THE PHILIPPINE REVIEW OF ECONOMICS
Vol. XLVIII No. 1, June 2011 pp. 147-184

What's wrong with the Philippine higher education?

Edita A. Tan
School of Economics, University of the Philippines

Philippine higher education (HE) plays an important role in the country's economy and is vital in achieving global competitiveness. Poor quality, undeveloped innovation system, and inequality of access caused the current dismal state of the HE system. This could be traceable to the populist education policy all past governments have adopted. Poor quality HE led to poor quality graduates, which lowered the productivity of the country's labor force and inhibited technological progress. The Philippines then fell behind its East Asian neighbors in economic growth and social development. The paper recommends drastic reforms of the HE subsidy system from the ad hoc and politically based allocation toward a well-planned HE development program that addresses the above problems: quality improvement, development of an innovation system and an effective scholarship system.

JEL classification: I22, I24, I28
Keywords: higher education, education, Philippines

1. Introduction

What is wrong with Philippine higher education (HE) are poor quality, undeveloped innovation system, and inequality of access. Innovation system is defined as the institutes and higher educational institutions (HEIs) that undertake research and provide advanced instruction in the sciences, mathematics, and engineering (S&T). The HE system is very large but of generally poor quality. There are now 1,741 universities/colleges that enroll about 25 percent of college-age youth. They include 1,538

private and 187 public institutions. Only a handful of these institutions are of acceptable quality. The large majority do not warrant to be called universities—that is, institutions of higher learning and knowledge centers that host a community of scholars and scientists. Few of the so-called higher education institutions or universities/colleges do research and provide advanced instruction, especially in S&T. Only three universities—the University of the Philippines (UP), Ateneo de Manila University (Ateneo), and De La Salle University (La Salle)—are on the 2010 list of the world's top-500 universities. And yet these bests have very low ranking: Ateneo, 307; UP, 314; and La Salle, 451-500. In the 2000 *Asiaweek* rating of the best Asia Pacific universities, only the three and the University of Santo Tomas (UST) were included but with ranking of 48, 71, 72, and 74, respectively, out of 77 institutions. There was no Philippine institute or university in the region's best S&T institutions because the country has not developed an innovation system. The country's comparative university rating even deteriorated between 1997 and 2000. A recent study for the World Bank [Tan 2009] found the innovation system to be underdeveloped as the country has a small number of scientists with doctoral degrees who produce relatively small research output and a small number of graduates with advanced degrees. There is no critical mass of scientists and other highly skilled S&T workers. On the other hand, access to higher education has remained unequal despite the presence of state universities and colleges (SUCs) that were established ostensibly to cater to the poor. The dismal state of HE and innovation systems has been a critical constraint on the country's national development.

Higher education plays a central role in national life and in all sectors of the economy. It produces the teachers at all education levels, the bureaucrats of all positions, the professionals in various services, and the executives and technical workers in industries. The poor quality of the country's governance may be largely explained by the poor quality of education of government officials for it is not just integrity but also competence that determines effective governance. Definitely, the quality of teachers, teaching materials, and education planning and administration depends on the quality of education the teachers and education administrators have attained. The effects of producing poor-quality HE graduates and the underdevelopment of an innovation system have lowered the productivity of the country's labor force and inhibited technological progress.

The dismal state of education, especially higher education, is traceable to the populist education policy that all the past governments have adopted, from the American colonial regime to the whole post-independence period. Policy has always aimed at meeting popular demand for education, be it primary or college. It is noted that while basic education is regarded as a human right guaranteed by the Constitution for all, HE is not. Not all are qualified to pursue higher education, and the labor market does not demand all workers to be college educated. Professional and scientific workers have comprised a small proportion of total employment in most economies, usually less than 10 percent of the employed. The Philippine government's populist policy has led to the uncontrolled growth of universities and colleges and their enrollment. One result is excess supply of HE graduates as reflected in their high unemployment rate—double digit in the last 25 years. The education authority has not imposed or implemented minimal standards and strictures on program offerings and enrollment. This has allowed and encouraged private individuals and corporations to establish universities/colleges as a business. Affordability has been the driving force for what programs to supply. Considering the low and unequal distribution of national income, most students could afford only cheap and low-quality higher education.

The government contributed to the proliferation of higher educational institutions. Congressmen could see the popularity of college education so they enacted laws for the establishment of SUCs for their respective constituency. In later years, local governments instituted their own HEIs. SUCs now number 110, and local universities and colleges (LUCs), 77. The fairly unfettered growth of universities/colleges could only be achieved at the cost of quality since resources for education, whether private or public, were limited. Both private schools and SUCs opened mainly low-cost programs. A few private HEIs catered to the more affluent students and offered high-cost higher-quality programs. Palpable examples of high-cost HEIs are Ateneo and La Salle. In the SUC system, UP has been granted more generous financial support to be the country's lead university. Majority of SUCs are of low quality. Even fewer HEIs opened S&T programs for they are more costly to operate and have faced poor market demand. The government's neglect to develop an innovation system through support for S&T research and advanced instruction resulted in poor demand for advanced S&T graduates. At this time, only the University of the Philippines is a truly comprehensive university with a wide array of program offerings.

It stands out for having a large roster of S&T faculty with doctor's degree. The three other respected universities provide graduate instruction in selected S&T fields. The three leading HEIs form a very small segment of the HE system and produce too small output of research and advanced instruction.

The above problems have definitely pulled down the rate of national development and reduced both the social and private rates of return to education. The economic cost of poor quality and lack of innovation system is reflected in the country's lack of global competitiveness (see Table 1). It is noted that despite the relatively high average years of school attainment and high college enrollment rate, the Global Economic Forum has found the country's labor quality and technological preparedness very poor as compared to its East Asian neighbors, including Indonesia and Vietnam. In 2010, the country ranks 85 out of 139 countries for overall global competitiveness. In the rating of efficiency enhancement factors, the rank for higher education and training was 73 and for innovation capacity, 111.

Poor-quality education and training have barred many in the labor force from finding employment in high value-added processes in both business process outsourcing (BPO) and semiconductor and electronics industries. Those employed in the semiconductor and electronics industry are assigned in low-skill assembly processes while those employed in the BPO sector largely provide customer or call center services, the lowest-skilled jobs in BPO. A larger supply of highly skilled labor—those with high competences in information technology (IT), engineering, accountancy, and English—would have increased the country's value added from the sectors and would have also attracted more foreign companies to locate here. Additionally, poor-quality education has lowered returns to migration. More of the migrant blue-collar workers in construction, petroleum industry, and machinery and automotive maintenance could have earned higher wages if they had been given high-tech skill training. Only a handful of technical-vocational schools offer high-tech skills. A higher-quality nursing education/training system would have prepared the nursing graduates for better foreign job opportunities. Many other cases may be cited to show the benefits the country could have gained if the quality of higher education were world class and if the innovation system had developed.

Table 1. Trend in Philippine rankings in global competitiveness factors, 2003-2010

Factor	2003	2004	2005	2006	2007	2010
Global competitiveness index rank	66	74	73	71	71	85
1. Basic requirements		82	81	84	93	99
(a) Institutions	85	75	89	88	95	125
(b) Infrastructure		87	90	88	94	104
(c) Macro-economy	60	61	58	62	77	68
(d) Health and Primary Education			77	82	86	90
2. Efficiency enhancement		64	63	63	60	78
(a) Higher education and training			61	63	62	73
(b) Market efficiency			64	57		
(b.1) Goods markat efficiency					64	97
(b.2) Labor market efficiency					100	111
(c) Technological readiness	56	63	67	61	69	95
3. Innovation factors		67	56	66	65	75
(a) Business sophistication		66	43	59	55	60
(b) Innovation		76	86	79	79	111

Source: Global Competitiveness Report, World Economic Forum.

The system of subsidizing SUC is a focal point of the paper since HE reforms would depend on the resources that have to be freed from the SUC budget to finance quality improvements, scholarship for the bright poor, and development of the innovation system. Virtually all subsidies to higher education have been allocated to the operational support for SUCs. The Commission on Higher Education (CHED) obtains minimal budget for its development program. No clear budgetary criteria have been followed in the distribution of HE budget to the 110 SUCs. The allocation to individual SUCs is not based on quality, equity, or programs. On the other hand, all SUC students are subsidized irrespective of ability, academic performance, and degree program. The paper recommends drastic reforms of the HE subsidy system from the ad hoc and politically based allocation toward a well-planned HE development program that addresses the above problems: quality improvement; development of an innovation system; and effective scholarship system, especially for the bright poor.

We take strong note of the fact that there are 1,741 HEIs, and it will not be feasible to support them all for quality and other improvements. Careful planning of improving quality and developing the innovation system in selected institutions will be needed. Initially, support for quality

improvement and developing an innovation system will have to be directed at the centers of excellence and the best of the centers of development that CHED has identified. It is suggested that CHED, the Department of Science and Technology (DOST), and the Department of Education (DepEd), together with academic leaders from the leading HEIs, be organized to develop an operational plan for achieving definite HE objectives. A critical element of the proposed reform is reallocation of resources from the SUCs as a group toward a program of quality improvement and S&T capacity development in selected HEIs, public and private. The SUCs will be required to charge full cost and let the bright poor be provided adequate financial support for studies in priority programs. This strategy would rationalize the HE subsidy system.

The following sections provide empirical details on the statements and recommendations made above. Section 2 describes the HE system. Some quality indicators are presented. It also presents major findings from studies on the innovation system. Section 3 discusses SUC program profile, quality, and financing. Section 4 concludes with policy recommendations for achieving efficiency and equity in the subsidy system.

2. The HE system

There are now 1,741 HEIs consisting of 110 SUCs, 77 LUCs, 1,538 private institutions, and 16 others (see Table 2). The nonsectarian HEIs have comprised the largest and fastest-growing group of HEIs numbering 412 in 1980 and 1,236 in 2009. The sectarian group increased much more slowly compared to the latter from 225 to 301, while SUCs increased from 48 to 110. Until 1960, UP was the only state university. President Ferdinand Marcos initiated the proliferation of SUCs. He converted into an SUC the now Don Mariano Marcos Memorial University in his province, as well as the Mindanao State University. There were 46 new SUCs in the 1960-1980 period. Another 40 were added in the next two decades.

By the mid-1990s the rationality of expanding the SUCs began to be questioned because of the observed high unemployment rate among college educated. Only four SUCs were established in 2000-2009. In fact, there was a moratorium on establishing SUCs during President Estrada's administration. Enrollment in private HEIs increased from 0.177 million in 1949-1950 to 2.651 million in 2007-2008. From the early years onward, teacher training, commerce (business management and accounting), and liberal arts have drawn the bulk of students at the undergraduate level. Engineering has also been a popular field, drawing the third-largest number of students.

Table 2. Number of HEI by sector,1990-1991 to 2008-2009

Academic year	SUC	LCU	SUC satellite campus	Others	Total public	Sectarian	Non-sectarian	Total private	Total (including SUC satellite campuses)	Total (excluding SUC satellite campuses)
1990/91	81	34	57	59	231	225	412	637	868	811
1991/92	81	34	57	58	230	224	412	636	866	809
1992/93	81	33	55	57	226	224	412	636	862	807
1993/94	85	29	55	92	261	245	522	767	1,028	973
1994/95	97	27	100	113	337	249	701	950	1,287	1,187
1995/96	97	33	99	149	378	281	738	1,019	1,397	1,298
1996/97	98	34	98	150	380	281	764	1,045	1,425	1,327
1997/98	107	38	112	115	372	286	828	1,114	1,486	1,374
1998/99	106	39	119	113	377	300	818	1,118	1,495	1,376
1999/00	107	37	159	88	391	306	866	1,172	1,563	1,404
2000/01	107	40	223	19	389	312	902	1,214	1,603	1,380
2001/02	111	42	237	17	407	320	938	1,258	1,665	1,428
2002/03	111	44	246	18	419	325	991	1,316	1,735	1,489
2003/04	111	46	249	18	424	331	1,034	1,365	1,789	1,540
2004/05	111	50	271	15	447	340	1,103	1,443	1,890	1,619
2005/06	111	65	260	15	451	358	1,134	1,492	1,943	1,683
2006/07	110	70	326	16	522	299	1,215	1,514	2,036	1,710
2007/08	110	75	333	16	534	300	1,200	1,500	2,034	1,701
2008/09	110	77	333	16	536	302	1,236	1,538	2,074	1,741

Source: Commission on Higher Education.

But there were changes in their relative importance as the mix of job opportunities changed. When demand for teachers was growing fastest while the public school system was expanding rapidly in the immediate post-World War II period, teacher training absorbed the bulk of HE students: 47.3 percent. Commerce and liberal arts then drew 14.8 percent and 16.0 percent, respectively. Engineering enrolled 8.9 percent and the medical fields 6.6 percent. As the growth in demand for teachers declined, enrollment in teacher training dropped, falling to 15.1 percent in 1960. Commerce became the more attractive field, with its share rising rapidly to 30.6 percent. Engineering's share rose to 14.5 percent. The table shows that students did shift fields depending on perceived changes in demand. In this century, nursing became a very popular field because of high expectation of foreign employment. The number of nursing licensure examinees rose from an average of about 6,000 in the 1990s to over 9,000 in 2005 to more than 50,000 in 2009. Until about 2005, the number of nurses leaving exceeded the number passing the licensure examination. This created concern about domestic shortage of nurses. Then new nursing schools opened and drew large numbers of students. The supply of licensed nurses has overshot demand.

Table 3 gives the number of graduates by field and degree level in 2003-2004. Some 316,000 graduated with the bachelor's degree, 13,843 the master's degree, and 1,522 the doctor's degree. The large majority of graduates with master's degree were in teacher training and commerce, 38.4 percent and 38.5 percent, respectively. The medical field produced 5.1 percent. The sciences had only 153 MS graduates or 0.1 percent, and mathematics and computer science 203 or 0.14 percent. A very small number completed the doctor's degree, with the great majority also in teacher training and commerce, together 79.4 percent. Very few graduated with the doctor's degree in the sciences, only 13, and in mathematics and computer science, 6. The UP College of Science, which has 144 faculty with PhD produced only eight doctor's degree holders in 2008-2009; only 150 graduated with PhD in 12 years from 1996 to 2008. The UP College of Engineering has only 49 faculty with PhD, and 68 with master's degree. Only 15 graduated with PhD in 2005-2006 to 2008-2009 [Tan 2009]. The HE system supplies itself with very small numbers of qualified S&T faculty. The scarcity of graduates in the sciences has resulted in the employment of teachers in primary and secondary schools without science credential. And there were too few experts to help write science and mathematics textbooks and other learning materials.

Table 3. Higher education graduates by discipline group, program and degree, 2003/04

Discipline group	Pre-baccalaureate	Baccalaureate	Post-baccalaureate	Master's	Doctor's	Grand total
Agricultural, forestry, fishiries, vet med.	2,390	10,269	174	258	63	13,154
Architectural and town planning	279	3,091	62	30		3,462
Business admin. and related	9,050	86,094	340	5,315	320	101,119
Education and teacher training	830	64,415	382	5,335	889	71,851
Engineering and technology	10,633	39,632	103	305	6	50,679
Fine and applied arts	568	1,076		18		1,662
General	672	2,884		51		3,607
Home economics	52	990	2	46	10	1,100
Humanities	13	4,458		119	77	4,667
Law and jurisprudence		2,670		2		2,672
Mass communication and documentation	6	4,541	41	119	5	4,712
Mathematics and computer science	9,933	25,172	53	203	6	35,367
Medical and allied	14,562	26,403	7	712	4	41,688
Natural science		4,042	1	153	13	4,209
Religion and theology	115	790		504	18	1,427
Service trades	226	2,187				2,413
Social and behavioral science	172	12,792	24	269	27	13,284
Trade, craft and industrial	2,282	1,296		1		3,579
Other disciplines	2,646	23,126	9	403	84	26,268
	54,429	315,928	1,198	13,843	1,522	386,920

Source: Commission on Higher Education.

Three sets of data are presented to indicate the quality of the country's higher education. The most commonly used gauge is performance in licensure examination. The Professional Regulation Commission (PRC) administers written licensure examinations in 42 fields. Performance is measured by passing rate or the ratio of the number of passers to the number of takers. It is generally low but varies widely across the professions and across HEIs. In several professional fields, the passing rate ranged from 100 percent for the top university to zero for some schools. To be noted is the low passing rate in popular fields such as accounting and teacher training, 18 percent and 38 percent, respectively (Table 4). Another indicator of quality is school fees, assumed to closely approximate the cost of instruction. Like the PRC passing rate, it is generally low and varies widely across the HEIs. Few private HEIs receive donations so that student fees pay for the bulk of instructional cost. In the private sector, fees could range from Php 10,000 to more than Php 100,000 per year.[1]

Possibly daunted by the challenge of raising the quality of all 1,741 HEIs, CHED decided to identify degree programs of high quality and award them the status of center of excellence (COE). The COEs are to be seen as models for the other institutions and expected to motivate them to attain the status. Few programs have achieved the COE status. The award is given to specific programs in specific HEI, say, Physics in UP. An HEI may be given one or more COE awards for different disciplines; for example, UP has several while San Carlos University has one. A team of leading faculty and professionals in a program is organized to assess the quality of faculty and facilities as well as research output and performance in the licensure examination.

A common criterion is for a program to have at least seven regular faculty with PhD. In 2000, 101 COEs were awarded. Apparently, the award has had modest success in inspiring schools to qualify for the award. Only nine were added to the list between 2000 and 2004 and another eight from 2004 to 2009 (Table 5). There are now 117 COEs. The S&T fields got 47 COE awards; teacher training had the single largest number, 18. CHED grants the status of center of development (COD) to a program that shows promise or potential of becoming COE. CHED does not report on the criteria used

[1] However, Tan [2000] found very weak or no correlation between PRC passing rate and fees across HEIs. Within a range of fees, some schools performed better than others in the PRC examination. For instance, Mapua Institute of Technology, a leading engineering school, charges much higher fees than UST but had lower passing rate in the licensure examination.

Table 4. Passing percentage in the examination by discipline, CY 1997-2001

	Discipline	CY 2001 (%)	CY 2000 (%)	CY 1999 (%)	CY 1998 (%)	CY 1997 (%)	Average (%)
1	Accountancy	18	19	19	18	18	18.40
2	Aeronautical engineering	33	28	20	25	18	24.80
3	Agricultural engineering	52	52	57	50	53	52.80
4	Architecture	36	31	39	35	35	35.20
5	Chemical engineering	41	44	43	33	36	39.40
6	Chemistry	47	44	35	39	45	42.00
7	Civil engineering	36	30	32	25	27	30.00
8	Criminology	50	45	51	41	51	47.60
9	Customs administration	9	9	9	9	11	9.40
10	Dental medicine	36	38	25	23	33	31.00
11	Electrical engineering	44	40	40	32	38	38.80
12	Electronics & communications eng'n	49	44	48	50	50	48.20
13	Environmental planning	76	67	63	68	53	65.40
14	Forestry	53	29	44	49	32	41.40
15	Geodetical engineering	41	44	41	36	33	39.00
16	Geology	91	70	75	55	69	72.00
17	Interior design	48	65	43	47	32	47.00
18	Mechanical engineering	43	47	46	38	31	41.00
19	Medicine	62	65	69	65	71	66.40
20	Metallurgical engineering	70	65	52	57	56	60.00
21	Midwifery	48	52	51	48	52	50.20
22	Mining engineering	87	77	75	67	34	68.00
23	Naval architecture	58	64	43	41	39	49.00
24	Nursing	54	50	50	56	50	52.00
25	Nutrition and dietetics	58	55	54	46	46	51.80
26	Occupational therapy	37	35	44	37	50	40.60
27	Optometry	37	15	19	27	57	31.00
28	Pharmacy	62	63	67	72	68	66.40
29	Physical therapy	24	25	24	24	30	25.40
30	Radiologic technology	42	37	31	40	37	37.40
31	Sanitary engineering	46	50	54	53	41	48.80
32	Social work	47	58	52	48	50	51.00
33	Veterinary medicine	48	47	50	51	45	48.20
	Average	47.97	45.58	44.39	42.58	42.15	44.53

Source: Commission on Higher Education.

Table 5. Number of Centers of Excellence and Centers of Development

	2000		2004		2009	
	COE	COD	COE	COD	COE	COD
Science and mathematics						
Biology	5	10	5	9	4	9
Chemistry	6	5	6	5	6	5
Physics	4	4	4	4	4	4
Mathematics	5	4	5	4	5	4
Marine science	1	5	1	6	1	6
Agriculture, fisheries & forestry	4	0	6	4	17	3
Geology	1	2	1	2	1	2
Information technology	0	21	0	23	9	24
Total	26	51	28	57	47	57
Engineering						
Chemical					1	9
Industrial/mechanical	1	13	1	12	1	18
Electrical	1	15	1	14	1	15
Civil	0	19	0	18	0	19
Geodetic	1	3	1	3	1	3
Electronics and communication	2	7	2	7	1	7
Metallurgical	1	2	1	2	1	2
Ceramics	0	4	0	2	0	2
Mining	0	2	0	2	0	2
Sanitary	0	2	0	2	0	2
Agriculture	0	0	3	1	3	1
Computer	0	1	0	5	2	5
Total	6	68	9	68	11	85
Architecture	2	3	2	3	2	2
Social sciences	9	0	9	21	9	0
Teacher training	18	3	18	3	18	3
Health fields						
Medicine	0	0	3	1	3	1
Nursing	0	0	8	0	8	0
Linguistics and philosophy					13	0
Business					0	14
Communications arts	2	0	2	0	3	0
Distance education	0	0	1	0	1	0
Information technology education	0	21	0	23	0	24
Music	2	0	2	0	2	0
Total	101	162	110	159	117	186

Source: Commission on Higher Education.

for judging potential for achieving COE status. Possibly those awarded COD status have met minimum standards. Very few CODs graduated to the COE status as seen in the small increments in the COEs. Apparently the COE criteria for IT were relaxed in 2009. There was no COE in IT before 2009 so that the big increase from 110 in 2004 to 117 in 2009 was accounted for by the dubious awards to IT. The requirement of having at least seven regular faculty with doctor's degree appears to have been abandoned.

There is a concentration of the COE award in the top-five most respected universities: UP, Ateneo, La Salle, UST, and Mindanao State University–Iligan Institute of Technology (MSU-IIT) (Table 6). Out of the reported 117 COEs, UP garnered 34, Ateneo 10, La Salle 9, UST 9, and MSU-IIT 4, a total of 61 out of 117. Of the 47 S&T COEs, the five HEIs garnered 28. The remaining COEs are very thinly spread across the remaining 1,736 HEIs. There was no COE in some critical fields such as civil engineering.

The top-five universities produce the bulk of S&T graduates. Yet their faculty and researchers with advanced degree comprise a small group (possibly less than 500), with its output of PhD graduates numbering less than 30. They are not large enough to meet the requirements of business, education, and government. UP, for instance, has only 144 faculty with doctor's degree in the sciences and 49 in engineering. Ateneo and La Salle have fewer. The scarcity of high-level S&T manpower is possibly the most critical constraint on the development of an innovation system and the improvement of the quality of S&T education as a whole. Both Posadas [2009] and Tan [2009] pointed to the dismal state of the country's innovation system: only about 0.12 percent of GDP was spent on research; there were less than 200 scientists/researchers per million; and the number of Institute for Scientific Information (ISI) publications per year was very low compared to that of Thailand, Malaysia, and Indonesia. Over the 1999-2005 period, the Philippines had 3,009 ISI–Web of Science (WoS) publications; Indonesia, 3,456; Malaysia, 8,006; and Thailand, 12,604. Vietnam, a late emerging member of the Association of Southeast Asian Nations (ASEAN), differs only slightly from the Philippines. As mentioned earlier, the best three universities had much lower rating in the top-500 universities compared to the top universities of Thailand and Malaysia. The dismal state of higher education and innovation systems calls for drastic and immediate reforms.

Table 6. Centers of Excellence in Top 5 universities

Field	Schools				
	UP Diliman	Ateneo	La Salle	UST	MSU-Iligan
Mathematics	●	●	●	●	●
Physics	●	●	●	●	●
Biology	●	●	●	●	●
Chemistry	●	●	●	●	●
Marine science	●	●			
Geology	●				
Marine sciences	●	●			
Engineering	●				
Industrial/mechanical	●				
Electrical	●				
Geodetic	●				
Chemical	●		●		
Electronic & communication			●		
Metallurgical engineering	●			●	
Architecture	●				
Political science	●				
Economics	●				
Psychology	●	●			
Sociology	●	●			
Anthropology	●				
Philosphy		●		●	
English	●	●	●		
Literature	●	●	●	●	
Journalism	●				
Filipino	●		●		
Music	●				
Total	24	11	9	7	4
Universtity of the Philippines - Los Baños					
Biology	Veterinary medicine				
Chemistry	Education				
Mathematics	Communication arts				
Agriculture, forestry					
University of the Philippines - Manila					
Medicine					
Nursing					

Source: Commission on Higher Education Statistical Bulletin, 2003.

3. The state university and college system

In the first years of the American occupation of the Philippines, the government created a massive public school system as a means of pacifying the armed resistance to its rule. To train teachers, it established six normal or teacher-training schools. The respected Philippine Normal University was established in 1907. Also established were several trade or craft vocational schools and agricultural schools. In 2008, UP was established as an institution of higher learning mandated to provide advanced instruction and undertake research. At the time, the religious schools that were established during the Spanish regime comprised the bulk of tertiary system. They were allowed to continue operating. There were no strict rules for opening private high schools and colleges. There was no government authority governing HEIs as they fell under corporate law. The demand for primary school teachers and office staff grew rapidly following the rapid expansion of the public school system and government offices. Teaching and office work became leading professions. New private universities and colleges opened to meet the growing demand for training in these professions.

Subsequent to obtaining independence from the United States, the new government and all succeeding administrations continued with the American populist policy on education. They allowed the opening of new schools with minimal control on standards, program offerings, and enrollment. Until the 1980s, there was no control on tuition levels. Schools were relatively free to provide any quality of higher education that students could afford. Currently, there are caps on tuition rate increases, although the reputedly good HEIs are given more freedom to set fee levels. CHED Chairman Emmanuel Angeles said in a forum on granting research awards in 2010 that these HEIs number only 45.

SUCs are created by law largely to enhance the political power of incumbent congressmen. President Marcos assumed legislative power during his authoritarian rule (1972-1985) and so could create SUCs at will. As chartered HEIs, SUCs possess some autonomy from CHED. They obtain their budget directly from Congress, thus their respective sponsoring congressmen could protect their parochial interest and sustain their survival. In many cases, the teacher-training and vocational schools that were established by the American government were converted into colleges or universities. These moves were made with little consideration for quality. The schools retained their old faculty and administrative staff. The sponsoring congressmen who expected to obtain relatively small budgetary allocation

for their new SUCs knew that they would not be high-quality HEIs. They knew they could not allocate the same budget being granted to UP. There was no consideration for developing S&T capacity and programs that match specific labor market demand.

As early as 1960, there was already a glut of teacher-training programs as seen in the high unemployment of teachers. Yet new SUCs opened teacher-training and commerce programs apparently because they were low cost and could attract enough students to warrant their existence. Table 7 gives a profile of SUCs in terms of program offering, budget, and quality indicators. It shows that like the private HEIs, most SUCs have concentrated their program offerings in teacher training and commerce. More SUCs than private HEIs offer agriculture since many of them originated as agricultural schools. Since they were supposed to serve the poor, they charge minimal tuition.

Currently most SUCs charge tuition of Php 100 per unit, which approximates Php 2,000 for a 20-unit semestral load or Php 4,000 per year. Cost or budget per student varies widely across SUCs so subsidy level also varies. UP has been allocated very much larger budget than all other SUCs. In 2009, its budget per capita was about Php 95,000 net of the budget for the Philippine General Hospital whereas that of Bukidnon State College was only Php 7,200. MSU-IIT, one of the top-five universities, had a per capita budget of Php 28,570. Some lesser-known SUCs had higher per student budget than MSU-IIT. In fact, the main MSU campus had Php 37,260. The table also gives some quality indicators, such as passing rate in the licensure examination, COE award, education of faculty, and budget for research. Very few had been awarded COE status, and the passing rates in licensure examinations are not significantly higher than that of an average private HEI. The table shows wide variation in all the variables, reflecting doubtful rationality in establishing and subsidizing SUCs.

Politicians rationalize the establishment of and support for SUCs as a means of providing higher education to the poor. Data do not support this contention. The inequality of access to education in early childhood inevitably carries through to all succeeding higher education levels. There is significant dropout rate even at the primary level starting at Grade 2, rising to about 30 percent at Grade 6. A child from a very poor family who drops out at any level before completing high school is barred from higher education, whether public or private. And those who complete the secondary level in a poor-quality high school and live in a deprived home/social environment would have little chance of passing the admission tests in high-quality HEIs like UP and Ateneo.

Table 7. Cost and quality profile of SUCs, 2008

	Region	SUC	LET pass % 3 years	Other fields pass rate (%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	Budget per enrollment	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
1	1	DON MARIANO MARCOS MEM ST UNIV	39	50	42	23	-	-	33.68	100.00	11.30
2	1	ILOCOS SUR POLY ST COLL	33	13	30	11	-	-	38.56	50.00	-
3	1	MARIANO MARCOS ST UNIV	48	61	42	18	2	2	28.48	100.00	10.60
4	1	PANGASINAN ST UNIV	33	35	35	22	1	-	18.54	100.00	8.10
5	1	UNIV OF NORTHERN PHIL	4138	27	12	-	-	16.30	100.00	1.90	
6	2	BATANES ST COLL	13	50	27	-	-	-	33.43	75.00	-
7	2	CAGAYAN ST UNIV	27	47	47	19	1	5	14.85	75.00	1.30
8	2	ISABELA ST UNIV	18	36	38	16	1	-	13.95	100.00	2.40
9	2	NUEVA VISCAYA ST UNIV	41	37	43	26	-	-	24.82	100.00	-
10	2	QURINO ST COLEGE	20	11	42	14	-	-	27.54	65.00	5.80
11	3	AURORA ST COLL OF TECH	50	35	34	10	-	-	23.25	60.00	0.20
12	3	BATAAN PEN ST UNIV	31	47	32	6	-	-	11.12	200.00	2.30
13	3	BULACAN AGRIC ST COLL	26	62	38	17	-	-	25.68	110.00	5.40
14	3	BULACAN ST UNIV	40	47	36	9	-	2	9.23	200.00	1.10
15	3	CENTRAL LUZON ST UNIV	57	51	37	28	2	3	30.11	100.00	8.40
16	3	DON H VENTURA COLL OF ARTS AND TRADES	2039	33	9	-	-	17.84	110.00	2.50	
17	3	NUEVA ECIJA UNIV OF SCI AND TECH	13	29	39	9	-	-	13.25	120.00	1.40
18	3	PAMPANGA AGRIC COLL	40	42	56	16	-	-	33.50	100.00	3.50
19	3	PHIL MERCHANT MARINE ACADEMY	-	78	-	-	-	-	81.55	-	1.10
20	3	RAMON MAGSAYSAY TECH UNIV	24	36	-	-	-	-	11.22	120.00	2.70
21	3	TARLAC COLL OF AGRIC	43	36	-	-	-	-	46.80	137.50	3.30
22	3	38 TARRLAC ST UNIV	26	38	35	13	-	1	8.55	80/120	1.20

Table 7. (Continued) Cost and quality profile of SUCs, 2008

	Region	SUC	LET pass % 3 years	Other fields pass rate (%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	Budget per enrollment	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
23	4-A	BATANGAS ST UNIV	36	58	28	7	-	1	14.63	250.00	2.00
24	4-A	CAVITE ST UNIV	24	44	24	9	-	2	12.12	225.00	4.00
25	4-A	LAGUNA ST POLY COLL	23	21	29	8	-	-	10.94	100.00	0.90
26	4-A	SOUTHERN LUZON POLY COLL	41	60	31	7	-	-	10.82	175.00	3.00
27	4-A	UNIV OF RIZAL SYSTEM	21	36	26	10	-	1	11.91	50/100	-
28	4-B	MARINDUQUE ST COLL	24	39	36	4	-	-	20.67	116.50	0.70
29	4-B	MINDORO ST COLL OF AGRIC AND TECH	25	49	17	7	-	-	20.88	100.00	1.30
30	4-B	OCC MINDORO NATL COLL	19	31	38	5	-	-	12.72	100.00	1.00
31	4-B	PALAWAN ST UNIV	34	56	34	6	1	-	8.97	200.00	0.40
32	4-B	ROMBLON ST COLL	20	18	-	-	-	-	16.64	100.00	-
33	4-B	WESTERN PHILIPPINES UNIV (Formerly SPCP)	46	38	-	-	1	-	14.03	150.00	4.50
34	5	BICOL UNIV	44	50	26	18	2	-	31.38	175.00	1.00
35	5	CAMARINES NORTE ST COLL	25	49	47	12	-	-	20.73	125.00	1.40
36	5	CAMARINES SUR POLY COLL	38	53	46	10	-	-	15.47	150.00	1.10
37	5	CAMARINES SUR ST AGRIC COLL	33	32	39	13	-	-	31.81	100.00	1.60
38	5	CATANDUANES ST COLL	24	44	41	13	-	-	24.96	100.00	1.30
39	5	DR. EMILIO B. ESPINOSA, SR. MEM ST COLL OF AGRIC AND TECH	13	8	31	11	-	-	27.03	100.00	1.20
40	5	PARTIDO ST UNIV	17	24	42	14	-	-	26.97	175.00	1.00
41	5	SORSOGON ST COLL	36	36	33	13	-	-	13.36	150.00	1.40
42	6	AKLAN ST UNIV	25	26	40	7	-	-	19.49	120.00	5.40
43	6	CARLOS HILADO MEM ST COLL	41	23	32	7	-	-	12.75	150.00	6.80
44	6	CAPIZ ST UNIV (Formerly PSPC)	18	30	38	15	-	1	21.05	140.00	1.10
45	6	GUIMARAS ST COLL	32	0	52	11	-	-	18.20	nd	-

Table 7. (Continued) Cost and quality profile of SUCs, 2008

	Region	SUC	LET pass % 3 years	Other fields pass rate (%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	Budget per enrollment	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
46	6	ILOILO ST COLL OF FISHERIES	21	43	45	4	-	-	29.33	nds	1.00
47	6	NEGROS ST COLL OF AGRIC	25	21	20	5	-	-	11.04	120.00	1.70
48	6	NORTHERN ILOILO POLY ST COLL	20	52	28	7	-	-	22.35	100.00	1.20
49	6	NORTHERN NEGROS ST COLL OF SCI AND TECH	10	21	-	-	-	-	14.00	110.00	-
50	6	POLY ST COLL OF ANTIQUE	46	38	13	6	-	-	13.08	nds	1.10
51	6	W VIS COLL OF SCI AND TECH	38	44	35	7	-	-	15.90	150.00	0.60
52	6	WEST VIS ST UNIV	49	72	30	9	1	-	22.73	150.00	0.90
53	7	CEBU NORMAL UNIV	65	93	45	34	-	-	11.75	75.00	2.00
54	7	CEBU ST COLL OF SCI AND TECH	26	48	48	13	-	-	20.99	150.00	2.20
55	7	CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH	43	59	27	12	-	-	12.37	140.00	-
56	7	NEGROS ORIENTAL ST UNIV (Formerly CVPC)	21	44	-	-	-	-	6.20	nds	1.60
57	7	SIQUIJOR ST COLL	31	31	-	-	-	-	21.15	nds	6.30
58	8	EASTERN SAMAR ST UNIV	23	25	27	15	-	-	23.63	nds	0.60
59	8	EASTERN VISAYAS ST UNIV	16	33	36	15	-	1	12.78	-	1.70
60	8	LEYTE NORMAL UNIV	36	46	65	16	1	-	12.48	150.00	2.30
61	8	VISAYAS STATE UNIV. (LEYTE ST UNIV)	39	46	36	11	3	-	43.76	120.00	12.80
62	8	NAVAL INST OF TECH	15	41	25	15	-	-	11.91	nds	1.60
63	8	PALOMPON INST OF TECH	20	58	33	11	-	-	23.92	150.00	1.40
64	8	SAMAR ST COLL OF AGRIC AND FOR	9	19	35	11	-	-	37.49	nds	-
65	8	SAMAR ST UNIV	18	51	8	3	-	1	24.21	nds	1.40
66	8	SOUTHERN LEYTE ST UNIV	26	52	31	6	-	-	17.04	150.00	0.40
67	8	T TANCINCO MEM INST OF SCI AND TECH	22	34	26	16	-	-	10.59	120.00	1.90
68	8	UNIV OF EASTERN PHIL	17	37	26	16	-	-	19.84	nds	3.90

Table 7. (Continued) Cost and quality profile of SUCs, 2008

	Region	SUC	LET pass % 3 years	Other fields pass rate (%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	Budget per enrollment	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
69	9	BASILAN ST COLL	7	13	-	-	-	-	11.30	200.00	0.10
70	9	J. H. CERILLES ST COLL	13	6	-	-	-	-	18.85	60.00	-
71	9	JOSE RIZAL MEM ST COLL	19	41	39	9	-	-	16.12	173.00	2.90
72	9	MINDANAO ST UNIV - TCTO	8	0	55	7	-	-	93.38	nds	2.00
73	9	SULU ST COLL	1	0	-	-	-	-	-	nds	0.10
74	9	TAWI-TAWI REGIONAL AGRIC COLL	1	0	-	-	-	-	-	nds	-
75	9	W MINDANAO ST UNIV	33	49	29	7	1	1	19.39	30.00	1.70
76	9	ZAMBO CITY ST POLY COLL	7	34	12	2	-	-	-	-	4.20
77	9	ZAMBO ST COLL OF MARINE SCIS AND TECH	12	40	51	7	1	1	30.33	50.00	1.30
78	10	BUKIDNON ST COLL	26	31	27	2	-	-	7.20	225.00	0.80
79	10	CAMIGUIN POLY ST COLL	19	27	33	6	-	-	-	550/sem	-
80	10	CENTRAL MINDANAO UNIV	54	55	48	17	2	1	34.79	90.00	4.20
81	10	MINDANAO POLY ST COLL	31	67	32	11	-	1	-	325.00	2.10
82	10	MSU - IIT	61	64	50	19	4	7	28.57	-	4.90
83	10	MISAMIS OR ST COLL OF AGRIC AND TECH	22	29	52	6	-	-	27.75	150.00	0.70
84	10	NW MINDANAO ST COLL OF SCI AND TECH	52	0	24	5	-	-	19.64	112.00	0.30
85	11	DAVAO DEL NORTE ST COLL	38	0	46	12	-	-	-	40.00	0.20
86	11	DAVAO OR ST COLL OF SCI AND TECH	54	38	-	-	-	-	19.89	74.00	2.00
87	11	SOUTHERN PHIL AGRI-BUSINESS, MARINE AND AQUATIC SCHOOL OF TECH	16	20	43	12	-	-	-	90.00	0.60
88	11	UNIV OF SOUTHEASTERN PHIL	46	57	55	19	-	2	13.84	nds	0.90
89	12	ADIONG MEM POLY ST COLL	5	0	10	-	-	-	nds	-	
90	12	COTABATO CITY ST POLY COLL	5	21	42	-	-	-	20.73	nds	0.80

Table 7. (Continued) Cost and quality profile of SUCs, 2008

	Region	SUC	LET pass % 3 years	Other fields pass rate(%)	% Faculty with MS	% Faculty with PhD	No. of programs as COE	No. of programs as COD	Budget per enrollment	Tuition fee per unit (BS/AB)	Research/ Total expenditure (%) 2008
91	12	COTABATO FOUNDN COLL OF SCI AND TECH	16	8	32	17	-	-	100	-	
92	12	MINDANAO ST UNIV - MAIN	22	59	49	11	2	2	37.26	3.00	
93	12	SULTAN KUDARAT POLY ST COLL	26	33	41	10	-	-	31.30	150.00	2.80
94	12	UNIV OF SOUTHERN MINDANAO	25	38	31	18	1	-	20.46	125.00	5.20
95	CAR	ABRA ST INST OF SCI AND TECH	14	20	29	8	-	-	26.97	nds	6.20
96	CAR	APAYAO ST COLL	12	35	9	-	-	13.90	nds	0.60	
97	CAR	BENGUET ST UNIV	49	43	45	27	1	-	28.76	100.00	11.90
98	CAR	IFUGAO ST COLL OF AGRIC AND FOR	27	30	43	17	-	-	29.16	60.00	2.80
99	CAR	KALINGA APAYAO ST COLL	18	16	41	16	-	-	17.78	nds	3.10
100	CAR	MT PROVINCE ST POLY COLL	24	39	36	14	-	-	10.57	60.00	4.50
101	CARAGA	AGUSAN DEL SUR ST COLL OF AGRIC AND TECH	20	22	-	-	-	-	21.86	100.00	-
102	CARAGA	NORTHERN MINDANAO ST INST OF SCI AND TECH	25	41	40	14	-	-	14.71	150.00	2.00
103	CARAGA	SURIGAO DEL SUR POLY ST COLL	17	25-	-	-	-	14.64	130.00	0.00	
104	CARAGA	SURIGAO ST COLL OF TECH	12	20-	-	-	-	15.17	100.00	-	
105	NCR	EULOGIO "AMANG"RODRIGUEZ INST OF SCI AND TECH	21	16	34	15	-	-	9.90	100.00	1.70
106	NCR	MARIKINA POLY COLL	14	0	65	6	-	-	50.21	100.00	2.00
107	NCR	PHIL NORMAL UNIV	69	49	56	34	2	-	22.88	35.00	2.60
108	NCR	PHIL ST COLL OF AERONAUTICS	16	47	57	13	-	-	12.15	200.00	0.60
109	NCR	POLY UNIV OF THE PHIL	44	36	39	11	-	1	10.86	12.00	1.80
110	NCR	RIZAL TECH UNIV	26	30	-	-	-	-	9.56	200.00	3.00
111	NCR	TECH UNIV OF THE PHIL	34	56	28	10	-	3	17.66	50.00	8.80
112	NCR	UNIV OF THE PHIL SYSTEM	97	88	-	-	-	-	113.06	1,000.00	43.00
		TOTAL	32								

Table 8. SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

	Region	SUC	MS enrollment 2008-09	PhD enrollment 2008-09	Senior research staff	Faculty BS holders	Faculty MS holders	Faculty PhD holders	National research centers	CHED centers of excell	CHED centers of devt
1	1	DON MARIANO MARCOS MEM ST UNIV	197	44	48	199	246	135	2	-	-
2	1	ILOCOS SUR POLY ST COLL	85	-	-	111	57	20	-	-	-
3	1	MARIANO MARCOS ST UNIV	393	26	16	177	181	76	-	2	2
4	1	PANGASINAN ST UNIV	2,587	215	29	187	150	95	-	1	-
5	1	UNIV OF NORTHERN PHIL	507	95	7	343	153	67	-	-	-
6	2	BATANES ST COLL	-	-	-	33	12	0	-	-	-
7	2	CAGAYAN ST UNIV	285	101	3	237	321	129	-	1	5
8	2	ISABELA ST UNIV	209	26	27	361	298	121	-	1	-
9	2	NUEVA VISCAYA ST UNIV	248	41	15	109	148	90	-	-	-
10	2	QURINO ST COLEGE	53	-	4	35	33	11	-	-	-
11	3	AURORA ST COLL OF TECH	118	-	-	38	23	7	-	-	-
12	3	BATAAN PEN ST UNIV	348	18	3	308	157	33	-	-	-
13	3	BULACAN AGRIC ST COLL	36	4	-	46	40	18	-	-	-
14	3	BULACAN ST UNIV	655	52	5	419	282	72	-	-	2
15	3	CENTRAL LUZON ST UNIV	199	67	25	128	132	100	-	2	3
16	3	DON H VENTURA COLL OF ARTS AND TRADES	60	2	2	114	65	18	-	-	-
17	3	NUEVA ECIJA UNIV OF SCI AND TECH	174	55	9	211	161	38	-	-	-
18	3	PAMPANGA AGRIC COLL	89	22	8	46	92	26	-	-	-
19	3	PHIL MERCHANT MARINE ACADEMY	-	-	3	0	0	0	-	-	-
20	3	RAMON MAGSAYSAY TECH UNIV	-	-	9	0	0	0	-	-	-
21	3	TARLAC COLL OF AGRIC	121	30	9	0	0	0	-	-	-
22	3	TARLAC ST UNIV	410	73	7	180	122	44	-	-	1
23	4-A	BATANGAS ST UNIV	185	24	9	409	178	44	-	-	1
24	4-A	CAVITE ST UNIV	157	30	1	423	151	55	-	-	2

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

	Region	SUC	MS enrollment 2008-09	PhD enrollment 2008-09	Senior research staff	Faculty BS holders	Faculty MS holders	Faculty PhD holders	National research centers	CHED centers of excell	CHED centers of devt
25	4-A	LAGUNA ST POLY COLL	403	41	5	274	127	37	-	-	-
26	4-A	SOUTHERN LUZON POLY COLL	232	22	11	282	143	32	-	-	-
27	4-A	UNIV OF RIZAL SYSTEM	489	33	3	420	173	63	-	-	1
28	4-B	MARINDUQUE ST COLL	92	-	-	98	59	6	-	-	-
29	4-B	MINDORO ST COLL OF AGRIC AND TECH	175	-	-	127	29	11	-	-	-
30	4-B	OCC MINDORO NATL COLL	115	-	-	128	85	11	-	-	-
31	4-B	PALAWAN ST UNIV	169	12	6	289	160	27	-	1	-
32	4-B	ROMBLON ST COLL	74	-	-	0	0	0	-	-	-
33	4-B	WESTERN PHILIPPINES UNIV (Formerly SPCP)	144	9	8				-	1	-
34	5	BICOL UNIV	841	160	12	355	165	117	-	2	-
35	5	CAMARINES NORTE ST COLL	89	-	-	91	107	28	-	-	-
36	5	CAMARINES SUR POLY COLL	187	-	-	117	122	27	-	-	-
37	5	CAMARINES SUR ST AGRIC COLL	140	29	15	145	121	41	-	-	-
38	5	CATANDUANES ST COLL	143	24	6	121	110	35	-	-	-
39	5	DR. EMILIO B. ESPINOSA, SR. MEM ST COLL OF AGRIC AND TECH	50	11	-	44	23	8	-	-	-
40	5	PARTIDO ST UNIV	65	7	-	117	110	37	-	-	-
41	5	SORSOGON ST COLL	188	-	5	126	76	31	-	-	-
42	6	AKLAN ST UNIV	119	9	11	195	148	25	-	-	-
43	6	CARLOS HILADO MEM ST COLL	299	47	3	185	96	22	-	-	-
44	6	CAPIZ ST UNIV (Formerly PSPC)	300	234	5	158	128	49	-	-	1
45	6	GUIMARAS ST COLL	74	9	-	24	33	7	-	-	-
46	6	ILOILO ST COLL OF FISHERIES	56	52	1	72	64	6	-	-	-
47	6	NEGROS ST COLL OF AGRIC	263	38	-	98	26	6	-	-	-

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

	Region	SUC	MS enrollment 2008-09	PhD enrollment 2008-09	Senior research staff	Faculty BS holders	Faculty MS holders	Faculty PhD holders	National research centers	CHED centers of excell	CHED centers of devt
48	6	NORTHERN ILOILO POLY ST COLL	-	-	-	238	103	27	-	-	-
49	6	NORTHERN NEGROS ST COLL OF SCI AND TECH	214	30	-	0	0	0	-	-	-
50	6	POLY ST COLL OF ANTIQUE	74	32	7	217	35	17	-	-	-
51	6	W VIS COLL OF SCI AND TECH	123	43	19	244	146	29	-	-	-
52	6	WEST VIS ST UNIV	927	191	11	437	216	63	-	1	-
53	7	CEBU NORMAL UNIV	1,713	123	-	50	102	77	-	-	-
54	7	CEBU ST COLL OF SCI AND TECH	67	9	4	46	57	16	-	-	-
55	7	CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH	122	12	-	187	82	38	-	-	-
56	7	NEGROS ORIENTAL ST UNIV (Formerly CVPC)	308	32	2	0	0	0	-	-	-
57	7	SIQUIJOR ST COLL	36	-	1	0	0	0	-	-	-
58	8	EASTERN SAMAR ST UNIV	40	-	-	222	103	56	-	-	-
59	8	EASTERN VISAYAS ST UNIV	337	82	8	192	139	57	-	-	1
60	8	LEYTE NORMAL UNIV	317	69	4	38	129	32	-	1	-
61	8	VISAYAS STATE UNIV. (LEYTE ST UNIV)	125	19	39	89	60	18	3	3	-
62	8	NAVAL INST OF TECH	209	25	-	139	58	35	-	-	-
63	8	PALOMPON INST OF TECH	224	40	2	85	51	17	-	-	-
64	8	SAMAR ST COLL OF AGRIC AND FOR	-	-	-	20	13	4	-	-	-
65	8	SAMAR ST UNIV	220	28	-	180	17	7	-	-	1
66	8	SOUTHERN LEYTE ST UNIV	-	-	-	61	30	6	-	-	-
67	8	T TANCINCO MEM INST OF SCI AND TECH	109	31	2	91	40	25	-	-	-
68	8	UNIV OF EASTERN PHIL	315	23	8	212	93	57	-	-	-
69	9	BASILAN ST COLL	84	6	-	0	0	0	-	-	-
70	9	J. H. CERILLES ST COLL	-	-	-	0	0	0	-	-	-
71	9	JOSE RIZAL MEM ST COLL	-	-	-	92	67	15	-	-	-

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

	Region	SUC	MS enrollment 2008-09	PhD enrollment 2008-09	Senior research staff	Faculty BS holders	Faculty MS holders	Faculty PhD holders	National research centers	CHED centers of excell	CHED centers of devt
72	9	MINDANAO ST UNIV - TCTO	158	-	2	56	82	10	-	-	-
73	9	SULU ST COLL	111	45	-	0	0	0	-	-	-
74	9	TAWI-TAWI REGIONAL AGRIC COLL	32	12	-	0	0	0	-	-	-
75	9	W MINDANAO ST UNIV	609	40	1	622	279	67	-	1	1
76	9	ZAMBO CITY ST POLY COLL	-	-	-	103	14	2	-	-	-
77	9	ZAMBO ST COLL OF MARINE SCIS AND TECH	66	-	-	41	50	7	-	1	1
78	10	BUKIDNON ST COLL	238	4	4	146	66	29	-	-	-
79	10	CAMIGUIN POLY ST COLL	34	-	-	67	36	7	-	-	-
80	10	CENTRAL MINDANAO UNIV	169	78	7	106	146	51	-	2	1
81	10	MINDANAO POLY ST COLL	423	65	1	217	122	42	-	-	1
82	10	MSU - IIT	419	104	23	150	249	95	-	4	7
83	10	MISAMIS OR ST COLL OF AGRIC AND TECH	7	-	1	32	40	5	-	-	-
84	10	NW MINDANAO ST COLL OF SCI AND TECH	-	-	-	27	9	2	-	-	-
85	11	DAVAO DEL NORTE ST COLL	59	28	-	34	38	10	-	-	-
86	11	DAVAO OR ST COLL OF SCI AND TECH	45	-	-	0	0	0	-	-	-
87	11	SOUTHERN PHIL AGRI-BUSINESS, MARINE AND AQUATIC SCHOOL OF TECH	108	-	5	39	39	11	-	-	-
88	11	UNIV OF SOUTHEASTERN PHIL	1,237	166	11	107	230	79	-	-	2
89	12	ADIONG MEM POLY ST COLL	28	-	-	18	2	0	-	-	-
90	12	COTABATO CITY ST POLY COLL	-	-	-	115	84	0	-	-	-
91	12	COTABATO FOUNDN COLL OF SCI AND TECH	22	-	-	34	21	11	-	-	-
92	12	MINDANAO ST UNIV - MAIN	248	11	58	115	141	32	-	2	2
93	12	SULTAN KUDARAT POLY ST COLL	-	-	-	72	61	15	-	-	-
94	12	UNIV OF SOUTHERN MINDANAO	181	57	20	292	181	103	2	1	-

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 1)

	Region	SUC	MS enrollment 2008-09	PhD enrollment 2008-09	Senior research staff	Faculty BS holders	Faculty MS holders	Faculty PhD holders	National research centers	CHED centers of excell	CHED centers of devt
95	CAR	ABRA ST INST OF SCI AND TECH	52	-	9	108	49	13	-	-	-
96	CAR	APAYAO ST COLL	-	-	-	44	27	7	-	-	-
97	CAR	BENGUET ST UNIV	454	67	25	107	173	101	2	1	-
98	CAR	IFUGAO ST COLL OF AGRIC AND FOR	754	101	-	89	97	39	-	-	-
99	CAR	KALINGA APAYAO ST COLL	170	24	-	70	66	25	-	-	-
100	CAR	MT PROVINCE ST POLY COLL	128	11	1	97	69	26	-	-	-
101	CARAGA	AGUSAN DEL SUR ST COLL OF AGRIC AND TECH	-	-	-	0	0	0	-	-	-
102	CARAGA	NORTHERN MINDANAO ST INST OF SCI AND TECH	44	1	72	99	84	29	-	-	-
103	CARAGA	SURIGAO DEL SUR POLY ST COLL	91	-	-	0	0	0	-	-	-
104	CARAGA	SURIGAO ST COLL OF TECH	-	-	-	0	0	0	-	-	-
105	NCR	EULOGIO "AMANG" RODRIGUEZ INST OF SCI AND TECH	588	121	5	141	94	40	-	-	-
106	NCR	MARIKINA POLY COLL	148	-	7	30	68	6	-	-	-
107	NCR	PHIL NORMAL UNIV	2,567	239	51	34	191	116	-	2	-
108	NCR	PHIL ST COLL OF AERONAUTICS	62	22	-	48	90	20	-	-	-
109	NCR	POLY UNIV OF THE PHIL	2,210	179	12	798	609	168	-	-	1
110	NCR	RIZAL TECH UNIV	370	38	12	0	0	0	-	-	-
111	NCR	TECH UNIV OF THE PHIL	652	168	28	362	165	59	-	-	3
112	NCR	UNIV OF THE PHIL SYSTEM	-	-	-	0	0	0	-	-	-
		TOTAL	29,871	4,038	792	14,840	10,320	3,648	9	30	39
			29,871	4,038	792	14,840	10,320	3,648			

Table 8. SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

	Region	SUC	MS theses completed 2002-03	PhD disserations completed 2002-03	Research total points	% Share of research points	Share of research MOOE for 2005	% Share of 2004 MOOE without FAPS/HOSPS
1	1	DON MARIANO MARCOS MEM ST UNIV	40	9	1,222	2.61%	8,597	1.86%
2	1	ILOCOS SUR POLY ST COLL	7	-	175	0.37%	1,228	0.37%
3	1	MARIANO MARCOS ST UNIV	31	4	1,242	2.65%	8,734	2.17%
4	1	PANGASINAN ST UNIV	41	6	962	2.05%	6,770	1.56%
5	1	UNIV OF NORTHERN PHIL	63	46	677	1.44%	4,762	1.21%
6	2	BATANES ST COLL	-	-	18	0.04%	127	0.09%
7	2	CAGAYAN ST UNIV	98	29	1,869	3.99%	13,145	2.23%
8	2	ISABELA ST UNIV	42	5	1,217	2.60%	8,557	2.21%
9	2	NUEVA VISCAYA ST UNIV	27	9	650	1.39%	4,574	0.97%
10	2	QURINO ST COLEGE	5	-	104	0.22%	730	0.24%
11	3	AURORA ST COLL OF TECH	17	-	82	0.18%	580	0.25%
12	3	BATAAN PEN ST UNIV	33	1	415	0.89%	2,920	0.91%
13	3	BULACAN AGRIC ST COLL	8	-	141	0.30%	993	0.18%
14	3	BULACAN ST UNIV	38	7	987	2.11%	6,943	1.65%
15	3	CENTRAL LUZON ST UNIV	33	15	1,394	2.98%	9,808	1.52%
16	3	DON H VENTURA COLL OF ARTS AND TRADES	12	1	187	0.40%	1,316	0.43%
17	3	NUEVA ECIJA UNIV OF SCI AND TECH	9	27	473	1.01%	3,324	1.11%
18	3	PAMPANGA AGRIC COLL	31	6	296	0.63%	2,084	0.43%
19	3	PHIL MERCHANT MARINE ACADEMY	-	-	-	0.00%	-	0.00%
20	3	RAMON MAGSAYSAY TECH UNIV	23	2	36	0.08%	253	0.74%
21	3	TARLAC COLL OF AGRIC	10	2	28	0.06%	194	0.43%
22	3	TARLAC ST UNIV	35	2	519	1.11%	3,650	0.92%
23	4-A	BATANGAS ST UNIV	3	4	569	1.21%	4,001	2.65%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

	Region	SUC	MS theses completed 2002-03	PhD disserations completed 2002-03	Research total points	% Share of research points	Share of research MOOE for 2005	% Share of 2004 MOOE without FAPS/HOSPS
24	4-A	CAVITE ST UNIV	6	6	671	1.43%	4,719	1.38%
25	4-A	LAGUNA ST POLY COLL	42	-	398	0.85%	2,797	1.23%
26	4-A	SOUTHERN LUZON POLY COLL	65	1	427	0.91%	3,006	1.60%
27	4-A	UNIV OF RIZAL SYSTEM	45	11	695	1.48%	4,891	1.75%
28	4-B	MARINDUQUE ST COLL	9	-	124	0.26%	871	0.41%
29	4-B	MINDORO ST COLL OF AGRIC AND TECH	8	-	100	0.21%	703	0.30%
30	4-B	OCC MINDORO NATL COLL	5	-	179	0.38%	1,262	0.51%
31	4-B	PALAWAN ST UNIV	20	-	579	1.24%	4,072	1.26%
32	4-B	ROMBLON ST COLL	17	-	19	0.04%	133	0.45%
33	4-B	WESTERN PHILIPPINES UNIV (Formerly SPCP)	9	-	221	0.47%	1,555	0.52%
34	5	BICOL UNIV	54	16	1,243	2.65%	8,740	2.98%
35	5	CAMARINES NORTE ST COLL	9	-	284	0.61%	1,996	0.48%
36	5	CAMARINES SUR POLY COLL	38	-	334	0.71%	2,347	1.15%
37	5	CAMARINES SUR ST AGRIC COLL	27	2	396	0.85%	2,789	0.85%
38	5	CATANDUANES ST COLL	17	1	335	0.71%	2,355	0.89%
39	5	DR. EMILIO B. ESPINOSA, SR. MEM ST COLL OF AGRIC AND TECH	10	-	78	0.17%	551	0.28%
40	5	PARTIDO ST UNIV	12	-	327	0.70%	2,300	0.47%
41	5	SORSOGON ST COLL	33	-	281	0.60%	1,975	0.71%
42	6	AKLAN ST UNIV	18	3	360	0.77%	2,535	0.81%
43	6	CARLOS HILADO MEM ST COLL	2	-	247	0.53%	1,736	0.52%
44	6	CAPIZ ST UNIV (Formerly PSPC)	65	18	613	1.31%	4,313	1.24%
45	6	GUIMARAS ST COLL	11	7	105	0.22%	737	0.10%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

	Region	SUC	MS theses completed 2002-03	PhD disserations completed 2002-03	Research total points	% Share of research points	Share of research MOOE for 2005	% Share of 2004 MOOE without FAPS/HOSPS
46	6	ILOILO ST COLL OF FISHERIES	5	-	130	0.28%	914	0.46%
47	6	NEGROS ST COLL OF AGRIC	8	-	79	0.17%	559	0.35%
48	6	NORTHERN ILOILO POLY ST COLL	51	-	314	0.67%	2,205	0.62%
49	6	NORTHERN NEGROS ST COLL OF SCI AND TECH	2	3	15	0.03%	104	0.18%
50	6	POLY ST COLL OF ANTIQUE	10	3	147	0.31%	1,034	0.57%
51	6	W VIS COLL OF SCI AND TECH	23	6	394	0.84%	2,773	1.18%
52	6	WEST VIS ST UNIV	95	9	933	1.99%	6,561	2.07%
53	7	CEBU NORMAL UNIV	128	20	678	1.45%	4,769	1.68%
54	7	CEBU ST COLL OF SCI AND TECH	3	-	159	0.34%	1,116	1.57%
55	7	CENTRAL VIS ST COLL OF AGRIC, FOR AND TECH	2	1	283	0.60%	1,988	1.10%
56	7	NEGROS ORIENTAL ST UNIV (Formerly CVPC)	1	1	14	0.03%	101	1.94%
57	7	SIQUIJOR ST COLL	4	-	6	0.01%	42	0.18%
58	8	EASTERN SAMAR ST UNIV	14	-	394	0.84%	2,768	0.51%
59	8	EASTERN VISAYAS ST UNIV	31	8	604	1.29%	4,249	1.06%
60	8	LEYTE NORMAL UNIV	60	6	609	1.30%	4,283	0.96%
61	8	VISAYAS STATE UNIV. (LEYTE ST UNIV)	13	2	1,122	2.40%	7,893	1.13%
62	8	NAVAL INST OF TECH	37	14	298	0.64%	2,100	0.46%
63	8	PALOMPON INST OF TECH	20	3	180	0.38%	1,267	0.29%
64	8	SAMAR ST COLL OF AGRIC AND FOR	-	-	36	0.08%	250	0.09%
65	8	SAMAR ST UNIV	19	1	181	0.39%	1,276	0.56%
66	8	SOUTHERN LEYTE ST UNIV	-	-	69	0.15%	485	0.62%
67	8	T TANCINCO MEM INST OF SCI AND TECH	6	4	180	0.38%	1,268	0.47%
68	8	UNIV OF EASTERN PHIL	38	-	423	0.90%	2,972	0.64%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

	Region	SUC	MS theses completed 2002-03	PhD disserations completed 2002-03	Research total points	% Share of research points	Share of research MOOE for 2005	% Share of 2004 MOOE without FAPS/HOSPS
69	9	BASILAN ST COLL	13	2	19	0.04%	136	0.24%
70	9	J. H. CERILLES ST COLL	-	-	-	0.00%	-	0.23%
71	9	JOSE RIZAL MEM ST COLL	-	-	161	0.34%	1,129	0.66%
72	9	MINDANAO ST UNIV - TCTO	32	-	201	0.43%	1,414	0.52%
73	9	SULU ST COLL	-	-	5	0.01%	35	0.15%
74	9	TAWI-TAWI REGIONAL AGRIC COLL	25	-	26	0.06%	186	0.23%
75	9	W MINDANAO ST UNIV	31	4	1,044	2.23%	7,342	1.41%
76	9	ZAMBO CITY ST POLY COLL	2	-	31	0.07%	218	0.19%
77	9	ZAMBO ST COLL OF MARINE SCIS AND TECH	24	-	429	0.91%	3,015	0.41%
78	10	BUKIDNON ST COLL	59	1	286	0.61%	2,013	0.68%
79	10	CAMIGUIN POLY ST COLL	-	-	83	0.18%	583	0.18%
80	10	CENTRAL MINDANAO UNIV	17	6	967	2.06%	6,803	1.66%
81	10	MINDANAO POLY ST COLL	33	4	507	1.08%	3,565	0.72%
82	10	MSU - IIT	72	3	2,370	5.06%	16,672	2.94%
83	10	MISAMIS OR ST COLL OF AGRIC AND TECH	-	-	81	0.17%	571	0.23%
84	10	NW MINDANAO ST COLL OF SCI AND TECH	-	-	22	0.05%	151	0.10%
85	11	DAVAO DEL NORTE ST COLL	2	1	104	0.22%	731	0.21%
86	11	DAVAO OR ST COLL OF SCI AND TECH	9	-	10	0.02%	71	0.30%
87	11	SOUTHERN PHIL AGRI-BUSINESS, MARINE AND AQUATIC SCHOOL OF TECH	5	-	115	0.25%	810	0.16%
88	11	UNIV OF SOUTHEASTERN PHIL	231	15	1,172	2.50%	8,246	1.35%
89	12	ADIONG MEM POLY ST COLL	-	-	4	0.01%	26	0.13%
90	12	COTABATO CITY ST POLY COLL	11	1	139	0.30%	978	0.39%

Table 8. (Continued) SUC share of 2010 MOOE based on research inputs and outputs (Part 2)

	Region	SUC	MS theses completed 2002-03	PhD disserations completed 2002-03	Research total points	% Share of research points	Share of research MOOE for 2005	% Share of 2004 MOOE without FAPS/HOSPS
91	12	COTABATO FOUNDN COLL OF SCI AND TECH	5	-	81	0.17%	570	0.53%
92	12	MINDANAO ST UNIV - MAIN	56	11	1,082	2.31%	7,613	3.66%
93	12	SULTAN KUDARAT POLY ST COLL	-	-	152	0.32%	1,066	0.39%
94	12	UNIV OF SOUTHERN MINDANAO	38	18	1,185	2.53%	8,335	1.20%
95	CAR	ABRA ST INST OF SCI AND TECH	2	-	138	0.29%	969	0.44%
96	CAR	APAYAO ST COLL	4	-	73	0.15%	510	0.21%
97	CAR	BENGUET ST UNIV	56	11	1,181	2.52%	8,309	1.67%
98	CAR	IFUGAO ST COLL OF AGRIC AND FOR	143	9	486	1.04%	3,421	0.44%
99	CAR	KALINGA APAYAO ST COLL	43	2	251	0.54%	1,769	0.40%
100	CAR	MT PROVINCE ST POLY COLL	7	-	219	0.47%	1,542	0.81%
101	CARAGA	AGUSAN DEL SUR ST COLL OF AGRIC AND TECH	-	-	-	0.00%	-	0.19%
102	CARAGA	NORTHERN MINDANAO ST INST OF SCI AND TECH	5	1	322	0.69%	2,266	0.46%
103	CARAGA	SURIGAO DEL SUR POLY ST COLL	5	-	7	0.02%	51	0.42%
104	CARAGA	SURIGAO ST COLL OF TECH	-	-	-	0.00%	-	0.34%
105	NCR	EULOGIO "AMANG"RODRIGUEZ INST OF SCI AND TECH	85	14	440	0.94%	3,093	1.08%
106	NCR	MARIKINA POLY COLL	6	-	143	0.30%	1,004	0.29%
107	NCR	PHIL NORMAL UNIV	192	15	1,500	3.20%	10,549	2.25%
108	NCR	PHIL ST COLL OF AERONAUTICS	20	-	238	0.51%	1,672	0.40%
109	NCR	POLY UNIV OF THE PHIL	209	16	2,003	4.27%	14,088	4.52%
110	NCR	RIZAL TECH UNIV	24	-	47	0.10%	332	1.06%
111	NCR	TECH UNIV OF THE PHIL	112	26	1,000	2.14%	7,036	3.45%
112	NCR	UNIV OF THE PHIL SYSTEM	-	-	-	0.00%	-	0.00%
		TOTAL	3,276	481	46,848	100.0%	329,540	100.0%

Table 9 shows the schooling status of 16-24 year-old population by family income decile in 2002 and 2007. Of the 7.8 percent who had finished college or postcollege in 2002, only 2.6 percent came from the poorest decile and 4.6 percent from the next decile, monotonically rising up the decile distribution. The top 10 percent of families had 16 percent share in college graduates. A higher percentage of the youth, 21 percent, were still enrolled in college. Among them, 5.2 percent came from the lowest decile, 5.9 percent from the next, but 47.4 percent from the top decile. Among the poorest decile, 52.4 percent had stopped before high school and were not enrolled in any level; only 21.1 percent had finished high school. Contrast the distribution with that of the top decile where only 3.1 percent had not finished high school and were not enrolled. While the poor had the same share in college graduates in 2002 as in 2007, they had a higher share of those enrolled in college, 5.2 percent to 7.24. But for the second decile, the respective figures are 10.43 percent vs. 8.9 percent. The percentage of those who did not finish high school but not enrolled also worsened from 48.81 percent in 2002 to 52.4 percent in 2007.

The data show the ad hoc quality of decision making relating to SUCs, from their establishment, budget allocation and program offering, to admission criteria and fees. The first additions to the SUC system were made when higher education was already producing an excess supply of college-educated labor as reflected in its unemployment rate of about 6 percent in the 1960s, rising gradually to more than 10 percent in the mid-1980s and remaining at about this level to the present. Being aware of budgetary constraints, the sponsoring congressmen of new SUCs knew they were creating low-quality HEIs. On the other hand, the SUC heads have made some implicit agreement to charge uniform fees of Php 100 per credit unit. The SUCs have replicated the quality and program offerings of the private HEIs.

As in the private sector, the SUCs included a handful of good-quality institutions, which include the University of the Philippines and MSU-IIT. The SUCs have crowded out the private HEIs, competing for their students and faculty. In some instances, the SUCs have a negative product when they crowd out good-quality private HEIs, substituting inferior-quality programs for the former's higher-quality ones. A CHED commissioner mentioned that the respected Silliman University was being crowded out by a new SUC, which offered practically free tuition. An officer of a respected university in Bacolod City complained to the author about difficulties of retaining their faculty and students who were moving to the city's SUC. It paid higher salaries and charged minimal fees. The SUCs have absorbed virtually all, about 98 percent, of the national government subsidy for higher education (Table 10).

Table 9. Filipinos aged 16-24 by schooling status and per capita income decile, 2002, 2007

Per capita income decile	Not enrolled, not HS grad		Not enrolled, finished HS, not college graduate		Not enrolled, finished college		Enrolled HS or elem		Enrolled post secondary		Enrolled college and post grad		Total
	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	2002	2007	
1 (Poorest)	48.81	52.40	18.86	21.10	1.45	1.30	23.04	19.70	0.60	0.40	7.24	5.20	100.00
2	43.81	45.50	22.02	26.80	1.74	1.80	21.35	16.70	0.64	0.40	10.43	8.90	100.00
3	36.69	37.60	25.16	32.80	2.65	2.50	20.08	15.30	0.88	0.50	14.54	11.20	100.00
4	31.85	30.70	28.69	36.80	3.37	3.50	17.89	14.00	0.64	0.50	17.56	14.50	100.00
5	27.30	26.30	32.51	37.70	4.34	5.50	14.86	12.70	1.29	0.50	19.71	17.20	100.00
6	21.31	21.70	34.14	40.10	6.25	6.00	13.91	10.80	0.80	0.90	23.58	20.60	100.00
7	15.65	14.90	32.30	37.80	8.66	9.10	12.76	9.70	1.08	0.80	29.55	27.80	100.00
8	10.58	10.10	31.09	36.00	12.72	12.70	11.41	9.30	0.94	0.80	33.26	31.00	100.00
9	5.91	6.80	24.13	29.30	18.25	18.10	9.56	7.20	0.53	0.80	41.62	37.80	100.00
10 (Richest)	3.26	3.10	14.78	16.90	23.20	24.50	9.50	7.20	1.03	0.80	48.23	42.40	100.00
Total	23.83	26.00	27.07	32.00	8.23	7.80	15.20	12.50	0.85	0.60	24.82	21.00	100.00

Source: Processed from the Annual Poverty Indicator Survey, 2002, 2007.

Excepting UP, which has adopted a socialized tuition scheme, they charge minimal tuition to all their students who are subsidized regardless of ability, performance, and program of study. The concentration of subsidy to the SUCs has likewise crowded out reforms of the HE system. Financial reforms in higher education are essential for any strategy to improve the efficiency and equity of HE in the country. The paper recommends structural reforms in financing higher education.

4. Urgency of reforms

The country has lagged behind most of its East Asian neighbors in economic growth and social development and faces intensifying competition from them and other developing economies in trade, foreign investment, BPO, and world labor market. The supply of highly skilled labor and technological capability are key elements of competitiveness. There has been an utter lack of these elements because the HE system had little capacity to create them. Its quality was so poor that it could produce mainly subprofessional skills. The handful of good universities have produced very small numbers of high-level manpower in S&T, teacher training, management, health, and other key fields.

The lack of highly skilled manpower and innovation system has strongly constrained the country's capacity to accelerate growth and compete globally. Lacking highly skilled labor, it has failed to raise factor productivity, compete for more foreign investments, attract more and higher value-added BPOs, train migrant workers for higher and better-quality foreign jobs, and improve the quality of governance. The poor quality of the HE system has created a vicious cycle within the whole educational system where it produces poor-quality teachers and teaching materials for the primary and secondary students who in turn would not qualify for good-quality higher education.

Note that education has been allocated a declining proportion of government budget from about one-third in the 1950 to mid-1970s to just more than 10 percent in the last few years. This declining share has had to be allocated to an increasing number of students and to an increasing demand for secondary and HE education. CHED and DOST have been allocated less than 3 percent of education budget, too small to allow them to develop their capacity to bring about quality improvement in the HE system and development of the innovation system. Drastic reforms in the allocation of the budget for higher education and research are essential and urgent. A reform package is suggested. The recommendations should be considered as a package for the components are interdependent in effect.

Table 10a. GAA budget of education by agency

Agency	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
DepED	82,692,502	82,692,502	95,259,442	96,278,545	96,278,545	102,583,978	102,583,978	126,801,722	138,033,428	157,958,997,000	161,190,514,000
CHED	1,799,564	1,799,564	595,007	214,930	214,930	206,514	206,514	378,847	720,064	950,471,000	1,668,767,000
TESDA	2,104,016	2,104,016	2,808,108	2,444,631	2,444,631	2,330,033	2,330,033	2,436,366	3,163,238	3,484,056,000	2,890,916,000
SUCs	13,809,927	13,809,927	15,876,702	15,713,736	15,713,736	15,712,283	15,712,283	17,371,355	19,638,337	22,829,078,000	22,402,271,000
Total	100,406,009	100,406,009	114,539,259	114,651,842	114,651,842	120,832,808	120,832,808	146,988,290	161,555,067	185,222,602,000	188,152,468,000

Note: Number(000)

Table 10b. GAA percentage budget share of education sector by agency

Agency	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010
DepEd	82.36	82.36	83.17	83.97	83.97	84.9	84.9	86.27	85.44	85.28	85.67
CHED	1.79	1.79	0.52	0.19	0.19	0.17	0.17	0.26	0.45	0.51	0.89
TESDA	2.1	2.1	2.45	2.13	2.13	1.93	1.93	1.66	1.96	1.88	1.54
SUCs	13.75	13.75	13.86	13.71	13.71	13	13	11.82	12.16	12.33	11.91
Total	100	100	100	100	100	100	100	100	100	100	100

1. Disabuse the popular notion, especially among politicians, that higher education is for all. The labor market demand for university/college graduates comprises a small proportion of total demand for labor. Higher education is for those with the highest intellectual ability and positive traits.
2. Disabuse the notion that the SUCs provide equitable access to higher education.
3. Develop an operational plan for creating a critical mass of science institutions that will produce a target number of BS, MS, and PhD graduates in each specific priority field in five to ten years' time. The UP College of Science and the newly created Commission on Science and Technology Education (COMSTE) by the Congress have drawn priority S&T fields for development. They have yet to draw an operational plan that states targets for faculty, scholarships and research output, and required financial support. Neither CHED, DOST, nor COMSTE has developed operational plans for their respective institutions. The institutions to be supported are to be selected from the COEs and CODs based on their capacity and commitment to develop into world-class HEIs. Massive scholarships for graduate studies here and abroad are to be granted for faculty development for the selected COEs and CODs.
4. Have a similar strategy for engineering. Engineering has attracted too few graduate students mainly because of the high opportunity cost of pursuing advanced degree in the field. Special incentives will have to be developed for engineering programs.
5. Develop financial support strategy for improving libraries and laboratories in target HEIs in all fields, not just S&T but particularly teacher training, accountancy, health, and aeronautics. Virtually all Philippine HEIs have dismal library and laboratory facilities.
6. Develop a massive scholarship system for graduate studies in all fields.
7. All SUCs are to be required to charge full-cost tuition to be complemented by a massive scholarship program for the bright and disciplined students and to include special grants for the poor. An effective scholarship program is to replace the current system of subsidizing all SUC students. The full-cost tuition scheme will

encourage competition among HEIs, private as well as public, and weed out inefficient SUCs and programs.

8. Increase the market demand for S&T graduates by practical incentives such as requiring S&T majors to teach S&T courses in the primary, secondary, and tertiary levels. Teacher training in S&T subjects is to be taken in S&T departments, not education departments. Moreover, the budget for research has to be drastically increased. This would allow the DOST and its affiliate institutions to hire S&T researchers and increase their scholarship outreach. The DOST has reported only about 400 S&T scholars this year.

A critical element of the reform package is the change in the method of subsidizing students and schools. Subsidy is to be directed at selected institutions, selected programs, and selected students, not indiscriminately, not inefficiently, and not in an ad hoc manner. It is clear that not all SUC students deserve to be subsidized, not all programs should be maintained, and not all SUCs deserve support. Scholarship is to be prioritized for the very bright, especially from poor socioeconomic classes; for priority fields and degree level; and in high-quality HEIs, whether public or private. A talent search among poor students from towns and barrios will be needed in order to draw the bright poor into the scholarship pool. Additionally, financial support for improving library and laboratory facilities in both private and public HEIs is essential. Most HEIs have very poor libraries and laboratories.