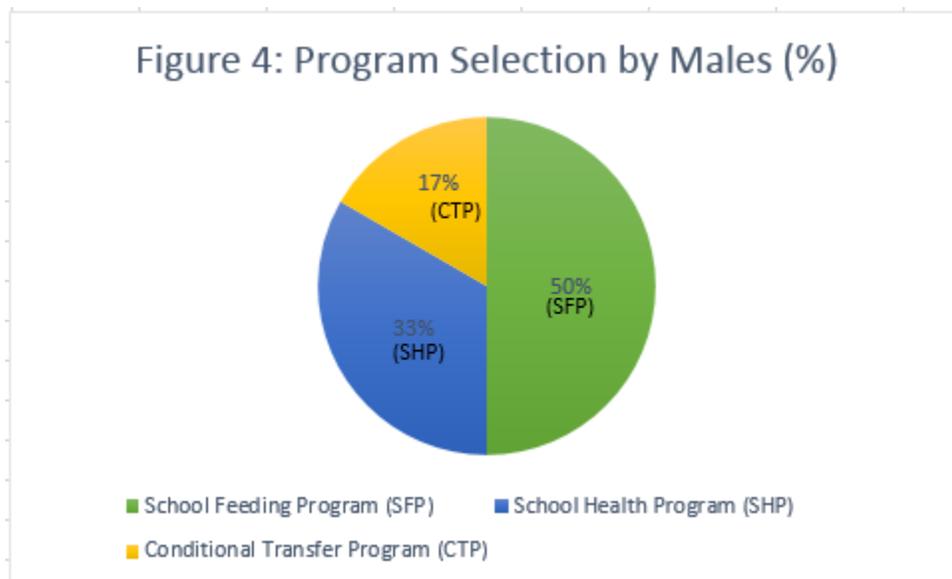
Results and Data Analysis

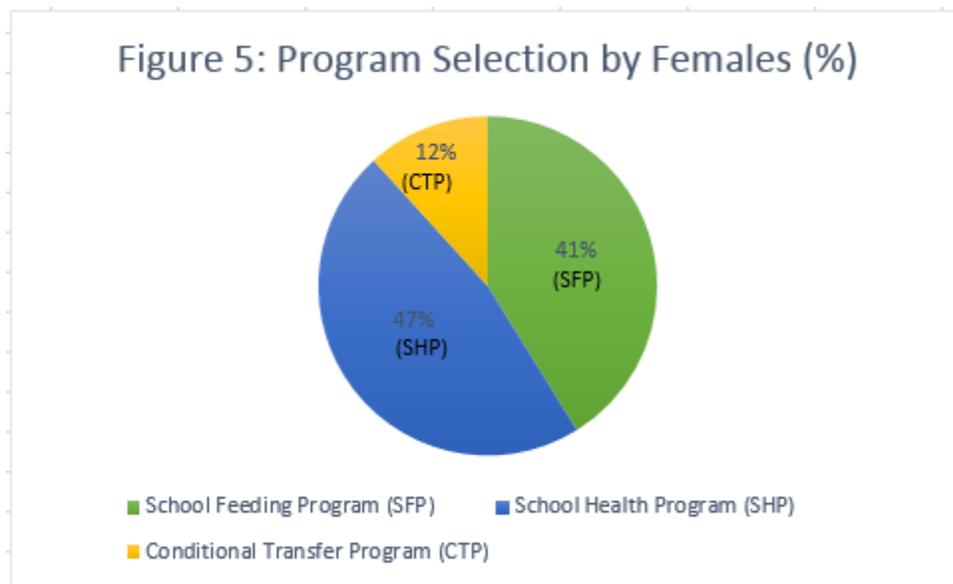
Survey Data Analysis

Survey analysis showed that most college students (46%) think that among the three incentive programs, school feeding program would work best in raising primary school attendance (Figure 3).



Investigations of the gender effect on incentive choice revealed that gender does not play a large role in which incentive program the survey participants selected. Male respondents selected the school feeding program 50% of the time, school health program 33% of the time, and conditional transfer 17% of the time (Figure 4). On the other hand, female respondents selected the school feeding program 41% of the time, the school health program 47% of the time, and conditional transfer program 12% of the time (Figure 5). According to these numbers, male survey respondents believed that the school feeding programs are most effective in raising school attendance while female respondents thought the school health program had the most impact on attendance. It seems females focused more on long term impacts when considering effectiveness of an incentive program.





Next, it was studied how residency of a student survey respondent affected incentive choice. Domestic students were more uniform in their incentive policy choice, while international students were divided among the three programs (Figure 6). Students from foreign countries believed that as long as some support was provided to low income families their children would attend primary school. Among domestic students 54% chose school feeding while 42% chose school health program as being the most effective incentive program (Figure 7). Among international students there was only a 1 percentage point difference between those who chose school health programs and conditional transfer programs as being the best incentive option (Figure 8). The percentage of international students who believed in school feeding programs, trailed by 10 percentage points behind the other two options.

Figure 6: Program Selection Based on Respondents' Residency

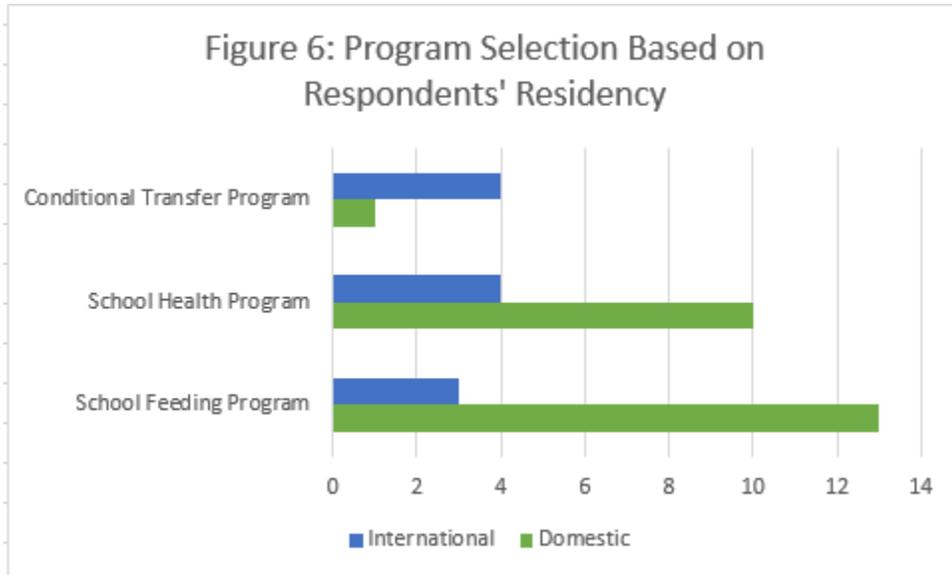
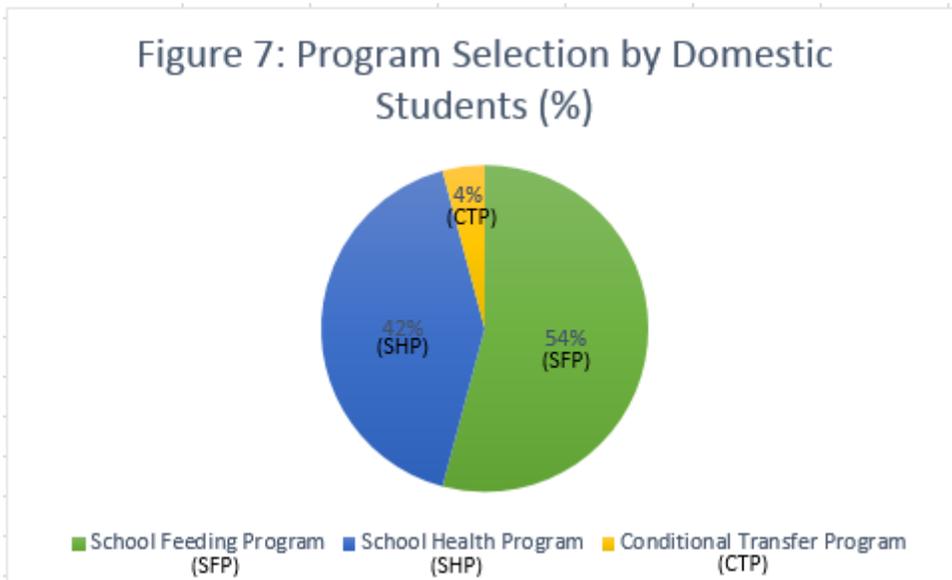
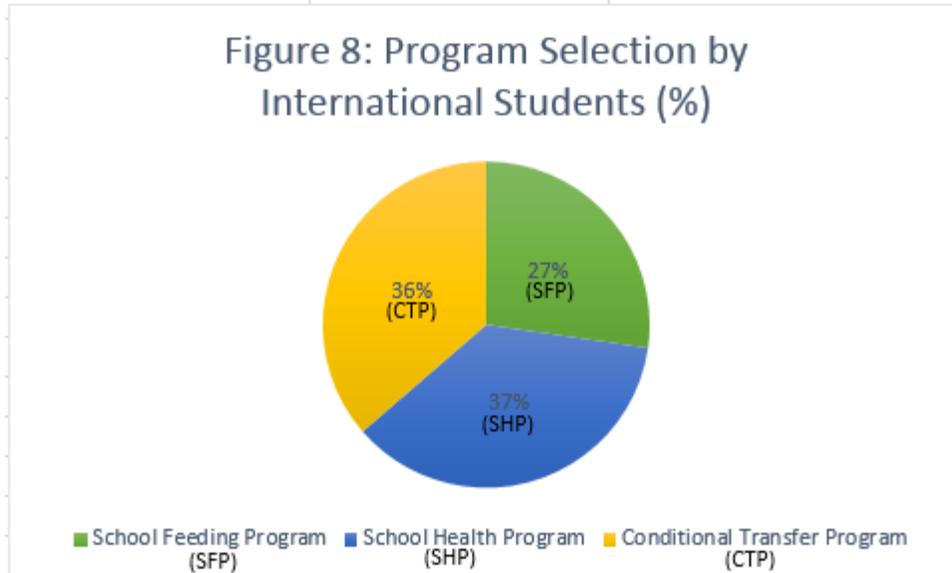
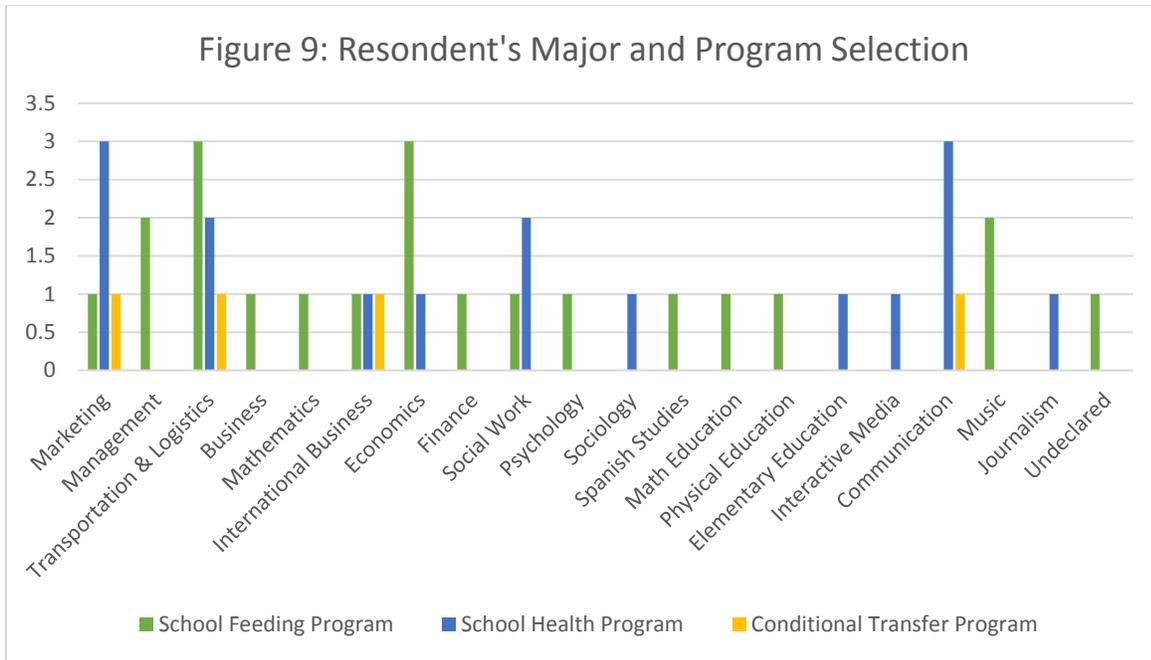


Figure 7: Program Selection by Domestic Students (%)





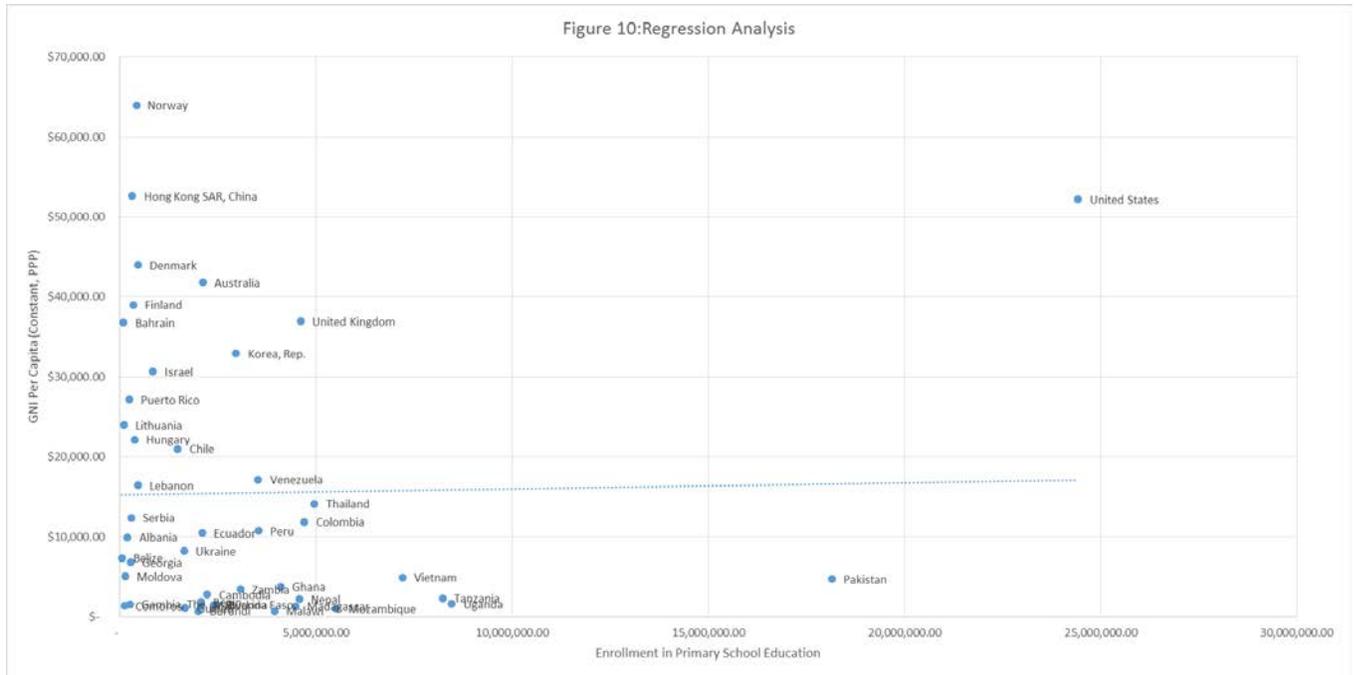
Investigation of how a student's major affects his/her incentive choice revealed the following. Among the 35 participants, there were 19 different majors with a couple respondents being undeclared. The different majors are: marketing, management, social work, psychology, transportation & logistics, business, math education, interactive media, communication, mathematics, international business, physical education, journalism, elementary education, music, sociology, Spanish studies, economics, and finance. Survey data showed that survey participants with similar major programs generally selected the same incentive program as being the most effective option for raising primary school attendance (Figure 9).



Regression Analysis

Results of regression with cross section data revealed that primary school education positively affects economic development. Figure 10 shows the relationship between primary school enrollment and GNI per capita data. However, the impact is very low and statistically not significant. According to the simple model only a minimal amount of variation in economic development can be explained by variation in primary school education. There are a number of reasons for this result. Primary school education takes time to impact production and growth of a country. However, data of both variables in the regression model came from same year, 2013. Further, there are a number of other elements that affect economic development alongside primary school education. Holistic Measures of Living Levels and Capabilities use several elements like, income, life expectancy, and education to measure socioeconomic development. Primary school education is just one part of one of those elements, education.

Figure 10: Regression Analysis



Analysis of Incentive Programs

To find which program had the greatest impact on an economy, percentage increase/decrease in enrollment and GNI or GDP per capita were utilized. However, as school feeding programs in Bangladesh and Kenya had no information available on enrollment, it made the comparison difficult. For enrollment, the percentage change was based on the change from the year before the program started to the year after the program started. Given that primary school education of a person would take time to have an impact on GNI or GDP, in the case of GNI and GDP per capita, percentage change was based on the change from the year before the program started to ten years after the program initiated.

Among the three incentive programs – conditional cash transfer (CCT), school feeding program (SFP), and school health program (SHP) - collected data revealed CCT program in Nicaragua was the most effective incentive in raising primary school enrollment. This program increased primary school enrollment by 4.56%. On the other hand, CCT program in Colombia and SFP in Kyrgyzstan had a negative effect on enrollment. The school health programs in Ecuador and India increased enrollment by at least 0.5%. Comparison findings are given in Table 1.

Table 1: Comparison of Primary School Incentive Programs

Program/Year	Country	Percentage Change Over Time	
		Enrollment (percentage change over one year)	GNI or GDP Per Capita (percentage change over 10 years)
Conditional Cash Transfer, 2000	Colombia	-0.60	28.56
Conditional Cash Transfer, 2000	Nicaragua	4.56	20.39
School Feeding Program, 1993	Bangladesh	N/A	34.56
School Feeding Program, 1979	Kenya	N/A	8.09
School Feeding Program, 2001	Kyrgyzstan	-2.63	35.60
School Health Program, 2004	Ecuador	0.51	44.05
School Health Program, 1998	India	0.54	73.07

Performance of incentive program was further evaluated using information on GNI or GDP per capita. Over the next 10 years following the program initiation, GNI per capita increased the most in those countries which started the school health programs: 73% in India and 44% in Ecuador. The countries that implemented school feeding programs had the second highest rise in GNI per capita: 35.6% in Kyrgyzstan and 34.6% in Bangladesh. However, in Kenya the increase was only 8%. The countries with conditional cash transfers experienced the third largest rise in

their GNI or GDP per capita in the 10 years following the program beginning: 28.56% rise in Colombia and 20.39% increase in Nicaragua. However, the GNI or GDP per capita percentage increase gap between the countries with school feeding programs and conditional cash transfers was not monumental.

Discussions

Comparative analysis of findings of data from primary and secondary sources

Comparison of survey findings and country data revealed some interesting aspects about student opinion and reality. If performance of an incentive program is measured by primary school enrollment, then only 14% of the survey respondents were correct in choosing the conditional transfer program as being most beneficial in raising primary school attendance. However, if the performance of a program is evaluated by the rise of GNI or GDP per capita, the survey respondents would be correct in their division between the school feeding programs and the school health programs, as these were the two programs that were associated with a large rise in GNI or GDP per capita. This shows that students properly placed a higher value on primary school programs that provide student with meals and knowledge as well as help with health related issues rather than cash transfers when it comes to future of the country.

Conclusions

Main findings of the study

Findings of the student survey showed that most students think school feeding program would work best in raising primary school attendance. Regression analysis revealed that primary school education has a positive impact on economic development. However, the result was not statistically significant. According to the data of seven countries, which implemented three different incentive programs, impact on primary school enrollment was not definitive.

Policy recommendations

There are a couple of things that could be done to try and improve the impact of the incentive programs. First, there should be tighter regulations on the funding for the programs. In some countries, for example in Africa, the level of corruption is enormous. This can prohibit the funding and supplies from reaching the people who actually need them. If there were tighter regulations then more people could be helped. Second, there should be policies and laws implemented to keep students in school. While some countries have truancy laws, those that do not could benefit greatly from having them. However, before these laws are made, all the outcomes should be taken into consideration. For example, there could be instances where students would have unexcused absences and the parents having to pay fines as a result would be highly problematic due to their financial situation. As a result, the student and their family would be in an even worse predicament.

Limitations of the study and suggestions for future research

One thing this study does not take into account is the policies that countries have implemented to keep students in school without incentives. For example, in the United States there

are truancy laws which prohibit students from missing a certain amount of school. If students miss more than the allowed number of days or the student drops out of school, then the parents are held accountable and can have criminal charges brought against them or have to pay fines. Denmark, Finland, England and Wales also have punishments enforced to prevent truancy.

Based on these findings, the researcher believes that it would be beneficial for future researchers to conduct a time-series analysis to study the long term impact of primary school education on economic development. Also, it would be beneficial for future researchers to look at the number of students who are not attending primary school for the countries with the programs. This would give researchers a better understanding of what percentage of students, as a whole, are effected by the incentive programs.

References

- Ahmed, Akhter and Carlo del Ninno, (2002), *Food for Education Program in Bangladesh: An Evaluation of its Impact on Educational Attainment and Food Security*, Discussion Paper 138, International Food Policy Research Institute, <http://www.ifpri.org/publication/food-education-program-bangladesh>
- Center for Health Market Innovations, (no date), *Center for Health Market Innovations*, School Health Annual Report Programme (SHARP).
<http://healthmarketinnovations.org/program/school-health-annual-report-programme-sharp>
- Easterlin, R. A., (1981). Why Isn't the Whole World Developed?. *The Journal of Economic History*, 41(1), 1–19. Retrieved from <http://www.jstor.org/stable/2120886>
- Glaeser, E., R.L. Porta, F.L. de Silanes, and, A. Shleifer, (2004), Do Institution Cause Growth? *Journal of Economic Growth*, Vol. 9.
- Global Citizen. (2016). Introduction to the Importance of Primary Education. Retrieved May 1, 2016.
<https://www.globalcitizen.org/en/content/introduction-to-the-importance-of-primary-educatio/>
- Kenya National Bureau of Statistics. (2016). GDP Statistics from the World Bank - Kenya Data Portal. Retrieved 2 June 2016, from <http://kenya.opendataforafrica.org/mhrzolg/gdp-statistics-from-the-world-bank>
- Macmillan Dictionary. (2016). *Enrollment American English Definition and Synonyms*. Macmillandictionary.com. Retrieved 28 June 2016, from <http://www.macmillandictionary.com/us/dictionary/american/enrollment>

School Attendance Incentives, Primary Education, and Economic Development

Mercy Corps, (2003), *Global Food for Education*,

<https://www.mercycorps.org/articles/kyrgyzstan/global-food-education>

Moore, Charity, (2009), *Nicaragua's Red de Proteccion Social: An Exemplary but Short-Lived*

Conditional Cash Transfer Programme, International Policy Centre for Inclusive Growth,

Country Study Number 17, <http://www.ipc-undp.org/pub/IPCCountryStudy17.pdf>

Overseas Development Institute (ODI), (2006), *Policy Brief 2*,

<https://www.odi.org/sites/odi.org.uk/files/odi-assets/publications-opinion-files/1690.pdf>

Psacharopoulos, G., & Patrinos, H. A. (2004). Returns to investment in education: A

Further update. *Education Economics*, 12(2), 111-134. Retrieved from

<https://link.uwsuper.edu:9433/login?url=http://search.proquest.com/docview/209384889?accountid=9358>

Save the Children, (no date), *Save the Children*, About Us, <https://ecuador.savethechildren.net/>

Save the Children Federation, Inc., (September 2013), *Save the Children*, School Health and Nutrition in Developing Countries,

http://www.savethechildren.org/site/c.8rKLIXMGIpI4E/b.6196515/k.F65F/School_Health_and_Nutrition_in_Developing_Countries.htm

School Health Annual Report Programme (SHARP). (n.d.). *School Health Annual Report Programme*, School India, Our Mission,

<http://www.schoolindia.org/mission.htm>

The Partnership for Child Development (PCD), (no date), *Home Grown School Meals Programme*,

Home Grown School Feeding (HGSF), <http://hgsf-global.org/kenya/en/policy/policy-and-governance/251-home-grown-school-meals-programme-hgsmp>

The World Bank, (2012), *Scaling up School Feeding: Keeping Children in School While*

Improving Their Learning and Health,

<http://siteresources.worldbank.org/EDUCATION/Resources/278200-1334777272566/Results2012-SB-HDN-Update-SchoolFeeding.pdf>

The World Bank (WDI), (2016), *Data*, World Development Indicators,

<http://data.worldbank.org/data-catalog/world-development-indicators>

Todaro, M., & Smith, S. (2014). *Economic Development* (12th ed.). Philadelphia: Trans-Atlantic Publications.

United Nations (UN), (1998), *Principles and Recommendations for Population and Housing Censuses*, Revision 1, para. 2.150, United Nations, New York.

<https://stats.oecd.org/glossary/detail.asp?ID=2389>

United Nations Development Programme (UNDP), (2016a), *Overview*, A World of Development Experience, http://www.undp.org/content/undp/en/home/operations/about_us.html

United Nations Development Programme (UNDP), (2016b), *Quality Education*. Retrieved May 1, 2016, from

<http://www.undp.org/content/undp/en/home/sdgoverview/post-2015-development-agenda/goal-4.html>

Appendix A

Survey Questions

Student Opinion on Primary School Incentive Policies

1. What is your gender?
 - a. Female
 - b. Male
 - c. Transgender
 - d. Don't want to specify

2. What is your major?

3. Are you an international student?
 - a. Yes
 - b. No

4. Of the programs listed below, which do you think would work best in raising attendance in primary school in a developing country?
 - a. Conditional Transfer Programs
 - i. Welfare programs that are conditional upon the actions of the receiver. Cash assistance is provided only to those who attend school regularly.
 - b. School Feeding Programs
 - i. Programs that provide students with in-school meals, mid-morning snacks, and take-home rations for their families.
 - c. School Health Programs
 - i. Programs that provide the following services at school:
 1. Health services at schools (i.e. deworming, vision and hearing screening)
 2. Increase access to safe water, sanitation and hygiene at school
 3. Health education at school

Appendix B

Country	GNI Per Capita (Constant, PPP)	Enrollment in Primary School Education
Chile	\$ 21,011.67	1,472,348.00
Denmark	\$ 44,008.97	469,568.00
Finland	\$ 39,003.35	348,432.00
Hungary	\$ 22,168.89	385,466.00
Israel	\$ 30,659.71	848,721.00
Lithuania	\$ 23,989.80	109,028.00
Puerto Rico	\$ 27,144.69	236,734.00
United Kingdom	\$ 36,959.25	4,622,158.00
United States	\$ 52,176.12	24,417,652.00
Australia	\$ 41,790.41	2,127,730.00
Bahrain	\$ 36,782.27	99,702.00
Hong Kong SAR, China	\$ 52,629.47	320,654.00
Korea, Rep.	\$ 32,918.06	2,958,873.00
Norway	\$ 63,970.80	424,993.00
Venezuela	\$ 17,151.95	3,519,519.00
Albania	\$ 9,929.41	198,897.00
Ecuador	\$ 10,469.68	2,102,659.00
Georgia	\$ 6,799.31	287,343.00
Serbia	\$ 12,353.22	288,196.00
Vietnam	\$ 4,905.72	7,202,767.00
Zambia	\$ 3,470.67	3,075,161.00
Belize	\$ 7,341.97	52,573.00
Colombia	\$ 11,854.34	4,708,466.00
Ghana	\$ 3,725.19	4,105,913.00
Lebanon	\$ 16,411.45	471,626.00
Moldova	\$ 5,037.59	138,282.00
Pakistan	\$ 4,703.62	18,150,234.00
Thailand	\$ 14,112.53	4,954,620.00
Ukraine	\$ 8,199.11	1,638,497.00
Peru	\$ 10,751.97	3,545,103.00
Burkina Faso	\$ 1,508.34	2,466,379.00
Mozambique	\$ 1,028.92	5,526,494.00
Nepal	\$ 2,192.48	4,576,693.00
Rwanda	\$ 1,488.14	2,402,164.00
Tanzania	\$ 2,314.20	8,231,913.00
Benin	\$ 1,852.11	2,064,031.00
Gambia, The	\$ 1,553.19	255,957.00
Madagascar	\$ 1,324.30	4,483,030.00
Malawi	\$ 734.13	3,951,611.00
Cambodia	\$ 2,777.39	2,224,955.00
Mali	\$ 1,381.02	2,068,714.00
Uganda	\$ 1,629.00	8,459,336.00
Comoros	\$ 1,365.84	120,186.00
Guinea	\$ 1,111.30	1,666,156.00
Burundi	\$ 725.14	2,002,360.00

Source: WDI, World Bank, 2016

Note: All data represent year 2013.