JERICK C. FERRER, MARIA VICTORIA C. HERMOSISIMA & ARTHUR S. ABULENCIA

An Analysis of the Socio-Economic Profile of Selected Students and the Cost of Degree Programs at the Philippine Normal University: Basis for Tuition Fee Policy Review

ABSTRACT: *The Philippine higher education sector is not immune to the fiscal pressure plaguing the entire public sector as a whole. So, finding other sources of funding is imperative for the survival of the State Universities and Colleges (SUCs) and for ensuring the delivery of quality education. The study sought to gather relevant data and other information that policy-makers and the management of PNU (Philippine Normal University) can utilize in examining the efficiency and sustainability of the existing tuition policy of the university. The study focused on the three important determinants of tuition fee rates: (1) the cost of degree programs being offered by PNU; (2) the ability to pay of its students; and (3) the effect of the inflation rate on the real value of the tuition fee rate of the university. Also, a comparative analysis of the tuition fee rates of other Higher Education Institutions (HEIs) in offering teacher education was done to compliment more insights to policy-makers and the management of the university. The findings are pointing to a need for the university to revisit its views and policy on the tuition fee and start the dialogue among its stakeholders addressing the issue.*

KEY WORD: *Philippine higher education, socio-economic profile, cost estimation, tuition fee policy, cost-sharing, and dialogue with the stakeholders.*

IKHTISAR: *"Analisis Profil Sosial-Ekonomi Mahasiswa Terpilih dan Biaya Program Sarjana di Universitas Pendidikan Filipina: Dasar untuk Kajiulang Kebijakan Biaya Kuliah". Sektor pendidikan tinggi Filipina tidak kebal terhadap tekanan fiskal yang mengganggu seluruh sektor publik secara keseluruhan. Jadi, mencari sumber pendanaan lain sangat penting bagi kelangsungan hidup Perguruan Tinggi Negeri dan Sekolah Tinggi (PTN-ST) dan untuk memastikan pelayanan pendidikan yang berkualitas. Penelitian ini berusaha untuk mengumpulkan data yang relevan dan informasi lainnya, dimana para pembuat kebijakan dan pengelola PNU (Universitas Pendidikan Filipina) dapat memanfaatkan dalam memeriksa efisiensi dan keberlanjutan kebijakan pendidikan yang ada di universitas. Penelitian difokuskan pada tiga faktor penentu penting dalam tingkatan biaya kuliah: (1) biaya program sarjana yang ditawarkan oleh PNU; (2) kemampuan untuk membayar dari para mahasiswa; dan (3) pengaruh tingkat inflasi pada nilai riil dari tingkat biaya kuliah universitas. Juga, analisis komparatif tingkat biaya kuliah dari Perguruan Tinggi (PT) lainnya yang menawarkan pendidikan guru dilakukan untuk melengkapi wawasan yang lebih baik bagi pembuat kebijakan dan pengelola universitas. Temuan menunjukan perlunya universitas meninjau ulang pandangan dan kebijakan biaya kuliah, serta memulai dialog dengan para pemangku kepentingan untuk menangani masalah tersebut.*

KATA KUNCI: *Pendidikan tinggi Filipina, profil sosial-ekonomi, estimasi biaya, kebijakan biaya kuliah, biaya-bersama, dan dialog dengan para pemangku kepentingan.*

INTRODUCTION

In a 1994 report, *Higher Education: The Lessons of Experience,* the World Bank declared that the status of higher education around the world is in crisis. This is due mainly to the increasing fiscal constraint being experienced by many countries (WB, 1994). Most especially for developing countries, the effort of

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preserving and improving the quality of education has become an increasing challenge. Further, exacerbating the problem is that the demand for higher education in most countries around the world is growing faster than the ability and willingness of the government of these countries to provide public resources to sufficiently meet this demand (Salmi & Hauptman, 2006). As a result, the quality of teaching and research has deteriorated in many developing countries.

The Philippine higher education sector is not immune to the fiscal pressure plaguing the entire public sector as a whole. Competing demands on public resources are growing more intense as the government faces challenges across the board in providing more and better public services, including health care, housing, transportation, agriculture, and quite recently in carrying the huge cost of implementing the K-12 basic education program and in rehabilitating calamity-stricken regions and provinces in the country. Because of these challenges, finding other sources of funding is imperative, not only for the survival of the State Universities and Colleges (SUCs) but also for ensuring the delivery of quality education (Santiago *et al.*, 2005). The World Bank in 1994, again, stated that one of key reform areas in higher education is providing incentive to SUCs to diversify its sources of funding (WB, 1994).

The Philippine Normal University (PNU) as a SUC (State University and College) is heavily reliant on government subsidy. Roughly about an average of 62% of its annual budget, in 2010 up to 2013, came from the national government subsidy. In 2008, by virtue of R.A. (Republic Act) 9647, the PNU has been declared by the government as the National Center for Teacher Education (NCTE), making the university the lead institution in teacher education in the country. Given the worsening fiscal pressure being faced by higher education, especially the SUCs which sourced most of its funding using public resources, the implementation of the normative financing scheme and, at the same time, the increasing demand of the public not just for higher education, but for quality higher education at par with international standard, PNU has to find other innovative financing

scheme that will make the institution go further in meeting the challenge of leadership in teacher education in the country and, in the near future, in the ASEAN (Association of South East Asian Nations) region. With the increasing difficulty of matching the available public resource and the attainment of the university's medium and long-term goals and objectives, one possible option available is to explore the tuition fee policy of the university as a way of evaluating the efficiency and sustainability of its cost-sharing scheme with its primary clientele-the students.

This study sought to gather relevant data and other information that policy-makers and the management of PNU can utilize in examining the efficiency and sustainability of the existing tuition policy of the university. Republic Act No.8292 or the "Higher Education Modernization Act of 1997" mandated that every state university and college shall adopt and implement a socialized tuition fee scheme approved by its Board of Trustees/Regent. To implement this provision of the law, the CHED (Commission on Higher Education), in its most recent policy issuance on the subject (CMO #58, s. 2012) reiterated the provision of the law with regard to the adoption of the socialized tuition system among the SUCs. It is our hope that this study will jump start rigorous and rational discussion on the issues surrounding the tuition fee policy of the university, most specifically the adoption of a socialized tuition fee system and concomitantly a Student Financial Assistance Programs (StuFAP) needed not only to simply broaden access to education, but to broaden access to quality and world-class education.

The study focused on the three important determinants of tuition fee rates: (1) the cost of degree programs being offered by PNU; (2) the "ability to pay" of its students; and (3) the effect of the inflation rate on the real value of the tuition fee rate of the University. Also a comparative analysis of the tuition fee rate of other Higher Education Institutions (HEIs) in the National Capital Region (NCR) offering teacher education was done to compliment the cost estimation result of the research and to offer more policy insights to policy makers and the management of the university.

The research utilized the cost estimation methodology adopted in the researches done by E. Tan (2003) and H. Valderama (2005) to estimate the cost of degree program at the university of the Philippines with some modification to adapt it to the accounting system of PNU. On the other hand, the MORES SEC (Marketing and Opinion Research Society Section) survey questionnaire was utilized to determine the socio-economic clusters of selected PNU students as a proxy variable for "ability to pay" (*cf* Bersales & Mapa, 2006; and Abansi, 2012). Using the data collected in the analysis of the above mentioned variables, the research sought to undertake an evaluation of the efficiency and sustainability of the current tuition fee policy of the university, which the policy makers and management of the university can consider in charting the strategic directions of PNU to increase its level of efficiency.

CHED (Commission on Higher Education) Memorandum Order No.03, series of 2012, enumerated the different factors that can be considered in the determination of a reasonable tuition fee rate in HEIs, namely: (1) Regional Inflation Rate, or RIR, and other prevailing economic conditions; (2) Financial standing of HEIs; (3) Financial capability of the general studentry; (4) Impact of force majeure; (5) Quality tract record of the school; and (6) Mission and vision of the school. In the analysis, therefore, of the existing tuition fee policy of PNU, it is imperative that we also consider these above-mentioned factors.

The focus of the research was to evaluate the efficiency and sustainability of the current tuition fee policy of the university considering the factors enumerated by CHED under CMO (CHED Memorandum Orders) No.03, s. 2012. Most notable among these factors, that were analyzed, is regional inflation as it affects the real value of the tuition fee rates of the university, the financial standing of PNU using cost-estimation analysis of degree programs being offered, and the Socio-Economic Clusters (SEC) of the students being an indicator of the financial standing of the students and, therefore, a good proxy variable for their "ability to pay".

THE IMPERATIVENESS OF ASSESSING TUITION FEE POLICY AND CONCEPTUAL FRAMEWORK

This research project sought to make analyses of the socio-economic clusters of selected students and of the cost-structure of the PNU (Philippine Normal University) as bases for assessing the tuition fee policy of the university, which can serve as input for the policy makers and the management in developing alternative cost-sharing scheme that is more beneficial for both the management, studentry, and all other stakeholders of the university.

First, the study introduced economic concepts, specifically cost-estimation, the effect of inflation rate on the real value of the tuition fee rate, and socio-economic profiling of students in the analysis of the efficiency and sustainability of the existing tuition fee scheme of the university. The use of this analysis can provide a relevant framework, or at the very least, rationality in the current and future discussion on the tuition policy direction of the PNU as it grapples not just with the policy mandate of the government with regard to rationalization of resources, but also to the realities and challenges posed by economic, political, and international condition affecting the public higher education sector and the entire public sector in general.

Second, the result of the cost-estimation analysis of the degree courses of the university will provide an insight on how efficient the financial resources are utilized in the university. It can shed light on the questions about how much resources are spent and for what purpose. This can provide the policy makers and the management of the university relevant information regarding the use of the university's fund and its implication to the current tuition fee policy and, then, make appropriate policy recommendation. Furthermore, the result of the cost-estimation of degree course can be used as an input in crafting the budget of the university using the Normative Funding Formula (NFF) being implemented by Commission on Higher Education (CHED) and the Department of Budget and Management (DBM). Information on the cost of degree programs of the university is vital to determine the norm that

will be imputed in the budget determination (Santiago *et al.*, 2005).

Third, the result of the socio-economic survey of selected students can provide a clear picture of the effectiveness (efficiency) of the existing tuition fee policy of PNU with regard to maintaining and even widening the access to the university of the poor, but deserving students of our country. It can shed some light to the theory that the existing low tuition fee policy of the university is conducive to the plight of the poor, but deserving students and preserves the equitableness of access to the premier teacher-training institution in the country.

Fourth, the results of the study may be useful for the policy-making board and the management of the university in crafting an alternative cost-sharing scheme (e.g. socialized tuition system) that will both sustain the continuing dynamism and innovation in the various development plans of the university and, at the same time, take into account the equitableness of access of the broadest and diverse clusters of students to the high-standard of education PNU is offering.

Macro-economic theories have long established the effect of inflation rate in the determination of the real value of price of certain goods of services. GDP (Gross Domestic Product) and GNP (Gross National Product) accounting uses inflation rate to deflate its value and determine the real GDP and GNP rate. The real per capita GDP rate is the most acceptable measure of economic development, because of its capability to show the approximate condition of the economy as it is reflected in the real income of the populace. Using the inflation rate to deflate the current tuition fee rates of the university to determine the changes to the real value of the rate through time will give the research vital information on the efficiency of the tuition fee rates of the university *vis-à-vis* sustaining the growth of the university not only in quantity, but most importantly in quality terms.

Various researchers on tuition fee determinants (Pugh, Coates & Adnett, 2005; and David Flacher & Hugo Harari-Kermadec, 2011), and the pertinent law and policy of the Commission on Higher Education pointed

to student's family income as a major determinant in setting the efficient tuition fee rate of colleges and universities. Also, other researches recommended the analysis of the cost of producing degrees within the framework of normative financing and measuring cost efficiency (Santiago *et al.*, 2005; and Ampit & Agustina, 2007).

The income profile of the student's family and the cost analysis are two of the important determinants of tuition fee rates. This was also reiterated by the Commission on Higher Education in CMO (CHED Memorandum Orders) No.03, series of 2012, which mandated that:

> [...] every state college and university should adopt and implement a socialized tuition fee scheme approved by its Board of Trustees/Regents. Such scheme aimed at democratizing access to higher education shall be based on the student's family income/financial capacity, and the school's course offerings harmonized with national development and concerns.[1]

Benchmarking is an effective strategy in price setting, especially if it is done in a purposive manner. Comparing the tuition fee rate of PNU (Philippine Normal University) with other HEIs (Higher Education Institutions) in the National Capital Region (NCR) offering teacher-education strengthened the estimation analysis of the research. Being located in the same economic geography, these schools in the NCR are exposed to the same macro-economic realities, which make comparative analysis very much possible. This analysis gave the researchers added determinants and basis in evaluating the efficiency and sustainability of the tuition fee policy of PNU. See the figure 1.

METHOD

The historical real value of the tuition fee rates of PNU (Philippine Normal University) was analyzed using the regional inflation rate data as deflator of the tuition fee rate. The *nominal value of a tuition fee* is determined by the current price rate of the fee. To extract the real value of the tuition fee rate, the regional Consumer Price Index (CPI) released by the National Statistics Office (NSO), was used. Real value determination is part of economic

[1]See "CMO #58, s. 2012" in www.ched.gov.ph [accessed in Manila, Philippine: August 28, 2014].

analysis. The most common application of this kind of analysis is in the determination of real output/income, or real GNI/GDP (Gross National Income/Gross Domestic Product), in an economy.

Economic planners intended to measure economic growth use real GNI/GDP. The value of nominal GNI/GDP is influenced by price changes, as such measuring the growth of output is made difficult by using this data. By removing the influence of price changes or inflation in the equation, the real value of output is extracted and the resulting data (in real terms) is a more reliable indicator of growth. To derive the real value from the nominal data, a price index is used. The research used the same principle used in macro-economics to determine the real value of the tuition fee rate of PNU. For purposes of determining the real value of the tuition fee rate, the research used the formula below:

$$\text{Real Tuition Fee} = \frac{\text{Nominal Tuition Fee}}{\text{CPI (Consumer Price Index)}} \times 100$$

A comparative analysis of the tuition fee rates of other HEIs (Higher Education Institutions) in the NCR (National Capital Region) offering teacher education was also done to access the efficiency and sustainability of the current tuition fee policy of the university in comparison with other HEIs. The tuition fee rate of the university was compared to TUP (Technological University of the Philippines), PUP (Polytechnic University of the Philippines), and RTU (Rizal Technological University), which like PNU are also state universities heavily subsidized by the government. It is assumed that since they are all SUCs (State Universities and Colleges), they are for most part similarly financially situated
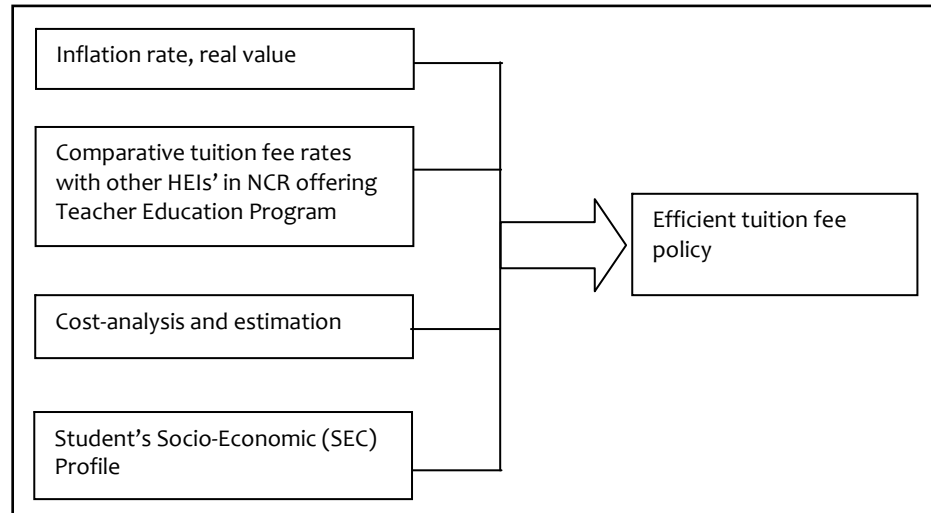

Figure 1:
Framework of the Study

and follow the same government policy with regard to their finances; and as such can be rationally compared. Also it is interesting to compare the tuition fee rate of PNU to private universities in NCR offering teacher education like the University of Santo Tomas (UST) and Centro Escolar University (CEU).

In theory, most private businesses and companies and in this regard privates colleges and universities charge tuition fee rate that covers the entire cost of providing the service of education. Also the very private nature of these institutions assumes that they need to operate efficiently in order to survive competition in the education market. Benchmarking tuition fee rate of PNU with private institutions offering education at full cost and working in an environment of efficiency provided a fruitful input for review of the tuition fee policy of PNU.

The "curriculum-based cost estimation approach", used by E. Tan (2003) and H. Valderama (2005), were adapted with some modifications to simplify the procedure and to fit it using the accounting data and processing of PNU. The objective of E. Tan (2003) research was to give a comprehensive analysis of the cost of degree program at UP (University of the Philippines) using the "curriculum-based cost estimation approach"; while H. Valderama (2005) wanted to present an estimate of the direct cost of instruction of undergraduate course at UP explicitly adding the cost of

facilities in the computation. Both researchers endeavored to give a fairly good estimate of the cost of degree programs in UP, and strictly followed the cost estimation procedure thoroughly explained by E. Tan (2003) in her paper.

About the Cost Estimation Model is following here:

Program Cost = $\sum Pc\,(CSC_{i,c})$ + n(AOU)
where: i = program in a college/unit (CU)
    c = college/unit, where the prescribed course originates
    P = required number of credits from college C
and
CSC = cost per student credit
    = DCI + IDC
DCI = Direct Cost of Instruction
    = Expenditures for Faculty Personnel Services (FPS) + Controllable Maintenance, Operating, and Other Expenses (CMOOE) / Total College Student Credit Unit (TSCU$_c$)
IDC = Indirect cost of Instruction
    = Total Expenditure for Personnel Services (PS) – Expenditures for Total Faculty Personnel Service (FPS) x ratio of Total College Student Credit Unit / Total University Student Credit Unit (TSCU$_c$/TSCU) + Non-controllable Maintenance, Operating, and Other Expenses (NMOOE) x ratio of College Student Credit Unit/ Total Student Credit Unit (SCU$_c$/TSCU)
AOU = Administrative and other overhead cost of the University. This includes the budget of the Office of the Presidents, Vice-Presidents, and all others University level Centers, including all the administrative support services offices and the uncontrollable MOOE. The AOU is divided by the total enrolment of PNU-Manila during the indicated school year. The AOU is on an annual basis and is multiplies by the number of years to complete the degree which is normally four year for all the courses in PNU.

There were significant deviations from the approach done in the research due to the limitations of the accounting data available in the university. Specifically, the accounting data of PNU does not permit the data disaggregation that was done by both the researchers mentioned above. Further, disaggregation of the accounting data would need more time to do as more source documents are needed to be processed which would not be practical given the time frame of the research. Also, since the current research did not only focus on the cost estimation analysis as the two mentioned researchers did and only use the result of the cost estimation as to tool to give a fair assessment of the tuition fee policy of PNU, the researchers decided to modify the methodology of both

the E. Tan (2003) and H. Valderama (2005) researchers to make it more simple and suited to the available accounting data of university.

The researchers resorted to crafting their own simplified cost estimation formula to come up with an estimation of the program cost of courses in PNU. Also, the data that was used in the estimation was only taken from the PNU Manila Campus, or the main campus, and does not include the data from the other four campuses (Isabela, Lopez, Cadiz, and Agusan campus).

It is also important to note that PNU (Philippine Normal University) implemented a new organizational structure last June of 2013, but the data utilized in this research were culled during the Fiscal Year 2012 for most of the accounting data and School Year 2012-2013 for the academic data, wherein PNU is still under its previous organizational structure. The research still used the previous structure of the different colleges, namely: College of Education (CED), College of Arts and Social Sciences (CASS), College of Science (COS), and College of Languages, Linguistics, and Literature (CLLL).

Data on the real value of the tuition fee rate and the cost-estimation of PNU courses were used to assess both the efficiency of the utilization of the financial resources of the university and the sustainability of the current amount of tuition fee being charged to students. On the other hand, the data that were gathered in the Socio-Economic Survey using the MORES 1SEC form was employed as a proxy variable of "ability to pay" of the customer (students), which is used also to access the efficiency of the tuition fee policy of the university.

To determine the socio-economic classification of the PNU students, the

Table 1:
Household Median Income and Expenditure Corresponding to Each SEC Cluster Based on 2012 Estimates

	1	2	3	4	5	6	7	8	9
Expenditure	38,522	66,138	99,196	137,478	178,579	231,351	304,060	444,432	818,890
Income	39,065	67,707	103,546	146,141	194,321	256,802	345,794	519,799	976,027

Source: MORES and National Statistics Office, 2012, as taken from R.P. Gonzalo (2013).

descriptive-survey method was used. Twenty-nine sections, which is 20% of the total number of sections from first to four year levels for school year 2013-2014, were surveyed. In selecting the sections from each year level, proportional stratified simple random sampling design was used, where the stratification variable is the college. From the 29 sections, 681 students participated, a number more than sufficient as the computed sample size using the Slovin's formula,[2] with a margin of error of .05 is 369 (N = 4,820). Of the 681 respondents, 529 (77.68%) were female, 150 (22.03%) male, and 2 (0.29%) did not indicate their gender. One hundred thirty-nine (20.4%) were freshman students; 144 (21.1%), sophomore; 183 (26.9%), junior; and 215 (31.6%), graduating students.

The survey made use of the 1SEC instrument developed by the Marketing and Opinion Research Society (MORES) of the Philippines in collaboration with the National Statistics Office (NSO) and UP (University of the Philippines) School of Statistics. Minor modifications were done, however, on the Respondent Profile Part. 1SEC classifies households into nine (9) SEC household groupings. These groupings were based on expenditure pattern of the 36,000 + households included in the 2009 Family Income and Expenditure Survey (FIES). The least spending households are grouped under Cluster 1, while the highest spending households fall under Cluster 9. For practical purposes, MORES adopted number labels instead of letter labels to minimize association with previous SEC segments, i.e. A, B, C1, C2, D, E (Bersales & Mapa, 2006). Each of the cluster has a corresponding estimated median income and expenditure per household as shown in table 1.

Responses of the students to the 1SEC

questionnaire were processed using the formula provided by MORES (Marketing and Opinion Research Society) of the Philippines. The survey followed national and international ethical guidelines. All student-participants were properly informed of the purpose and procedures of the survey. They were given a copy of the information sheet and informed consent. The sheet included the following: purpose of the study, methods of data collection, significance of the study, confidentiality of the study, and the right of the student to participate or not. After the orientation, the student-participants were asked to sign the informed consent. However, in the case of students aged below 18, the students were requested to seek first their parent/guardian's consent before answering the questionnaire.

RESULTS

About the PNU (Philippine Normal University) Budget. The university budget is sourced from the General Appropriation Act (GAA), the annual allocation given by the national government, which amounted to PhP (Philippine Peso) 365,692,524.00 in 2013, and from the internally generated fund of the university which goes to the Special Trust Fund (STF). Using the data from 2005 to 2013, the share of the GAA to the budget is 80.7%, while the STF is about 19.3%. The STF consists of internally-generated fund which, based on the 2005-2013 data, is 43.3% sourced from the tuition fee being paid by the students. Thus, almost half of the internally-generated fund of the university cames directlyfrom tuition fees paid.

The budget of the university is allocated into accounting categories, such as Personnel Services (PS), Maintenance and Other Operating Expenses (MOOE), and Capital Outlay (CO). From 2005 to 2013, PS absorbed

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[2]About the Slovin's formula, see http://www.statisticshowto.com/how-to-use-slovins-formula/ [accessed in Manila, Philippine: August 28, 2014].

66.9% of the budget, 25.3% to MOOE, and only 7.8% goes to CO. In fact, in three consecutive years from 2010 to 2012, the university received no allocation from the GAA for capital outlay. It is also interesting to note that in 2013, the university budget increased by almost 29% from the previous year. The increase can be traced to the subsequent increase in the MOOE, which increased by almost 80% from the previous year. See, for further information, the figure 2.

According to the finance official of the university, this is the result of the implementation of the normative financing scheme being implemented by CHED (Commission on Higher Education) and the DBM (Department of Budget and Management), which tied the budget of government agencies to the efficient attainment of identified standards or set of criteria.

The budget of the PNU (Philippine Normal University)-Manila accounted for an average of 70% of the total budget for the whole PNU system. It means that the remaining 30% is divided among the four regional branches of the university. This maybe because most of the administrative offices of PNU are located in its Manila or Main Branch, thereby eating more share of the budget for personnel services and MOOE (Maintenance and Other Operating Expenses). Using the 2012 budget and the enrollment data in that year for PNU-Manila, the per student budget of the campus is PhP (Philippine Peso) 36,661. See the figure 3.

About the PNU (Philippine Normal University) Tuition Fee Rate. If anyone is asked about the price of goods and services, most often than not he/she will say that it is as if it is increasing daily. It is a famous saying among Filipinos that in the Philippines, "*taonalangang*
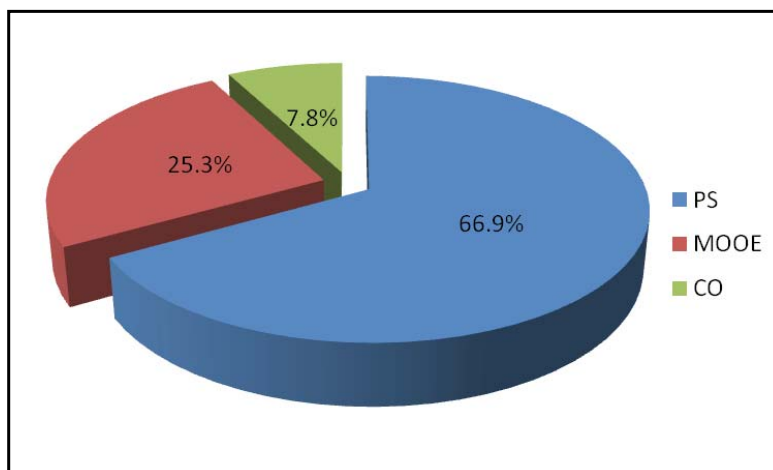

Figure 2:
Share of the Accounting Categories to
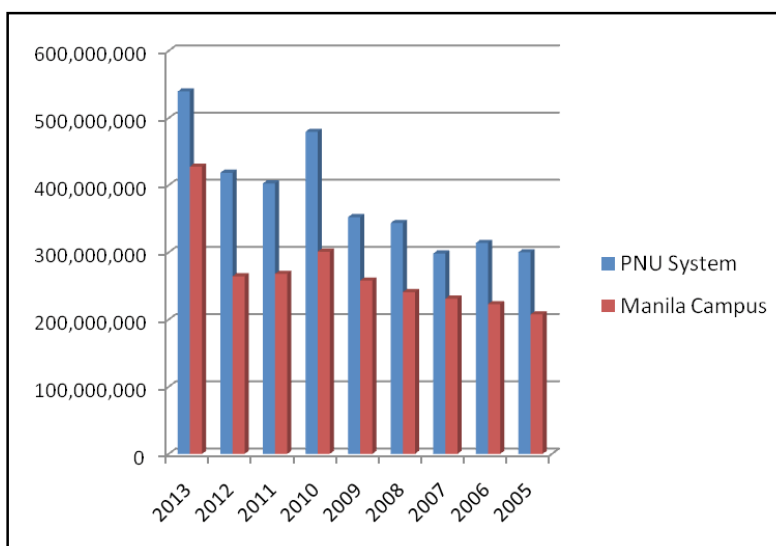the PNU (Philippine Normal University) Budget

Figure 3:
Budget PNU (Philippine Normal University) System and Manila Campus

di tumataas" (only the height of Filipinos does not increase). Filipinos are so very much familiar with the increasing prices in their daily lives. The same view applies to tuition fee, as it is also a price of a service – education services. It is not rare to see parents, students, ordinary people, even government officials themselves complaining about tuition fee increase every year, especially during enrollment season.

SUCs (State Universities and Colleges), as public institutions, received annual financial subsidy from the government and so they are, in theory, not supposed to charge tuition fee, at least at the same amount as

those charged by private higher education institutions. SUCs charge relatively low tuition fee than their private counterpart. In recent years, though most SUCs increased their tuition fee, which resulted to a concomitant increase in the nominal growth in receipts from tuition fee and other income from students. However, this increases were mostly eaten up by a corresponding growth in inflation and enrollment (*cf* Valderama, 2008; and Manasan, 2012). It means that although the nominal tuition rate is increasing, the real value of this rate is even decreasing.

R. Manasan (2012) observed that the per student receipt from tuition fee calculated from year 2000 prices is decreasing since 2007, which resulted in a marginal decrease of per student total income from student from 2007 to 2009. He estimated that the modal tuition fee among SUCs stood at PhP (Philippine Peso) 100 per unit in 2009. This decrease in the value of per student receipt from tuition fee was also conversely coupled by a contraction of per student SUCs spending in 2006-2009 estimated in 2000 prices.

In the case of PNU, the tuition fee increased six times since 1958 up to 2007. The university's tuition fee rate seems to be set arbitrarily. No clear policy or methodology is used to determine the efficient and equitable rate. In most of these increases, the main reasons were the decreasing government subsidy and the increase in the price of goods and services, or the inflation rate. The documents from the Record's Office of the University show that tuition fee rate before 1958 is only PhP 30 for 10-21 units and PhP 15 per overload unit. It increased only in 1958 to PhP 50 for 10-21 units, an increase of almost 67%.

In 1967, after nine years, the Board of Trustees (BoT) of the university approved an increase of almost 200% in the tuition fee rate, from PhP 50 to PhP 150 per 10-21 units. Surprisingly in 1970, the BoT approved a reduction in the tuition fee to PhP 110 per 10-21 units. The overload per unit rate of PhP 40 was not decreased though. A decade later, the tuition fee was increased again to PhP 225 per 10-21 units, but the overload per unit rate remained the same at PhP 40.

This increase effectively doubled the tuition fee from the 1970 rate. From 1980 up to 2003, a 23 years interval, the Board of Regent (BoR) approved an increase in the tuition fee from PhP 225 per 10-21 units to PhP 750, but reduced the per unit overload rate from PhP 40 to PhP 35. This was the biggest tuition fee increase since 1958, a 233% increase. It almost tripled the tuition fee rate of PNU. In 2007, the BoR once again decided to increase the tuition fee from PhP 750 per 10-21 units in 2003 to PhP 2,100; and from PhP 35 per overload unit in 2003 to PhP 100. The increase effectively doubled the tuition fee rate of PNU since 2003.

BoR Resolution No.U-1254, s. 2007, also contains a provision for a scheduled 10% tuition fee increase per year for five years starting from school year 2008-2009. Unfortunately, this BoR Resolution was not implemented, because it was superseded by a directive from the then President Gloria Macapagal-Arroyo, ordering a deferment in any increase in tuition fee of all state university and colleges for school year 2008-2009, due to rapidly rising cost of oil and food during that year.

One of the most compelling reasons for increasing tuition fee is an increase in the price of goods and services reflected in the inflation rate. In fact, CMO (CHED Memorandum Orders) No.14, s.2006 as amended by CMO No.7, s.2007 released by the CHED (Commission on Higher Education), specifically stated that the allowable increase in the tuition and other fees should not be more the annual average headline inflation rate at the national level of the immediately preceding year prior to the Academic Year, for which the intended increase shall take effect. It is, therefore, a widely accepted principle that the prevailing inflation rate should be one of the basis for setting tuition and other fees.

Considering this, the last effective increase of the tuition fee was in 2003 with an interval of 23 years since 1980 with tuition fee rate increased by 233%. On the other hand, the compounded inflation rate using 2000 as the base year from 1980 to 2011 alone is already 305.1% for the Philippines and 317.5% for the Metro Manila area. It means that although the tuition fee rate increased by 233% in 2003 from its 1980 rate, price on the other hand increased by 305.1% to 317.5% during the same period.

Table 2:
*Galunggong* Economics on Tuition Fee Analysis

Year	Current Tuition Fee Rate, 10-21 Units	Average Annual Price of *Galunggong*, per kg	Kilo of *Galunggong* per Current Tuition Fee Rate, kg	Tuition Fee Rate Needed to Get the Same Kilo of *Galunggong* (2007, 8 kg)
(1)	(2)	(3)	(4)	(5)
2007	750	86.86	8.6	750
2008	750	102.99	7.3	814
2009	750	107.97	6.9	864
2010	750	106.08	7.1	849
2011	750	121.17	6.1	969

Source: NSCB (National Statistical Coordination Board) of the Philippines.

Using year 2000 as the base year, it can be observed in figure 4 that the real value of tuition fee being charged by the university through the determined years has significantly decreased. In fact, the PhP 750 tuition rate since 2003 has a real value of only PhP 432 in 2011 or merely 57.7% of PhP 750, the nominal tuition fee rate. It means that the tuition fee being charged in PNU has lost half its value in eight years time, due to the effect of inflation.

The real value of the tuition fee decreases by an average of 5.1% from 2003 to 2011. In those eight years, therefore, the tuition fee rate should increase by atleast 5% per year in order to just get the same value of the tuition fee being charged. In 2012 and 2013, using the CPI (Consumer Price Index) based on 2006 price, the real value of the PhP 750 tuition fee is merely PhP 572 and PhP 560, respectively. This clearly shows the net effect of inflation on the real value of the tuition fee being charged by the university through the years. This is the reason why most policies in tuition fee determination pointed to the inflation rate as a key factor needed to be considered.

Teachers of economics are found of using simply illustrations on the daily life of their students to explain the effect of inflation on the life of the people. In this case, the illustration below, though very simple, can provide a great deal of clarity on how inflation
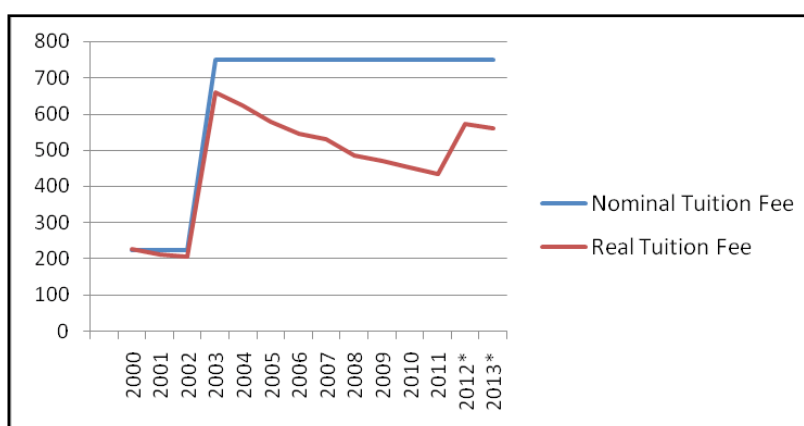
Note: 2012 & 2013 prices are based in 2006.

Figure 4:
Nominal and Real Tuition Rate

affects the real value of tuition fee.

Table 2 shows the average annual per kilogram price of "*galunggong*", which is considered by many as the poor man's fish. The table shows that the price of per kilogram of "*galunggong*" moved in an upward trend from year 2007 to 2011. If we consider the current tuition rate of PNU (Philippine Normal University) at PhP (Philippine Peso) 750 and divide it by the price of "*galunggong*" from 2007 to 2011, we can get the tuition fee of the University in "*galunggong*" terms. The message is clear in value of the tuition fee of PNU in term of kilos of "*galunggong*" has been decreasing in the indicated years from 8.6 kg in 2007 to 6.1 kg in 2011.

Thus, if the students are paying "*galunggong*" as tuition fee, the university is receiving less and less kilograms of it as years pass by. On the other hand, the last column of table 2 shows the needed amount of tuition

fee in the years indicated, if the university would want to receive the same (not increase) kilograms of "*galunggong*" as in year 2007. This is a simple lesson in economics, inflation decreases the value of money and, so as it sets in, one needs an increasing amount of money to get the same amount of goods or services that he/she is consuming before. And if one prefers to increase further his/her consumption to improve the quality of his/her life, one needs an even more amount of money.

About the Comparative Analysis of Tuition Fee Rate of Selected HEIs (Higher Education Institutions) in NCR (National Capital Region). Figure 5 shows the comparison of tuition fee per unit of selected HEIs in NCR offering teacher education. There are four state universities, including PNU (Philippine Normal University) and two private universities, selected for this analysis. PUP (Polytechnic University of the Philippines) has the lowest tuition per unit, i.e. PhP (Philippine Peso) 12.00; and RTU (Rizal Technological University) has the highest tuition fee per unit, i.e. PhP 200.00, among the state universities above. Looking at the two private universities, UST (University of Santo Tomas) is charging higher tuition per unit, i.e. PhP 1,300.00, as compared to CEU (Centro Escolar University), i.e. PhP 979.00. PNU as state university has a tuition fee of PhP 35.00 per unit, which is lower than TUP (Technological University of the Philippines) and RTU and a little higher than PUP.

The findings above are quite insightful in analyzing the tuition fee rate of PNU (Philippine Normal University). How come these four state universities which received proportional subsidy from the national government and located in the same region charge tuition fee rate with varying degrees of difference? Considering further that, as it was found out in the case of PNU, a significant portion of their budget goes to personnel services; and since these are government institutions, they follow the same policy on salary and other benefits and other government policies on procurement, so their cost structure can be assumed to be the same or atleast almost the same.

The tuition fee of PNU, for example, is 34.3% higher than PUP (Polytechnic University

of the Philippines), but tuition fee of TUP (Technological University of the Philippines) and RTU (Rizal Technological University) is 428.6% and 571.4% higher than PNU respectively. These huge differences in tuition fee rate among state universities offering teacher education is remarkable and is a clear evidence of the arbitrariness, in which tuition fee rate is determined among these public educational institutions. Still, it is interesting to note that of the three other state universities located in NCR (National Capital Region), two charge tuition fee rates significantly higher than PNU.

Moreover, comparing PNU with the two private higher education institutions – UST (University of Santo Tomas) and CEU (Centro Escolar University); in terms of tuition fee rate an interesting insight came out. Since UST and CEU are private educational institutions, it is assumed that they sourced most of their expenses and revenues from the tuition fee, they charge their respective students. It can, therefore, be assumed that the tuition fee rate that these private institutions charge reflects the true cost of education unlike in state universities, like PNU which receives government subsidy; thus, can hide the true cost of education from their students as reflected in the low tuition fee that they charged compared to these private institutions.

Also, the very private nature of these universities means that they have to behave like a private firm, a competitive market, which means they, in order to survive, must always try to operate in the most efficient and sustainable manner. The tuition fee they charge, therefore, must also reflect their effort to operate efficiently. Therefore, any tuition fee rate close to the rate being charged by these private instructions reflects not only the true cost of education, but also pricing efficiency.

The tuition fee rate being charged by PNU presently is clearly very small compared to those being charged by these private institutions. This is because some of the costs are being absorbed by the government subsidy, which from the previous estimate, government subsidy represented by GAA

(General Appropriations Act) compose roughly 80% of the total internal operating cost of the university. The true cost of education is, therefore, hidden from the students, because SUCs (State Universities and Colleges) like PNU (see figure 5) charge very low tuition fee. Unlike, therefore, in other industries or businesses where the customers demand what they pay for – which means they demand quality product or service, the primary customers of SUCs-students and parents, who only pay a little fraction of the cost of education and are oblivious to its huge hidden cost being shouldered by the general tax payers, the customers are indifferent to the quality of management and other services being extended to them (Mancao, 2009).

The system of financial dependence of university solely on government subsidy established a system that is insufficiently responsive to either the students it served or to the tax payers who paid. By shifting greater reliance on market signal brought about by shifting, some of the cost burden from the tax payers to students and parents will also bring a shift in decision making power in SUCs form the government/management to the consumer or client, whether students, parents, businesses, or the general public (Johnstone, 1998).

Greater reliance on consumer or client payment is what prompts private firms to operate not only efficiently but also with high consideration to quality assurance. On the other hand, in SUCs, the students – the consumers or clienteles are usually indifferent to demand efficient service, sufficient support mechanisms and infrastructure, and worst quality education. This may be the reason why majority of the SUCs tend to operate inefficiently (Cuenca, 2011).
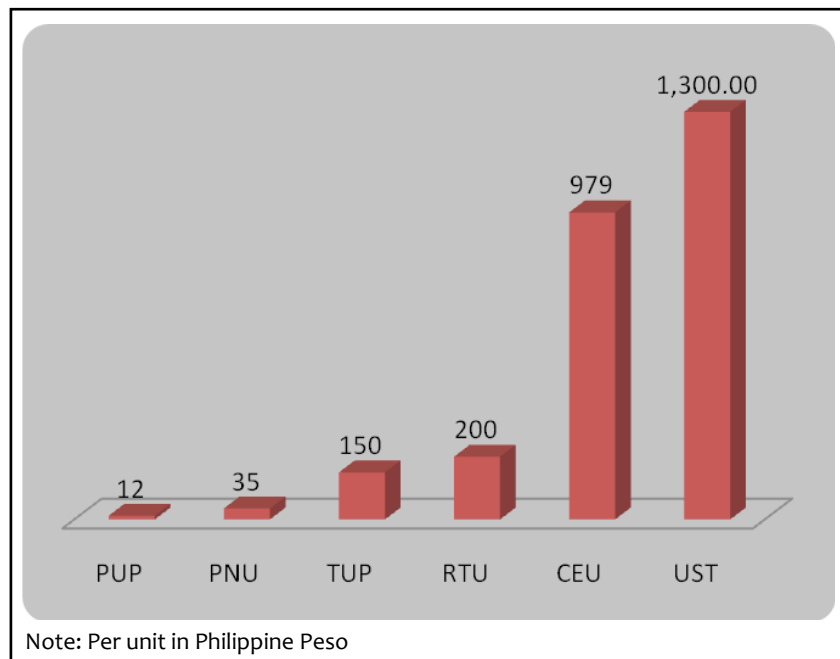

Note: Per unit in Philippine Peso

Figure 5:
Comparative Tuition Fee of Selected HEIs (Higher Education Institutions) in NCR (National Capital Region)

About the Estimation and Analysis of Cost of Degree Programs in PNU (Philippine Normal University). There are already many researchers providing frameworks and methodology in estimating the cost of degree programs in higher education (*cf* Tan, 2003; Santiago *et al.*, 2005; and Valderama, 2005). Although, as mentioned above, this part of the research adapted the cost estimation framework and methodology used by E. Tan (2003) and H. Valderama (2005), the researchers found it best not to follow the rigorous cost disaggregation utilized by both researchers as available accounting data of PNU does not permit such kind of rigorous analysis. Although with more time, studying the methodology and preparing the accounting data of the university, such as cost disaggregation analysis, can be done in future studies.

PNU was established in 1901 by the American colonial government as a lead institution in the training of teachers in the country. Since its founding, PNU has remained basically true to its original mandate and offered only teacher related courses. The university, then, had four colleges: College of Education (CED), College of Arts and Social Sciences (CASS), College of Science (COS),

and College of Languages, Linguistics, and Literature (CLLL). Among the courses offered by the different colleges, BECED (Bachelor of Early Childhood Education), BSE (Bachelor of Science Education) Values Education and BS (Bachelor of Science) Psychology prescribed the lowest number of credit units respectively. On the other hand, the prescribed number of units of the courses offered by the COS were generally much higher than all the other Colleges. This is especially true on the courses: BSBT (Bachelor of Science in Biology for Teachers), BSNDT (Bachelor of Science in Nutrition & Dietetics for Teachers), BSPT (Bachelor of Science in Physics for Teachers), and BSMT (Bachelor of Science in Mathematics for Teachers). The number of prescribed credits of a course will generally affect the amount of its instructional cost so much, so that the higher the prescribed credit units of a course, the higher will be its cost.

The total cost of instruction and the total program cost vary on the different courses offered by the four colleges of the PNU. The two courses of the CED – BECED and BEED – which had the lowest program cost among all the PNU programs, PhP (Philippine Peso) 144,232 and PhP 150,964 respectively. On the other hand, three courses of the College of Sciences (COS) have the highest program cost, namely: BSNDT (PhP 185,872); BSPT (PhP 183,929); and BSBT (PhP 183,862).

What accounts to this difference in the program cost of the different courses are the number of prescribed credit units and the variation in instructional cost per student credit. BECED, for example, had the lowest prescribed credit units (182 units) and also the lowest instructional cost per student credit (PhP 519). On the other hand, BSNDT had the highest number of prescribed credit units (211 units) and the highest instructional cost (PhP 645).

As stated above, the number of prescribed credit units does affect the amount of program cost; however, the data points to the instructional cost per student credit as the strongest factor for the differences of the program cost of the different courses being offered by the four colleges. For example, BEED (Bachelor of Elementary Education), BSE

HE, and BSE (Bachelor of Science Education) English had the same prescribed credit units, but the program cost of these respective courses differs. This can be explained by the difference of each of the courses instructional cost per student credit: BEED (PhP 521), BSE HE (PhP 630), and BSE English (PhP 604). In fact, BSE Values Education and BS Psychology had a lower number of prescribed units – 188 and 189 respectively than BEED and BSE English, but their instructional cost per students credit were much higher – PhP 612 for BSE Values Education and PhP 641 for BS Psychology. The result is a much higher program cost for both BSE Values Education and BS Psychology than that of the BEED and BCED.

It is interesting to know what accounts for the differences in instructional cost per student credit of the different courses being offered by the university. We can cite several possible factors that may account for these differences. For example, the average size of the class of each of the courses of the different colleges, academic profile of the faculty, and the utilization of educational materials (science courses usually use more expensive materials and equipments in the laboratory). It can be noted that the College of Education (CED) had the highest average student credit units per faculty load (32) and College of Science (COS) had the lowest average student credit units per faculty load (15) among the four Colleges.

Given this findings, we can conclude that CED has a higher rate of utilization of instructional resources than COS. This may also account why courses at the CED have the lowest program cost among the four colleges, and courses in COS have the highest program cost. These findings can serve a useful input to the management of the university in planning the most efficient rate of instructional resources utilization in the university, while at the same time maintaining the highest possible quality of its educational services.

The data also are very useful in the analysis of the tuition fee policy of the PNU. COS, among the four Colleges, had the highest total cost per student credit (PhP 737), followed by CASS (PhP 647), CLLL (PhP 609), and CED (PhP 378) which have the lowest total cost per student credit. It is it also noteworthy to

note that the direct cost of instruction amounted to 60-68% of the total cost. These data approximate the "cost of production" of the university per credit unit a student took per course. If it is the cost of production in producing the educational services PNU offers its students, it is, therefore, a very good guidepost in deciding the appropriate tuition fee of any university.

It is to be noted that the current tuition fee being charged by the university (PhP 35 per unit) is extremely lower than both the direct cost per student credit and total cost per student credit of all the program offerings of the university. At best, the students are only paying 3-5 percent of the total cost of their education. The tuition fee, therefore, that the students are paying represents only a very minuscule part of the cost of instruction that they are receiving. A large portion of the cost of instruction is hidden to the students, because the national government is shouldering a significant part of the cost through annual subsidy appropriated to PNU. The question, therefore, is whether this situation is efficient and optimal financially as well as equitable for the university?

The result of the cost estimation will hopefully give the policy makers of the university, a concrete insight on the cost of the educational programs being offered by the university as it impacts on the efficiency of its resource utilization and its current tuition fee policy. The estimates on the direct cost of instruction per student credit and the total cost of instruction per student credit can serve as one of the useful benchmarks of the administration of the university in determining the efficiency of the current tuition fee rate as it responds to an ever increasing demand of its stakeholders to continuously raise the level of quality of the educational services, it is providing its students having been declared as the National Center for Teacher Education (NCTE) in 2009, and as it asserts its rightful
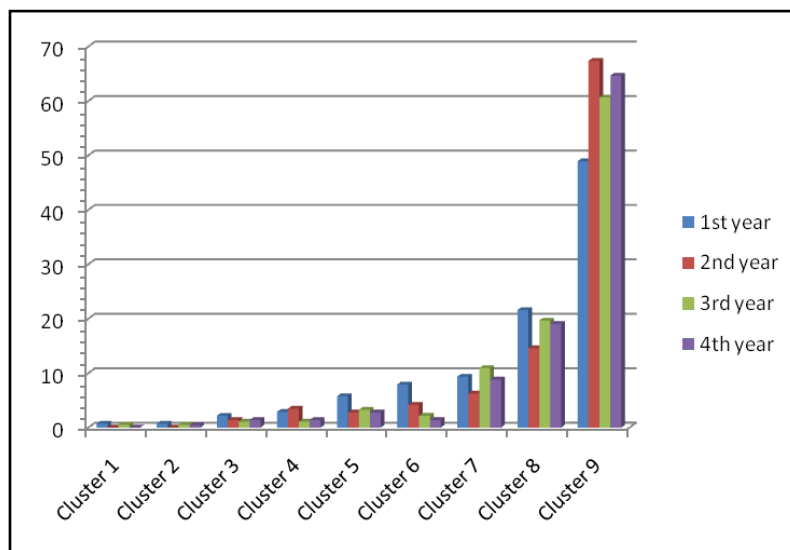

Figure 6:
PNU (Philippine Normal University) Students and Socio-Economic Classification per Year Level (1st to 4th Year), in Percent

place in Asia and the world as a premier teacher-training institution.

About the Socio-Economic Classification of PNU (Philippine Normal University) Students. Based on the responses to the items in the 1SEC (Socio-Economic Classification) instrument, the students' socio-economic clusters were identified. The results showed that a big majority of the respondents (415 or 60.94%) belonged to Cluster 9, while only a little over 2% belonged to Clusters 1, 2, and 3, the least spending clusters. This finding implies that students of the university belonged to families with better earning capacity who can afford big expenditures, a finding confirming that of Maria Carmela T. Mancao (2009).[3]

First, **Socio-Economic Classification of PNU Students by Year Level.** The following graph shows the socio-economic classification of PNU (Philippine Normal University) students by year level using the 1SEC instrument. See the figure 6.

The following percentages were recorded among the students: 0.72% (1st year), 0% (2nd year), 0.55% (3rd year), and 0% (4th year) under Cluster 1. In Cluster 2, the following percentages were recorded: 0.72% (1st year), 0% (2nd year), 0.55% (3rd year), and 0.47 % (4th year). In Cluster 3: 2.16% (1st year), 1.39% (2nd year),

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[3]See also, for example, http://www.pnu.edu.ph/wp-content/uploads/2014/08/Normal-Lights-Vol_7_no2-2013_WEB_Ver.pdf [accessed in Manila, Philippine: August 28, 2014].

1.09% (3rd year), and 1.40% (4th year) were the percentages yielded. In Cluster 4, the following percentages were recorded: 2.88% (1st year), 3.47% (2nd year), 1.09% (3rd year), and 1.40% (4th year). In Cluster 5, the following percentages were yielded: 5.76% (1st year), 2.78% (2nd year), 3.28% (3rd year), and 2.79% (4th year). In Cluster 6: 7.91% (1st year), 4.17% (2nd year), 2.19% (3rd year), and 1.40% (4th year) were the percentages gathered. In Cluster 7, the following percentages were yielded: 9.35% (1st year), 6.25% (2nd year), 10.93% (3rd year), and 8.84% (4th year). In Cluster 8, the following percentages were recorded: 21.58% (1st year), 14.58% (2nd year), 19.67% (3rd year), and 19.07% (4th year). In Cluster 9, the following percentages were recorded: 48.92% (1st year), 67.36% (2nd year), 60.66% (3rd year), and 64.65% (4th year).

The figure 7 presents the Socio-Economic Classification (SEC) of first year to fourth year students of PNU (Philippine Normal University). For the first year students, .72% belongs to Cluster 1; .72% belongs to Cluster 2; 2.16% belongs to Cluster 3; 2.88% belongs to Cluster 4; 5.76% belongs to Cluster 5; 7.91% belongs to Cluster 6; 9.35% belongs to Cluster 7; 21.58% belongs to Cluster 8; and 48.92% of all the first year student-respondents belongs to Cluster 9. The highest percentage under Cluster 9 are the first year students (48.92%).

For the second year students, there were no respondents who belong to Cluster 1 and 2; 1.39% belongs to Cluster 3; 3.47% belongs to Cluster 4; 2.78% belongs to Cluster 5; 4.17% belongs to Cluster 6; 6.25 belongs to Cluster 7; 14.58% belongs to Cluster 8; and 67.36% belongs to Cluster 9. About seven out 10 among the second year students are categorized under Cluster 9 (67.36%).

For third year students, .55% belongs to Cluster 1 and likewise .55% belongs to Cluster 2; 1.09% belongs to Cluster 3; 1.09% belongs to Cluster 4; 3.28% belongs to Cluster 5; 2.19% belongs to Cluster 6; 10.93% belongs to Cluster
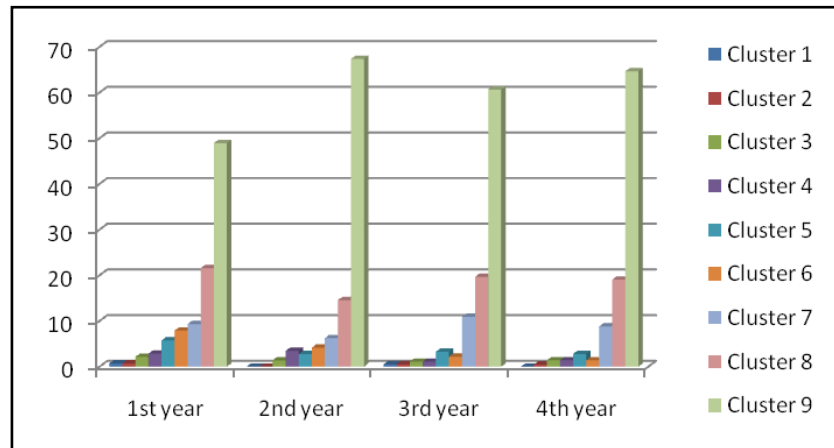

Figure 7:
Socio-Economic Classification of PNU (Philippine Normal University) Students by Year Level, in Percent

7; 19.97% belongs to Cluster 8; and 60.66% belongs to Cluster 9. A big majority of the third year students were classified under Cluster 9 (60.66%).

For the fourth year students, nobody was categorized under Cluster 1; .47% belongs to Cluster 2; 1.40% belongs to Cluster 3; 1.40% belongs to Cluster 4; 2.79% belongs to Cluster 5; 1.40% belongs to Cluster 6; 8.84% belongs to Cluster 7; 19.07 belongs to Cluster 8; and 64.65 belongs to Cluster 9. A big majority of the fourth year students were classified as Cluster 9 (64.65%).

Second, **the Issue of Equity.** The result of the socio-economic clustering of PNU (Philippine Normal University) students, though preliminary at best and has to be subjected to finer analysis and more verification, is a resounding message. The university's primary clientele – the students – contrary to popular belief has high "ability to pay" than what the university assumes they can. For many years, administrators, alumni, faculty, and the students themselves fervently argued against any increases in the tuition fee of the university citing the issue of equity, the adherence to the principle of education for all and the primary role of the government to educate its citizens.

In fact, this popular notion has been a widely held belief in the university as evident in its history of tuition fee increases. In a span of more than half a century since 1958, tuition fee increased only five times, thus marginal increases, as analyzed, are merely increases in

the nominal tuition fee rate, but the real tuition fee rate of the University has fallen through the years.

DISCUSSIONS

The findings of the survey validated the result of other researchers on this topic (Hauptman, 2001; Manasan, Cuenca & Eden, 2008; and Joshi, n.y.), that opportunity for higher education is heavily skewed toward the children of relatively affluent families. This further advanced the view of the regressive nature of spending in higher education. It highlighted the fact that the poor rarely reached higher education (Cuenca, 2011).

Another popular belief, with regard to tuition fee, is that increasing the cost of the attending higher education would reduce the number of applicant and would especially marginalize the poorest group of students. Although many share this widely popular belief, empirical studies showed otherwise. An empirical study on the socio-economic gap in UK (United Kingdom) higher education revealed that much of the impact of social class from university attendance occur well before entry into higher education (Rueda, Gutierrez & Vignoles, 2004).

F. Rueda, O. Gutierrez & A. Vignoles (2004) further argued that the problem of access to higher education is, in fact, not rooted to in higher education sector itself, but on the educational gap between poorer and richer students prior to their entry into colleges and universities. Also, a study of the effect of rising tuition fee and enrollment to higher education in the USA (United States of America) showed that despite an increase in the real tuition fee rate, no evidence was found of an increase in the tuition elasticity of enrollment in public four year institutions (Hemlett & Marcotte, 2008). Researchers estimated that a mean of USD 100 increase in tuition and other fees would lead to a decline in enrollment of a little more than 0.25% (Hemlett & Marcotte, 2008).

Given this elasticity result, the authors concluded that tuition fee can be used as a tool to offset revenue losses from declining government appropriation. The estimation of the tuition elasticity of PNU (Philippine Normal University) students is an interesting research topic that researchers of the university can pursue in the future to provide more empirical basis for policy making.

Another argument against the popular belief, that tuition fee is a deterrent to access to higher education, is that students and their family do not only look at the cost of education but also to the future benefits that they would get from getting a degree. In a study on the economic return to Philippine public higher education, it is estimated that the private return to education ranged from 19.7% to 24.9%. These returns, according to the study, are higher than the return in the stock market or any other investment instrument currently out there in the Philippine market (Avestruz, 2012).

This finding was supported by K. Joshi (n.y.), which reiterated the fact that the Philippine rate of return to education despite being categorized as a developing country is more comparable to that of a developed country. R. Manasan (2012) pointed also out that graduate of higher education do internalize a significant portion of the benefits of higher education in the form of higher income stream in the future. To simply argue that mere tuition fee increases would deter access to higher education may not only be simplistic, but may also be devoid of empirical foundation.

In the Philippines, parents do not need more convincing that the net private benefit of education is greater than the cost of such education. This is evident in the fact that higher education in the Philippines is characterized by high attendance rate, which implies that there is widespread private interest among the populace in educational investing (Joshi, n.y.).

Therefore, if the objective of the university is to make sure that those who are interested to take up education would be able to enroll, it is not efficient or even rational to subsidize through low tuition fee policy those who would enroll in the university on their own accord because one, they have the "ability to pay", and then, they know that the marginal benefit of a college degree is greater than the marginal cost of getting it. A targeted subsidy is, therefore, more efficient than a general subsidy like a low tuition fee policy (Mankiw, 1997). The government should subsidize either through direct aid, scholarship, tuition fee

waiver, and others only those whom these subsidy would be a deciding factor in favor of enrolling in the university (Bloom & Sevilla, 2003).

P. Marcucci & A. Usher (2011) stated that the Philippines, together with Pakistan and Thailand, faced the largest increase in barriers to education in 2010. In these countries, even though tuition fee did not rise, all experienced major cut in student financial assistance. The researchers further stated that the government of these countries believed that not increasing tuition fee is an effective way to keep higher education accessible (Marcucci & Usher, 2011). However, they maintained that the policy of holding the line on tuition fee, while at the same time reducing direct aid to the poorest is in fact a highly regressive policy, which benefits only the affluent. Direct aid like giving scholarship grant, living allowances, loan scheme, etc. to poor, but deserving students has a more progressive effect than maintaining the level of tuition fee, which based on researches all over the world benefits more the relatively richer group of the populace than the poor which the policy intended to help (Preddey & Nuqui, 2001).

The main findings of this research revealed that the increases in the tuition fee rate implemented by the PNU (Philippine Normal University) in the past half century merely resulted in increasing the nominal value of the tuition fee, but its historical real value has been whittled away by inflation. The determination of tuition fee rate in the university is arbitrary and is not based on scientific and research-based criteria. This can be gleaned from the very high differences in the tuition fee being charged by the university compared with other SUCs (State Universities and Colleges) in NCR (National Capital Region) offering teacher education.

There may be some differences in the cost structure of each of this university, but essentially they are all public institutions located in the same region, which means they are operating in the same economic environment. What accounts for the big differences in the tuition fee these institutions charge is the arbitrariness, in which they determine their own tuition fee rate. A simple

correlation study on inflation and tuition fee increases in the different regions of the country found only 25% correlation between these two variables (Tenezas, 2011). Though, further research on the matter is needed to validate this finding.

The result of the cost estimation of the different courses, especially the estimated direct cost of instruction per student credit and the total cost of instruction per students credit, will be a very useful benchmark in determining the efficiency of the current tuition fee policy of the university and in deciding the possible adjustment to the current tuition fee rate the administration of the university will take in the future as it strikes a delicate balance between continuously increasing the quality of educational services, it is offering its students and maintaining the level of equity it is known for, especially for the poor but deserving students. A significant portion of the university's student populace have very high "ability to pay" as indicated by the 1SEC (Socio-Economic Classification) clustering result which classified many students belonging to the upper clusters (Cluster 8 and 9).

As mentioned earlier, the results of the 1SEC surveys, though quite insightful, is at best preliminary and it is suggested that the university management validate the survey results using income-based instrument supported by official documents, such as the Income Tax Return (ITR). It is interesting though to note that the 1SEC instrument was also adopted by the universities of the Philippines in their determination of an alternative bracketing scheme of their StuFAP (Student Financial Assistance Programs). A research by Abansi in 2012, as cited by R.P. Gonzalo (2013), found out that the 1SEC and the previous bracketing instrument used by the UP (Universities of the Philippines) – StuFAP, which is highly dependent on income data, are highly correlated.

Several significant policy issues have been opened up by this research. The demand for public resources are going to be more intense as the government faces more demand from the public for better public services like health, housing, infrastructure, modern facilities, security, and more emphasis on improving

the quality of basic education. T. Reindl & D. Brower (2001) argued that since the budget of higher education institutions is one of the biggest discretionary items in the national budget and because of the perceived ability of this institution to tap other sources of funding, law makers tend to lavish spending in higher education in strong economic time and choke heavily in times of crisis. This phenomenon has been described by Hal Hovey as the "balance wheel effect" (cited in Salmi & Hauptman, 2006). SUCs, like PNU, have to diversify its sources of fund in order to continue operating optimally.

Diversification of financing, therefore, is one of the recommendations of many experts to combat the "balance wheel effect" described by Hal Hovey as cited by WB (World Bank) in 1994; D. Johnstone (1998); and J. Salmi & A. Hauptman (2006). The specific strategy in which diversification of resources can be implemented will be up to the policy makers of the university. This research will hopefully serve as a useful input for them. The emergence of market orientation in education, for many years, policy makers have debated whether the pursuit and attainment of a higher education degree is primarily a public good (benefitting the society as a whole) or a private good (benefitting the student receiving the education).

Nicholas Barr (1993) and D. Johnstone (1998) explained that higher education meets many of the condition that meets the characteristic of a private good, amenable to the forces of the market, and cannot be completely treated as a public good as what the popular notion suggests. Many believe that this debate will rage on, but there is a sense among policy makers that the ascendance of the private benefits perspective is happening. With empirical researchers establishing the high rate of return of education, more and more are believing that the primary return on investment to education is individual rather than collective; and, therefore, those that benefit directly should assume greater share of the cost. Students who significantly can expect a greater lifetime earning as a result of attending higher education and who also often come from families with relatively high "ability to pay" should share the burden of the cost of that education (WB, 1994).

Also, D. Johnstone (1998) pointed out that the shifting of some of the cost burden from the general tax payer to students and parents reflects a reform towards the direction of greater equity and a more reasonable alignment of those who pay with those who benefits. The management of PNU should seriously look into the findings of this research, especially of the cost estimation of the different programs and the socio-economic clustering of students.

CONCLUSION

The findings are pointing to a need for the university to revisit its views on the issue of cost-sharing and cost-recovery as part of its tuition fee policy and start the dialogue among its stakeholders addressing this issue. The discussion can also be expanded to reforms on the level of accountability in the university, as the students and parents share more the cost burden of education they will truly act like a wise and responsible costumers/clientele mindful of the quality of services the university provide and demand more vigorously involvement on how the policy and academic programs of the university are crafted and implemented.

Existing government policy mandated the adoption of a StuFAP (Student Financial Assistance Programs). This coupled, with the implementation of the socialized tuition fee system like what UP (University of the Philippines) adopted, will give sustainability to the assistance program.[4] It is, therefore, high time that the policy makers of the university should study how this existing policy can be applied to the circumstance of PNU (Philippine Normal University), while maintaining its adherence to its primary mandate to produce quality teachers for the country. It is, therefore, recommended that future research on cost estimation and socio-economic clustering of students be expanded to include the other campuses of PNU.

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[4]See, for example, "Republic Act 8292, CMO #58, s. 2012, on the Higher Education Modernization Act of 1997". Available [online] also at http://www.lawphil.net/statutes/repacts/ra1997/ra_8292_1997.html [accessed in Manila, Philippine: August 28, 2014].

As the PNU matures, as an institution of higher learning, it is naturally beset by many challenges and difficulties, more specifically on how it will find sufficient resources to finance its quest to soar into greater heights not only as the National Center for Teacher Education (NCTE), but also as an academic institution recognized and respected in the ASEAN (Association of South East Asian Nations) region and the world; but at the same time still maintains its status as a school for the *"iskolar ng bayan",* that is the poor but deserving students who wish to travel the road of teaching.

To face these challenges, researchers like this can serve as a stepping stone for policy makers and managers of the university to craft a sustainable plan and effective strategy. Bottom line is the strong commitment to effect changes to the university's mind-setor paradigm on the issue of cost-sharing, fiscal efficiency, and research-based governance is what would really matters the most.

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