

Policy Brief on Education: A Discussion on the Value of Free Higher Education

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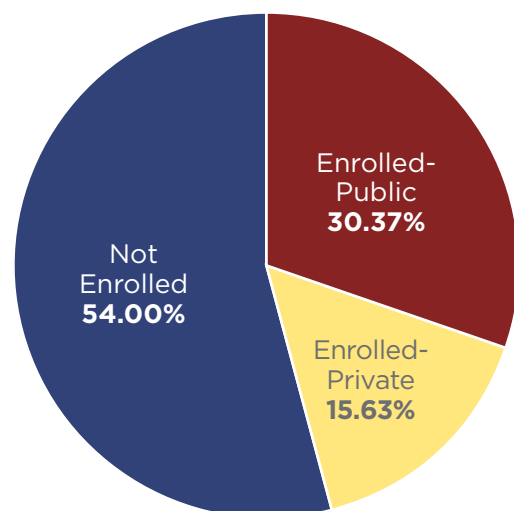
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Introduction

Statistics derived from data collected by the Philippine Statistics Authority (PSA) reveal that a considerable proportion of college-aged youths are not in school. More specifically, unweighted estimates derived from the 2014 Annual Poverty Indicators Survey (APIS) database reveal that 54% of youths aged 16 to 21 are not in school (Figure 1).

Figure 1: Distribution of Youths Aged 16 to 21 According to Enrollment Status in 2014

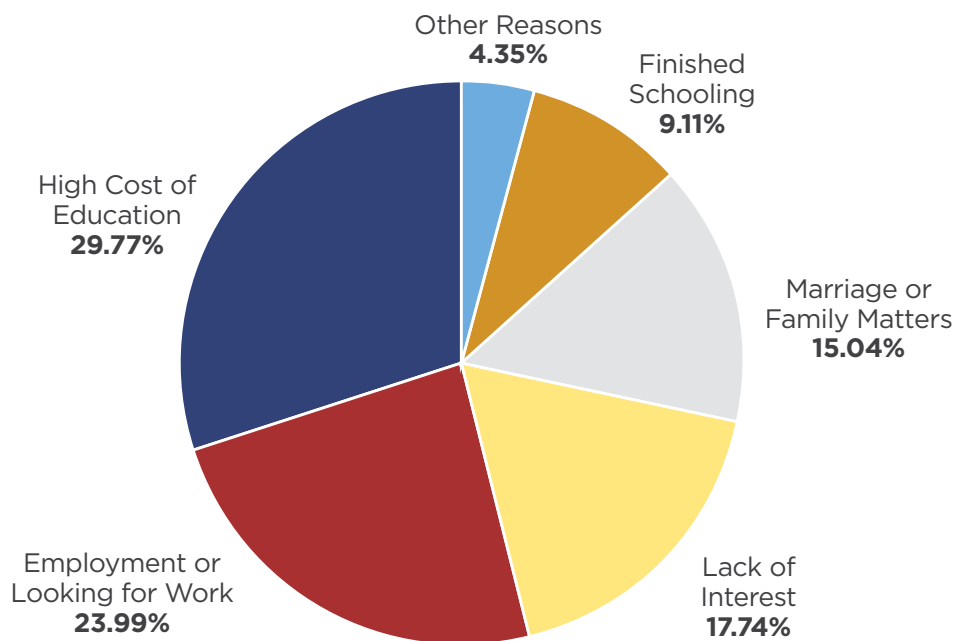


Source: Summary Statistics Computed from the 2014 APIS

A closer look at the data provides several valuable insights into the breadth and depth of the issue (Figure 2). 29.77% of these out-of-school youths indicated that they are currently not in school because of the high cost of education. 23.99% of these out-of-school youths indicated that they are not in school because they are either employed or looking for work. Put together, it can be inferred that many Filipino youths are kept from acquiring a college education because of their inability to pay. The data provide evidence that suggests that many among our youths cannot afford the opportunity costs associated with college. Using estimates generated from Census 2010 and APIS 2014 data, approximately 3.4 million Filipinos aged 16-21 are not in school because of financial constraints.

These statistics could be viewed to suggest that current strategies to promote access to higher education are largely inadequate. Seemingly unstoppable increases in tuition fees coupled with fiercer competition for scholarships in a burgeoning youth population further suggest that the problem of access to higher education is poised to intensify in the coming years. There is thus an urgent need to reassess the manner in which the government intends to broaden access to quality higher education.

Figure 2: Distribution of Primary Reasons among Out-of-School Youths Aged 16 to 21 in 2014



Source: Summary Statistics Computed from the 2014 APIS

What follows is an elaboration on (1) the importance of broadening access to quality higher education, (2) the costs of abolishing tuition fees in state universities and colleges, and (3) the immediate or short-run returns of enacting the Free Higher Education Act.

The Primacy of Higher Education in Promoting and Sustaining Development

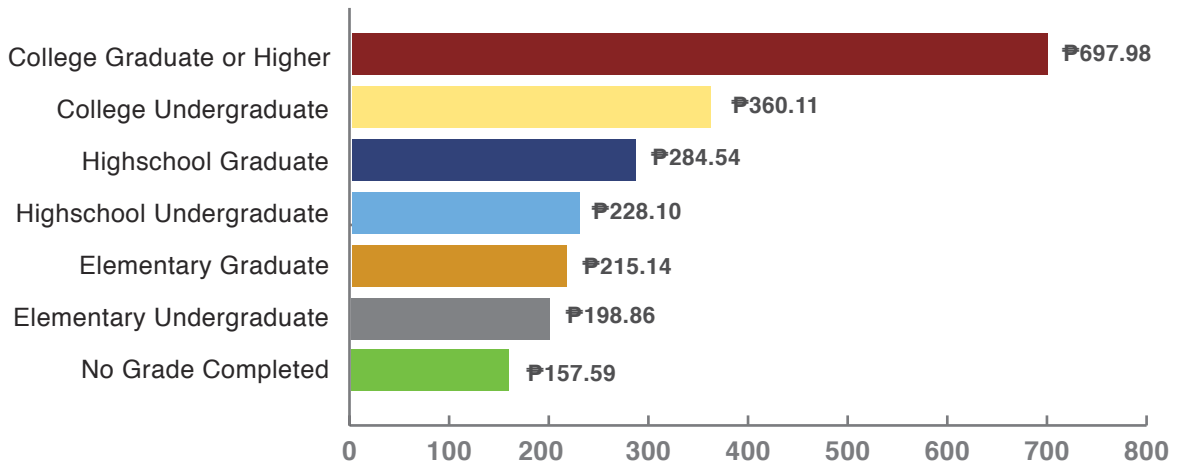
The importance of access to higher education to industrialization and sustained economic development is well-documented. The economic success and rapid social transformation of Asian tigers Taiwan, South Korea, and Singapore could be attributed, in part, to their commitment to broadening access to high quality secondary and tertiary education (Morris 1996). Despite differences in mode of governance, cultural backgrounds, geopolitical stature, and level of economic development, all of these countries demonstrated a marked affinity for investing in education. More specifically, all of these countries recognized the centrality of high-level human resources in socioeconomic development, placed tremendous emphasis on human resource development, and invested heavily in ALL levels of education. Similarly, the accumulation of graduate skills has been shown to positively affect labor productivity growth and industrial development (Holland et al. 2013, Bloom et al. 2006, Lin, 2004). China's decision to deepen investments in higher education could be argued to have been indispensable to its industrialization and its subsequent economic expansion. The pivot of the global economy towards skill-intensive and technology-intensive industries, products, and services further underlines the importance of higher education to economic development.

On the micro-level, evidence points to a positive relationship between the level of education of an individual and his or her potential labor market outcomes (i.e. the variety and quality of his or her labor market options). According to Fasih (2008), education affects labor market outcomes in three distinct ways. First, the acquisition of specialized skills increases the capacity of an individual to start a business and/or participate in the labor market. Second, the type of education and the level of education determine the occupational opportunities or choices available to an individual. Put differently these factors determine an individual's horizontal and vertical mobility within the labor market. Third, educational

attainment, through the acquisition of proficiency and acuity in performing highly-specialized tasks, determines the income earning capacity of an individual. It is important to note at this junction that increases in income generating capacity correspond to increases in the capacity of an individual to save. Increases in an individual's capacity to save, in turn, reduces his or her vulnerability to economic shocks. It can thus be inferred that increasing access to higher education can be instrumental in keeping people out of poverty and lifting people out of poverty.

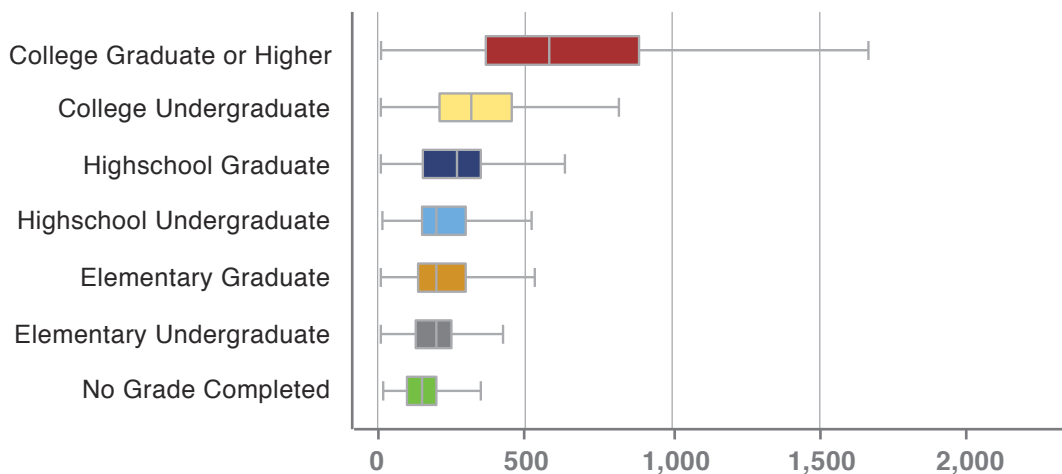
Several studies have elaborated on the third channel through which education affects labor market outcomes. More specifically, Orazem, Glewwe, and Patrinos (2008) and Hanushek and Woessman (2008) investigated and discussed the importance of both minimal and high level skills to individual earning capacity. Both studies suggest that increases in the number of years of schooling result in significant increases in income generating capacity. A study by Luo and Terada (2009) reveals that returns to education are monotonically increasing – meaning that additional years of schooling correspond to increases income earning capacity. Moreover, their results indicate that education is the single most important factor in determining wage differentials. A more recent study made by Yap and Melchor (2015) demonstrates that the number of years of schooling is significantly and strongly associated with income generating capacity in the Philippines. To further emphasize this point, the following provides summary statistics culled from the 2014 Labor Force Survey (LFS). Even in the absence of an empirical model, the descriptive statistics make it clear that the level of education of an individual has a strong positive influence on his or her income.

Figure 3: Average Basic Daily Pay by Highest Level of Education in 2014



Source: Computed from Labor Force Survey 2014

Figure 4: Box-plots of Basic Daily Pay According to Highest Level of Education in 2014



Basic Daily Pay Excludes Outside Values

Source: Computed from Labor Force Survey 2014

Figure 3 illustrates the magnitude of the gaps that exist between the average basic daily pay of college graduates and the average basic daily pay of non-college graduates. The average basic daily pay of a college graduate is more than twice the average basic daily pay of a high school graduate – and more than thrice the average basic daily pay of an elementary graduate. Apart from placing emphasis on the stark inequality between the average incomes of college graduates and non-college graduates, Figure 3 also provides an idea of the potential personal economic returns of a college education.

Figure 4 summarizes the distributions of basic daily pay across the various levels of educational attainment. Figure 4 clearly indicates that the median basic pay per day increases with the level of education. The figure also makes it clear that higher levels of educational attainment correspond to higher proportions of individuals with higher levels of income. As an example, it can be observed that 75% of individuals with at least a college degree have basic pay per day values higher than 75% individuals who stopped schooling upon graduating from high school.

The observations distilled from the statistics above suggest that broadening access to higher education could result in increases in income tax revenues. Table 1 summarizes existing tax brackets. Table 2 provides rough estimates of tax liabilities by highest level of education. (Computation based on prevailing tax rates for individuals without qualified dependent with estimated annual pay considered as net taxable income). The statistics indicate that, on average, the annual income tax of an individual with at least a college degree will be over thirteen times the annual income tax of a high school graduate. These results suggest that the government stands to reap considerable pecuniary benefits from investing in higher education. Put differently, these statistics suggest that investing in free higher education results in tangible returns in the form of tax revenues. Given the wage estimates above, an average tuition fee subsidy of 30,899.91 (assuming 5% annual tuition inflation), and existing tax brackets, an SUC graduate, on average, will need only 21 months of income tax payments to refund his or her entire tuition fee subsidy – which, in turn, implies that all income tax revenues collected beyond those 21 months are above and beyond his or her entire tuition fee subsidy. Beneficiaries of the Free Higher Education Act will essentially ‘pay it forward’ and create a ‘virtuous cycle’ – by generating tax revenues that could then be used for the tuition subsidies of succeeding generations of Filipino youths.

Table 1: Current Tax Brackets and Tax Liabilities

Minimum Wage Earner	EXEMPT
60,000 TO 80,000	500 + 10% IN EXCESS OF 60,000
80,000 TO 120,000	2,500 + 15% IN EXCESS OF 80,004
120,000 TO 190,000	8,500 + 20% IN EXCESS OF 120,000
190,000 TO 300,000	22,500 + 25% IN EXCESS OF 190,000
300,000 TO 550,000	50,000 + 30% IN EXCESS OF 300,000
Over 550,000	125,000 + 32% IN EXCESS OF 550,000

Source: Bureau of Internal Revenue

Table 2: Tax Liability Estimates by Highest Level of Education in 2014

	Basic Pay Per Day By Highest Educational Attainment	Estimated Monthly Pay	Estimated Annual Pay (12 Months)	Tax Liability
No Grade Completed	157.59	3,151.80	37,821.60	EXEMPT
Elementary Undergraduate	198.86	3,977.20	47,726.40	EXEMPT
Elementary Graduate	215.14	4,302.80	51,633.60	EXEMPT
High School Undergraduate	228.1	4,562.00	54,744.00	EXEMPT
High School Graduate	284.54	5,690.80	68,289.60	1,328.96
College Undergraduate	360.11	7,202.20	86,426.40	3,463.96
College Graduate or Higher	697.98	13,959.60	167,515.20	18,003.04

Source: Computed from Labor Force Survey 2014

The Cost of Abolishing Tuition Fees in State Universities and Colleges

Data from the State Universities and Colleges Statistical Bulletin 2013-2014 published by the Commission on Higher Education (CHED) provide several key statistics on the costs of tertiary education. Table 1 summarizes the estimated costs of abolishing tuition fees in all SUCs. The tuition inflation rates and student population growth rates are indicated in the first row of the aforementioned table. The summary statistics below suggest that the cost of the Free Higher Education Act is likely in between 12 billion pesos and 16 billion pesos.

REGION	2016 BUDGET LOWER BOUND (1% Growth in Tuition Fee OR Student Population)	2016 BUDGET LOWER BOUND (1% Growth in Tuition Fee AND student Population)	2016 BUDGET UPPER BOUND (5% Growth in Tuition Fee OR Student Population)	2016 BUDGET UPPER BOUND (5% Growth in Tuition Fee AND Student Population)
ARMM	93,425,634.08	96,256,524.22	104,971,119.75	121,517,192.50
CAR	143,427,171.91	147,773,158.65	161,151,818.63	186,553,374.04
I - Ilocos Region	379,035,889.44	390,521,055.92	425,876,924.81	493,005,775.09
II - Cagayan Valley	204,324,761.00	210,516,005.58	229,575,096.45	265,761,871.03
III - Central Luzon	1,186,231,896.60	1,222,175,909.30	1,332,825,746.36	1,542,912,404.63
IVA - CALABARZON	874,673,158.19	901,176,629.56	982,764,759.77	1,137,673,055.03
IVB - MIMAROPA	402,494,075.21	414,690,048.18	452,234,059.58	523,517,453.22
IX - Zamboanga Peninsula	1,529,500,307.80	1,575,845,696.62	1,718,515,068.72	1,989,396,006.42
NCR	3,607,504,460.53	3,716,815,453.19	4,053,317,769.40	4,692,221,982.80
Region IX (ARMM)	57,510,855.76	59,253,492.20	64,618,013.96	74,803,428.41
V - Bicol Region	537,783,740.25	554,079,125.36	604,242,742.95	699,486,505.31
VI - Western Visayas	701,085,603.90	722,329,198.78	787,725,356.20	911,890,565.47
VII - Central Visayas	414,384,228.87	426,940,485.39	465,593,591.53	538,982,781.40
VIII - Eastern Visayas	574,660,685.76	592,073,479.20	645,676,920.00	747,451,744.52
X - Northern Mindanao	606,713,813.51	625,097,848.77	681,691,154.68	789,142,722.94
XI - Davao Region	131,638,579.14	135,627,359.73	147,906,398.40	171,220,144.45
XII - SOCCSKSARGEN	209,151,824.21	215,489,333.64	234,998,685.34	272,040,353.11
XIII - Caraga	188,912,127.73	194,636,354.11	212,257,778.91	245,714,911.31
Grand Total	11,842,458,813.89	12,201,297,158.41	13,305,943,005.42	15,403,292,271.65

Source: Summary Statistics Computed from the 2013-2014 SUC Bulletin

The potential cost of tuition free education in all SUCs could be argued to be reasonable given the enormity of the 2016 national budget. More specifically, free higher education would cost our national government only an additional 15.4 billion pesos – approximately 0.51% or half a percentage point of the entire three trillion pesos national budget.

Conclusion

The preceding discussion provides a brief overview of (1) the exclusivity of higher education in the Philippines and (2) the potential costs and benefits of abolishing tuition fees in SUCs. The recognition of the exclusivity of higher education places emphasis on the importance of reviewing and restructuring the strategies that the Philippine government currently employs to broaden access to quality higher education services. The abolition of tuition fees in SUCs through the enactment of the Free Higher Education Act could be viewed to be a sensible and viable strategy – given that its immense personal and social benefits could be argued to dwarf its estimated total cost.

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