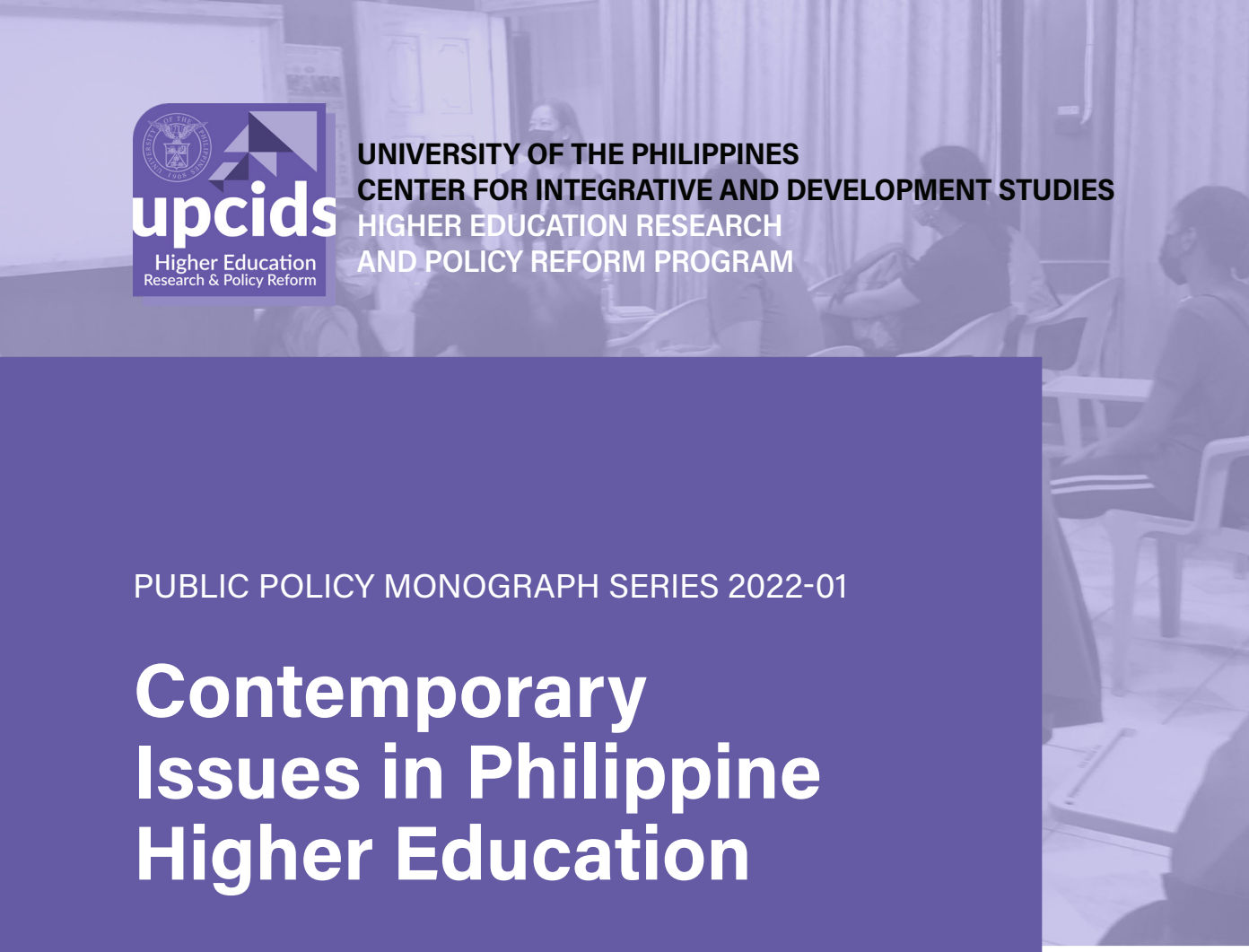

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CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES
HIGHER EDUCATION RESEARCH
AND POLICY REFORM PROGRAM

PUBLIC POLICY MONOGRAPH SERIES 2022-01

Contemporary Issues in Philippine Higher Education

Fernando dlC Paragas
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The **UP CIDS PUBLIC POLICY MONOGRAPH SERIES**
is published quarterly by the
UNIVERSITY OF THE PHILIPPINES
CENTER FOR INTEGRATIVE AND DEVELOPMENT STUDIES
Lower Ground Floor, Ang Bahay ng Alumni
Magsaysay Avenue, University of the Philippines
Diliman, Quezon City 1101
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ISSN 2719-0722 (print)
ISSN 2719-0730 (online)

Acknowledgements

Mr. Jayvee Cabardo, Ms. Roselle Wednesday Gardon, and Dr. Lorena Rabago acknowledge the assistance of the members of the teams from Asia Pacific College (APC) (Ma. Teresita P. Medado, Rhea-Luz Valbuena, Leonida Africa, Anna Roqueza, Jo Anne de la Cuesta, Robert Besana, Jose Eugenio Quesada, Hans Oliver Schuck, Mary Anne Romero, and Jervis Gonzales), IBM Team (Bettina Cutler, Andrea Escalona, and Cathy Taylor), ARISE (Hans T. Sy, Alexander P. Pama, Alex B. Cabrera, Ma. Teresita P. Medado, Maribeth Marasigan, Kenneth Y. Hartigan-Go, Raymond Rufino, Rene Meily, Ed Sunico, Antonia Yulo Loyzaga, Dr. Erdsan Rene S. Suero, and Simonette Lat), Resilient. PH (Ace Esmeralda and Wally Panganiban), Department of Science and Technology — Science and Technology Information Institute (DOST–STII) (Richard Burgos and Margaret Duremdes). They also want to thank SkillsBuild Innovation Camp student–participants, beneficiaries, mentors, and industry partners.

Mr. Karol Mark Yee wishes to thank Shaira Melissa Tengco and Dr. Fernando Paragas for their invaluable contributions to the writing of his paper.

Preface

This monograph features five articles that detail five key contemporary issues in Philippine higher education.

Karol Mark Yee examines private education with regard to its history and relationship with public education. In doing so, he reviews how policies have emerged from and subsequently reshaped the experiences of private higher education institutions (HEIs). He also provides nuance to heretofore traditional dichotomies of public–private HEIs by dividing the private sector into two segments. He then recommends steps to advance quality and improve equity in higher education by raising significant questions and identifying metrics for the future.

Ian Nicole Generalao and Clarissa David continue the exploration of the dynamic between public and private HEIs by more specifically looking into disciplinal and regional distributions. In the process, they examine the notion of complementarity in higher education and provide implications for its future path. The articles by Yee, as well as Generalao and David, show how policies are products and producers of changes in higher education. They indicate how we can leverage research and policy to improve higher education in the Philippines.

Outside of complementarity, public and private organizations can also relate to each other through partnerships, such as those fostered by the Asia Pacific College (APC) in its SkillsBuild Innovation Camp. In their paper, Jayvee Cabardo, Roselle Wednesday Gardon, and Lorena Rabago describe the Camp's principles, process, and impact. Documenting such tie-ups is important as we strive to develop the literature of various practices in Philippine HEIs.

Teresa Jayme-Ho focuses on how criminology programs and their students impact the national polity. She studies correlates of licensure exam performance and provides policy recommendations on improving criminology programs. The article can serve as an example for future research investigating issues on curriculum, licensure exam performance, and program development in other disciplines.

Finally, the article by Aileen Virrey Lapitan, Francis F. Faderogao, and Rowena DT Baconguis on the pandemic response of the University of the Philippines Los Baños (UPLB) exemplifies how universities in the Philippines are facing head-on the unprecedented challenges presented by the COVID-19 pandemic. It is also a fine example of the introspection and documentation that we need to make sense and record how HEIs are responding to the pandemic.

It is our fervent hope that this monograph, as a sampler of the issues in higher education, will motivate researchers to pursue the topics featured here in their respective capacities at the national, regional, and local levels, with their particular contexts in the public or private sectors and their specific disciplines.

Professor Fernando Paragas, Ph.D.
HERPRP Convenor and Monograph Editor

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The Changing Landscape of Philippine Higher Education:
Going Beyond the Public and Private Debate

Karol Mark Yee

Introduction

The Philippine higher education landscape has changed significantly in the past three decades: once reliant on private colleges and universities, it has since seen aggressive public expansion through the increasing number of state-funded institutions. Between 2000 to 2015 alone, private enrollment share declined steeply from 68% to just 48%. Despite these marked shifts, the study of higher education in the Philippines has not been well-attended by rigorous baseline and longitudinal research to enable thorough inquiry. Although this challenge is not unique to the Philippines (Levy 2018), such research is important in operationalizing the much discussed aim of complementarity in higher education—circumspect that it demands not only intersectoral but also intrasectoral efforts. Such study is likewise of value to literature, particularly given the country's standing as one of the top ten countries in the world with the largest enrollment in private entities (Levy 2018). This paper thus seeks to contribute to the scant literature on private education in two ways: *first*, by making sense of available metrics to describe public, non-profit, and for-profit higher education institutions (HEIs) in the country; and *second*, by extending to 2015 the seminal work of Estelle James (1991), profiling the private education sector of the Philippines in the 1980s.

Overall, the paper finds that underneath public–private trends, other significant shifts have occurred: within private, there was a hefty rise in student enrollment share among for-profit entities, amid a decline for non-profit ones. Although most private higher education institutions (HEIs) continue to be small relative to their public counterparts, for-profits appear to be larger than non-profits, despite having the same percentage in faculty with graduate degrees. Notably, in line with studies that

suggest the relationship between these indicators (student enrolment size and faculty qualifications) and quality, findings suggest the growing number and the improving quality of private for-profit while cautioning the steep decline of non-profit entities.

The paper begins by describing the history, context, and evolution of policies governing the sector. It then proceeds to juxtapose James' findings in 1985 with current trends as of 2015, highlighting changes that may have implications on access or quality. It concludes by proposing criteria that can advance the understanding of the three subsectors and identifying other research areas that could further scholarship and policy discourse.

1.1 The genesis of private higher education in the Philippines

The Philippine higher education system traces its origins to private colleges and universities, with many founded and established by Catholic religious orders during the Spanish colonial period (1521–1898). In fact, these private HEIs almost single-handedly provided access to higher education, especially outside Metro Manila, until the establishment of the University of the Philippines in 1908 and the subsequent creation of normal schools nationwide in support of the American colonial regime's effort to universalize primary education in the early 1900s (Ruiz 2014; Smith 1945).

As more students completed secondary education following the establishment of public basic education institutions all over the country, the demand for higher education mounted following the Second World War (McHale 1961), consistent with global trends. With the government's capacity outstretched because of the pre-war aim of attaining universal primary education, and given the limited capacity of traditional religious-owned colleges and universities (which was by design established to serve the elite), the later expansion of higher education was made possible through the emergence of new private entities. This gave rise to a new breed of private institutions in the country, which were largely secular and owned by pioneering Filipino professionals and foundations. Together with more established religious HEIs, these newer entities enabled the private sector to maintain its dominance well until the intensification of public higher education provision in the 1990s. Owing to this history, sectoral assessments and policy formulations in higher education have relied on two traditional dichotomies: of public versus private and of private sectarian versus private nonsectarian.

Given limited government finances, for most of the 20th century, public HEIs remained limited in breadth and scope. It was not until the 1970s—notably, through amalgamations of smaller trade schools and state colleges initiated by the Marcos government—and the later public expansion from the 1990s–2000s, that public

institutions, composed of both state universities and colleges (SUCs) and local universities and colleges (LUCs), began to play a more prominent role in higher education provision. This later entry and sudden expansion of public HEIs have thus inevitably created significant tension between public and private providers in relation to their respective mandates and roles in the Philippine higher education system.

In the influential Congressional Oversight Committee on Education (EDCOM), the lack of a "coherent policy framework and clear vision on the part of the policymakers for higher education as a whole and for the role of each type of institution within the system" (Congressional Commission on Education 1993) was lamented. EDCOM subsequently recommended the establishment of the Commission on Higher Education (CHED) in 1994 through Republic Act No. 7722, empowering it to "rationalize programs and institutions of higher learning" (Rep. Act No. 7722 [1994], § 8h). This was reiterated by the Presidential Commission for Educational Reform in 2000, which again recommended CHED's strengthening as an instrument for strategic development, as well as the rationalization of provision in terms of geographic location and program offerings, in a way where SUCs "will cease to crowd out, but rather complement, their private counterparts" (Presidential Commission on Educational Reform 2000, 29).

In 1994, the newly established CHED issued Resolution No. 4 mandating, among others, that only one state university per region and only one state college per province be established. Providing further that "a State College shall not be established in provinces with existing private colleges within a radius of fifty (50) kilometers depending on the projected student population" and that "the degree/non-degree courses to be offered shall meet the specific needs of the community and shall not duplicate the curricular offerings of a private/public institution within the same area and shall offer courses that is within the capability of the school to be established." Despite these policies, the unfettered growth of SUCs followed in the next two decades, with numbers reaching record highs during election years.

As of 2019, 3.41 million students were enrolled in college, with private HEIs accounting for a much reduced share of 54% (1.8 million) of the total student population—a steep decline from its 68% share in 2000 (figure 1.1). Although still accounting for most of the supply, many of these private institutions are very small, with 85% having a total enrolment of less than 2,000 students. Alongside their receding share, recent policy directions have likewise posed unintended consequences that have aggravated these challenges. In 2013, the government passed Republic Act No. 10533, or The Enhanced Basic Education Act of 2013, which implemented Grades 11 and 12 for the first time in 2016 and 2017. This meant that the inflow of high school graduates into HEIs was constricted, thereby posing profound threats to the sustainability of many schools that remained tuition-reliant. Not long after, in 2017,

the government then abolished tuition and fees in all state universities and colleges (SUCs)—a precursor to Republic Act No. 10931, or The Universal Access to Quality Tertiary Education Act, which aimed to improve access of disadvantaged students to higher education, albeit with the result of intensifying competition for students in an already tense space.

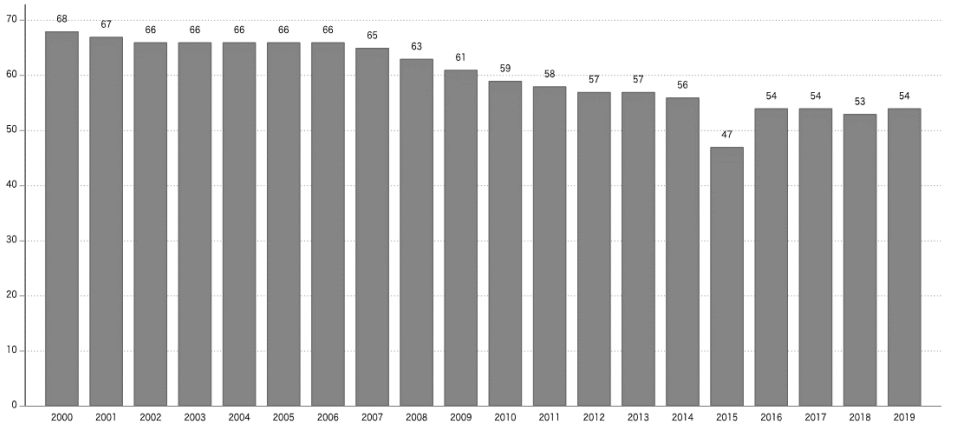

FIGURE 1.1. Student enrollment share of private HEIs (2000–2019)

1.2 The meandering road to complementarity between public and private education

Acknowledging the private sector's longstanding role, the 1987 Constitution provides that "the State recognizes the complementary roles of public and private institutions in the educational system and shall exercise reasonable supervision and regulation of all educational institutions" (Const., art. XIV, § 4[1]). This complementarity has been maintained, *de jure*, at the basic and higher education levels. In 1989, Republic Act No. 6728, or the Government Assistance to Students and Teachers in Private Education Act, established a government-funded voucher system for students enrolling in private high schools to balance the abolition of fees in public secondary institutions in the previous year. In fact, the Explanatory Note accompanying Senate Bill No. 1105, 8th Congress (1989) was unequivocal in its recognition of the indispensable role of private education, stating that private schools perform "an important public function that properly belongs to the State." Thus, they "deserve every assistance they can get, particularly because of the escalating cost of instruction and the expensive maintenance of teaching facilities."

A few years later, the law creating CHED further guaranteed the academic freedom of private HEIs, stating that "no academic or curricular restriction shall be made upon private educational institutions which are not required for chartered state colleges and universities" (Rep. Act No. 7722 [1994], § 13) In 2013, Republic Act No. 10533, or Enhanced Basic Education Act of 2013 and better known as the K-to-12 law, indicated that the Department of Education (DepEd) "shall engage the services of private education institutions and non-DepEd schools offering senior high school" (Rep. Act No. 10533 [2013], § 10). Most recently, the declaration of principles of Republic Act No. 10931, or the Universal Access to Quality Tertiary Education Act, explicitly mentions the aim to "provide all Filipinos with equal opportunity to quality tertiary education in both the private and public educational institutions" (Rep. Act No. 10931 [2017], § 2b).

Despite these pronouncements, *de facto*, the State governs public and private HEIs differently, with evident variations in policies, whether in paper or in practice. This includes variations in how institutions and programs may be established, the level of freedoms enjoyed in setting tuition fees, and the amount of support that could be availed of from the government (notably, for-profits continue to face deterrents in receiving government grants), to name a few. Thus, despite the recognition of the Philippines' unique integrated system of education, in reality, the extent and the consistency of supports to the sector has continuously depended on changing political wills, priorities, and interpretations.

Given these challenges, it is unsurprising that most policy debates have rightly focused on public and private dichotomies. However, the recent debates surrounding reforms in taxation, particularly the passage of Republic Act No. 11534, otherwsie known as the Corporate Recovery and Tax Incentives for Enterprises Act (CREATE) Law, and the consequent issuance of Bureau of Internal Revenue (BIR) Revenue Regulation No. 5–2021, have brought to the fore latent differences within the subsector. A closer look evinces the lack of homogeneity within the private space, with considerable variances between non-profit (non-stock) and for-profit (stock) entities. Despite this obvious difference, policy pronouncements have long relied on the traditional sectarian and nonsectarian dichotomies, which, although informative, have proven less instructive to policy making.

How do motivations differ, for example, between non-profit and for-profit entities in relation to course offerings? How does the ability to keep revenue impact the quality of learning, as may be reflected in student outcomes, such as employability rates and licensure examinations? This paper contends that although public–private complementarity is a desired ideal, its eventual attainment hinges on first

acknowledging the differences in characteristics within the private space (non-profit, for-profit, and religious).

1.3 The two private sectors in Philippine higher education

In many ways, the Philippines was ahead of its time when it comes to regulations governing private education. The country was one of the first to enact laws governing private education actors and to allow for the establishment of for-profit entities, particularly Act No. 1459, or The Corporation Law (1906), and Act No. 2708, or The Private School Law (1917). In fact, it was not until the passage of Batas Pambansa 232, or The Education Act of 1982, that the policy allowing private schools to register as for-profit entities was reversed. The law required that henceforth "any private school proposed to be established must incorporate as a non-stock educational corporation in accordance with the provisions of the Corporation Code of the Philippines" (Batas Blg. 232, ch. 2, § 25). It did not take long, however, for this to be amended: in 1994, Republic Act No. 7798 once again permitted the incorporation of schools as stock educational corporations, provided that they (1) "be allowed only in capital-intensive courses of study" and (2) "be ineligible for any form of government subsidy, incentive or assistance, except those given to individual students and teachers in the form of scholarships, student loans or other forms of subsidy as already mandated under existing laws" (Rep. Act No. 7798, § 1). Of course, the manner by which this policy is implemented in practice is unknown.

By definition, for-profit and non-profit institutions, consistent with the Corporation Code of the Philippines, are distinguished in relation to revenue, in which for-profit institutions are allowed to distribute dividends and surplus profits to its shareholders, whereas non-profit institutions must use its income for "the furtherance of the purpose or the purposes for which the corporation was organized," as stated in the Manual of Regulations for Private Higher Education (CHED 2008, 4). This finds its origins in the 1987 Constitution, which states that "all revenues and assets of non-stock, non-profit educational institutions used actually, directly, and exclusively for educational purposes shall be exempt from taxes and duties" (Const., art. XIV, § 4[3]). However, this does not preclude the reality that, as is seen globally, non-profit HEIs could also be functionally for-profit.

Offering an alternative view to the assessment of private higher education in the Philippines, this paper profiles private colleges and universities based on their legal classification as for-profit or non-profit in 2015. To my knowledge, since the work of James (1991) on 1980s data, this is the first paper to profile private HEIs in the Philippines using this typology, effectively comparing the composition of private institutions in the country thirty years after. In addition, this paper relates said findings

to a study on licensure examination results in selected disciplines (used as proxy for quality), connecting institutional characteristics with learner outcomes.

1.4 Comparing public, non-profit, and for-profit HEIs

Using CHED data on student enrollment, I compare the percentage of institutional share in 1985 from James' study with data on the number of HEIs in Academic Year 2015–2016 (figure 1.2). The choice of year is not coincidental: 2015 was the last year of "normal" enrollment prior to the implementation of Grade 11 in 2016, which significantly affected student enrollment and consequently, the financial standing of many private institutions. In terms of number, the figure suggests that public share, in fact, remained stable at 26.5% versus 28.6%. This, however, masks the intense growth of SUC satellite campuses and more recently, of local universities and colleges (LUCs). The surge in the latter is a consequence of the provision in Republic Act No. 10931 that states that only students enrolled in CHED-recognized LUCs could benefit from free tuition. Prior to this, many LUCs asserted their independence from the agency by virtue of Republic Act No. 7160, or The Local Government Code of 199).

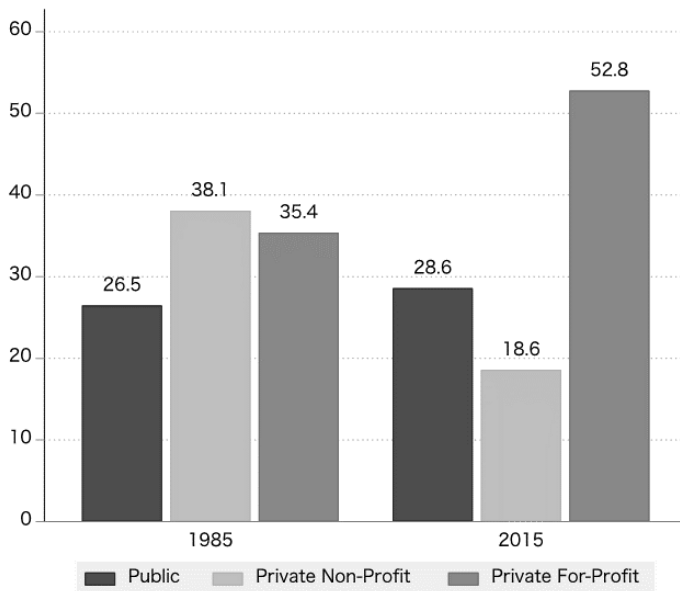

FIGURE 1.2. Institutional share by type (1985 versus 2015)

However, despite the seeming stability in overall private share, within–sector variance is evident, with the decline in institutional share pronounced for private non-profit HEIs (notably, religious/mission-oriented and foundation-owned entities) at 20 percentage points, alongside a corresponding increase in private for-profit. There

are several explanations for this: for non-profit HEIs in general, significant public expansion in rural areas may have unduly impacted their viability given their focus on disadvantaged communities. Further, consistent increases in teacher pay in public schools have been known to constrain many smaller private institutions in their ability to keep teachers, likely exacerbated by the increase in plantilla positions during the Aquino administration (2010–2016) in line with the K-to-12 reforms. Meanwhile, the surge of for-profit institutions could be a consequence of two factors: the 1994 amendment once again allowing schools to register as for-profit entities, as well as the rising demand for overseas Filipino workers (OFWs), with for-profit schools known to be more agile in responding to labor market trends (Ortiga 2017; 2018).

Figure 1.3 below confirms most of these speculations, with data indicating that since the amendment of Republic Act No. 7798, there has been a resulting boom in private for-profit entities. Further, of the 130 established, 90% had less than 500 students, whereas 62% were in densely-populated regions, such as the National Capital Region (NCR) and Regions 3 and 4. Notably, this rise in for-profit institutions coincided with the entry of schools, such as AMA Computer College, ABE International College, and STI, in response to strong demand for computer science programs in the 1990s.

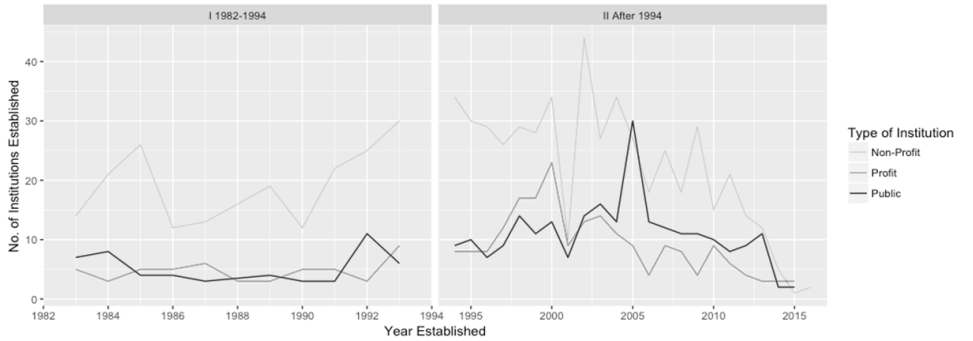

FIGURE 1.3. Establishment of HEIs, by type: 1982–1994 and 1994–2016

In terms of the regional spread of HEIs by type, private non-profit HEIs appear to be the most prolific throughout regions despite their modest percentage share. In fact, private non-profits accounted for a majority of HEIs in 11 out of 18 regions, most particularly in Mindanao: Region XII (Soccsksargen) at 74%, ARMM at 66%, and Region XIII (Caraga) at 59%. In contrast, public provision was most prevalent only in three regions: Region IV-B (MIMAROPA) at 55%, Region IX (Zamboanga Peninsula) at 49%, Region VI (Western Visayas) at 48% (table 1.1).

TABLE 1.1. Regional distribution of HEIs by type

Region	Regional Base	Public		Non-Profit		Profit	
		Freq	%	Freq	%	Freq	%
NCR (National Capital Region)	353	36	10.2	193	54.7	124	35.1
Region IV-A (CALABARZON)	339	77	22.7	175	51.6	87	25.7
Region III (Central Luzon)	240	66	27.5	129	53.8	45	18.8
Region VII (Central Visayas)	159	38	23.9	90	56.6	31	19.5
Region VI (Western Visayas)	157	76	48.4	53	33.8	28	17.8
Region V (Bicol Region)	164	51	31.1	93	56.7	20	12.2
Region XI (Davao Region)	102	25	24.5	59	57.8	18	17.6
Region I (Ilocos Region)	113	31	27.4	66	58.4	16	14.2
Region IX (Zamboanga Peninsula)	106	52	49.1	39	36.8	15	14.2
Region II (Cagayan Valley)	73	25	34.2	36	49.3	12	16.4
Region X (Northern Mindanao)	101	37	36.6	52	51.5	12	11.9
Region XII (Soccsksargen)	115	19	16.5	85	73.9	11	9.6
CAR (Cordillera Administrative Region)	57	21	36.8	28	49..1	8	14.0
Region IV-B (MIMAROPA)	92	51	55.4	33	35.9	8	8.7
Region VIII (Eastern Visayas)	92	40	43.5	45	48.9	7	7.6
Region XIII (Caraga)	54	16	29.6	32	59.3	6	11.1
ARMM (Autonomous Region in Muslim Mindanao)	79	25	31.6	52	65.8	2	2.5

Source: Author's calculations using CHED data

Student enrollment figures in 1985 and 2015 give us a better insight on the trajectory of growth of both sectors. Again, despite the seeming stability in the share of public institutions, figures 1.4 and 1.5 below illustrate how, in a span of thirty years, public share in student enrollment more than doubled from 17.28% to 45.9%. Meanwhile, this growth in public enrolment share appeared to be inversely proportional to the decline in private for-profit enrolment, which, despite growing in terms of institutional share, appears to have halved in student enrolment (from 46.05% to 20.50%). These figures suggest that (1) SUCs have relatively larger student bodies compared to their private counterparts, (2) most for-profit entities have very small student enrollments, and (3) that generally, non-profit entities were able to maintain their niche, given their stability in institutional and student enrolment share from 1985 to 2015.

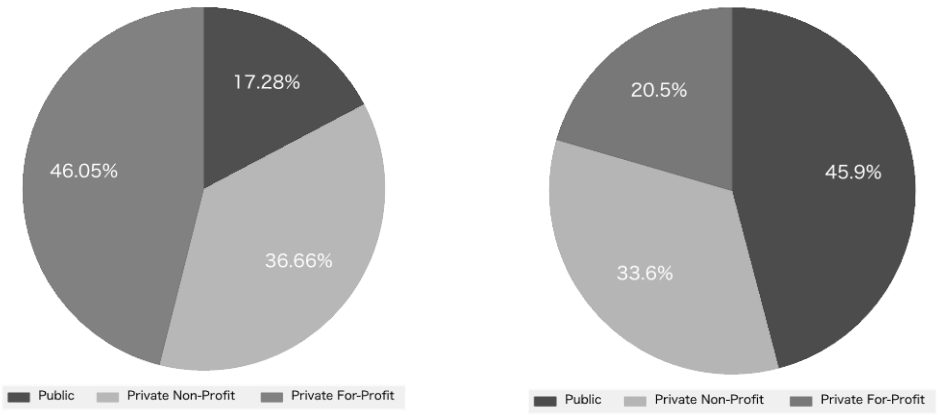

FIGURE 1.4 (left) Student enrollment share by type (1984–1985)
FIGURE 1.5. (right) Student enrollment share by type (2015–2016)

In 1985, James noted how Philippine higher education was dominated by very small private institutions, with many located in rural areas too small for large institutions to serve (James 1991). The study also reported that back then, 60% of all private HEIs had less than 500 students in undergraduate programs, whereas only 8% had student enrollment exceeding 5,000. Further, James noted that large institutions (with more than 5,000 students) were mostly for-profit, whereas the remaining entities were mainly small, inexpensive, and for-profit. By 2015, the trends in institutional size appears to hold true, with the percentage of small (from 60% to 54%) and large institutions (from 8% to 5%) only declining modestly (Figure 1-6).

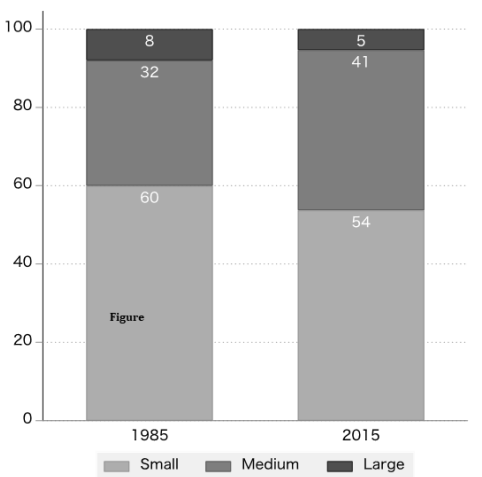

FIGURE 1.6. Private HEIs by size (1985 versus 2015)

A closer look at 2015 figures reveals intrasectoral differences, with non-profits having a greater share of small institutions (58% versus 41%), whereas for-profits have a greater percentage of large ones (9% versus 4%). Intuitively, this does not come as a surprise: it is likely that non-profits, among which include religious and missionary entities, are the ones in farther-flung areas with little capacity to pay. On the other hand, for-profits may be somewhat larger in part because of the economies of scale that require a certain level of viability for such institutions to survive and actually profit.

Generally, size is seen to be associated with quality, with the number of students enrolled in an institution assumedly corresponding to its ability to invest in higher-caliber faculty, as well as in other resources such as libraries and laboratories. In a previous paper by the UP CIDS examining the relationship between the Licensure Examination for Teachers (LET) in 2016 (David et al. 2018) and characteristics of higher education institution attended,[1] data show that for LET Elementary, graduates from small institutions score 17.8 percentage points lower than those from large ones, holding all other factors constant. For LET Secondary, this figure is about 14 percentage points. Notably, the study likewise found that graduates of private institutions score 5.4 percentage points lower than those from SUCs for LET Elementary but higher by 4.2 percentage points for LET Secondary. These findings provide preliminary insight on the role of institutional type and size on learner outcomes, albeit conflating factors such as selectivity in admission, students' social background, previous educational achievement, and motivation. Thus, although not suggesting causality, initial trends in the association between such indicators and student performance provide a valuable starting point for inquiry.

Finally, I examine variances in the profile of faculty members, specifically the percentage of faculty with graduate degrees. Although only an input indicator with arguable links to learner outcomes, previous studies have noted a positive association between the percentage of faculty with graduate degrees vis-à-vis institutional performance in licensure exams (Manasan 2012). Further, the metric continues to be commonly used by regulatory bodies such as CHED and by ranking bodies, such as QS University Rankings, in their assessment of HEIs' quality.

In 1985, James found that most faculty in the Philippines had only baccalaureate degrees, with the largest proportion in for-profit entities at 80%, followed by non-profits

1 Note that the classification of HEIs used in this paper varies differently, with institutions having less than 2,000 students considered as small and those having more than 10,000 students as large.

(74%), and State-owned institutions (65%) (Figure 1.7). Since then, tighter regulations have been put in place, with CHED requiring faculty members to be a "holder of a master's degree to teach in his major field and where, applicable, a holder of appropriate professional license requiring at least a bachelor's degree for the professional courses" (CHED 2008, 16), and offering scholarships for graduate studies for faculty. Thus, by 2015, figures appear to have improved dramatically throughout all types of institutions, with public HEIs now having a larger percentage of faculty members with graduate degrees than private HEIs and with private non-profit and for-profit institutions sharing identical faculty profiles. Notably, for-profit HEIs demonstrate the largest improvement between 1985 to 2015, increasing by 28 percentage points.

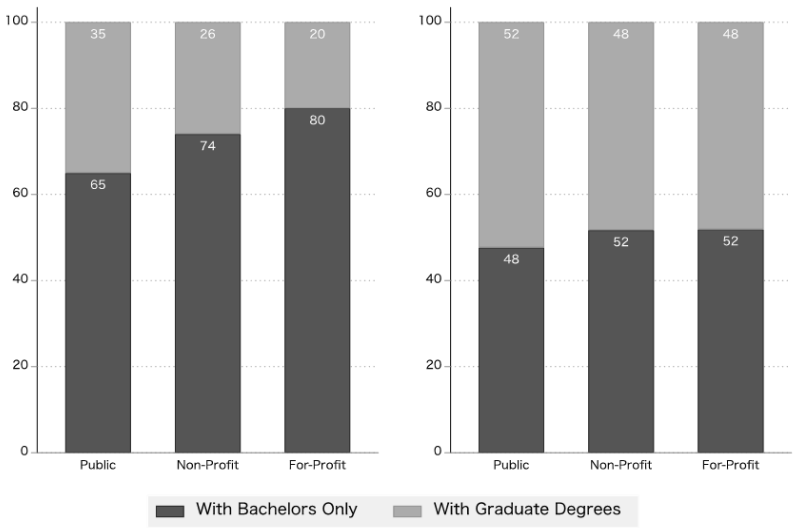

FIGURE 1.7. Percentage of faculty with graduate degrees by HEI type (1985 versus 2015)

1.5 The question of equity and quality

In sum, the findings of this paper show how, in a span of thirty years, drastic changes in higher education provision have occurred, from a once-dominant private sector to a 50–50 split in student enrollment between public and private colleges and universities. These shifts result from a combination of factors, including government policies (such as the abolition of tuition and the requirement of graduate degrees for faculty) and economic forces (including the surge in higher education demand following the Second World War, as well as the demand due to OFWs). More importantly, our descriptive analysis underscores how changes within the private sector between 1985 to 2015 have been far from negligible, with the "private sector" today pertaining more to a growing for-profit sector and less to the traditional religious-owned institutions nor the

professional-oriented colleges many have been accustomed to. Inevitably, this requires a rethinking of how complementarity could be operationalized, while providing better insight to the challenges faced by private higher education institutions in recent years.

Although broad characteristics of the private sector have remained the same since James' study, recent findings highlight important insights: *first*, that non-profit institutions are generally smaller than for-profit ones, and *second*, that non-profit and for-profit institutions have the same percentage of faculty with graduate degrees (at 48%, with a larger proportion still having only bachelor's degrees, contrary to government policy). By providing comparisons on the makeup of the private non-profit and for-profit sector between 1985 to 2015, the paper contributes to a more nuanced understanding of the space. These trends also have valuable implications on policy.

First, in the past 30 years, for-profit institutions have increased significantly in number, with many having higher student enrollments than their non-profit counterparts while sharing similar faculty profiles. If these indicators could be used as proxies for quality (assuming that economies of scale indeed lead to improved investments in learning), this suggests the improving profile of for-profit entities, contrary to the usual criticism of "for-profits" as purely money-making entities. Further, given the increasing participation of for-profit players and the recent entry of large corporations in the space, it is timely for CHED to allocate resources toward increasingly understanding this subsector in the interest of better nuancing regulation and incentivizing quality.

Second, the significant reduction in the number of non-profit institutions is a cause for concern. Since this sub-sector is composed of both religious as well as family-owned entities, further study is needed to understand if this mixed picture could be a result of the contraction of missionary institutions known to serve isolated communities with little access to college, alongside an expansion of family-owned ones. Which learners for example could end up dislocated following the closure of religious missionary institutions? What challenges acutely impact smaller scale but quality institutions?

Although this paper advances understanding of Philippine private higher education, examining broad trends in relation to institutional size, student enrollment, regional distribution, and faculty profile, these indicators only aid in understanding general trends. Given the rapid growth of the space and the unprecedented amount of resources allocated toward it, the demands of rational policy-making and serious scholarship require more complex indicators and understandings. Using these trends as starting points, future research could focus on essential questions that could incisively interrogate equity and quality in the sector. These include:

Equity	Which colleges and universities truly enable access to quality for the disadvantaged students? In light of Republic Act No. 10931, or the Universal Access to Quality Tertiary Education Act, how else could the Tertiary Education Subsidy be leveraged to steer students toward HEIs that have demonstrated an ability to deliver outcomes for the poorest, such as lower attrition rates, higher completion, and achievement rates? How do the different subsectors vary in cost-efficiency in relation to their ability to deliver the same level of student outcomes?
Quality	Beyond the usual input indicators, e.g., percentage of faculty with graduate degrees or library holdings, what output and outcome measures may be more effective measures for quality? How could government standards better account for context, cognizant of the communities these HEIs serve—such as those located in underserved communities with limited access to resources and credentialed faculty?

How could the improved understanding of the profile of public and private institutions help inform policies in relation to quality, e.g., program standards and guidelines, metrics for different government recognitions, and accreditation, to better fit the context of each subsector?

Thirty years after James' study, Philippine private higher education remains a prototype, left with many questions left unanswered. Are there economies of scale when it comes to higher education? Does lower per-capita cost in provision equate to lower quality? Do non-profits truly devote revenues toward improving quality, compared to for-profits? For better or worse, the Philippine higher education space remains an open field for study. Although various reforms have been established since, deliberate documentation and examination have been wanting for the sector to truly gain insights enabling improved ideation and more targeted intervention. By illustrating trends in the sector in the past three decades, the paper seeks to better define the contours of private higher education in the country, with the ultimate aim of provoking more nuanced conversation and further research into the space.

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Public–Private Complementarity in the Distribution of Students Across Programs of Study:
Implications for Policy

Ian Nicole Generalao and Clarissa C. David

This policy brief discusses the public–private complementarity in higher education institutions (HEIs), specifically in terms of discipline or field of study. Using recent data from the Commission on Higher Education (CHED), we describe the current enrollment and graduation distributions using simple public–private comparisons across disciplines. We also present variations across regions.

Overall, the higher education landscape is characterized by a large proportion of private HEIs with declining share in total enrollment over the past decade. Disciplinal distributions suggest that most students under programs classified under the fields of religion and theology, maritime, law and jurisprudence, medical and allied, fine and applied arts, service trades, and architecture are predominantly in the private institutions, whereas fields of agriculture, craft and trade, home economics, mathematics, natural science, and engineering are predominantly provided by public HEIs. We also identify regions where private or public HEIs dominate in terms of student intake. Policy recommendations on how to strategically design public–private complementarity to service national development goals and directions for further research are discussed.

2.1. HEIs and complementarity

HEIs are an important part of national development agendas because of their role in providing college and advanced degrees, generating research, and creating and preserving knowledge. Developed countries with robust innovation economies rely largely on HEIs' work or of their alumni. Both private and public colleges and universities can contribute to accelerated development. The relative roles of public and private HEIs in the three main mandates of the sector—instruction, research, and

extension—seem to have evolved as a result mostly of market forces and with little regulation or policy guidance from a national development perspective. Meanwhile, significant laws and policies have been passed and implemented in the past decade. These include the passing and implementation of Republic Act No. 10533, or the Enhanced Basic Education Act of 2013, and the adjustment of the academic school calendar. The recently passed law, Republic Act No. 10931 or the Universal Access to Quality Tertiary Education (UAQTE) Act, has the potential to restructure the entire sector. As the full title of the law states, it aims to "[provide] for free tuition and other school fees in state universities and colleges, local universities and colleges and state-run technical–vocational institutions, establish [...] the tertiary education subsidy and student loan program, [and] strengthen [...] the unified student financial assistance system for tertiary education."

The strengths of both public and private HEIs can be leveraged to enable greater impact if redundancies are minimized and areas of comparative advantage are recognized and harnessed. For instance, if private universities are naturally incentivized to focus on disciplines where demand is high, such as in business administration or engineering, then public universities can direct their resources on skills necessary for development but not in high demand, such as agriculture and some of the social sciences. In other words, these goals can be achieved when there exists a complementarity between private and public HEIs.

The 1987 Philippine Constitution states that "the State recognizes the *complementary* roles of public and private institutions in the educational system and shall exercise reasonable supervision and regulation of all educational institutions" (Const., art. XIV, § 4[1]). However, the passing and implementation of the UAQTE Act, among other policies and events, have raised concerns not only on the Act's potential adverse impact on the private higher education sector but also about how it conflicts with the principle of complementarity between public and private HEIs. Some of these are the alleged declining government subsidy to the private higher education sector (Acidre 2019; Tabora 2014) and the ongoing COVID-19 pandemic, which might lead to the closing down of private schools due to significant revenue losses (Manila Bulletin 2020). Broad and universal public subsidies to college education through public institutions have secondary effects not just in squeezing out the private sector, e.g., shifting of students and faculty from private to public HEIs, but also in providing disproportionate support to certain disciplines and geographic areas than others. However, there are no clear rules and mechanisms to operationalize the complementarity in the delivery of quality education. This is affirmed by the most recent attempt of Senator Win Gatchalian, who filed Senate Resolution No. 302 in the 18th Congress, which aims to institutionalize a framework to uphold and strengthen

the principle of complementarity of public and private institutions to service national development goals in education (Gatchalian 2020). It must be pointed out that this note specifically contributes to the discussion of complementarity by describing the current public and private HEI distribution of students across different fields of study and regions.

2.2 Public and private HEIs

Compared with the landscape of higher education in its neighboring countries, the Philippines is distinguished by its large number of institutions, predominantly private ones. Using recent data collected by the United Nations Educational, Scientific and Cultural Organization (UNESCO) Institute for Statistics (n.d.), we find that the private higher education enrollment share (%) in selected East Asian and Pacific countries averages around 40%. Figure 2.1 shows the magnitude of private sector involvement in the provision of higher education in these countries. Among these eleven countries, the Philippines ranks 4th highest in terms of private enrollment share at around 54%.

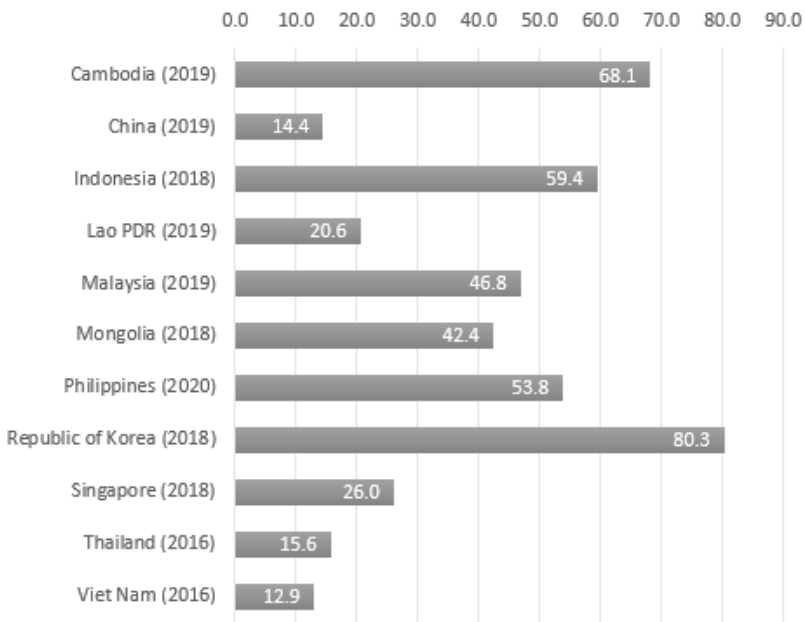

FIGURE 2.1. Private higher education enrollment share (%) in selected East Asian and Pacific countries

Source: Authors' compilation using UNESCO Institute for Statistics data from UIS.Stat

Data from the Commission on Higher Education (CHED 2020) for Academic Year (A.Y.) 2019–2020 show that out of the 2,396 HEIs in the country, only 667 (28%) are public and the remaining 1,729 (72%) are private colleges and universities. Figure 2.2 shows the distribution of these HEIs by specific type of institution. Most (72%) are classified as private HEIs, 22% as state universities and colleges (SUCs), which include main and satellite campuses, whereas the remaining 6% are considered local universities and colleges (LUCs). Figure 2.3 shows that even though 72% of HEIs are private, they are relatively small and account for only 54% of total enrollees.

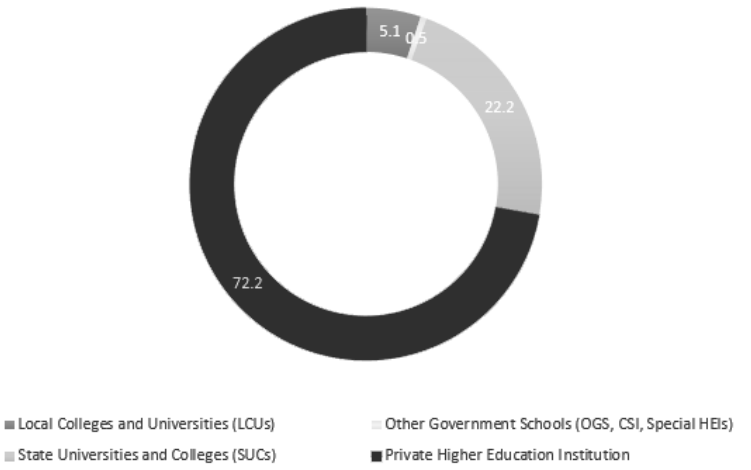

FIGURE 2.2. Distribution of HEIs by type, A.Y. 2019–2020

Source: Authors' calculations using CHED data, based on the submission of HEIs, as compiled by CHED's Office of Planning, Research and Knowledge Management (OPRKM).

There was a significant drop in the number of enrollees starting from A.Y. 2016–2017 (see figure 2.3 on the next page, left). This could be primarily attributed to the implementation of the K-12 law in 2012, which effectively added two more years spent in basic education. The slight recovery could be observed for A.Y. 2018–2019 and 2019–2020, in which some of the first batch of senior high school graduates entered college. The share of private HEIs in terms of total enrollment constantly declined from 61% in A.Y. 2009–2010 to 54% in A.Y. 2019–2020 (See figure 2.3, right).

The current distribution of institutions and spread of disciplinal college degrees throughout institutions have been largely left to market forces. Compared with public HEIs, there are fewer constraints in opening private HEIs as CHED's regulation approach has been focused on the programs inside each institution. Moreover, even on this matter, the general guidelines are "minimum requirements" as elaborated and listed in the CHED's Manual of Regulations for Private Higher Education (MORPHE) (CHED 2008).

Simply put, a private college has relatively more flexibility on which programs to start. Such decisions primarily depend on the availability of required faculty members, as well as market demand for the program. In comparison, a law is required to open a new public institution. Moreover, public institutions have stricter internal processes to open a new program as outlined in the Roadmap for Public Higher Education (CHED, Philippine Association of State Universities and Colleges (PASUC), and Department of Budget and Management (DBM) 2017), on top of CHED's delayed response and long approval process in opening programs (Orbeta et al. 2016). Finally, their faculty, many of whom are tenured, typically stay in their institutions until retirement. Orbeta et al. (2016) conducted focus group discussions among Vice President for Academic Affairs of SUCs and private HEIs. They identified the lack of available faculty (permanent or part-time) and the creation of plantilla positions among the primary issues in offering new programs. Other concerns included the lack of readiness of physical facilities, the branding of the course, the development of materials, and the requirement of additional course subjects.

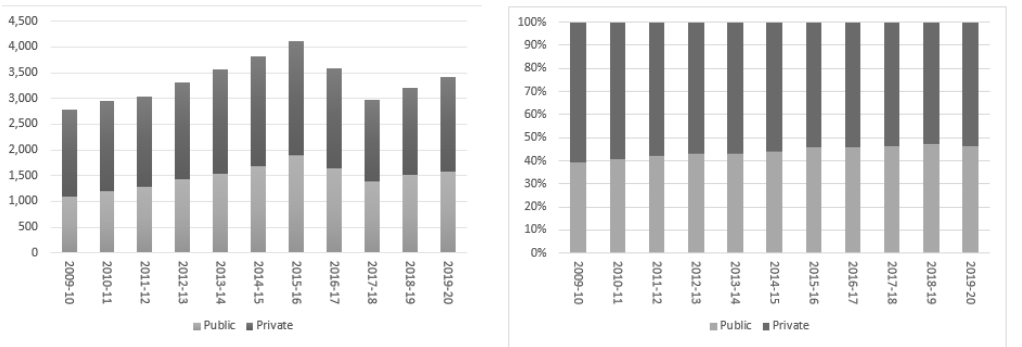

FIGURE 2.3. Distribution of enrollment level (in thousands) (left) and percentage (%) (right) by type of HEI, A.Y. 2009–2010 to 2019–2020

Source: Authors' calculations using CHED data, based on the submission of HEIs, as compiled by CHED's Office of Planning, Research and Knowledge Management (OPRKM).

We also note that market signals for demand among students for both public and private HEIs are not systematically transmitted nor studied. Thus, HEIs are more likely to glean these demands from varied sources than through a regular study by a government agency.

2.3 Disciplinal distributions

The status quo on the distribution of graduates across fields of study supplied by private and public HEIs has potential effects on the national distribution of human resources.

One clear example can be observed in the supply of health workers who mostly came from private HEIs. In A.Y. 2015–2016, over 86% of graduating doctors, 84% of nurses, 98% of dentists, and 94% of pharmacists attended private institutions, where the students who streamed into these medical- and health-related programs were likely wealthier and less likely to originate from rural areas. Using more updated data, the same trend persists—that is, as of A.Y. 2019–2020, 85% of enrollees and graduates of programs under medical and allied fields are from private HEIs. The large monetary investment needed to study in these fields meant that students were wealthier than the average, more likely to come from urban areas, and would thus have less reason to accept jobs in the public health sector or practice in the countryside. It is therefore not a coincidence that shortages in practicing medical doctors are most acute in poor provinces whereas NCR is operating at a surplus (David et al. 2019).

Enrollment figures across disciplines (figure 2.4) show that the fields of religion and theology, maritime, law and jurisprudence, medical and allied, fine and applied arts, service trades, and architecture are predominantly in the private institutions, whereas fields of agriculture, craft and trade, home economics, mathematics, natural science, and engineering are predominantly provided by public HEIs. Remaining disciplines are generally evenly distributed, such as education, mass communication, social and behavioral sciences, humanities, and engineering. Except for a handful of programs, the ratio distribution of public–private enrollees tracks that of graduates (figure 2.4 vis-à-vis figure 2.5).

To capture the public and private differences in terms of attrition rates, Table 2.1 presents the graduate-to-enrollee ratio by field of study and by institution type. It is notable, that for programs in agriculture, forestry, fisheries; fine and applied arts; and engineering, the ratio changes from enrollees to graduates, suggesting that attrition rates in private HEIs for these programs are higher than those in public institutions. It tells us that many students take up agricultural-, fine arts, and engineering-related programs, but relatively few complete the program in the same field. This is particularly notable for engineering and technology programs where 180,000 students enroll but only around 25,000 graduate. Whether students end up in different programs in the same school or drop out of college altogether is unclear. If the case is the latter, then further investigation is warranted. Having liberal admissions policies with the view to have large numbers of freshmen only to end up with a much smaller number of graduates means that the investments students make in time and money will not lead to justifiable returns. Regulators and accreditation institutions have a role to play in minimizing this by publishing information on graduation rates of programs from intake to the end of the program.

TABLE 2.1. Graduate-to-enrollee ratio by field of study and by institution type

Discipline Group	Enrollees in A.Y. 2014-2015			Graduates in A.Y. 2018-2019			Graduate to enrollee ratio		
	Public	Private	Total	Public	Private	Total	Public	Private	Total
Agriculture, Forestry, Fisheries	111,860	13,666	125,526	25,257	1,002	26,259	22.6	7.3	20.9
Architecture and Town Planning	14,717	24,815	39,532	2,591	3,106	5,697	17.6	12.5	14.4
Business Administration and Related	369,469	621,207	990,676	100,759	132,435	233,194	27.3	21.3	23.5
Education Science and Teacher Training	402,770	322,413	725,183	99,193	70,639	169,832	24.6	21.9	23.4
Engineering and Tech	282,994	180,227	463,221	61,692	25,391	87,083	21.8	14.1	18.8
Fine and Applied Arts	7,194	19,561	26,755	1,523	2,049	3,572	21.2	10.5	13.4
General	2,332	6,481	8,813	304	271	575	13.0	4.2	6.5
Home Economics	6,533	777	7,310	1,164	92	1,256	17.8	11.8	17.2
Humanities	24,374	19,249	43,623	5,538	3,859	9,397	22.7	20.0	21.5
IT-Related Disciplines	184,384	249,328	433,712	38,895	42,582	81,477	21.1	17.1	18.8
Law and Jurisprudence	5,208	15,179	20,387	555	2,691	3,246	10.7	17.7	15.9
Maritime	16,413	144,816	161,229	1,852	15,019	16,871	11.3	10.4	10.5
Mass Communication and Documentation	16,502	24,576	41,078	3,946	4,692	8,638	23.9	19.1	21.0
Mathematics	15,356	2,188	17,544	2,871	321	3,192	18.7	14.7	18.2
Medical and Allied	31,076	193,821	224,897	6,600	38,701	45,301	21.2	20.0	20.1
Natural Science	28,202	13,252	41,454	5,150	3,099	8,249	18.3	23.4	19.9
Other Disciplines	84,432	136,575	221,007	18,145	28,500	46,645	21.5	20.9	21.1
Religion and Theology	-	12,710	12,710	-	2,059	2,059	Not applicable	16.2	16.2
Service Trades	17,493	60,208	77,701	5,253	12,437	17,690	30.0	20.7	22.8
Social and Behavioral Sciences	59,694	66,429	126,123	12,748	13,492	26,240	21.4	20.3	20.8
Trade, Craft and Industrial	3,085	160	3,245	103	-	103	3.3	0.0	3.2
Grand Total	1,684,088	2,127,638	3,811,726	394,139	402,437	796,576	23.4	18.9	20.9

Source: Authors' calculations using CHED data, based on the submission of higher education institutions, as compiled by CHED's Office of Planning, Research, and Knowledge Management (OPRKM)

2.4 Regional Distribution

Identifying regions where private or public HEIs dominate in terms of student intake maps the current available options for students in certain locations. Figure 2.6 clearly shows that a bulk of the students living in areas under the Davao Region (76%), SOCCSKSARGEN (72%), National Capital Region (67%), and Cordillera Administrative Region (67%) enrolled in private HEIs. We cannot tell from these numbers if the reliance on private institutions is a result of a low availability of public options or a consequence of domestic or international demand. If it is the former, then CHED must carefully identify possible plans of action, such as putting up public institutions or subsidizing private higher education to resolve and anticipate existing and future shortages or surpluses. As for the latter, the increase in demand should lead not just to a higher quantity of students but also to better delivery of quality higher education, which can be achieved by stricter monitoring and assistance from the government.

On the other hand, public HEIs are dominant in MIMAROPA (75%), Eastern Visayas (72%), and Zamboanga Peninsula (61%) in terms of enrollment shares. These imply that students and, correspondingly, public HEIs in these areas disproportionately benefit the most from the universal public subsidies by virtue of the UAQTE law. Further research and investigation are needed to better measure the effects of the law to the sector, taking into consideration the current complementarity picture.

2.5 Implications on public–private complementarity

Formulating national policies for higher education that strategically design public–private complementarity to service national development goals will need to start with a full understanding of the current distributions and then set targets for the "ideal" distributions and assign roles for public and private institutions in the broader agenda of human capital development. The analyses presented above provide a picture of the current state of the sector in terms of shares of enrollment and graduates and clearly point to a high reliance on private HEIs for specific disciplines and regions and on public HEIs for others. Setting "ideal" distributions must be guided by the appropriate principles and mechanisms while the assignment of roles requires an understanding of the incentives which these institutions are driven by to better guide.

A starting point for considering the importance of a strategic direction for complementarity is the large infusion of tuition subsidies to public HEIs through the UAQTE Act. In practice, the full subsidies to programs in public universities mean that these programs, e.g., agriculture, trade, natural sciences, and home economics, are disproportionately supported over the allied medical fields, law and jurisprudence, architecture, and business administration. Is this the right distribution of support

from the state fund to accomplish the national development goals, such as poverty reduction and servicing innovation and technology development needs?

The large funding support for public HEIs should influence program offering decisions, pointing those strategically toward the needs of the country in terms of capacity, even in the absence of natural demand. The market, e.g., students, will likely select programs that will give it the best prospects for overseas or highly productive private employment. It is the mechanism, for example, that allowed the unchecked proliferation of nursing programs (Ducanes and David 2018). Another aspect of "the market" is development, where the government understands, for instance, a continuing need for agriculturists, that even when student demand wanes, subsidies keep programs open and populated. There are fields where public sector needs are high and unfilled, for instance, government positions for doctors, dentists, medical technologists, and pharmacists, almost exclusively supplied by private HEIs. The government can resolve this by generating this supply from the public HEIs.

Further to demands in terms of service and labor are the country's needs oin terms of cultural and historical preservation, research and knowledge generation, and nation-building. Universities have a core mandate for all of these through research and community engagement. Even when there is no natural student demand for historians or philosophers, for example, a country will always need historians and philosophers to teach, write, and preserve. Complementarity in knowledge generation is an area often overlooked in policy conversations, as most attention is on students' employment prospects. The bulk of basic research conducted in Philippine universities are from a small number of large universities with robust graduate programs and a high proportion of faculty with PhDs (Yee et al. 2018). Applied research is likely, although the data on these are less available, more common in large state universities in the regions, rather than in private HEIs. Complementarity in basic and applied research can be fostered by mapping out the baseline level of capacity to conduct high quality research, and then helping scale up research productivity through government and industry research funds (which in turn are guided by national development needs).

The intersects between disciplinal availability in regions and public–private distribution across disciplines are useful inputs for strategic planning of programs to subsidize, open, or minimize in specific areas of the country. Some regions may have a need for a dentistry, accounting, or specific engineering program because of local development needs. Thus, introduction or improvement, if they exist, of local labor market information systems to guide not only students of which courses to take but also, most importantly, the HEIs on program offerings are critical.

Ultimately, these point to a key source of demand for the services of large high-quality public universities, graduate programs. Manning the professorates in both private and public HEIs requires robust, high-capacity, and good quality PhD programs. PhDs with a focus on research and scholarship are needed to create the labor force for the entire higher education sector, and since HEIs' salary structures are not competitive with private industry jobs (non-education ones), those who would pursue a PhD would gravitate toward public HEIs to obtain them. Thus, part of the rationale for complementarity must include an examination of the supply chain of HEI professionals.

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Criminology Education Program Performance:
Evidence from Licensure Exams

Teresa Jayme-Ho

According to 2016 data from the Commission on Higher Education (CHED), Criminology was the 6th most popular college course in the country. The popularity of Criminology stems from the opportunity it affords its graduates to enter careers in law enforcement, security administration, crime detection and prevention, or correctional administration (Finduniversity.ph 2021).

Becoming a licensed criminologist is one of only two ways to join the Philippine National Police (PNP) at entry level (Police Officer 1 or PO1), the alternative being to pass the PNP entrance exam supervised by the National Police Commission (NAPOLCOM). According to NAPOLCOM Memorandum Circular No. 2007-009, Section III.B and Republic Act No. 1080, exam takers for the latter must have completed a bachelor's degree in any field of study, among other requirements. According to the July 2017 Labor Force Survey, for instance, of the total college graduates employed in the occupation "protective services workers," which include policemen and policewomen, 53.4% graduated with a Criminology degree (Philippine Statistics Authority 2017).

Converse to the popularity of Criminology as a program, however, are the overall passing rates in Criminology licensure exams, which have remained substantially below 50% in all the years since 2010 (figure 3.1). Rates were in the low to mid-30s between 2010 and 2012, increasing to the mid-40s in 2013 but declining consistently since that year to their lowest point in the period at 29% in 2016.

These figures raise questions about the sufficiency of the numbers of potential recruits into the police and related law enforcement forces. They also imply questionable education practices in Criminology programs and possible issues of quality among even the programs' graduates. Given the importance of law enforcement to national

security, as well as the peace and order situation in the country, it becomes imperative to explore the causes of such poor performance in licensure exams and the implications for the quality of the foundational training of our law enforcement officers. This policy brief is a first step in this exploration.

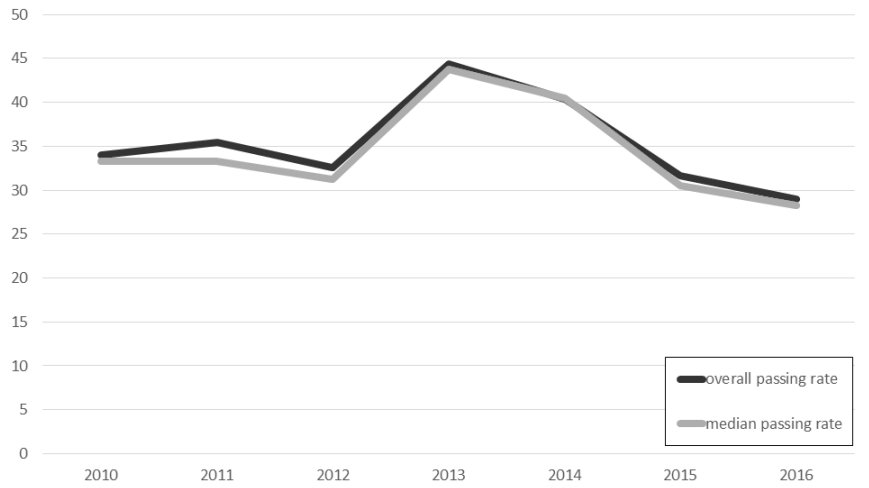

FIGURE 3.1. Criminology Licensure Exam overall and median school passing rate

3.1. Profile of Criminology programs

According to CHED data, there were 510 Criminology programs throughout the country with graduates taking the licensure exams in 2016. Among these programs, 374 (73%) were private, 117 (23%) were public state universities and colleges (SUCs), and 20 (4%) were public local universities and colleges (LUCs). The largest number was in Luzon (267 or 52%). By region, the top three locations of the programs were CALABARZON (44), Cagayan Valley (42), and Metro Manila (37). Cagayan Valley had a proportionately large share with 8% of the programs nationwide, even if it accounted for only 3.4% of the 2015 national population. Majority (53%) of the programs were in small schools (total enrollment in all courses less than 2,000), 38% were in medium-sized schools (reaching 2,000 but less than 10,000), and 9% were in large schools (10,000 or more). Almost half of the schools (48%) represented in the 2016 Criminology licensure exam were established before 1980. Around 11% were established in the 1980s, 19% in the 1990s, and 14% in the 2000s.[1]

1 There is no information in the current database on year established for about 5% of the schools.

3.2. Correlates of licensure exam performance

The following factors were tested as potential determinants of high passing rates: location (island group, region, province), public or private institutions, size of higher education institution (HEI), age of HEI, student to faculty ratio, and (for private schools) program fees.

Performance in the criminology licensure exam had a clear spatial dimension. By island grouping, from 2010 to 2016, schools in the National Capital Region (NCR) and in other parts of Luzon consistently had the highest passing rates. NCR closed an earlier substantial gap with other Luzon and ended with a slight advantage over other Luzon by 2016. Throughout the period, the passing rate for schools in Visayas were consistently the lowest, with Mindanao schools falling between Luzon and Visayas (figure 3.2). Moreover, none of the island groupings had passing rates over 50%.

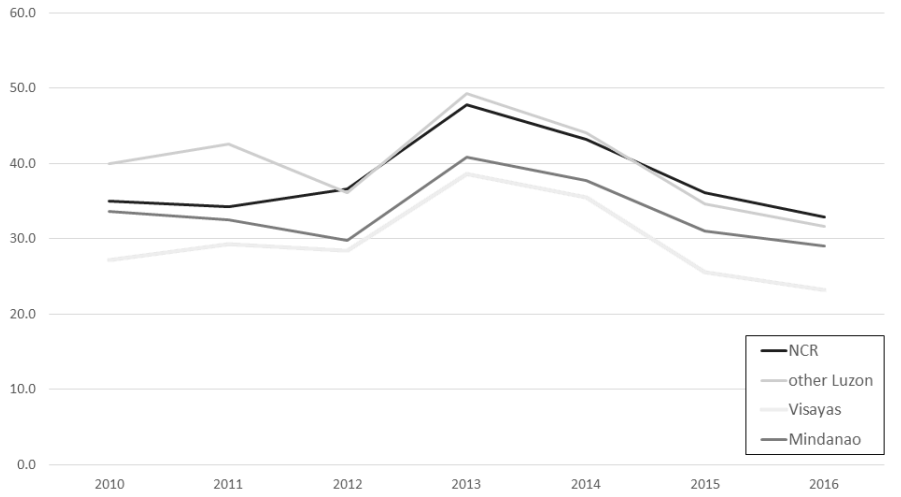

FIGURE 3.2. Passing rate in Criminology Licensure Exam by location of school

In 2016, only one region in the entire country had a passing rate above 50% (CAR at 52.2%), and only one other region had a passing rate above 40% (Davao Region at 40.7%). The highest regionwide passing rate in Visayas was 26.3% (Central Visayas). The lowest regionwide passing rate in the entire country was the Autonomous Region of Muslim Mindanao (14.1% for 986 exam takers).

In terms of size, large schools performed markedly better, on average, than medium and small schools, whereas medium schools performed better, on average, than small schools (figure 3.3). The gap between large and medium schools was substantially

larger than the gap between medium and small schools. In 2016, 16.6 percentage points separated the passing rate of large schools and medium schools, and four percentage points separated the passing rate of medium and small schools. Of the total exam takers in 2016, 14% were from large schools, 49% were from medium schools, and 37% were from small schools.

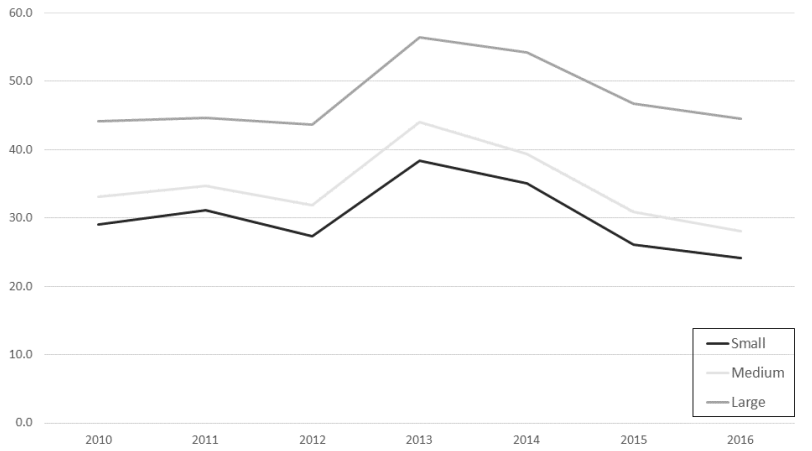

FIGURE 3.3. Passing rate in Criminology Licensure Exam by size of school

Program fee information was available for 315 of the 374 private schools for the school year 2016–2017. Of these, only 61 had fees that equaled or exceeded Php150,000, the highest fee category. Overall, the highest fee category had a passing rate of 35%, whereas mid-range programs had a passing rate of 29%, and low-range programs had a passing rate of 23%. In all island groups, except for Metro Manila, the passing rate increased with program fee. Even in Metro Manila, if one only considered schools with program fee greater than or equal to PHP 200,000, the passing rate would increase to 51%. Program fee was likely correlated with the quality of infrastructure and equipment, and possibly also of the faculty.

TABLE 3.1. Passing rate by program fee level in 2016, private schools only

Island Group	Program Fee							
	20k to 74k		75k to 149k		>=150k		Total	
	Freq	%	Freq	%	Freq	%	Freq	%
NCR	4	30.1	12	30.6	7	30.6	23	30.3
Other Luzon	58	23.8	55	29.7	30	37.6	143	29.2
Visayas	14	19.0	19	27.4	8	30.4	41	23.9
Mindanao	49	23.2	43	29.7	16	34.4	108	28.6
Total	125	23.4	129	29.3	61	34.9	315	28.1

Source of basic data: Professional Regulatory Commission (PRC) and CHED

An important limitation of the previous analyses was that the variables that were found to be correlated with passing rate could themselves be correlated. If that were the case, then the estimated relationship between these variables individually with passing rate could be overstated (or understated, depending on the nature of the correlation).

Regressing passing rate against student-to-faculty ratio, island group, type of school, and size of school for the year 2016 showed a robust relationship between passing rate and island group as well as between passing rate and size of school, after controlling for the other variables in the regression (table 3.2). Moreover, small schools, on average, had a passing rate lower by 25 percentage points, and medium-sized schools, on average, had a passing rate lower by 17 percentage points compared to large schools, controlling for the other variables. The schools that tended to perform most poorly, on average, in the criminology licensure exam were small schools located in Visayas.

Student to faculty ratio, type of school (public versus private ownership) as well as the age of the school appeared to make little significant difference in test outcomes.

TABLE 3.2. Robust correlates of passing rate: all school types

Dependent variable: passing rate	Coef.	Std. Err.	t-stat	p-value
Student to faculty ratio	0.0	0.0	-0.8	0.45
Island group (Base = Visayas)				
NCR	13.9	4.2	3.3	0.00
Other Luzon	9.6	2.6	3.8	0.00
Mindanao	8.2	2.7	3.0	0.00
Type of school (Base = SUC)				
LUC	-4.0	5.1	-0.8	0.43
Private	-1.4	2.5	-0.6	0.58
Size of school (Base = Large)				
Medium	-17.3	3.6	-4.7	0.00
Small	-25.3	3.9	-6.5	0.00
Year school was established (Base = before 1970)				
1970s	-1.9	3.4	-0.6	0.58
1980s	-2.5	3.1	-0.8	0.42
1990s	-4.1	2.6	-1.6	0.12
2000s	3.3	2.7	1.2	0.23
Constant	47.7	4.5	10.7	0.00
Number of observations	397			
F (12,384)	7.24			
p-value	0.000			
r-squared	0.184			

Note: Only schools with at least 10 takers were included.

3.3. High- and low-performing programs

Here we try to identify and count schools that consistently score poorly or highly in the criminology licensure exams.

We defined a low-performing school as one where passing rate was at most 25% in at least four of the five years from 2012 to 2016. Accordingly, 59 (16%) out of 367 schools (that had exam results for the given five years) were identified as low-performing. Conversely, we defined a high-performing school as one where passing rate was at least 75% within the same time frame. Only 14 (or 4%) out of 367 schools qualified as high-performing.

Mindanao had a disproportionately large share of the low-performing schools with 22 (37% of total low-performing schools while accounting for only 27% of total schools). Other Luzon had 23 low-performing schools, NCR had one, and Visayas had 13 (table 3.3). The low-performing schools were overwhelmingly private schools (50 out of the 59 or 85%), with the nine low-performing schools being SUCs. None of the 15 LUCs in this group was classified as low-performing. Size-wise, low-performing schools were largely small schools (45 schools or 76%) while constituting only 53% of total schools.

Meanwhile, other Luzon had a disproportionately large share of high-performing schools, with 11 of them (79% of high-performing schools while accounting for only 45% of total schools). NCR also did well with 14% of high-performing schools and only 6% of total reporting schools (though the absolute number was small at two out of the 23 NCR schools with available data). Mindanao had only one high-performing school, and Visayas had none. Six SUCs, one LUC, and seven private schools were among the total high-performing schools. These schools were also disproportionately large (43% with 9% of total reporting schools), whereas their small counterparts were underrepresented (21% with 53% of total reporting schools).

TABLE 3.3. Number of low-performing and high-performing schools by location of school

Island group	Low-performing schools		High-performing schools		Total # of schools in category *	
	Freq	%	Freq	%	Freq	%
Island group						
NCR	1	1.7	2	14.3	23	6.3
Other Luzon	23	39.0	11	78.6	166	45.2
Visayas	13	22.0	0	0.0	80	21.8
Mindanao	22	37.3	1	7.1	98	26.7
School type						
SUC	9	15.3	6	42.9	79	21.5
LUC	0	0.0	1	7.1	15	4.1
Private	50	84.7	7	50.0	273	74.4
School size						
Large	1	1.7	6	42.9	33	9.0
Medium	13	22.0	5	35.7	138	37.8
Small	45	76.3	3	21.4	194	53.2
Total	**59**	**100.0**	**14**	**100.0**	**365**	**100.0**

*Includes only schools with examinees in at least four of the five years from 2012 to 2016

Classification: Low-performing schools are those with at most 25% passing rate in at least four of the five years from 2012 to 2016; high-performing schools are those with at least 75% passing rate in at least four of the five years from 2012 to 2016.

3.4. Policy recommendations

The quality of criminology schools around the country is alarmingly poor, judging from licensure exam passing rates. Apart from the concern about the quality of exam passers who enter police work or related security administration jobs, these results raise the issue of wasted resources among those who complete four-year criminology programs but fail the exams. This is all the more a pity as criminology seems to be the preferred choice for many young students, especially men, who aspire to a professional career outside of the high-cost and highly selective areas of medicine, law, engineering, information technology (IT), or business management.

There are policy implications for regulatory agencies either on the side of supply (through CHED in its mandate to regulate for quality) or demand (through employers and agencies tasked with overseeing labor, such as the PNP and the NAPOLCOM). Close collaboration among these agencies in examining the factors that affect school

performance as measured through licensure exam results (and eventually, other dimensions of school quality) is a must.

3.4.1. Wider dissemination of exam results and other performance indicators

If school-specific passing rates for licensure exams are made easily accessible to the public, specifically to parents and potential students, there could be reasonable expectation that such market signals would act as an incentive for quality improvement. As the government agency with a mandate for quality oversight of HEIs, CHED could establish the mechanisms to encourage and enable potential students to check program quality so they can make informed decisions. Passing rates by school are currently available on the Professional Regulation Commission (PRC) website as a downloadable PDF file but not in a place or form that is readily searchable and usable for the public.

Dissemination of HEI performance can be done both at the institutional and program levels. CHED can provide either explicit endorsement or attempt to build its own version that would both provide market signals and serve its own purposes for program quality monitoring. Such signals could initially consist of information on passing rates in licensure exams of individual schools and eventually grow to more robust sets of indicators, possibly including admission standards, completion rates, faculty-student ratios, student satisfaction, research quality, employment prospects, or other indicators of performance.[2]

3.4.2. Guidance on improving performance

At the level of program design, CHED could give guidance for specific ways to improve program quality and begin some incentive system at the level of HEIs to encourage program improvement.[3] Systematic research should be conducted at the program level to determine predictors of quality. These include a thorough accounting

2` See, for example, the University League Tables ranking United Kingdom universities nationally published online by The Complete University Guide (https://www.thecompleteuniversityguide.co.uk/league-tables/rankings) or similar league tables published by The Guardian (https://www.theguardian.com/education/ng-interactive/2017/may/16/university-league-tables-2018).

3 As a general metric, "most improved" types of awards may be worth pursuing. This is different from the Center of Excellence (COE) distinction, which is given every three years and then maintained. Chronic low-performers will not feel like Center of Development COD/COE systems are achievable for them; they need a different system of incentives.

and understanding of the faculty corps, administrative systems, the student admissions procedures, costs, graduation rates, and curriculum design. Studying high- versus low-performing criminology programs can provide initial guidance on the necessary facilities, faculty, and features of programs that do well. For criminology programs, it may become possible to identify a minimum program size required for efficient teaching and successful outcomes and the key inputs needed to achieve the cut-off size.

To some degree, the CHED technical committees are supposed to be the guiding body for *curriculum design*, but they only provide recommendatory guidelines and do not monitor for the execution and quality of instruction. That is, a well-designed curriculum translates to program quality only if the teachers perform well and are qualified. In private institutions, this level of monitoring is done through accreditation programs. Although imperfect and not required, the level of scrutiny is more detailed and provides a better picture.

3.4.3. Partnerships across schools

CHED is in a unique position to facilitate transfer of learnings about program design and administration from high-performing institutions to low-performing ones. All but one of the 14 high-performing schools are either private or SUCs. Programs in high-performing SUCs may have a role to play in giving guidance to smaller less successful schools, both private and public (including LUCs). Since CHED can provide grants and incentives to SUCs, it can facilitate this knowledge sharing by either commissioning research or giving grants for program reviews of less-successful schools or convening knowledge-transfer opportunities specific to criminology programs. Public-private partnerships could also be developed to draw the high-performing private schools into these efforts with support from CHED. Any interventions to shore up performance of criminology education programs should prioritize areas where the low-performing schools are concentrated.

3.4.4. Interagency cooperation

CHED only provides oversight and guidance on the education side; it needs to effectively coordinate with the agencies that are on the side of employment. For criminology programs, this would be principally the PNP as one of the major employers of freshly licensed criminologists. CHED could facilitate the development of effective knowledge management systems across the sector where reports and summary data are made available to providers (HEIs) and potential employers (PNP). One potentially interesting area of exploration would be to compare the on-the-job performance and

long-term career outcomes of criminology graduates in the PNP with those entering the service with other four-year university degrees through the PNP entrance exam path.

As a policy for criminology and other tertiary education programs, the government needs to articulate its position and role in facilitating the target or ideal share in private and public education provision. Since the new Implementing Rules and Regulations (IRR) for the law mandating free tuition in SUCs and LUCs provide that program sizes will not be expanded significantly in the near and medium-term, it does not appear that public institutions will be in any position to provide a sizeable supply of criminology graduates. Thus, focus on improving program quality in private institutions is necessary moving forward.

This study relies on a single metric of program performance, the PRC licensure exam, whereas multiple metrics are necessary to give a full assessment. These metrics include total program cost in relation to passing rates, graduation rates, admissions policies, and over a longer view, the salaries of graduates from different criminology programs. Most of these have no existing available data; these must be gathered to provide an exhaustive review and proper monitoring of program improvement. Over-reliance on board exams for metrics of performance raises the danger of creating systems that incentivize programs to teach to the test, a scenario that is worth avoiding. Having a preponderance of different metrics potentially reduces that risk and gives a more comprehensive view of determinants of good quality criminology education.

Raising the overall performance of the whole criminology education system needs support, especially given its importance for law enforcement, peace and order, and ultimately, national security. The controversies surrounding law enforcement point to the importance of producing high-quality officers who may find themselves at the front lines of critical, potentially violent, law and order situations immediately after completing their studies and qualifying exams. The public good nature of law enforcement certainly justifies public support for these educational institutions, whether public or private, specifically with the goal of raising quality standards to the level required for nation building.

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Adapting to the New Normal Through and Beyond the COVID-19 Pandemic: The University of the Philippines Los Baños Experience

Aileen Virrey Lapitan, Francis F. Faderogao, and Rowena DT Baconguis

4.1. Higher education and the COVID-19 pandemic

The COVID-19 pandemic has posed tough challenges to higher education in the Philippines. With the first known local case registered on January 30, 2020, it was only a matter of time before the mounting threat to public health culminated to a complete standstill of all face-to-face activities in colleges and universities. Months since the announcement of the first community quarantine, educational activities have continued to be conducted remotely—and for the next several months still.

State universities have been facing challenges more intense than simply having to shift the mode of instruction to remote delivery. Unprecedented complexities brought about by the pandemic to operations of state universities have brought to light weak spots in the system and compelled adaptive responses to mitigate impacts of the pandemic-related disruptions. Still in the midst of the crisis yet looking forward to its end, state universities can take stock of their adaptation journey and draw lessons to guide how they chart their path toward a new normal beyond COVID-19. It is all about preparing to emerge from the next catastrophe with the intent to absorb the shocks and keep core institutions intact (Boin, Comfort, and Demchak 2010). Such a move is one toward resilience.

This paper discusses the context and the framework of the University of the Philippines Los Baños (UPLB) in responding to the COVID-19 pandemic. It highlights the major response themes during the pandemic and reflects on the new normal ahead.

4.2. Situation analysis

UPLB is a public research university located some 64 kilometers southeast of Manila. Its vast campus is home to nine research centers and at least four international research centers. The student population, which comes from different parts of the country and abroad, is mostly housed in dormitories in and around campus.

As a vibrant academic institution, most of UPLB's regular operations revolve around knowledge generation and exchange. Prior to the COVID-19 pandemic, UPLB has been intensifying its graduate program offerings in Mindanao through the UP Professional School for Agriculture and the Environment (UP PSAE). Off-campus graduate programs have also been conducted with partner institutions across the country. Internationalization efforts have included the implementation of joint programs with partner universities in Asia and the United Kingdom, as well as other student exchange programs with other foreign universities. Research and extension personnel have been engaged in various on-site and off-site work, which, like most instruction activities, normally rely on freedom of movement and physical interactions. The threat posed by the pandemic to health of UPLB constituents and stakeholders thus abruptly interrupted these activities, thereby unsettling the University's business-as-usual.

The rapid spread of the infections in the country led to the system-wide escalation of the pandemic response in UP. This subsequently resulted in unprecedented disruptions in the conduct of UPLB's regular operations, threatening the welfare of its constituents.

UPLB performs a trilogy of functions: instruction, research, and public service. The pandemic, however, has thrown the university off guard during the middle of the semester. As the University struggled to address the immediate need to sustain delivery of learning, it also had to deal with the equally important concern of ensuring safety within the university and the community to which it belongs. On top of these concerns was the need to ensure the safety of faculty, staff, and students living within and in the surrounding areas of the campus. Lockdowns to slow down the spread of COVID-19 demanded new work arrangements for faculty and staff. The teaching and learning scenario was the first challenge as UPLB, like many state universities in the country, struggled to migrate face-to-face instruction toward online mode. Research and extension activities were disrupted as research stations, experimental plots, laboratories, and other work sites became inaccessible.

Hundreds of resident students were stranded in the campus. They were unable to buy food from closed-down cafeterias and restaurants, and some had no access to kitchen facilities. Therefore, UPLB had to address the food needs of students living in on-campus and off-campus housing. Pandemic-related anxieties also posed threats to the mental health of students, faculty, and staff members.

In response to these drastic developments, UPLB constructed a pandemic response framework, which the following section describes.

4.3. The UPLB pandemic response framework

The COVID-19 pandemic is not like anything the University has experienced in its existence, perhaps except for the Second World War. UPLB had no choice but to implement a response framework (figure 4.1) that ensures its most important business of the time: health and safety of the community. The consequence may mean life or death for many. The University Administration had to act fast, harnessing its strengths and holding on to its core values.

To manage the crisis response while also keeping the basic operations of the University running, the Office of the Chancellor (OC) created the UPLB Response Team to focus on monitoring the pandemic and implementing measures to address concerns of constituents. The composition of the team is strategic for networking with the scientific community, generating financial and material support for the various activities, and mobilizing volunteers in public service interventions. Representation from the University Health Service (UHS) was crucial in the crafting of policies, protocols, and information, education, and communication (IEC) materials.

Another important component of the response framework is communication. The beginning phase of the pandemic was a time of high uncertainty, for students as well as for faculty and staff of the University. Open lines of communication between the Administration and constituents can bridge knowledge gaps and any trust deficiencies. If shared governance is to be heightened in the University, adequate information enables constituents to give meaningful feedback (Hass 2020). Moreover, transparency, careful management of expectations, and using empathetic tone in communicating with constituents help ensure effective crisis communication. For this, UPLB maximized use of electronic communication, including social media to relay important announcements and collect feedbacks, all in real time. The OC also actively supported system-wide surveys and dialogues with students and staff.

With public service as one of its mandates, UPLB carried in its response framework outreach initiatives. Research, such as mathematical modelling and data analytics under the UP Resilience Institute and UPLB Biomathematics Initiative, were utilized for data-based decision making. The University was also able to offer molecular diagnostic laboratory services for COVID-19 screening. Some of the outreach initiatives were done with stakeholder support. The University was able to conduct many of its pandemic response initiatives with the help of its stakeholders, made up of alumni, staff, students, and other partners.

The anxiety and dread that came with the disruption required a crisis management that could act swiftly, judiciously, and compassionately. Thus, UPLB's response to the pandemic is hinged on compassion, care, and concern for others. These words refer to one Tagalog word, *malasakit*. However, the three words fail to encompass the range of meanings of this Tagalog term. *Malasakit* translates to caring for the other like a family member or a close friend. More importantly, the term implies voluntary action (*pagmamalasakit*) or to act solicitously and selflessly to promote the good of the other. It is along the line of *pagmamalasakit* that the entire UPLB pandemic response is framed.

In reaching out to the various stakeholders, the spirit of *malasakit* was at the core of the messages and actions of the University and the community members who had been very responsive as they volunteered ideas, time, and resources to ensure a safe community. *Pagmamamalasakit* required a science-based communication and intervention activities, implemented at the right time so as to secure the safety of everyone. Crisis management rested on a good network with the science community, its alumni, faculty, staff members, and students; and the local government units (LGUs).

Among the programs that aptly reflect the UPLB response framework discussed here are as follows:

- "Adopt a Dormer, " a partnership with alumni to bring food to dormers, with monetary donations reaching PhP4 million and non-monetary donations coming in in the form of food and hygiene supplies;
- "Oplan Kawingan," a volunteer-driven initiative to deliver meals to students in off-campus dormitories;
- "Oplan Kamustahan," provision of counseling to distressed students; and,
- "Oplan Hatid," a collaborative effort with the Armed Forces of the Philippines (AFP) and LGUs to reunite students with their families. Coordination with embassy partners also enabled the repatriation of many international students.

FIGURE 4.1. Ensuring community health and safety at UPLB during the Pandemic

4.4. Crisis response management measures

Our analysis of UPLB's pandemic response explores the most common themes in the UPLB Administration's policy directives. We performed thematic analysis on a total of 75 memoranda issued by the Office of the Chancellor and the Office of the Vice Chancellor for Community Affairs (OVCA) from January 21 to November 24, 2020 on subjects related to COVID-19. Memoranda were coded inductively for specific response themes, which were later reviewed and clustered into the five final themes discussed in Figure 4-2.

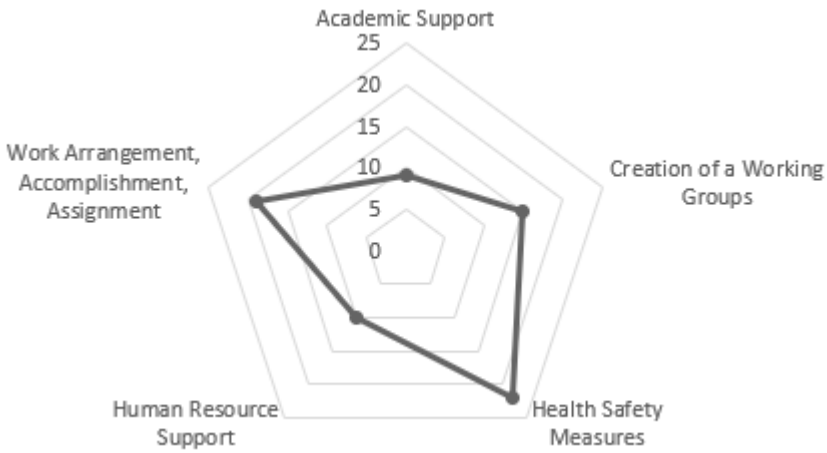

FIGURE 4.2. Distribution of COVID-19 related memoranda into five dominant themes

4.4.1. Health safety

A total of 19 memoranda were clustered under the precautionary measures theme. Most of the directives are related to ensuring health safety in the conduct of university

activities. While the policy about mass gatherings has escalated from selective to complete ban, physical distancing standards have been reiterated. Students' request to use laboratories for thesis studies/experiments has been disapproved, and student exchange programs have also been suspended. Memos instructed the practice of safety standards in administrative document handling. The OC has sent out guidelines for quarantine and monitoring of inbound constituents and enforced the use of daily monitoring mechanisms in offices. Provisions for procurement of protective gear and its proper disposal were also mandated. Furthermore, constituents have been updated with the latest personal safety protocol and precautionary measures issued by the national government. With the downgrading of the community quarantine levels, the most recent memorandum announced permission for limited physical fitness activities on campus.

FIGURE 4.3. Specific themes under health safety measures

4.4.2. Shifts in work arrangements

For its operations, UPLB relies on a workforce of about 3,400 faculty, research, and administrative staff. The pandemic has changed the work arrangements of employees in many ways. Safety concerns have resulted into prolonged use of skeleton force and the implementation of alternative reporting arrangements in the workplace. Temporary workers' task assignments had to be adjusted to accommodate workplace restrictions in their sites. Other members of the staff were assigned to provide support manpower in pandemic response activities. In the early months of the pandemic, non-essential staff were prohibited from entering office buildings. Work accomplishment reports were required of staff who worked from home, along with some monitoring measures issued by the UPLB Administration. As the community quarantine restrictions were

downgraded, most employees follow alternative work arrangements in which they observe work-site reporting shifts to meet the physical distancing requirements.

4.4.3. Human resource support

To ensure timely release of salaries to employees despite work schedule disruptions, payrolls are processed semi-monthly, instead of the regular weekly cycle. As reporting employees may be exposed to health risks, and many have been financially affected by health and other life changes from the pandemic, memoranda to deliver financial aid and other benefits to employees were issued. Special risk allowances and hazard pays were issued to frontliners and skeleton staff reporting for work during heightened community quarantine periods. An emergency allowance was provided. Loan payment collection was suspended. Subsidies for use of internet, as well as for purchase of computers, were made available for staff under work-from-home arrangement.

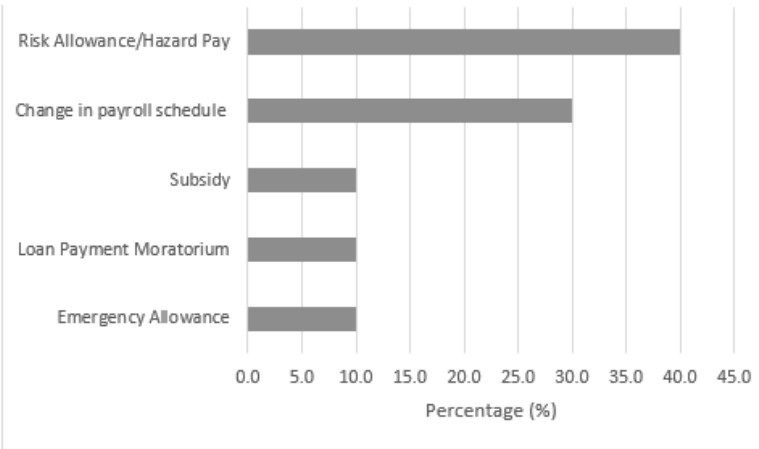

FIGURE 4.4. Specific themes under human resources support

4.4.4. Academic support

Memoranda from the Administration reflect intense efforts to address disruptions in the learning and welfare of students. Out of 12 memoranda associated with the theme of academic support provision, six pertain to adjustments in the mode of learning, academic schedule, and assessment. For this, UPLB downloaded policies from the UP System, particularly the offices of the President and the Vice President for Academic Affairs. Face-to-face class activities were halted by March 16. Remote teaching and learning are implemented for AY 2020-2021. Suffice to say, the pandemic has abruptly forced UPLB to go into remote learning, just like many universities across the globe.

As with many higher education institutions, the pandemic found students and faculty mostly unprepared. Nevertheless, the UP system leadership, through the OVPAA, has been compensating unavoidable difficulties faced by constituents by intentionally communicating an intent to accommodate particular needs. For instance, the UPLB Administration worked with faculty in adjusting learning activities to workable new modes and schedules for the benefit of students in the second semester of A.Y. 2019–2020. In the current semester, faculty members were incentivized to prepare and distribute course modules to students online and in printed form, as applicable. The UP system directives shortened the semesters and encouraged the easing of assessment requirements from students. Deadlines for course and other administrative concerns of students were also relaxed. To aid the release of scholarship stipends, numeric grades were ensured for CHED scholars.

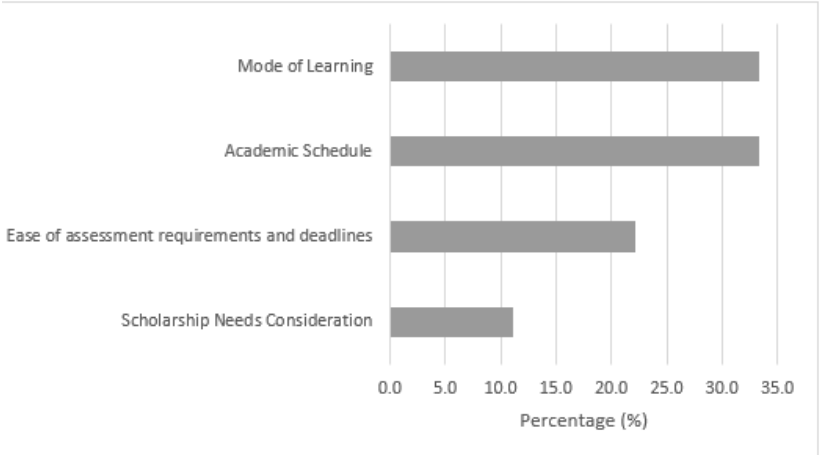

FIGURE 4.5. Specific themes under academic support

4.4.5. Creation of working groups

In the new normal, UPLB has had to balance the health safety and the welfare of its constituents with the performance of its functions as a teaching, researching, and public service university. To meet competing demands, the Administration organized three working groups dedicated to ensuring community health safety, delivery of molecular diagnostic laboratory services to the community, and management of donor and volunteers relations. The UPLB COVID-19 Response Team was created last March 13, 2020 as a dedicated group to monitor updates regarding COVID-19 in the campus and nearby communities and implement necessary protocols and assistance to UPLB constituents in response to the COVID-19 threat.

The Team has been providing the OC updates of the pandemic situation. The OC also issued memoranda toward the creation, public engagement, and management of the COVID-19 Molecular Diagnostic Laboratory (MDL). As a means to express appreciation

and uplift community spirit, an ad hoc committee was created. Furthermore, the new chancellor organized a prevention and mitigation team to look into the safe reopening of the University, as well as monitoring and provision of support to constituents in the face of continuing threats.

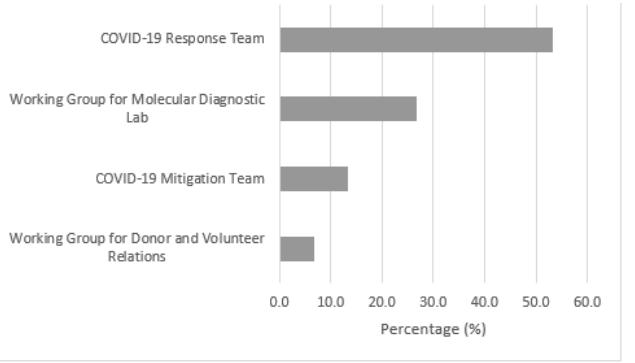

FIGURE 4.6. Specific themes under creation of working groups

4.5. Moving forward through crisis leadership

For a shock as unprecedented as the one brought about by the COVID-19 pandemic, UPLB's response did not stray from the most immediate and essential goal of ensuring health and safety of the community. Hinged on the distinctive core values of compassion, care, and concern for others, pursuance of health safety also meant the consideration of challenges faced by students, faculty and other staff, and members of the broader community.

UPLB's workforce was unprepared for the disruptions of the pandemic on their work. Safety concerns limited access to the work premises. The Administration has been balancing the need to sustain the operations of the organization by enforcing directives to alter work arrangements with ensuring employee accountability. Some of these changes exert stress on the employees. Yet, the Administration somehow compensates by guaranteeing timely release of salaries, as well as different forms of aid and benefits.

Given the inevitable shift to remote learning, varying capacities of students to access online learning technology have been the main consideration of the Administration's stipulated adjustments in the mechanics of remote learning, assessment tools, and schedules. With many students stranded in the locked-down campus, alumni, fellow students, faculty, and other institutional partners were engaged for the delivery of relief like meals and other basic daily needs, as well as for the safe return of many to their families, here and abroad.

UPLB's pandemic response is enabled by a system of shared governance where decision making for critical time-bound concerns is assigned to a body made up of multi-expertise representatives from key operating units. This body also provided timely and informed advice to the Chancellor. The mechanism is made effective by transparency, trust, and inclusion (Hass 2020).

Months of managing the pandemic response has been serving the purpose of coping with the unexpected disruptions in the University's operations. Arguably, UPLB has shown effectiveness in pursuing the health safety goals for the community and mitigating undesirable outcomes. As the University welcomed a new chancellor this November, a well-timed change in the institutional tone of UPLB's crisis response may be expected.

As with other higher education institutions, UPLB is now looking into the prospect of re-opening the campus for in-person learning. On November 6, 2020, Chancellor Jose V. Camacho, Jr. signed the appointment of the UPLB COVID-19 Prevention and Mitigation Team, which is primarily tasked to prepare toward the safe reopening of the campus in accordance with the national action plan and local public health conditions. The team is composed of representatives from the same units in the former Administration's taskforce plus a data scientist and the Assistant Vice Chancellor for Academic Affairs. On the same day, academic unit heads were surveyed regarding demand for face-to-face classes and laboratory work in the next semester. Indicative of what is hoped to come, limited physical fitness activities were allowed in the campus during weekend. Moreover, organizational units were given orientation about the use of the municipality's contact tracing ID.

If there is anything that is certain about post-pandemic UPLB, it will be one drastically different from the old and the current normal. New norms in teaching and learning will take on different modes of hybridization as online learning will become part of the new normal juxtaposed with face-to-face teaching. Internationalization of higher education will be more vibrant in the form of joint research and program offerings. Faculty affiliations from various international HEIs will become more dynamic as online learning becomes more accessible and acceptable to both faculty members and students.

The extent and enduring threat of the pandemic on the community calls for a change in institutional culture toward one of safety and preparedness. For one, individuals must develop an attitude of compliance with mitigation strategies, such as the use of masks, social distancing, and hand hygiene. Organizational systems and processes must also be crisis-proofed. Such is the next new normal for UPLB and other state universities. For this, crisis leadership is crucial.

As opposed to crisis management which takes on a reactive approach in responding to a shock, crisis leadership is described as a proactive, strategic, or anticipatory approach to dealing with a crisis (Garcia 2015). UPLB's pandemic response framework indicates much potential for effective crisis leadership since it exhibits three necessary components: communication, clarity of vision and values, and caring relationships (Klann 2003). The prospects look good for the next new normal.

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SkillsBuild Innovation Camp: Learning Paradigm Innovation Spearheaded by Asia Pacific College

Front End Web Development for Resilience

Jayvee Cabardo, Roselle Wednesday Gardon, and Lorena Rabago

Asia Pacific College (APC) has persistently innovated to give the best learning opportunities to its students, even when face-to-face learning was hampered by the pandemic. In keeping with its thrust to deliver quality education through experiential learning and be adaptive to the continually evolving requirements of industry, APC piloted the SkillsBuild Innovation Camp for Front End Web Developers. This transformative approach to skilling combines self-directed online learning on front end web development and design thinking with mentor-assisted project-based learning and team collaboration to solve real-world problems. This was a global initiative in cooperation with IBM, CodeDoor (a SkillsBuild partner), and ARISE.

In 2020, students' interest in web development led IBM and APC to explore the possibility of customizing the SkillsBuild Innovation Camp offering on IBM SkillsBuild to focus on front end web development training and project experience. Thus, the SkillsBuild Innovation Camp, which gives learners an immersive experience in solving client problems using technology, evolved into the SkillsBuild Innovation Camp for Front End Web Developers. In the SkillsBuild Innovation Camp, students worked in teams to use design thinking as a human-centered approach to problem solving. This involved:

- Thoroughly understanding client needs
- Creating a prototype of the solution
- Defining the problem
- Iteratively testing and refining the prototype
- Brainstorming a solution

The SkillsBuild Innovation Camp for Front End Web Developers was integrated into APC's traditional web development classes, preserving the ongoing touch points with APC professors, but giving students the freedom to take charge of their own learning online and challenging them to go beyond the IBM SkillsBuild and CodeDoor platforms or to approach peers and mentors to gain new knowledge and skills. This practice provides students with the skills to become continuous lifelong learners to sustain a rewarding career in technology.

The teamwork component is intended to develop much-needed professional skills for the workplace, where much work is done in teams. Students gain experience in honing their collaboration, communication, critical thinking, creativity, and presentation skills and recognize the need for diversity and inclusion. This not only gives students an experience of how projects are run in professional settings, but also allows them to create tangible evidence of their skills to include in their portfolios, which they can showcase to potential employers.

Connecting students to relevant and real issues that surround them can enrich the learning experience. The ARISE Foundation made this possible by bringing in stakeholders from Resilient.PH and Department of Science and Technology — Science and Technology Information Institute (DOST–STII) to pose their disaster resiliency problems to student teams for their projects.

5.1. Description of the Innovation

FIGURE 5.1. illustrates the framework applied to this learning delivery technique.

Participants from APC to the Innovation Camp were provided with web development and design thinking content from CodeDoor, available through the IBM SkillsBuild platform. They were grouped into teams of about five people. The student teams were paired with CodeDoor mentors and with Resilient.PH beneficiaries, through the Resilience Co-Creation Expo, to work on projects relating to disaster preparedness and resiliency. As students worked with beneficiaries to define their problems and come up with solutions, they did not only learn the necessary skills to develop the web applications for their projects, but they also gained experience working with a diverse team, which included support from industry mentors in different parts of the world.

APC, in partnership with Resilient.PH, focused on the theme that enables opportunities to develop technology solutions that matter most to humanity: disaster preparedness and resiliency. Aside from providing students with the technical knowledge to develop the solutions, these students were also equipped with the necessary knowledge about risk, recovery, preparedness, and resiliency. The main collaborators for disaster risk reduction and resiliency content were DOST–STII and ARISE. They provided opportunities to expose and influence students on the students' potential role in disaster preparedness and resilience.

In this type of learning approach, students earn the following key benefits:

- Self-paced learning using IBM SkillsBuild with weekly checkpoints with assigned APC professors;
- Technical and project support from global industry experts;
- The opportunity to engage directly with government and stakeholders to solve the country's most pressing issues relating to natural disasters;
- Experience working in a small project team with a diverse group of people
- Opportunity to pitch team solutions to stakeholders/beneficiaries and develop these further for implementation;
- Globally recognized SkillsBuild badges;
- Opportunity to grow one's professional network locally and globally; and
- Opportunity to create or build a portfolio that showcases skills in web development and project team experience on a real-world project.

5.2. Implementation

A total of 170 second-year and third-year APC students were chosen to participate in the 12-week innovation camp. IBM worked with APC to customize the SkillsBuild Innovation Camp program to fit within APC's existing college curriculum and meet the course guidelines and expected outcomes specified by the APC faculty facilitators.

IBM brought in execution partner CodeDoor to provide mentors for student teams. They would bring in their expertise and industry knowledge to guide students with the projects and give career advice.

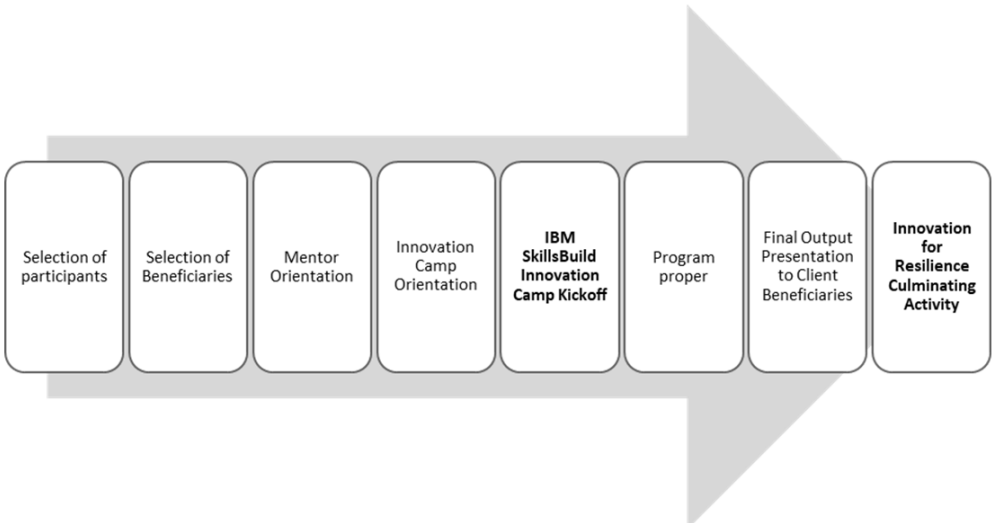

FIGURE 5.2. shows the flow of activities that the students underwent to complete the requirements for web development classes.

5.2.1. Selection of Participants

Second- and third-year students were selected to participate in the camp.

5.2.2. Selection of Beneficiaries

Beneficiaries were chosen from Resilient.PH partners. These agencies with pressing challenges and gaps in terms of disaster risk reduction and disaster management were brought together with APC students and other stakeholders who may be able to address these gaps and challenges. Student participants' ideas were matched with the stakeholders' needs for a web-based/technology-based solution to identified disaster management gaps from communities.

5.2.3. Mentor Orientation

Mentors were introduced to each other and to project partners. They learned about the Philippines, the college, the target audience, expected outcomes, project brief, mentoring best practice, and others.

5.2.4. Innovation Camp Orientation

Students attended the orientation sessions:

- A session facilitated by APC mentors on the whole program.
- A session facilitated by ARISE and DOST-STII on Disaster Risk, Preparedness and Resiliency 101

5.2.5. IBM SkillsBuild Innovation Camp Kickoff

This is the event that officially launched and welcomed students to the SkillsBuild Innovation Camp. The students heard from speakers from APC, IBM, CodeDoor, DOST–STII, ARISE, and some client beneficiaries.

5.2.6. Program proper

Students went through online courses by CodeDoor on coding, CSS, HTML, GitHub, JavaScript, design thinking, innovation, and agile methodology. Students then formed teams, and teams were matched with mentors.

There were 27 teams in total. They had weekly checkups with APC professors and regular meetings with mentors and client beneficiaries/stakeholders.

5.2.7. Final output presentation to client beneficiaries

Students presented their final outputs to client beneficiaries.

5.2.8. Innovation for Resilience Culminating Activity

This was an event attended by stakeholders from IBM, CodeDoor, APC, DOST–STII, ARISE, and Resilient.PH, as well as the representatives of the partner agencies and beneficiaries of the projects. The teams presented their final pitches to a panel of judges during the event.

5.3. Assessment and Evaluation

The SkillsBuild Innovation Camp was assessed and evaluated by conducting a survey among the projects' stakeholders classified into four groups: students, beneficiaries, faculty facilitators, and APC administrators. Please refer to Appendix B for the survey questions.

Overall, most of the students (68.4%) have given the program a rating of at least an **Average** (the choices for the rating were *Exceptional*, *Above Average*, *Average*, *Below Average*, and *Poor*).

The solutions provided by the APC students to the beneficiaries were rated by the latter with at least an **Average.** This implies that all project requirements were met and the needs that the beneficiaries specified to the students were addressed.

5.4. Impact to Stakeholders

Stakeholders were interviewed as regards the impact of the innovation. Their insights are detailed in the following sections.

Mr. Joegene Quesada, faculty facilitator, said the Innovation Camp "*is a great program, and quite unique because it brings together IBM professionals, the clients for the projects, and the students to work jointly to achieve a common goal.*" He also added that having students mentored by IBM professionals gives a great boost to their confidence and allows them to practice communicating with non-Filipino IT professionals. He also mentioned that this model allows handling of cross-section groupings of five sections with the IBM SkillsBuild collaboration program.

"*The collaboration between schools is paramount in this practice. It provided students the opportunity to approach projects in a more interdisciplinary way,*" said Mr. Robert Besana, School of Multimedia and Arts (SoMA) Executive Director.

Executive Director of the School of Computing and Information Technologies (SoCIT), Ms. Rhea-Luz Valbuena, also supported this sentiment. She added, "*Collaboration between international and local mentors makes handling class sizes easier. Student groupings are assigned to mentors while APC faculty facilitate the needs of both mentors and students, directed to the goals and outcomes of the courses. Collaboration between APC administrators with IBM and CodeDoor administrators to provide support to the students, mentors, and faculty; the collaboration between schools is paramount in this practice. It provided students the opportunity to approach projects in a more interdisciplinary way.*"

The SkillsBuild Innovation Camp eventually paved the way for students to collaborate with coaches from other countries and practice working and communicating with international developers/coders, as noted by Mr. Joegene Quesada.

Ms. Rhea-Luz Valbuena also noted that the Innovation Camp provides a better learning model: "*While there were some areas for improvements, the model itself provided for students to learn in the 'Now Normal' way. Students learn independently at first (which is an important personal skill in today's times), through the SkillsBuild and CodeDoor platforms. Independent learning is an important skill to acquire as future graduates. International mentors add into the knowledge by helping them apply the codes in their project in the industry-acceptable standards. The APC Faculty on the other hand, provides a checkpoint on student learnings and facilitates the various activities of the class in collaboration with the international*

mentors. The collaboration between the school's professors and the international mentors is great exposure and immersion for the faculty as well. The difference in culture and time zones, enabled the students to experience working with teams in the virtual global environment."

Markus Tracker of CodeDoor expressed his gratitude on serving as a coach for IBM SkillsBuild. "*We are happy to help, as we try to use our privilege to help others. The important fact here is you can ask for help. Don't fear about asking for help and finding allies within your team, your organization, and people you can trust,*" he shared.

Meanwhile, Richard Burgos of DOST–STII saw SkillsBuild as an opportunity despite issues brought by the COVID-19 pandemic: "*For us, we are learning that to survive this pandemic and thrive, we needed three things: one is to pivot our ability to adjust – if you cannot deliver something one way, you have to deliver it another way; the other one is to perform – we still have to perform, as students need to produce their requirements for school; and lastly, is to excel despite all our limitations.*"

"*Together with the promise of these young people creating solutions for our day-to-day problems, we can come together as a global village. The world is here with us: we are one global village,*" Mr. Burgos further added.

On the other hand, Jed Cruz of IBM PH is looking forward to working with new innovators: "*We look to you who are our future in this innovation space and encourage you to develop them and continue the pace you are bringing in with these new ideas, as well as innovations to help uplift the country and every Filipino altogether.*"

Bettina Cutler of IBM also shared how IBM's values as a company were imparted during the camp: *"Innovation will continue to bring about changes in technology over time. However, our mission has stayed constant — to use innovation and technology to make the world a better place. I hope that through the SkillsBuild Innovation Camp, you are more aware of what is going on in your communities and use technology and the skills you have learned to take on problems that matter and to build solutions that will make a difference to people's lives."*

Alexander Pama, Board Member and Co-Chair of ARISE Philippines, emphasized that the SkillsBuild Innovation Camp is a great example of how we can build resilience by co-owning the problem and co-creating real solutions to address them if only to mitigate existing risks and prevent the creation or development of new risks as we continue our social and economic progress. "*We at ARISE Philippines* ***are very proud of our involvement*** *in this undertaking if only to be part and be of* ***assistance in your learning process.*** *We appreciate this as a way of getting our students, our future leaders, involved in the co-creation of sustainable and real solutions which begins from co-owning the problem,*" concluded Mr. Pama.

Ace Esmeralda, Resilient.PH Chief Resilience Officer, highlighted the impact of the SkillBuild Innovation Camp in supporting the attainment of sustainable and resilient society: *"One of the so many impressive things that we have seen from this initiative of APC is the coming together of different groups to contribute to the learning process of the students. This allowed the students to be grounded on the current reality and factor in the sensitivities and challenges on the ground into the solutions that they developed. If we are to become a sustainable, inclusive, and resilient society, we need our future leaders to be constantly mindful of everything that goes on around them, the joys and pains of every stakeholder, the gaps, and opportunities in the current processes. We feel that the initiative of APC is a very powerful step in the right direction.*"

Although the Innovation Camp was somehow challenging, Regine Marie Sales (third-year student, Bachelor of Multimedia Arts (BMMA)) shared that working on the project brought out the best in themselves: "*Remember, pressure makes diamonds — now that we are in this event full of innovative students from APC, I am proud to say that we are all diamonds, precious to our school, our country, and the future generations. Let us continue making them.*"

What's Next

There is a plan to implement the same model in APC's other courses and extension classes in partner schools.

Appendices

Appendix A: Articles about the Program and Other Media

IBM empowers Filipino youth to create Web solutions for disaster resiliency | BusinessMirror

https://businessmirror.com.ph/2021/02/06/ibm-empowers-filipino-youth-to-create-web-solutions-for-disaster-resiliency/

IBM Empowers Youth to Build Web Solutions for Disaster Resiliency - SDN - Science & Digital News (scitechanddigital.news)

https://scitechanddigital.news/2020/12/22/ibm-empowers-youth-to-build-web-solutions-for-disaster-resiliency/

RCX 21 - Collaborations for Resilience - Resilient.PH

https://resilient.ph/2021/01/rcx-21-collaborations-for-resilience/

IBM SkillsBuild empowers youth to build web solutions for disaster resiliency - Android - Filipino apps and news - Pilipinas

http://philippines.appsandnews.com/News-Android-IBM-SkillsBuild-empowers-youth-to-build-web-solutions-for-disaster-resiliency.html

IBM opens innovation camp to address IT skills gap in PH – Back End News

https://backendnews.net/ibm-opens-innovation-camp-to-address-it-skills-gap-in-ph/

With IBM SkillsBuild, youngsters can create net options - Smart Home Tec

https://www.smarthometec.co.uk/2020/12/25/with-ibm-skillsbuild-youngsters-can-create-net-options/

Episode 3 - Collaborations for Resilience - ResilienTalk | Podcast on Spotify

https://open.spotify.com/episode/2qXDPL4SGYfPkK7coYJXEO?si=n1fCFhxyQXubp_VnE5fEEQ&nd=1

Asia Pacific College / Code Door / IBM SkillsBuild Bootcamp introduction - YouTube

https://www.youtube.com/watch?v=966DvX2EfN4

Appendix B: Survey Forms

Stakeholder: Students Survey

- https://tinyurl.com/SBICStudents

Stakeholder: Beneficiaries Survey

- https://tinyurl.com/SBICBeneficiaries

Stakeholder: Faculty Survey

- https://tinyurl.com/SBICTeachers
- Stakeholder: School Administrator
- https://tinyurl.com/SBICSchoolAdministrator

Appendix C: Acknowledgement

Sincerest gratitude to the following for sharing their time and expertise in the completion of this paper:

APC Team

(1.) Ma. Teresita P. Medado
(2.) Rhea-Luz Valbuena
(3.) Leonida Africa
(4.) Anna Roqueza
(5.) Jo Anne de la Cuesta
(6.) Robert Besana
(7.) Jose Eugenio Quesada
(8.) Hans Oliver Schuck
(9.) Mary Anne Romero
(10.) Jervis Gonzales

IBM Team

(1.) Bettina Cutler
(2.) Andrea Escalona
(3.) Cathy Taylor

ARISE

(1.) Hans T. Sy
(2.) Alexander P. Pama
(3.) Alex B. Cabrera
(4.) Ma. Teresita P. Medado
(5.) Maribeth Marasigan
(6.) Kenneth Y. Hartigan-Go
(7.) Raymond Rufino
(8.) Rene Meily
(9.) Ed Sunico
(10.) Antonia Yulo Loyzaga
(11.) Dr. Erdsan Rene S. Suero
(12.) Simonette Lat

Resilient PH

(1.) Ace Esmeralda
(2.) Wally Panganiban

DOST-STII

(1.) Richard Burgos
(2.) Margaret Duremdes

SkillsBuild Innovation Camp Student-Participants, Beneficiaries, Mentors, and Industry Partners

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