

## Government Inputs and Outcomes in Initial Education

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### Abstract

*This study determined the Philippine government's investment in initial education both in elementary and secondary levels from 2007-2010 and their outcomes in these years such as: the enrolment, cohort survival, dropout, completion and achievement. These basic education indicators were analyzed in order to determine whether the government's spending translated to quality educational outcomes. It is expected that when government spending increased cohort survival rates, completion rates and achievement rate would increase and there should be a decrease in dropout rate. The Department of Education in 2010 has targeted that elementary education 79% cohort survival rate, 77% completion rate and 4.0 dropout rate; in secondary education to have 81% cohort survival rate, 76% completion rate and 5.0 dropout rate. It is also expected that in both levels, a 75% above achievement rate be realized. Government spending increased during the span of four years as well as the enrolment and the other outputs of education. However, the increasing trends did not meet the expected desired outcomes. The study further found that there are inequities in the distribution of budget per capita by region. These findings suggest that the government had to redirect policies in budget allocation for initial education based on priority areas by region considering performance and poverty incidence. A more efficient spending and financing be institutionalized.*

*Keywords: government inputs, initial education, educational outcomes*

### Introduction

Filipino children have the right to free and quality education. In particular, they are guaranteed an initial education commonly called basic education both in the elementary and secondary levels. Parents believe that the only wealth they can give to their children is education. They believe that having a better education opens opportunities that would ensure a good future and eventually lift them out of poverty (Maligalig, Rodriguez, Martinez, & Cuevas, 2010). However, with the high incidence of poverty in the country, initial education becomes inaccessible to poor Filipino families.

Poor Filipino families rely much on the Philippine government for support to their children in basic education. For this reason, the Department of Education and other funding agencies are pulling its resources together to cater to millions of children to have elementary and secondary education. This is to show the government's commitment to the World Declaration on "Education for All" (EFA), the second goal of the Millennium Development Goals (MDG) which is to achieve universal primary education by 2015. These denote that the government is investing in basic education which is a right of every Filipino.

EFA is a worldwide development goal that reveals the economic and social benefits through an educated citizenry. It envisions creating a global, sustained, and long-term effort to meet the basic learning needs of children, youth and adults who have limited or no access to school. It seeks to build alliances among various institutions and mobilize new resources to enhance the environment for learning. EFA's framework of action has six goals: early childhood care and education (ECCE); universal primary/basic education; life skills and lifelong learning; adult literacy; gender equality and quality. In line with this framework of action, the Philippine EFA 2015 National Plan (UNESCO 2010) adopted in 2006 was formulated as the country's master plan for basic education.

This movement has five principles. The first principle is that primary schooling must be universally available. Supplementary alternative programs can help in the case of children with limited or no access to schools, but these should share the standards of learning applied to schools and be adequately supported. Second, the learning needs of youth and adults are more diverse and should be met in many different ways (literacy programs, skills training, specialized education). Third, all available channels of education of information, communication, and social action should be used to educate people on knowledge and skills for life and participation in social and economic development. Fourth, basic education must be provided equitably so that all children, youth, and adults can attain a necessary level of learning achievement. Fifth, basic education must be seen as both a goal in itself and the foundation for further learning on which countries can systematically build additional levels and types of education and training.

These goals and principles of EFA are justified from two perspectives: economics and human rights. Stalzer (n.d.) pointed that the economic development standpoint states that sustained economic progress will never be made with inexpensive, low-skilled labor but rather, it requires investing in human capital attainment through education. On the other hand, he explained that the human rights perspective states that human rights considerations must be the primary focus of any permanent program; education should be viewed as a basic right for everyone, not just a means toward greater economic welfare.

With EFA, the Department of Education reported that it has achieved substantial improvement in terms of access to education. The Philippines has been putting a lot of investment in basic education both elementary and secondary. Accordingly, education has been the topmost priority in the deliberation of the budget hearing for the past four years.

EFA has been implemented and in place for almost five years now. One can then ask where our country is in terms of its goals. How far are we in achieving the goal of education which is for social and economic development. Recent studies such as the Philippines Midterm Progress Report on the MDGs (NEDA; United Nations Country Team, 2007) assess that the probability of achieving universal primary education in the country is low based on net enrollment rate, cohort survival rate and completion rate. Similarly, the 2009 EFA Global Monitoring Report (UNESCO, 2008) identified the Philippines to be among the countries with decreased net enrollment rate from 1999 to 2006, and with the greatest number of out-of-school children which is more than 500,000.

The media in the Philippines have been criticizing how the government is investing in education. Ibon Foundation (2011)

stated that aggregate budget for 112 state universities and colleges (SUC) nationwide was cut by P147 million in 2012 with the worst-hit 51 SUCs receiving a combined cut of P574 million. It was projected that there will also be a backlog of at least 107,000 classrooms, 10.7 million desks and 91,000 public grade school and high school teachers in 2012. Some 79 out of 100 students who enter grade one will not finish college nor any certificate course.

These scenarios are alarming and critical for the country's economic and human capital development. Hence, the researchers conducted this study to see whether investments in initial education both in elementary and secondary are justifiable and have positive effects in our educational outcomes. This also tried to observe whether there are inequities in the provision of budget in initial education all throughout the regions of the country.

### *Literature Review*

Previous studies have been conducted about government inputs and outcomes in basic education for the past years. These studies have stressed the importance of government spending in basic education that impact quality educational outcomes. However, there are also studies that show no associations of government investments to educational outcomes. All these have been considered in formulating programs and policies to better implement basic education in all the regions of the Philippines. These studies were also considered relevant in the conduct of this paper.

In 1998 the WB-ADB (1998) study on the educational system in Philippines argued that it was necessary to increase the proportion of operational budget at least to 15%. The reality is that, instead of improving, the proportion of operational

budget for basic inputs has been declining even further.

The constitution mandates the government to allocate the highest proportion of its budget to education. However, the Philippines still has one of the lowest budget allocation for education among Asian Countries (*Philippine Daily Inquirer*, 2010). The ideal education budget is 6 percent or higher of the Gross Domestic Product (GDP) but at present it is 3 percent. There exists a shortage since the education sector got 2.69 share of the total GDP. Therefore, the education sector is in need of more budget.

If we try to compare the government investment with other countries, the Philippines has very low investment in education. In an article on 'Investment in Education and Training (n.d.)', it revealed that European countries like Denmark, Sweden and Cyprus allocate nearly 7% of their GDP into public investment in education. These countries accordingly have the highest levels in EU and among the highest in world. It also showed that Japan (3.5%) and the US (4.8%) trail the EU (5%) on public investment. However, both countries have much higher levels of private investment in education than any member state. Though private investment in education is increasing, it is only significant in four member states: United Kingdom, Germany, Cyprus and Slovakia. For these, it reaches up to 17% still well behind Japan and Australia (25%), the United States (30%) and Korea (40%). Among the Asian countries, the Philippines is far behind Malaysia and Thailand which have the highest public expenditure in education over GDP (Montalvo, 2004).

In the same document (Investment in education and training, n.d.) it disclosed that research evidences show there is no clear, systematic relationship between the amount of resources which are invested on schools and the student achievement.

It also concluded that a substantial gain in individual learning outcomes measured through the test scores is not likely to change with the increase in investment unless changes also take place in the institutional structures of the educational systems.

Furthermore, Carnoy (2005) mentioned that the Soviet Union and nations it controlled as well as China, Cuba, and Vietnam, all organized economically and politically under Communist regimes, made special large investments in education. They produced highly schooled populations even in previously illiterate regions, such as central Asia. The Communists accordingly not only expanded educational systems, but also increased the quality of education in terms of teaching math and language skills.

It appears therefore that the policies and reforms in government spending have to be made especially in education. The International Monetary Fund (IMF) according to TEU (2009) reports that increased government spending on public education will have more powerful impact on the financial crisis than tax cuts. The IMF has calculated multipliers for three policy options: tax cuts, infrastructure investment and “other” government spending. Public education would be included in the latter. The paper further stated that the “other” category includes additional spending on safety nets, assistance to small and medium enterprises, support for housing markets and transfers to state and local governments. It opined that in many North American and European countries, a primary example of transfers and local governments is for funding public education. The IMF assessment makes the point that “other government spending has a considerable larger multiplier than tax cuts (1.0 vs .6), although infrastructure investment has an even higher multiplier

(1.8 vs .6). Hence, tax cuts are the least effective policy option.

Lapus (2011), the former DepEd secretary now head of the Task Force on Education of the Management Association of the Philippines (MAP), identified six sources of funding which could help in improving investments in education to solve classroom shortages, desks and other resources. He recommended the following innovations: adopting a more flexible government education budget (GAA); harnessing private sector resources and expertise through Public Private Partnerships (PPP); using part of the Priority Development Assistance Fund (PDAF); using the Special Education Fund (SEF) of local government unit as collateral and for debt servicing; accessing funds from international development partners, including the World Bank, and the Asian Development Bank; and promoting donations from the private sector, civil society and non government organizations.

Lapus further explained that the annual budget given to DepEd for new classrooms (P8.3 billion in 2011) can be maximized by applying the lease-to-own option (as an MOOE option in the GAA), instead of spending the same amount as pure capital outlay. For instance, P6 billion under this option will translate to around 37,500 classrooms, instead of the usual 7,500 classroom for the same amount. PPP investments can be maximized through the frontloading of classroom construction, whether through the build-lease-transfer (rent to own) scheme or a design-build (turnkey) scheme. The scale of the proposed construction program will mean potential savings for the government. He also added that a portion of the annual priority development assistance funds (PDAF) of the congressmen can also be earmarked for classroom construction for the next two years. This represents up to 19,000 new classrooms. Similar to how

LGUs use their respective internal revenue allotments as collateral and for debt payment, the underutilized SEFs (50% of P15 billion annual SEF or P7.5 billion a year) could be used for collateral and for amortization of up to 50,000 classrooms (from a loan of P40 billion, payable in 7 years at 10% interest per annum). The government can continue to tap private sector for its generous support in the construction of new classrooms and other resources.

Montalvo (2004) did a study on education, poverty and development in the Philippines believing in the premise that education is a basic factor in economic development. This is so since development plays an important role in social mobility, equity, public health and better opportunities for employment. He described the educational system in the Philippines as one having high quantity, in terms of average level of education in the population, low quality of education and small contribution of the quality of education, high degree of mismatch and over qualification in the labor market, and the lack of equity in the access to higher education. He further claimed that “the proportion of public expenditure on education over total public expenditure shows signs of stagnation and even worse a decreasing pattern.”

He further found in his study that the dropout rates, survival rate and scores of graduates in government examinations are positively correlated with the level of development of the regions. He noted that the dropout rate among the students at the elementary and secondary levels continues to increase over the years. The ratio of students to teacher is worsening over time at the secondary level especially among public schools.

Maligalig et al. (2010) found that a large part of the variations of the quality of education outcomes is explained by the

provincial effects and is useful to identify which of the provinces are the best-performing and least performing. On the basis of consistency of belonging to the top 10 (or bottom 10) highest provincial average NAT scores between 2003 to 2007, the best performing provinces for primary schools are Bataan, Biliran, Cavite, Eastern Samar, Ilocos Norte, Leyte, Romblon, Surigao del Norte, and Surigao del Sur. The least performers are Basilan, Lanao del Sur, Maguindanao, Sulu, and Tawi-tawi. For secondary schools, the best performing provinces are Agusan del Sur, Biliran, Eastern and Western Samar, Northern Samar, Southern Leyte, and Surigao del Norte; the least performing are Basilan, Cotabato City, Maguindanao, Sarangani, Sulu, Tawi-tawi, and Zamboanga Sibugay. Notably, all are in Mindanao and most of them in the Autonomous Region of Muslim Mindanao, the region with the largest number of out-of-school children in the primary school age group (83,520 or 14.1% of children in that age group) and secondary age group (78,888 or 21.5%).

The number of high school drop-outs declined due to Drop-out Reduction Program (DORP) which offers alternative delivery programs to help students in school and finish their basic education. DORP has posted remarkable accomplishment in reducing the high school drop-out rate from 12.51 percent in SY 2005-2006 to 8.55 percent in SY 2006-2007 and lower in SYs 2007-2008 and 2008-2009 (Malipot, 2011). This is an intervention made by the government to address the drop-outs in secondary level. According to National Statistics Coordination Board, in terms of achievement rate, results of National Achievement Tests (NAT) from 2005 to 2010 showed a declining achievement level of elementary and high school students. NAT results of high school

students dropped from SY 2007-2008, which posted an MPS of 49.26 percent to 47.40 percent in 2008-2009 and down to 46.30 percent in 2009-2010.

Nava (2009) did a study on factors in school leaving: variations across gender groups, school levels and location. She found that employment activities were common among older dropouts especially in males while domestic duties such as caring for younger siblings were most true of females. This is found most especially in rural areas. Low motivation according to her was also evident among male and younger drop outs.

She further discussed in her study that increasing government funding has not completely addressed the dropout problem. Although there is a general increase in allocation for education in the past years, the dropout problem remains one of the challenges for educators. She mentioned that allotting more funds to public education did not necessarily bring about substantial reduction in dropout rates. This is because increase in budget did not match increase in population and consequently in enrolment. She found that the per capita budget has actually decreased through the years. She also revealed based from the report of the Department of Education (2009) that the budget for basic education has increased by 25 per cent from 2000 (PhP 80 M) to 2009 (PhP 150 M). However, the real value of per capita cost has decreased from PhP 6,000 in 2000 to PhP 4,000 in 2009. She then concluded that increase in dropout rates is not surprising despite increase in the budget because there have been more students accommodated by the public schools than could be adequately financed.

### *Objectives*

This study provides analysis of the Philippine government investment in initial

education and its outcomes from school year 2007-2010. Specifically, the objectives of this paper are as follows:

1. To determine the government investment in the basic education both elementary and secondary education;
2. To analyze the trend in basic education in terms of enrolment rate, cohort survival rate, drop-out rate and achievement rate; and
3. To examine whether there is a significant relationship between the government investment and educational outcomes.

### *Methodology*

This study utilized the quantitative method of research. Data on government investment and educational outcomes such as cohort survival rate, drop-out rate, enrolment rate and achievement rate were used. The data sets were taken from the on line sources such as General Appropriations Act of 2007-2010, Department of Education, TechVoc and National Statistics Coordination Board (NSCB) Office. Since the data were taken from known government websites the researchers assumed that the data were authentic and realistic. Computing the average of the budget per capita by region was done. A non parametric test using sign correlation and chi square were done to get the relationship between budget and educational outcomes.

### *Results and Discussions*

#### *Government Investment in Initial Education: General Budget of Initial Education*

Table 1 presents the general budget, enrolment and budget per capita of initial education for the past four years. Tabular values show that both enrolment and

Table 1  
*Budget in Initial Education*

Levels	Year	Budget	Enrolment	Budget Per capita
Elementary	2007	108,425,018,000.00	12,083,799.00	8,972.76
	2008	112,886,118,000.00	12,790,301.00	8,825.92
	2009	133,865,678,000.00	13,686,643.00	9,780.75
	2010	137,479,355,000.00	13,934,172.00	9,866.35
Secondary	2007	30,810,531,000.00	5,028,083.00	6,127.69
	2008	32,216,445,000.00	5,173,330.00	6,227.41
	2009	39,151,076,000.00	5,421,562.00	7,221.36
	2010	40,314,810,000.00	5,465,623.00	7,376.07

Source:

Budget Source - GAA 2007-2010

Enrolment - Elem - 2009-2010 and 2008-2010 secondary in [www.deped.gov.ph](http://www.deped.gov.ph) DepEd statistics  
2007-2008 elem. 2007sec in TVET

NSCB for Computed budget per capita=budget/enrolment

appropriations for basic education have consistently increased every year. Moreover, the budget per capita in both elementary and secondary levels registered increases except in 2008 which means that the government has been consistently increasing its expenditure for students despite increasing enrolment. In real terms, however, the average increase in the expenditure per pupil in the elementary level only amounted to roughly P4,000.00 per head when adjusted for inflation (the unadjusted figures show an increase of about P900 per head per year) and roughly the same can be said of the per capita investment in secondary education.

According to the report of DepEd Secretary Luistro (2011), the DepEd Budget for 2011 is P207.3 billion, which is an 18.4% increase from the previous year. Of this amount, P11.3 billion has been allocated at least 9,000 new classrooms, seats and sanitation facilities, while P2.3 billion has been earmarked for 10,000 new teacher items (Teves, Nilo, & Valarao, 2011).

However, this substantial increase is not enough for the many shortages that DepEd had reported in 2010 like the lack of 67,000 classrooms, 52,000 teachers and

2.5 million seats. This is also in addition to the opening of the Universal Kindergarten in school year 2011-2012 and the increase in student population. These circumstances urged the government to come up with programs and schemes. These are Government Assistance to Students and Teachers in Private Education (GATSPE) Program, Alternative Delivery Modes (ADM), and Public Private Partnership (PPP) and Local Government Support.

The increasing trend in educational investment is a response of the government in implementing the Basic Education Reform Agenda (BESRA) for 2015. The government leaders has put emphasis in implementing the Education for All (EFA) movement which is a mandate of UNESCO to its member countries. This fund increase is also attributed to the increased enrolment in basic education. Another contributing factor could be the institutionalization of School Based Management (SBM) which is an approach to lessen bureaucratic restrictions over the schools in order to focus on actual delivery of services and produce good results.

Table 2 reveals that government investment per region differs in both elementary and secondary levels. It can be

**Table 2**  
*Average Investments in Elementary and Secondary by Region*

Region	Elementary				Secondary			
	average budget	average enrolment	Average budget per capita	Average cohort survival rate	average budget	average enrolment	Average budget per capita	Average cohort survival rate
I	8,296,930,800.00	660523	12561.14	84.18	2,477,711,500.00	309,774	7,998.44	81.81
II	5,617,023,200.00	462565	12143.21	80.82	1,581,732,750.00	198,332	7,975.19	82.30
III	12,506,412,000.00	1311452	9536.31	85.10	3,378,261,500.00	539,308	6,264.07	78.85
IVA	13,203,835,400.00	1515356	8713.36	84.56	3,713,613,000.00	633,921	5,858.17	78.54
IVB	4,668,139,200.00	469867	9935.03	73.41	1,241,799,500.00	174,861	7,101.64	83.51
V	9,729,967,800.00	970771	10022.93	76.49	2,602,601,000.00	352,577	7,381.66	75.47
VI	12,129,620,200.00	1069837	11337.82	74.96	3,543,040,500.00	479,342	7,391.46	74.64
VII	9,172,005,400.00	982096	9339.21	80.61	2,198,769,750.00	379,203	5,798.40	74.87
VIII	7,552,465,200.00	711780	10610.68	68.11	1,811,272,250.00	256,872	7,051.26	71.90
IX	5,570,096,200.00	570442	9764.52	60.93	1,317,564,750.00	198,359	6,642.32	72.20
X	6,230,835,400.00	650832	9573.64	68.54	1,475,325,250.00	219,863	6,710.21	73.76
XI	6,018,487,600.00	635060	9477.04	60.10	1,604,180,000.00	239,829	6,688.86	70.77
XII	5,421,683,200.00	593571	9134.01	65.89	1,450,187,500.00	221,095	6,559.12	66.90
XIII	4,132,112,400.00	388416	10638.37	66.66	998,798,250.00	150,740	6,625.97	72.10
NCR	12,514,758,200.00	1269767	9855.95	91.16	4,719,453,000.00	636,030	7,420.17	76.44
CAR	3,035,482,400.00	229853	13206.17	77.61	821,349,500.00	91,415	8,984.88	71.46
ARMM	4,636,748,800.00	608160	7624.23	34.45	687,555,500.00	138,914	4,949.49	40.33

Source: Average CSR was computed from 2007-2008. Data were taken from 2007-2009. Current TVET Data and Related Statistics 2005-2009, Technical Education and Skills Development Authority.

noted that the elementary budget is higher than the secondary. This is because the elementary level has a bigger enrolment compared to the secondary. This is also true with the budget per capita. However, in terms of cohort survival rate (CSR), the secondary level is 73.28% while the elementary level is 73.20%. This means that secondary students are able to finish their studies because they would know how to look for ways to obtain funds while the elementary pupils are still dependent on their parents in terms of their educational needs.

Looking at the budget, Region IVA got the highest budget in the past four years followed by Region NCR, Region III and

Region VI. This is because these three regions have the largest student population. The three regions with the highest average budget that belong to Region IV A, NCR, and Region III also have the highest average cohort survival rate while the Autonomous Region of Muslim Mindanao (ARMM) being one of the lowest average budget accounted for its lowest cohort survival rate.

The low CSR in ARMM maybe attributed to peace and order situation, location, being a rural area and one of the poorest regions. The region with highest CSR is an urban area where schools are accessible to the children with better school facilities.

Table 2 further shows the average investments for every region which was computed from SY 2006-2007 up to SY 2009-2010 in secondary education with the average enrolment and average budget per capita. It shows that in terms of average budget, NCR ranks the highest followed by Region IVA and Region VI while ARMM, CARAGA and CAR have the lowest budget.

It also reveals that the top three regions with highest cohort survival rate are found in Luzon and the lowest three are in Mindanao. Geographical location could be a contributing factor for the cohort survival rate. Schools are accessible to students in urban areas. Many schools in Luzon could be closely monitored by the DepEd Central Offices because they are located within the same area, in contrast to those regions with low CSR which are hardly monitored. Another contributing factor could be the poverty incidences which are found in the Mindanao areas than in Luzon.

The findings support the study of Maligalig et al. (2010) who found that a large part of the variations of the quality of education outcomes is explained by the provincial effects. It also conforms to the study of Balisacan (2011) who also revealed that basic education services are generally of much lower quality in rural

areas than in urban areas. He also mentioned that geographic and sectoral differences matter in health and education.

### *Educational Outcomes of Initial Education*

Table 3 presents the educational outcomes of initial education which revealed that government investment increases every year. Moreover, cohort survival rate and completion rate increased except in 2010. Results further reveal that elementary level has a higher achievement rate compared with the secondary level. This is attributed to constant follow up and guidance of their parents considering their age. This would also imply that elementary pupils performed better compared to the secondary students.

This is supported by the 2010 Philippines Progress report on the Millennium Development Goals (MDGs) in which cohort survival rate (CSR) at the elementary level showed an erratic trend from 2000 to 2005. This indicates that retention ability of schools calls for improvement. Meanwhile, drop-out rates exhibited an increasing trend. It is noted that more pupils dropped from the system but the number decreased as they reached higher grades.

Table 3  
*Educational Outcomes of Initial Education*

Levels	Year	Capita/pupil	Drop out rate	Cohort Rate	Completion Rate	Achievement Rate
Elementary	2007	8972.76	0.0637	0.7343	0.7172	0.5994
	2008	8825.92	0.0599	0.7526	0.7306	0.6481
	2009	9780.75	0.0602	0.7539	0.7328	0.6555
	2010	9866.35	0.0628	0.7438	0.7218	0.6801
Secondary	2007	6127.69	0.0855	0.7733	0.7214	0.4664
	2008	6227.41	0.0745	0.7991	0.7537	0.4926
	2009	7221.36	0.0745	0.7973	0.7524	0.4671
	2010	7376.07	0.0795	0.785	0.7374	0.4556

Source: DepEd Statistics, [www.deped.gov.ph](http://www.deped.gov.ph)

Montalvo (2004) found that dropout rates, survival rates and scores are positively correlated with the level of development of the regions. Thus, regional development, poverty incidences, socio-economic status of the regions could influence educational outcomes of the country. Regional development could be one indicator to be considered in the allocation of budget per capita or in government investment to education.

At the secondary level, there is an increase in budget per capita. Cohort survival rate exhibited an erratic trend from 2007-2010. Meanwhile, dropout rates showed an increasing trend from 2008-2010. In terms of completion rate, it tended to increase from 2007-2009 except in 2010, while achievement rate tends to decrease.

According to Printchett (2000) direct evidence from internationally comparable examinations shows substantial variation in schooling quality. He also stated that children in some developing countries like the Philippines lag far behind the Organization for Economic Cooperation and Development (OECD) countries and East Asian Countries. He revealed that the low quality of schooling is consistent with the macroeconomic evidence and with the household evidence of little or no wage increment from additional schooling. Hence, the Philippines must work on improving its economy in order to improve the quality of schooling.

Nevertheless, the findings show some positive aspects in terms of schooling quality. This could be due to the different programs and interventions that the Philippine government is implementing in reducing poverty incidences thereby improving educational services. Interventions have been provided by the government to improve education outcomes. The government has provided free access to basic education through

public schools but the personal costs of attending schools like transportation, clothing and school supplies are provided by the family. The government has some interventions to encourage children to enrol and attend school. DepEd issued the policy of “no school contribution” policy upon enrolment in 2001. Another is the “Food for the School Program” that started in 2005. Each family is given one kilo of rice a day based on the student’s school attendance. Other related interventions include the School Milk Project which aims to promote supplementary nourishment to undernourished children. Another intervention is the “Breakfast Feeding Program” which provides formulated noodles for breakfast (Manara & Cuencas, 2007). These programs are aimed to have a positive effect on school enrolment and dropout rates.

#### *Relationship of Investments to Educational Outcomes*

Table 4 shows the sign correlation between government’s budget per capita, drop-out rate, cohort survival rate, completion and achievement rate for the elementary and secondary levels. Results revealed that there is no correlation between budget per capita to the educational outcomes: dropout rate, cohort survival rate, and completion rate. This means that the budget per capita did not address the primary needs of the students and educational institutions which would lead to the increase of the educational outcomes.

Tabular values were standardized and sign correlation was computed by getting the difference of the standardized values of budget per capita - the variables of educational outcomes  $correlation = \frac{(No. of +) + (No. of -)}{4}$ . Chi square 2x2 table was made to get the significant relationship of the variables.

The results indicate that budget per

Table 4.  
*Relationship of Investments to Educational Outcomes*

Levels	Year	budget per capita	drop out rate	cohort survival	completion rate	achievement rate
Elementary	2007	-0.722348	1.08599	-1.30435	-1.14366	-1.37174
	2008	-0.995241	-0.92706	0.70996	0.68075	0.06877
	2009	0.779253	-0.76814	0.85306	0.98028	0.28766
	2010	0.938336	0.60921	-0.25867	-0.51737	1.01531
Sign Correlation			1	1	1	1
$\chi^2$			0	0	0	0
Secondary	2007	-0.936762	1.33891	-1.27982	-1.30896	-0.25649
	2008	-0.783735	-0.76509	0.86778	0.82367	1.41309
	2009	0.741542	-0.76509	0.71795	0.73784	-0.21188
	2010	0.978954	0.19127	-0.30591	-0.25255	-0.94472
Sign Correlation			1	1	1	1
$\chi^2$			0	0	0	0

capita did not affect educational outcomes both in the elementary level and secondary level of education. There is no significant relationship between the budget per capita and educational outcomes despite the increase in budget allocation in initial education. Cohort survival rate, drop-out rate, achievement rate and completion rate show little or no improvement at all. This implies that budget is not the only determinant for students to finish their studies. If there is also an increase in budget per capita of students, educational outcomes might also improve. However, there are still other factors to consider such as teacher factor and school resources.

This was even stressed in the study of Maligalig et al. (2010) who noted that decentralization of MOOE which constitutes the least of the entire DepEd budget, around 13.6% (2007) still have problems. DepEd currently uses a cost per student estimation method in computing for school MOOE. However, it is still considered to be inadequate to answer for the actual operation needs of the schools. Moreover, prior to 2008, components of the MOOE for schools were disbursed through the division offices in kind (e.g., supplies and materials). Sometimes they do not reach the schools and oftentimes

they do not match the actual needs of the schools.

They further found that the analysis of individual, school, and quality of education outcomes showed that although school resources such as pupil–teacher ratio is a key determinant for both individual and school outcomes, and that per capita miscellaneous operating and other expenses are significant factors in determining quality of education outcome, socioeconomic characteristics are stronger determinants. Children of families in the lower-income deciles and with less educated household heads are vulnerable and less likely to attend school.

Barton (2006) confirmed that economic prospects of dropouts have become grimmer. He cited four factors that correlated with low high school completion rate. These were low income families, single parent families, absenteeism and changing of schools. Maligalig et al. (2010) stated that socioeconomic characteristics are more important in influencing school educational outcomes.

Maligalig and Albert (2008) also concluded that there is evidence that government expenditure on education and poverty incidence are directly related to net enrollment ratio, but failed to ascertain the degree of the relationships as well as the

efficacy of other factors that may affect school enrollment.

There are studies that indicated individual and household characteristics that influence children's participation and performance in basic education (Bacolod & Tobias, 2005; DeGraff & Bilborrow, 2003; UIS, 2005). These studies suggest that family background and socioeconomic factors are as important as school resources in determining whether a child will attend school, survive and complete an education level and achieve an acceptable level of learning outcome. In fact, Hanushek (1986) concluded that socioeconomic factors are stronger determinants compared to school resources.

There are also many studies that claimed that there are many factors influencing educational outcomes—students' achievement, motivation and completion. Eranest (2004) concluded that continuous curriculum and teachers training programs have direct impacts on students' learning in achievable and practiced ways. Selina (2003) stressed that positive learning classroom environment is the most important factor leading students towards social motivation which in turn leads to academic achievement. Umer (2005) found that cognitive behaviours of teachers in the classroom increase practical performance of students.

Becker and Luthar (2002) used ecological models to document social-emotional factors at multiple levels of influence that undermine academic performance. They found social-emotional factors act as both risk and protective factors for disadvantaged students' learning and opportunities for academic success. They stressed that four critical social-emotional components that influence achievement performance were academic and school attachment, teacher support, peer values, and mental health.

The same is true in India. Mukherjee (n.d) in his study on educational attainment in India "Trends, Patterns and Policy Issues" revealed that identified factors like poverty, presence of child-labour market, absence of assured employment after schooling, and infrastructural problems are responsible for the ills plaguing the elementary education in India. He suggested some policies that could improve the scenario like providing incentives for attending schools, making the schooling process attractive to children, streamlining the middle and high school curriculum, and providing better infrastructure for the schools.

Balisacan (2011) recommended that the Philippine government must prioritize poverty reduction efforts in areas of population groups with acute multiple deprivation. He added that getting good quality education and health services accessible to the poor should be high in the development agenda.

### *Conclusions*

1. Government budget allocation has a minimal increase every year.
2. There is an increasing trend in terms of cohort survival rate, completion rate and achievement rate but it does not meet the expected desired outcomes.
3. The initial budget in basic education has no bearing with educational outcomes.

### *Recommendations*

1. The government could redirect its policies in budget allocation for initial education based on priority areas by region considering performance and poverty incidence. The proper implementation of decentralization must be implemented following the primary needs of every school of the

various regions of the country. Efficient allocation of resources must be more selective and must be closely monitored considering the educational needs and outcomes of every region.

2. The School Based Management guidelines and procedures should be fully implemented, monitored and evaluated to provide appropriate support mechanisms to school head, teachers, learners, and other stakeholders.
3. Innovations and programs to increase educational outcomes must be continued but must be closely monitored and evaluated in order to see the effects and influences of these programs to the students, teachers, institutions and the development of the nation as a whole.

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