

## Philippine Investment in the Tertiary Education of State Universities and Colleges

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### Abstract

*This study determined the Philippine government's investment in state HEIs from 2005-2010 and their enrolments vis-à-vis the graduation and labor force participation. Findings reveal that SUCs' budget increased every year with corresponding increase in expense per head, except for SY 2006-2007. Labor demand is low compared to the number of graduates from SUCs. Thus, analyses reveal that the government had a lost investment in tertiary education because the number of enrollees subsidized by the Philippine government decreased by the time they graduated. The number of those who became employed was even low. Recommendations include a strong link among SUCs, businesses, industries and other stakeholders, SUCs to offer student financial loans on priority courses, and influence they way of thinking of people towards entrepreneurship and self-employment.*

*Keywords: Philippine investment, budget allocation, labor force participation, tertiary education*

### Introduction

The Philippines faces many problems and one difficult problem that the Philippine government has to grapple with is in the area of education. Gonzalez (1992), past president of Dela Salle University and Secretary of Education, reported problems in higher education that included producing first degree graduates for certain professions and fields of specialization while falling short of producing graduates in the fields of pure science, middle-level technician specializations, and graduate training for research and higher education. In another report, the Organization for Economic Cooperation and Development (2001) noted that in the Philippines there is a mismatch between graduates' skills and the requirements of industries that contributes to unemployment and depresses the labor force participation. The

extent of skill mismatch is highlighted by the percentage of unemployed with a college degree notably in engineering and business process outsourcing activities that require technical skills. In the Philippine Medium Term Development Plan 2010-2016, it has reiterated the same challenge to education to reduce the mismatch between workers' skills and those needed by the market (MTDP 2010-2016, NEDA).

There are many reports already conducted by the educational agencies mandated to oversee education in the country like the Commission of Higher Education, Technical Skills and Development Authority, Department of Education and other commissioned offices. Reports (Gonzalez, 1992; OECD, 2001; MTDP 2010-2016-NEDA) reveal that even if education is seen by Filipinos as

the solution to poverty, graduates have not found good employment. Worse yet, they have remained unemployed or underemployed. What confounds this problem is even UNESCO sees the role of education in poverty eradication. UNESCO states that no country has succeeded if it has not educated its people. Education is not only important in reducing poverty but it is a key to wealth creation (UNESCO, 2001). The International Institute for Educational Planning and the International Academy of Education of UNESCO (2008) emphasize that education can reduce poverty. This means that more educated people are more likely to get jobs, are more productive, and earn more. Furthermore, it implies that more and better education improves a poor country's economic growth and generates economic opportunities and incomes. The importance of education is also reported by Montalvo (2004) in his background paper to the Philippines Poverty Assessment, in which he stated that at microeconomic level education has an important role in social mobility, equity, public health, better opportunities for employment, among others.

In a general assembly of the Philippine Association of State Universities and Colleges in June 2011 (MASCUF, June 28, 2011), Patricia B. Licuanan, CHED Chair, shared her agency's concerns and where it wanted the country to go in the next few years. Among the problems that they have yet to face are proliferation of HEIs, typology, and oversubscribed and under-subscribed programs. Chair Licuanan referred to the unplanned expansion of campuses, increased offering of programs beyond the original mandate, and access issue of Filipinos wanting to get education.

Montalvo summarizes the characteristics of the education system in the Philippines, to wit: (1) high quantity in terms of average level

of education of the population, (2) low quality of education and small contribution of the quality of education to the growth of TPF (Total Factor Productivity); (3) high degree of mismatch and over-qualification in the labor market; and (4) lack of equity in the access to higher education. With all these problems besetting the Philippines there is a need to conduct studies that may impact policies and guide policymakers in the legislative and executive branches of the government. The researchers in this paper intended to determine the government's budget for SUCs from 2005-2010 and their corresponding enrolment data vis-a-vis the graduation and labor force participation data. It is our hope that this paper can identify the SUCs can help in the government's effort to focus its limited funds to bring quality, affordable (Medrano, June 28, 2011) and accessible education to the poor and marginalized, especially as it affects tertiary education. The Philippines' *Medium Term Development Plan for 2004-2010 and 2010-2016* (NEDA, 2004; 2010) has placed emphasis on five important goals which include economic growth and job creation, and education and youth opportunity. The attainment of these goals depends on a successful interplay between education and employment.

### *Objectives*

The main objective of the study was to determine the Philippine government's investment in State Universities and Colleges (SUCs) tertiary education from 2005-2010. Specifically, it analyzed the enrolments, budgets (as inputs), and graduates and labor force participation (as outputs) of SUCs as attributes to the status of the government's investment- whether good or losing investment.

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### *Theoretical Framework*

The improvement of the quality of the population depends largely on education (Montalvo, 2004; Ladd, 2011; UNESCO, 2001; Van der Berg, 2008). It is generally believed that the development of the human resources determines the country's growth. This is why Filipinos have a deep regard for education, because they view education as a primary avenue for upward social and economic mobility (World Bank, 2001; UNESCO, 2008).

This paper proposed that the attainment of tertiary qualifications is associated with a higher likelihood of employment especially on the formation of human capital. It also believed that those with tertiary education earn more than those without because those with tertiary education results in a premium on earnings (Nair, Smart, & Smyth, 2008).

As defined by OECD (2001), human capital is the knowledge, skills, competencies and attributes in people that facilitate the creation of personal, social and economic well-being. The development of a country is dependent on its human capital. Knight (2009) pointed that there is no government that is not concerned about the long-term welfare of its citizens that does not place a high premium on advanced education. Investment in tertiary education is important because it contributes to the success of a country's efforts to boost productivity, competitiveness and economic growth (Bloom, Canning, & Chan, 2006). Public spending for tertiary education is justified because educational attainment is linked to long-term social outcomes such as better health, political understanding and interpersonal trust (OECD, 2010).

In the human capital model, Quiggin (1999) writes that education is an investment that produces benefits in the

future. He expounds that the function of schools is to provide students with information and skills that will be valuable in later life. Knowledge and skills contribute to increased productivity and, all things being equal, to higher earnings. Almendarez (2010) also writes that education is an engine of growth and key to development in every society. In order for education to make significant contribution to economic growth and development, high quality education is required. Human capital represents the investment people make in themselves that enhance their economic productivity. Human capital theory assumes that formal education improves the productive capacity of a population. This theory emphasizes how education increases productivity and efficiency of workers by increasing the level of cognitive stock, which Almendarez says is a product of innate abilities and investment in human beings.

Meinardus (2003) furthermore cites that in the human capital theory, the economic development of a nation is a function of the quality of its education. He explains that the more and better educated a people are, the greater the chances of economic development. In this "knowledge society" (Meinardus), education and information have become production factors more important than labor and capital. However, literature reveals that in the past, economic strength was largely dependent on tangible physical assets like land, factories and equipment. Labor was a necessary equipment but increases in the value of business came from investment in capital equipment (Almendarez, 2010). He writes that capital and natural resources are passive factors of production but human beings are the active agencies who accumulate capital, exploit natural resources, build social, economic, and political organizations, and

carry forward national development. He says the educational expenditures are investments. This augments an individual's human capital and leads to greater output for society and enhanced earnings for the worker. He stresses that education increases people's chances of employment in the labor market and allows them to gain monetary and non-monetary rewards and gives them opportunities for job mobility.

### *Literature Review*

The literature reveals empirical evidence of rates of return to education. Psacharopoulos (1973, 1981, cited in Quiggin, 1999) and Nair, Smart, and Smyth (2008) found that incomes increase with level of education. Almendarez (2010) cites the World Bank report of 1993 that found education as a very significant variable for East Asian economic growth. Studies on non-monetary gains of education reveal that more education results to better health status (Kenkel, 1990; Nair, Smart, & Smyth, 2008). Labor market outcomes of tertiary education literature show that in New Zealand those who hold tertiary qualification have lower unemployment rates compared with those who do not (Nair, Smart, & Smyth). It also shows a strong association between attainment of tertiary qualifications and higher incomes, even if the link is not causal.

But there are also studies showing that in spite of educational qualifications, there is still a problem of employment and under-employment. One of the most serious problems in the Philippines in the 1980s and early 1990s concerned the large number of students who completed college but then could not find a job commensurate with their educational skills. If properly utilized, these trained personnel could facilitate economic development, but when left idle or forced to take jobs beneath their

qualifications, this group could be a major source of discontent (Philippine education, n.d.).

The literature also shows problems in state investment in tertiary education where even with lower tuition costs compared to private higher education institutions, costs are rising. A report by Ramota (n.d.) stated that students who cannot afford to study in expensive private tertiary schools have transferred to public higher institutions. But even if SUCs offer a tuition fee lower than private schools, expenditures in SUCs have seen the biggest increases (e.g., development fees, laboratory, library, etc.) making tertiary education inaccessible to ordinary students. Montalvo (2004) reported this "lack of equity in the access to higher education" as one of the characteristics of the education system in the Philippines. In fact this is also another national goal that the CHED wanted to be resolved in all HEIs. This will result in an upsurge in the rate of school drop-outs and out-of-school youth if left unresolved. In fact UNESCO in 2004 had already then reported a 73 percent drop-out rate in college. These problems that have beset the educational system impact the investment of the government in SUCs.

On government investment in tertiary education, the literature shows a comparison of education costs in Asia. Dela Cruz (2011) reported a World Bank report that tertiary education spending in relation to gross domestic product was lowest in Laos, Cambodia and the Philippines. Ratios are higher in Vietnam, Indonesia and especially Malaysia. WB advised that these countries should consider increasing their education spending in relation to GDP. This report showed that the Philippines' public tertiary expenditure stood at only 0.34 percent GDP, compared with Indonesia's 1.2 percent, Malaysia's 1.69 percent, and

Thailand's 0.71 percent. In 2010, overall public education expenditure in the Philippines was just 2.8 percent of GDP, compared with 4.13 percent in Malaysia and 4.12 percent in Thailand. In addition, Montalvo (2004) reports that based on his benefit incidence analysis, it was noticed that while expenditure in elementary education was pro-poor, expenditure in secondary education was neutral and expenditure in higher education was quite regressive based from the Previous Philippines Poverty Assessment of 2001. Furthermore, Montalvo wrote that even if the WB-ADB (1998) argues for the necessity of increasing the proportion of operational budget, findings show that the operations budget fell to 6.64% (2003) from 10% (1998). The proportion of operational budget for basic inputs has been declining even further. The above literature shows that the Philippine government has invested in education but it is not comparable to the investment of other Southeast Asian countries.

The authors of the present study posit that investment in higher education does not only mean a return of investment through the number of graduates that HEIs produce. Education also means producing graduates who have acquired total human development. This means people who are fair, believe in diversity, give equal opportunity and have the value of life. Ramirez (1988) stressed that development is not limited to the economic and monetary aspects alone. Ramirez recommended that necessary conditions are needed to pave the way towards national development in which the different sectors and institutions work together to bridge the grassroots and the upper level in civil society. As cited by Egargo (2008) and, Carnoy and Samoff (1990), education is an important part in achieving social transformation in which appropriate ideas, values, and worldviews are developed with

people not only having the skills but an understanding of their role in the world.

### *Methodology*

This is a descriptive research in which the SUCs' budget from 2005-2010 were taken from the General Appropriations Act Books of the same years. For the enrolment and number of graduates of SUCs from 2005-2010, data were obtained from the Commission of Higher Education, a government website. Data for labor demand were taken from Technical Vocational Education and Training (also a government website) while data for labor force participation were taken from the National Statistics Office. However, in 2010, there were no data for the enrolment and number of graduates, so the researchers used the trending formula. For the labor force participation, available data were only for the years 2009 and 2010, hence moving average was used to fill the years 2005 to 2008. Descriptive statistics was used to analyze both the categorical data and the quantitative data.

The limitation of the study included the enrolment data that were taken by adding the enrolment of all SUCs regardless of the region, and labor force participation means the overall data which did not specify any category of occupation; it is the gross LFS data.

### *Results and Discussion*

#### *Enrolments in SUCs*

Based from Table I the following increase in enrolment occurred: In school year 2005-2006, there was an increase of 32,101; SY 2006-2007, 33,535; SY 2007-2008, 67,510; and SY 2008-2009, 100,493. This implies that the enrolment has increased every school year in state-

Table 1

*Enrolment, Budget, Expense per Head, and Graduates in SUCs, and Labor Demand and Labor Force*

	SUCs Enrolment**	SUCs Budget*	Expense/Head	Graduates (Public)**	Labor Demand***	Labor Force****
2005	849,555	15,684,835,000	18,462.412	146,090	32,313	38,212,500
2006	881,656	15,684,835,000	17,790.198	148,191	32,636	38,275,000
2007	915,191	17,371,355,000	18,981.125	155,441	33,560	38,150,000
2008	982,701	19,610,640,000	19,955.856	169,155	34,089	38,400,000
2009	1,083,194	22,829,078,000	21,075.705	178,478	35,061	37,900,000
2010	828,795	22,402,271,000	27,029.930	142,323	32,142	38,900,000
Total	5,541,092	113,583,014,000	123,295.226	939,678	199,801	229,837,500
Ave	923,515.33	18,930,502,333.30	20,549.20	156,613	33,300.17	38,306,250

Trending

Moving average

\*GAA SUCs' budget 2005-2010

\*\*CHED statistics

\*\*\*TVET

\*\*\*\*NSO

funded HEIs contrary to the UNESCO 2004 report. Considering that the population of the country has also increased every year reaching 103,775,002 (Philippine population, 2012), it can be assumed that with the increase in population, there is a proportionate increase in the enrolment as most people believe in the importance of education to development. UNESCO (2001) has emphasized the role of education in poverty eradication, in close co-operation with other social sector, as crucial. It stressed that no country has succeeded if it has not educated its people. In fact it pointed out that not only is education important in reducing poverty, it is also a key to wealth creation. Although van der Berg (2008) writes that the international literature finds no causal relationship between educational attainment and the economic growth of a country, but he reports that recent research shows that quality-adjusted education is important for economic growth. He writes that more and better education improves a poor country's economic growth and thereby generates economic opportunities and incomes. This may be the reason for the increase in the enrolment.

However, in SY 2009-2010, enrolment decreased by 254,399, based on the researchers' computation using the trending formula as there was no data from the government website of CHED. Regardless of regions, the enrolment of SUCs was added by school year. The decrease in enrolment in 2009-2010 could be due to the economic crises giving priority to basic needs of the people. This was the period when many of the countries suffered from depression, plunging currencies and asset prices. This has impacted the Philippines because foreign and local investments in the Philippines were also affected by the economic crises in the United States and some European countries.

#### *SUCs' Budget from 2005-2010*

In a span of five years starting from 2005, government spending in SUCs' tertiary education had been gradually increasing by over 1.6 billion pesos in 2006-2007, more than 2.2 billion in 2007-2008, and more than 3.2 billion in 2009-2008. But decreased by 427 million pesos in 2009-2010 (Table I).

The above figure is corroborated by

Paraan (2011) who found that the overall state subsidy of SUCs in 2009 was 22,829,078,000. In 2010, it was 22,402,271,000. In the previous years the gradual increase of state subsidy and particularly during 2009 was attributed to then President Gloria Arroyo who gave support to the Engineering Research and Development for Technology (ERDT) projects in the SUCs. This present finding on the increase in state subsidy is also similar to that reported by Guillermo (1997) who found absolute increase in the budget of SUCs, albeit in that article it was to argue against rationalization of HEIs.

Banu, Kundu and Pathan (n.d.) wrote that investment in human capital through investment in tertiary education is a necessary ingredient to economic growth and development. They write that higher schooling is a crucial factor in explaining variations of salary and wages such that graduates who have acquired skills in logical and analytical reasoning, as well as technical knowledge would have better economic prospects. This study concludes the importance of investment in education specifically in the tertiary level. The authors found a positive impact of education on productivity and development.

The above implication is similar to that found in the OECD (2005) report. The OECD policy framework promotes the importance of government investment in education with other kinds of investment that include increased investment in human resource development because it attracts higher capital investment by enterprises, provided the general business climate is appropriate. Human resource development that promotes investment is interpreted as having the educational attainment, and workforce skills among others that connect people to business enterprises.

Increase in state investment in tertiary education is important for the following

reasons (Knight, 2009): costs of higher education includes the per-student costs of instruction, the institutionally borne cost of research (those not externally-funded), the capital demands and operating costs of accommodating increased enrolments, and the expenses of student maintenance which are increasing rapidly and continuously throughout the world (p.14). Hence, the increasing amount of investment in Philippine tertiary education is justified for these reasons.

There is a question of at which level should investment in education be greater. Van der Berg (2008) writes that it was previously thought that the returns to education, the quantified benefits of investing in education) were highest at primary levels. Thus the strong case for expanding investment in primary rather higher levels of education (Psacharopoulos & Patrinos, 2004, as cited by van der Berg). But he writes that new evidence seems more mixed. While some studies continue to show higher returns for primary education, there is now also much evidence that investment in education at higher levels like tertiary level may bring even higher returns. This is an indication that returns to education vary with factors such as the level of development, the supply of educated workers, and shifts in the demand for such workers in the development process. He writes that the demand for more educated labor rises as a country develops. The present researchers surmise that this justifies the increasing amount of investment in SUCs.

#### *Expense for Every Student Enrolled in SUCs*

Table I also indicates that government expense for every student enrolled in the SUCs also increased yearly, except for SY 2006-2007. The researchers' computation is based on the General Appropriations Act

(the law that approves the budget of all agencies every year) of every year divided by the enrolment of that year.

This government subsidy for every student implies lower tuition and matriculation fees that they pay (as compared to that which is paid in private HEIs). This subsidy will also take care of the physical facilities, laboratories, salaries of teaching and non teaching personnel, administrative costs, and many more.

The lack of educational resources in schools sometimes makes learning extremely difficult. Van der Berg (2008) writes about 14 SACMEQ (Southern and Eastern Africa Consortium for Monitoring Educational Quality) countries in 2001 had 10% of learners no place to sit, extreme overcrowding, inadequate teacher subject knowledge, and many more play a role in quality education. The World Bank (2004) has reported that the right combination of resources may be important. This includes good textbooks or other classroom resources. How they are combined with other resources and how they are used in the classroom may be of great importance to gain optimal benefit from them.

Literatures also show that with state subsidy of every student enrolled in tertiary education, whatever money the students or parents have can be funneled to augment the day-to-day expenses like transportation costs, boarding house costs, food, and other expenses needed to produce academic requirements (Shahar, 2008; Knight, 2009; Guillermo, 1997; Kearney & Yelland, 2010).

#### *Number of SUC Graduates from 2005-2010*

From Table I, the number of graduates kept increasing with 2,101 in 2005-2006; 7,250 in 2006-2007; 13,714 in 2007-2008; and 9,323 in 2008-2009 except in 2009-2010 with a decrease of 36,155. This

decrease is corroborated in the article of Ellao (2010) which reported that the previous Arroyo administration was criticized for providing meager budgets for SUCs, thereby forcing these higher education institutions to raise tuition and other fees, making it less accessible to poor students.

But the total number of graduates in these five years is only 939,678 compared to the total enrolment of 5,541,092 of the same time span (about 17%). Herein lays the many reports of the reasons for the disparity between enrolment and graduates. Ramota (n.d.) wrote that other SUCs “feigned” maintaining the same rates but increased miscellaneous fees like processing fees, fines for late enrolment, shifting form, verification of grades per subject, re-admission fee and change of subject or schedule. Although SUCs are mandated not to increase their tuition, poor but deserving students could no longer finish college. They drop from college and look for work instead. Drop-outs could also be for reasons of health, and migration among others.

Montalvo (2004) also reports the same findings in his study of 1995-2002 gross enrolment ratio, gross survival rate and graduation rate based on CHED records. He found that gross enrolment in higher education has continued to grow, but the survival rates and especially the graduation rates are very disappointing. Only 46% of the students graduate compounded by the fact that only 45% of those that graduate are able to pass the Professional Board Examination.

The data in Table 1 also show a big disparity in the number of graduates against labor demand. From the economists’ perspective this means that the labor market is not in equilibrium, that something prevents the quantity supplied and the quantity demanded from equating. What could be the reason for his high level

of unemployment among university graduates? Montalvo cites the study of Esguerra, Balisican, and Confesor (2000) which argued that workers with university qualifications come from families with high income and supported by foreign remittances. They can look for jobs far longer compared to those workers with low education who cannot afford not to work for a long period of time. Montalvo used a CHED tracer study where it shows that the main reason is *there is no job opening in my field of specialization* which Montalvo interpreted as voluntary unemployment. However, this is the reason also for the mismatch where studies show that there is the increasing lack of relationship between the field of study and field of work.

#### *SUCs' Graduates and Labor Demand*

Table 1 shows that the labor demand is very low compared to the number of graduates from SUCs. This finding corroborates the present problem of employment in the country. We have many graduates but we cannot provide enough jobs for them. There are other factors, for example, the mismatch between the degree programs and the available labor competencies required by industries or agencies.

Montalvo (2004) in the same study calculated the labor force survey of 2002 by comparing the distribution of occupations by college educated workers, although he pointed the weakness here because of the change in the classification of the LFS according to the International Standard Classification of Occupations. He found that the highest percentage was on legislator, senior officials and managers and followed by professionals, technicians and associated professionals. But it is also noticeable that there is a high proportion of college educated workers in clerical

occupations, sales and services as well as elementary occupations. This means that the Philippines labor market is not able to create quality jobs at the same rate at which the higher education sector produces graduates. Montalvo also interpreted this as the effect of low quality of college educated workers not being able to get a job with appropriate characteristics for their nominal level of education. He added further that another form of mismatch is the existence of many college educated who do not participate in the labor force.

Another literature points out to stark reasons for this mismatch between labor demand and graduates. Balagtas (n.d.) points to certain factors that contribute to the mismatch like issues related to education and training, hiring practices, as well as attitude of prospective workers towards jobs. HEIs are plagued with a number of problems like over-subscription of courses and under-subscription in certain priority courses, low survival rate/graduation rate, and low performance in licensure examination, exactly what Montalvo mentioned in his observations.

#### *Labor Force Participation and Government Investment*

Considering the 2600 Higher Education Institutions (HEIs) in the Philippines and the 110 SUCs and the difference of 1,000,000 labor force in 2009-2010, 5-10% of that is only 100,000 labor force coming from SUCs. This means only 100,000 workers are attributed to SUCs graduates.

Table 2 also shows that the government invested an average of 20,549 pesos for every college student. There is an average of 156,613 who graduated from SUCs in 2005-2010 multiplied by 20,549 pesos, the result is the government's investment amounting to 3,218,240,537 pesos.

Table 2

*Computation on Investment in the Tertiary Education of State Universities and Colleges*

Gov't investment/yr/hd	Graduates/yr	Labor force (SUCs)
20,549 pesos	156,613	100,000 (38,900,000-37,900,000)
5% to 10% share (2600 HEIs and 110 SUCs)		
1,000,000 x 10% = 100,000		
3,218,240,537 pesos was invested (156,613 x 20,549 pesos)		
100,000 x 20,549= 2,054,900,000 pesos (investment properly utilized)		
3,218,240,537- 2,054,900,000 = 1,163,340,537 pesos (lost investment)		

Since only 100,000 graduates joined the labor force and being invested 20,549 pesos, then the Philippine government's investment which was properly utilized amounted to 2,054,900,000 pesos. With the government's investment amounting to 3,218,240,537 pesos minus the government's investment to produce graduates who were able to join the labor force, this means that an amount of 1,163,340,537 pesos was a lost investment for the Philippine government.

The lost investment of the Philippine government in SUCs tertiary education was due to a high unemployment rate based from the data of the total number of graduates as compared to the total labor force. There may be several factors contributing to the situation. It is to be noted that the international education company Quacquarelli Symonds (2011) reported a fall of four (4) Philippine universities from the list of top tertiary educational institutions worldwide as cited by Legarda (2012). This leads us to the possibility that there was also a decline on the global competitiveness of SUCs graduates for employment. The high unemployment rate could also be attributed to recession and closure of some business establishments whereby our fresh graduates are forced to compete with the retrenched workers and employees with

experiences (Tacbas, 2009).

The lost investment (caused by survival rate up to graduation and the labor force participation) that the Philippine government expended towards tertiary education according to Balagtas (n.d.) might be due to the tendency of the industry to be selective and very particular in their hiring practices, which prevents graduates in finding better careers that pay well. Companies prefer some schools, have the preferred age, and experience. They also look for competencies and good communication skills which are absent in most graduates. Balagtas referred to a term called skill deficiency which is the result of poor school curricula.

OECD (2005) indirectly attributes one factor that causes unemployment and under-employment of college graduates. This is the workforce skills needed by businesses. But these needs change quickly and often HEIs are slow to respond (p.5).

### *Summary*

Investment in education should be looked not only on its economic returns (i.e., employment) but also on non-market outcomes of education. Schultz (2000) claimed that education also benefits society in ways that cannot be measured by

economic growth but also the way education makes better fathers, mothers, children, voters and citizens as a whole. As stressed by Ramirez (1988) development is not limited to the economic and monetary aspects alone. In addition, Egargo (2008) cites Carnoy and Samoff (1990) who claimed that education is an important part in achieving social transformation where appropriate ideas, values and world views are developed with people not only having skills but an understanding of their role in the world.

But more importantly this study has shown the importance of investing in higher education. The literature reviewed here show that investment in tertiary education is even more important than investment in primary education because it boosts productivity, competitiveness and economic growth. There is the higher education's role in development which is the provision of relevant skills to the labor market, understand and use knowledge in science and technology, generate new knowledge through research and working relationship with the productive sectors of the economy.

The result of this study found that the government had a lost investment in SUCs because the number of enrollees who were subsidized by the Philippine government decreased by the time they graduated. The number of those who became employed was even low. Undoubtedly the solutions to the present problem of mismatch between labor demand and skills of job seekers are never easy, but there has to be a sensible macroeconomic management so that new graduates can find productive work.

### *Recommendations*

The researchers recommend that (a) stronger links among SUCs, businesses, industries and other stakeholders can help

redesign course offerings according to ever-changing demands for specific skills. These linkages will upgrade education and training and help in the recognition of qualifications needed by different areas of disciplines; (b) SUCs may also try to explore ways of student financial loans on priority courses; and (c) Influence the way of thinking of students towards entrepreneurship and the concept of being self-employed instead of depending on an industry to provide them with employment.

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