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The national system of technical vocational education and training in the Philippines: Review and reform ideas

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Philippine Institute for Development Studies
Surian sa mga Pag-aaral Pangkaunlaran ng Pilipinas

The National System of Technical Vocational Education and Training in the Philippines: Review and Reform Ideas

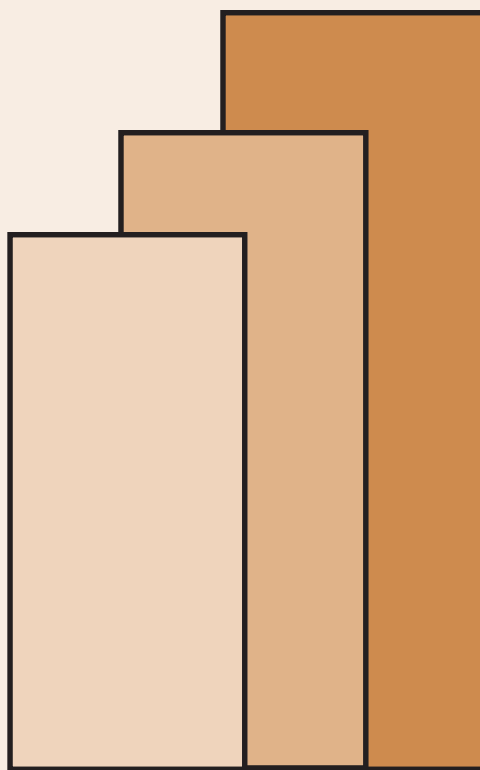
Aniceto C. Orbeta Jr. and Emmanuel Esguerra

DISCUSSION PAPER SERIES NO. 2016-07

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**The National System of Technical Vocational Education and Training in the Philippines:
Review and Reform Ideas**

**Aniceto Orbeta and Emmanuel Esguerra
February 2016**

Abstract

The role of the National System of Technical Vocational Education and Training (NSTVET) is critical in skill upgrading and development. The rapidly changing technology highlights this need even more. This paper reviews the state of Philippine NSTVET and identifies and discusses reform ideas. It does so by doing three things, namely: (a) provide a description of the characteristics of an improved NSTVET described in recent sectoral reviews; (b) provide a description of the characteristics and analysis of the performance of the existing Philippine NSTVET; and (c) provide recommendations to improve the system.

Among the recommendations provided in the study are: (a) TESDA should focus more on regulation and information provision; (b) greater emphasis on enterprise-based training; (c) make training continuously relevant to industry needs; (d) greater performance orientation in access to public training funds; (e) improved targeting and sufficiency of financial assistance for TVET; (f) ensure quality in community-based training; (g) improve data generation and dissemination; (h) improve capacity for monitoring and evaluation; and (i) improve the image of TVET.

Keywords: Technical Vocational Education and Training, Philippines.
JEL: J24, M53

The National System of Technical Vocational Education and Training in the Philippines: Review and Reform Ideas¹

Aniceto Orbeta and Emmanuel Esguerra²
February 2016

A. Introduction

Skills upgrading and development have both short and long-term roles in development. Long-term development requires continuous upgrading of skills. This takes an even heightened role with rapidly changing technology. To the extent that technical vocational education and training (TVET) is able to increase the productivity and income of poor also serves the long-term equity objective. In the short-term, skill upgrading also enhances the employability of the unemployed and facilitates transfer to new occupations of the underproductive currently employed. The role of the National System of Technical Vocational Education and Training (NSTVET) in all of these is critical.

This paper reviews the state of Philippine NSTVET. This is part of the ECLAC/ESCAP Project “Strengthening the capacities of Latin America and Asia to develop and improve labour training systems and to protect workers against unemployment.”

The paper is organized as follows. The next section provides a description of the characteristics of an improved NSTVET described in sectoral reviews. This is then followed by a description of the characteristics and analysis of the performance of the existing Philippine NSTVET. The concluding section provides a summary of recommendations to improve the system.

B. Characteristics of an Improved System

This section describes the desirable characteristics of a NSTVET. These characteristics are summarized from recommendations from sectoral reviews.

A good estimate of the demand for TVET services

Good planning requires a reliable estimate on the demand for TVET services at the skill level. Unfortunately, skills are evolving and what constitutes as TVET is also growing. This requires continues monitoring and consultations with firms – the ultimate users of skill.

Labor market information and tracer studies are key for correctly estimating demand for TVET services. This provides information on what skills are needed and how these are utilized in the labor market (ADB 2004). But NSTVET may need to expand its scope of services. In the Third International

¹ This paper was prepared for a joint project of UNESCAP and NEDA on "Implementing Reforms on Protection from Unemployment and National Systems of Technical and Vocational Education and Training (NSTVET) in the Philippines."

² Respectively Senior Research Fellow, Philippine Institute for Development Studies (PIDS) and Director General of the National Economic Development Authority (NEDA). Opinions expressed here are of the authors and does not necessarily reflect the positions of PIDS and NEDA. Assistance of the Social Services Staff of NEDA led by Director Erlinda Capones is gratefully acknowledged. Assistance of TESDA particularly of Executive Directors Marissa Legaspi (Planning Office) and Maria Susan de la Rama (Certification Office) and the members of their staffs are also gratefully acknowledged. Comments by Jenny Grainger, Liz Bowen Clewley and of the participants in the stakeholder meetings and the national conference are also gratefully acknowledged. All errors are the responsibility of the authors.

Congress in TVET, it was emphasized the demands on TVET are no longer confined to skill requirements for work but also for lifelong learning (UNESCO, 2012). In addition, TVET needs to prepare for several other dimensions. One, it was emphasized there that there is the need to prepare TVET for an increasingly fast changing and unpredictable world. That there is a need to put more emphasis on learning how to learn and how to adapt rather than just learning specific occupations. Two, there is also a need to balance generic learning skills, social skill and vocational skills. Social skills in terms of working in multicultural environment will also be necessary with increasing globalization. Finally, there is a need to develop multiple pathways for the school to work transitions facilitating the switch from general to vocational education; from formal, non-formal and informal approaches.

Access by workers in general

TVET should be accessible to three types of clients, namely, (a) the unemployed, (b) the currently employed who want to increase their income, and (c) the employed who want to re-tool. A good NSTVET system should be able to address all these different training needs. Access is not just a function of availability of training per se but should also be defined in terms of availability of financing for those who wants to be trained. These can take the form of grants-in-aid for the poor or loans for the non-poor.

Access by workers from vulnerable groups

A fee-based TVET will discriminate against those who have no means to pay. This provides the rationale for developing financing schemes to increase the access of the vulnerable groups such as the unemployed, the underemployed and the poor in order to increase both their employability and income. The NSTVET should also be accessible to specific groups of people such as women, youth, those with low education and the disabled.

Access by small and medium enterprises

That TVET should have a very strong industry orientation has never been questioned. It is in fact one of the critical characteristics of a good NSTVET. It should be designed to support increases in productivity on the shop floor. But a common concern is that SMEs may not have the financial capacities nor the training resources to conduct or finance training that will increase their productivity to make them competitive and grow. A desirable characteristic of NSTVET is accessibility particularly to SMEs.

Quality control mechanisms, including certification of programs and competencies

When TVET is provided mainly by the private sector, there is the accompanying need for effective quality control mechanisms. As mentioned, this is the primary role of government in TVET. It cannot, however, do this on its own. For quality control and certification mechanisms to be effective, firms should value them. Sophisticated certification mechanisms that do not convince firms as effective will be useless. There should be a continuing effort at checking the effectiveness of the certification mechanisms with one primary success indicator – whether firms value them in recruitment and in their operations.

Funding the system

The funding system should clearly delineate what should be privately funded and what should be publicly funded. Returns beyond the basic education level accrues more to the individual, hence, the argument that TVET education should generally privately funded. The role of government should be confined to those elements that have public good character. Providing effective regulatory services and information on the TVET system are clearly public goods. This is increasingly becoming accepted as government's primary function in TVET (UNESCO, 2012). If government finds it necessary to play roles beyond these basic functions, these should be guided by public finance principles. There are two reasons for government intervention - equity and efficiency. Equity objectives justify government financing to improve the employability and increase the income of the poor and vulnerable groups. Efficiency objectives are often used, for instance, to justify the financing of expensive cutting-edge technology training that has a clear public good character as well as helping workers shift from low productivity to high productivity employment. There is, of course, the added proviso that even if government is justified in intervening, it has to show that it has the least cost alternative.

An important dimension to facilitate efficient financial planning from all perspectives is a need to develop and standardized unit cost for TVET, particularly for the commonly offered skills (ADB, 2009a). Transparent costs of training for each skill will help students decide on which skill they can afford to finance. This will also help firms and policy makers decide which skill training they can afford to pay in case they decide to support specific types of training.

The use of performance-based training funds can be effective in stimulating relevance, equity, flexibility of the training systems (ADB, 2004).

With demand for TVET services expanding, making the most of existing resources should be paramount. The opportunity for using online system for training delivery should be fully explored (UNESCO, 2012).

Organizational structure and coordination across institutions

Government should primarily be in regulation and information provision and not in training provision. Provision should be the primary responsibility of the private sector. This is the basic principle of organizing TVET systems.

Interaction between government, TVET Institutions, firms and workers should be at all levels. It should not be limited to national bodies like the TESDA Board but at industry/sectoral and local levels. General mandates at the national and sectoral levels should be geared towards core content and competencies. There should be room, however, for translation of these core content and competencies to address local needs (Kis and Park, 2012)

Links with other labor market policies

By the very nature of TVET, it must be responsive to signals from the labor market. This presupposes that useful labor market information should be available regularly. This should also mean that firms, TVIs and government meet regularly to review training regulations to check on their relevance to the needs of industry. These meetings should also discuss which skill training needs to be promoted or discouraged based on labor market signals such as employment rates and wages.

The reform of the TVET should not be done as a separate undertaking but in an integrated manner to respond to the many economic, equity and transformational challenges (UNESCO, 2012). The call is for TVET to contribute to economic growth, social equity, inclusion and sustainable transformation of society.

C. A review of the characteristics of the existing NSTVET in the Philippines

1. Basic Structure

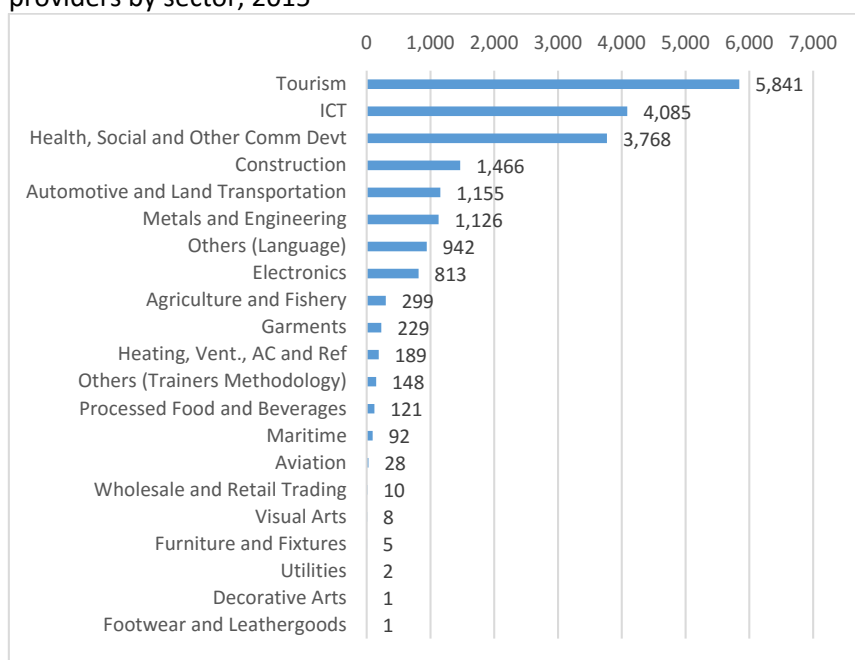
Mode of Delivery and Type of Programs

There are three major modes of providing TVET training, namely, institutions based (school-based and center-based), enterprise-based, and community-based. Institutions based programs refers to the direct delivery or provision of TVET programs by public and private providers, including TESDA administered schools and centers. Enterprise based programs are TVET programs implemented within company or firms such as the Apprenticeship Program, Dual Training System (DTS), and Learnership Programs. Community-based programs are TVET programs conducted in communities, most in partnership with local government units (LGUs) and non-government organizations. These programs are usually based on local skill requirements and resources available in the area.

It would have been informative to provide data on what courses are offered by each delivery mode. Unfortunately, there is no readily available database of training courses by delivery mode. TESDA has data on program offerings of TVET institutions but does not, in general, list the offerings of community-based providers. TESDA, however, pointed out that most community-based providers partner with institution-based providers in conducting trainings. Hence, it can be presumed that the course offerings of the institution-based providers will reflect substantially the offerings of community-based providers. As of July 2015, the TESDA compendium of institution-based providers with accredited programs lists 4,609 institutions³ offering 20,329 programs. Figure 1 shows that the top three sectors of the course offerings are tourism, ICT, and health, social and other community development. These are some of the fastest growing sectors of the economy in recent years. The next group of course offerings are more traditional TVET sectors of construction, automotive and land transportation, and metals and engineering.

³ Branches of the same institutions are treated as separate institutions.

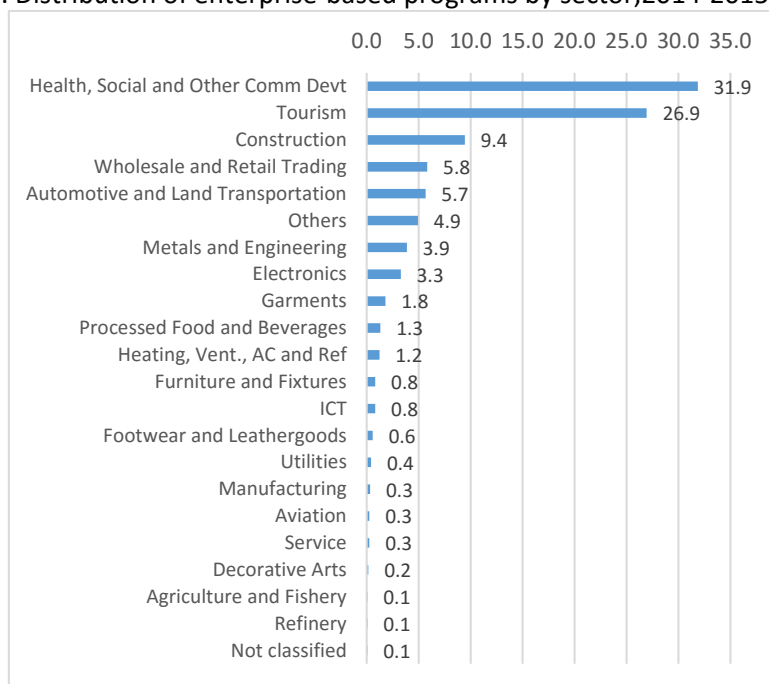
Figure 1. Distribution of program offering of Institutions-based providers by sector, 2015



Source: TESDA

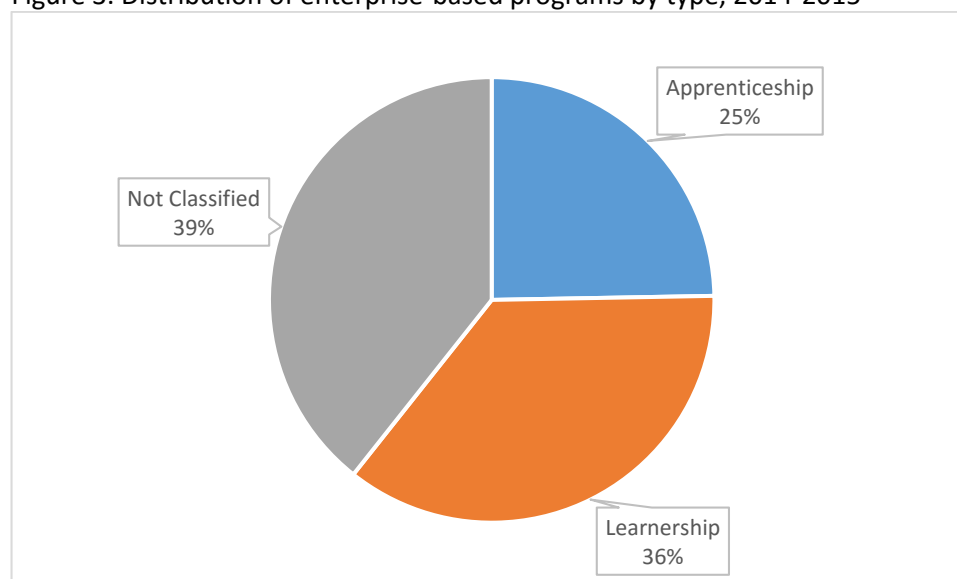
TESDA has a database on enterprise-based training providers offering programs and had enrollment in 2014 and 2015. While the data is only for two years, it was pointed out that these firms are offering these programs on a regular basis. The database list 421 firms offering 1,208 programs. The distribution of programs by sector is slightly different from the distribution for institution-based providers. The enterprise-based training also had health, social and other community development services (32%) and tourism (27%) as the top offerings (Figure 2). ICT, the other top offering in enterprise-based on the other hand, is in the bottom half of the distribution. In terms of type of programs, it is unfortunate that 39% are not classified (Figure 3). Of the 61% that have been classified, 36% are learnership programs and 25% are apprenticeship programs. Noticeably absent is identification of dual training programs.

Figure 2. Distribution of enterprise-based programs by sector, 2014-2015



Source: TESDA

Figure 3. Distribution of enterprise-based programs by type, 2014-2015



Source: TESDA

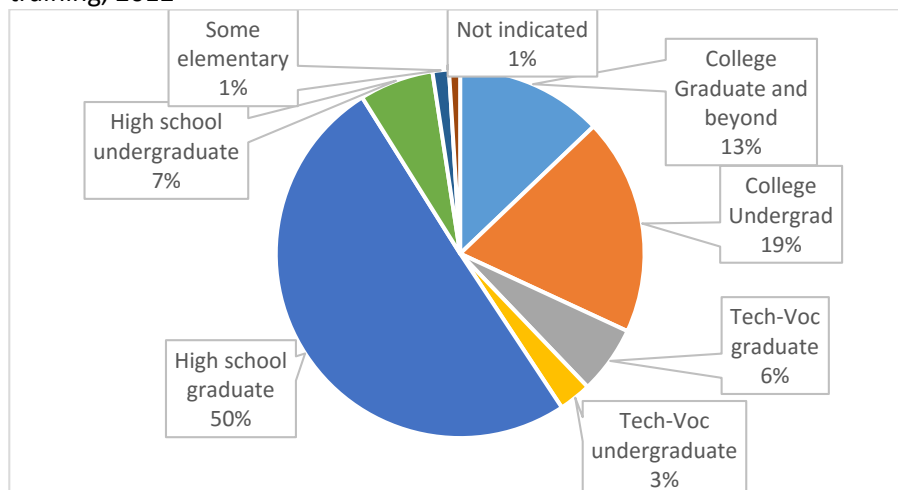
TVET Clients

Who are the primary clients of TVET? In the Philippines like elsewhere, TVET is generally considered a post-secondary course even though there maybe courses, as is shown later, which apparently does not require completing secondary education. This common stylized view is largely validated by data from the most recent IES covering 2012 graduates.⁴ As expected, majority are high school (secondary)

⁴While the more desirable data would be enrollment, there is no readily available data that gives the profile of those enrolled in TVET.

graduates (50%) when they took the TVET course although there is a considerable proportion of college undergraduates (19%) and even college graduates (13%) who take up TVET. Some 9% are previous TVET graduates (6%) and TVET undergraduates (3%). There are even high school undergraduates (7%) (Figure 4). Thus, TVET participants cover virtually the entire range of educational backgrounds even if majority are secondary graduates.

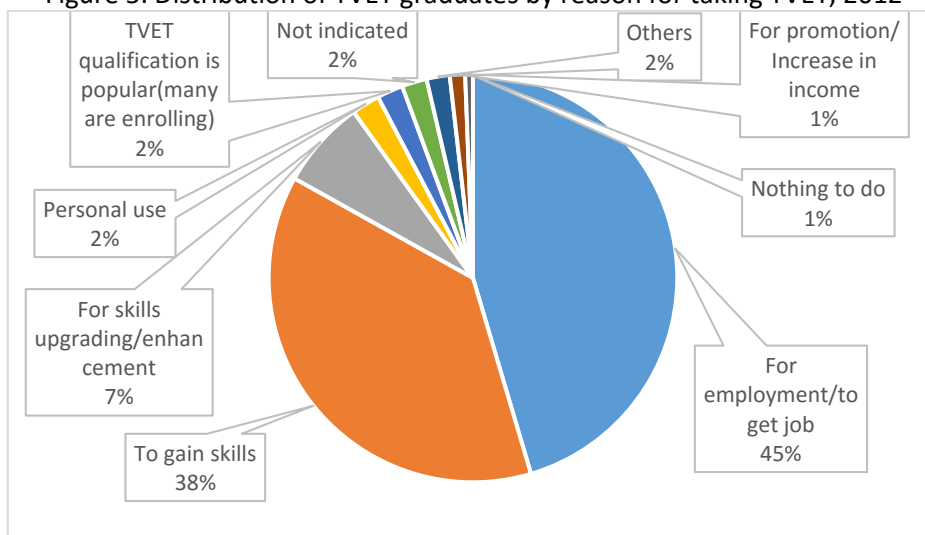
Figure 4. Distribution of TVET Graduates by Education Attainment before training, 2012



Source: 2013 IES

There can be varied reasons for taking TVET courses. According the 2013 IES, the biggest proportion (45%) is for employment, the next is to gain skills (38%) then a far third is for skills upgrading (7%) (Figure 5). This profile indicates that TVET is taken primarily for employment and to gain or upgrade skills. These reasons also provide some explanation why even those with college education also take TVET courses.

Figure 5. Distribution of TVET graduates by reason for taking TVET, 2012



Source: 2013 IES

Enrollment and Graduates

The composition of enrolment and graduation in 2014 shows that institutions-based training accounts for more than half (51%, 50% respectively) of the enrollment and graduates (Table 2). A close second (46% and 50%, respectively) is the community-based while the enterprise-based programs account for only a very small proportion (3%) for both enrollment and graduation.

There appears to be an increasing proportion of enrollees and graduates from institutions-based mode. From the enrollment side this group increased from 29% in 2005 to 51% in 2014. The community-based trainees declined from 68% in 2005 to 46% in 2014. Two reasons were offered by TESDA⁵ for this decline. One is that some of the community-based programs offered by LGUs and NGOs may have been upgraded to meet training regulations in which case they become classified as institution-based. The other explanation is that the coverage of reporting of training by NGOs and other government agencies may have changed through the years. Understandably, a similar pattern can be observed for graduates.

Table 2. Enrollment and Graduation by Mode of Delivery

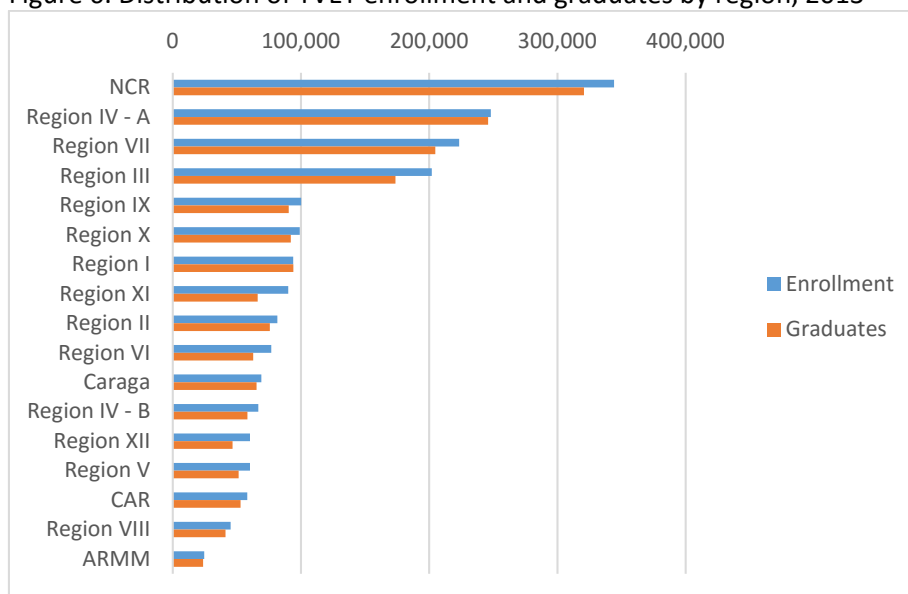
Delivery Mode	2005		2010		2014	
	Number	%	Number	%	Number	%
Enrolled	1,683,382	100.0	1,568,617	100.0	2,003,417	100.0
Institution-based	487,086	28.9	860,919	54.9	1,028,005	50.6
Enterprise-based	59,003	3.5	86,978	5.5	69,138	3.4
Community-based	1,137,293	67.6	620,720	39.6	936,274	46.0
Graduates	1,154,333	100.0	1,344,371	100.0	1,785,679	100.0
Institution-based	334,757	29.0	671,488	49.9	833,659	46.7
Enterprise-based	101,550	8.8	73,352	5.5	57,417	3.2
Community-based	718,026	62.2	599,531	44.6	894,603	50.1

Sources of Data: Corporate Affairs Office/LMID-Planning Office, TESDA

In terms of regional distribution, the bulk of the enrollees and graduates are in the National Capital Region (NCR), the nearby regions of Southern Tagalog (Region IV-A) and Central Luzon (Region III), and in the Central Visayas region (Region VII) (Figure 6).

⁵ Personal communications with Executive Director Marissa Legaspi, Planning Office, TESDA.

Figure 6. Distribution of TVET enrollment and graduates by region, 2013

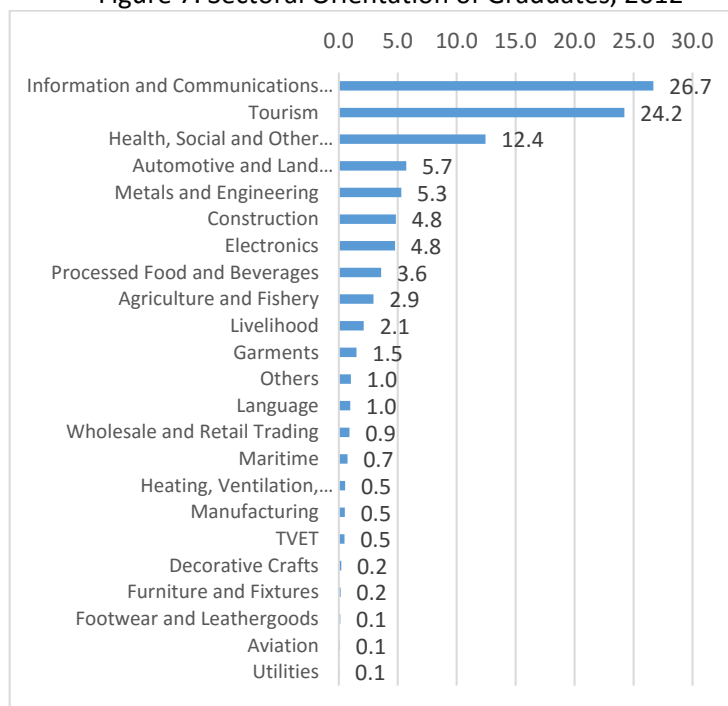


Source: TESDA

Sectoral Orientation

The sectoral orientation of recent TVET graduates reflects the primary growing sectors of the country namely ICT, tourism and health and other social services. Data from the tracer study for 2012 graduates shows that the biggest proportions are in information and communications technology (ICT) (26.7%), tourism (24.2%) and health, social and other community development (12.4%) (Figure 7). It is interesting to note that these sectoral orientation does not change whether the purpose of taking TVET is for employment or to gain skills.

Figure 7. Sectoral Orientation of Graduates, 2012



Source: 2013 IES

TVET Institutions

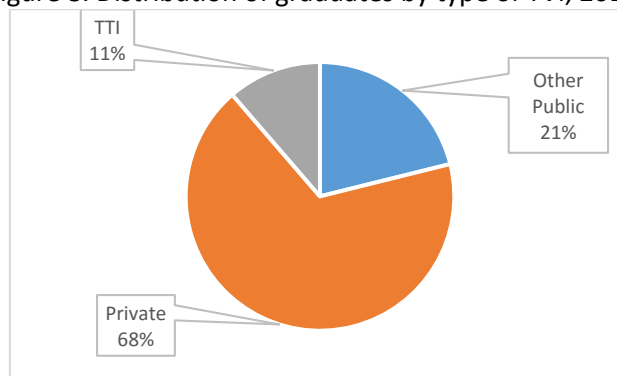
The number of private Technical and Vocational Institution (TVIs) increased from some 3,096 in 2001 to 4,733 in 2013 (Table 3). This perhaps explains the increase in the proportion of enrollment and graduates in institutions-based training. Table 3 also shows that the TVET industry is dominated by the private sector, particularly, in recent years when the proportion of private TVIs increased from 61% in 2001 to 90% in 2013. However, when one compares the number of graduates the contribution of the public rises to 32% with TESDA training institutes contributing 11% and the other public institutes contributing 21% (Figure 8). This indicates that public TVIs are substantially larger compared to private TVIs.

Table 3. Number of TVET Providers by type

Type	2001		2010		2013	
	Number	%	Number	%	Number	%
Public	1,220	39	422	10	467	10
Private	1,876	61	3,906	90	4,266	90
Total	3,096	100	4,328	100	4,733	100

Sources of data: Philippine TVET Statistics 2005-2011, TESDA

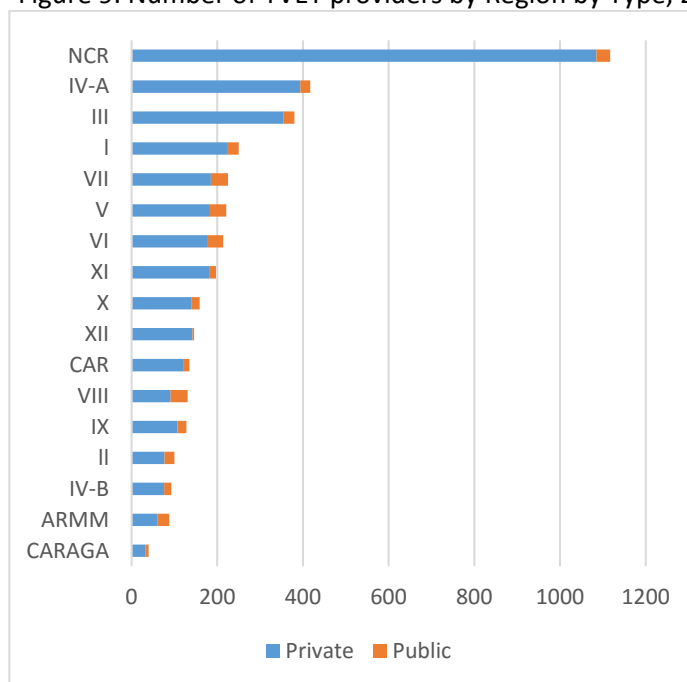
Figure 8. Distribution of graduates by type of TVI, 2012



Source: Source: 2013 IES

In terms of regional distribution, there is heavy concentration in the national capital region (28%) and the nearby provinces of Regions IV-A (10%) and Region 3 (9%) (Figure 9). This partly explains the distribution of enrollment and graduates given in Figure 4, i.e. regions that had the most number of enrollees and graduates are those with the most number of providers.

Figure 9. Number of TVET providers by Region by Type, 2013



Sources of data: Philippine TVET Statistics 2005-2011, TESDA

It is important to point out that Peano et al. (2008) reported that only 53% of community based training providers have their own training centers. Although, as mentioned earlier, community-based providers usually partner with institution-based providers when they conduct training.

2. Governance and Management

TESDA is mandated by law to be the regulator of technical and vocational education training institutions. RA 7796 mandates TESDA Board to “primarily be responsible for formulating and continuing, coordinated and fully integrated technical education and skills development policies, plans and programs.” The highest policy making body is the 22-member TESDA Board⁶ chaired by the Secretary of Labor and with representations from the government, private firms and workers’ organizations. It guides the development of the TVET sector through the development of the National Technical Education and Skill Development Plan (NTESDP). The latest NTESDP is the 3rd cycle covering the period 2011-2016.

TESDA manages the TVET sector by regulating the operations of the private technical vocational institutes (TVIs) and participating directly in training provision by operating several TESDA training institutes (TTIs). As of 2015, TESDA manages 122 training institutes (TTIs) consisting of 16 regional training centers (RTCs), 45 provincial training centers (PTCs), 18 agricultural schools, 7 fishery schools, 31 trade schools and 5 specialized institutions. It regulates the TVIs through mandatory program registration. Before a Certificate of Program Registration (CoPR) is issued, site visits are conducted.

⁶ RA 7796 originally provided for a 12-member board which maybe increased. Currently the Board representation is as follows: 8 ex-officio government, 6 labor, 4 employers, 2 business and investment, 2 education and training.

TESDA also provides technical assistance to community-based training programs. It collaborates with LGUs, NGOs and other organizations or individuals. It provides training modules, related equipment, supplies and materials, recommends qualified trainers, and co-signs training certificates.

3. Quality Assurance⁷

There are several instruments used by TESDA to ensure quality of TVET training from the supply side. This include (a) mandatory program registration, (b) promulgation of training regulations, and (c) trainer certification. After graduation TESDA also oversees competency assessment and certification processes including accreditation assessment centers and assessors.

Mandatory program registration

TESDA does quality assurance at several levels. The TESDA Act of 1994 (RA 7796) empowers TESDA “to establish and maintain a system for accrediting coordinating, integrating, monitoring and evaluating formal and non-formal TVET programs.” In pursuance of this mandate the TESDA Board issued the Unified TVET Program Registration and Accreditation System (UTPRAS) that requires that all programs offered in public and private Technical and Vocational Institutions (TVIs), with and without training regulations, be registered.

Before a TVI can offer a program, it has to comply with the requirements of program registration. Besides the necessary business permits, the review of program application includes ocular site inspection and curriculum evaluation. Once the requirements are complied with, a Certificate of Program Registration (CoPR) is issued.

Promulgation of training regulations (TR)

The TESDA Qualification Standards Office convenes experts from the respective industries to formulate TRs. The TRs refers to a package of minimum standards on competency, national qualification, training standards, and assessment and certification arrangements. These TRs are revisited and updated every 3-5 years or even earlier if there are significant changes in the program. After the TRs are issued a training program will be classified as “with training regulations (WTR)” otherwise it is classified as with “no training regulations (NTR)”. Table 4 shows that out of 20,329 registered programs in July 2015, 18,466 (91%) have training regulations. This represents an increase from the 85% proportion with training regulations reported for 2010 (TESDA, 2011).

Table 4. Registered TVET Programs, 2015

Type	Number	%
With training regulations	18,466	91
No training regulations	1,863	9
Total	20,329	100

Source: TESDA

Trainer certification

Trainers undergo a certification process. The trainer is expected to have at the minimum a National Certificate (NC) after which he should earn a trainer’s certificate. There are several levels of trainers including: i) Trainer Methodology Level I (Trainer/Assessor), ii) Trainer Methodology Level II (Training

⁷ The discussion on this section draws heavily from the Orbeta et al (2015) “Quality Assurance in Philippine Education: A Review” Draft report.

Designer/Developer), iii) Trainer Methodology Level II (Training Mentor), and iv) Trainer Methodology Level IV (Master Trainer). Data from the TESDA Certification Office show that 20,816 training certificates have been issued as of July 2015. According to TESDA, this does not mean that there are that many trainers because one trainer can have several certificates.

The assessment process performs the external validation function. Graduates are encouraged to earn a national certificate (NC) which is the badge of having specific competency.

Assessment and Certification

Assessment and certification is a program that aims to assess and certify competencies of middle-level skilled workers through the Philippine TVET Competency and Assessment Certification Systems (PTCACS). This is designed to ensure that the skilled worker possess the necessary competencies to perform the job in accordance with industry requirements. The assessment areas and methodology are defined in the training regulations. The National Certificate (NC) is issued by TESDA when the candidate had demonstrated competence during an assessment session covering the identified units of competency for a particular qualification. In case of failure to demonstrate competence in all units or cluster of units in an NC, a Certificate of Competency (COC) is issued for specific units where the graduate has demonstrated competence. Re-assessment are allowed for areas not satisfactorily achieve within two years. With two consecutive failures, a candidate is advised to go through a refresher course before taking another assessment.

TESDA accredits assessment centers and competency assessors. Assessments can only be done in the accredited assessment centers or designated assessment venues. In addition, assessment can only be done in the presence of a TESDA representative at all times. As of July 2015, the number of assessment centers 4,614 assessments centers and 6,883 accredited assessors. The distribution across the region of the assessment centers and assessors are shown in Figures 10 & 11, respectively. The figure shows that while the top 3 regions in terms of enrollment and graduation (NCR, Region 4a, Region III) (Figure 6) are also the top regions in terms of the number of accredited assessment centers and assessors, Region 7, one of the top producer of graduates, is farther down below the hierarchy in terms of assessment centers and assessors.

Figure 10. Distribution of assessment centers by region, number, 2015

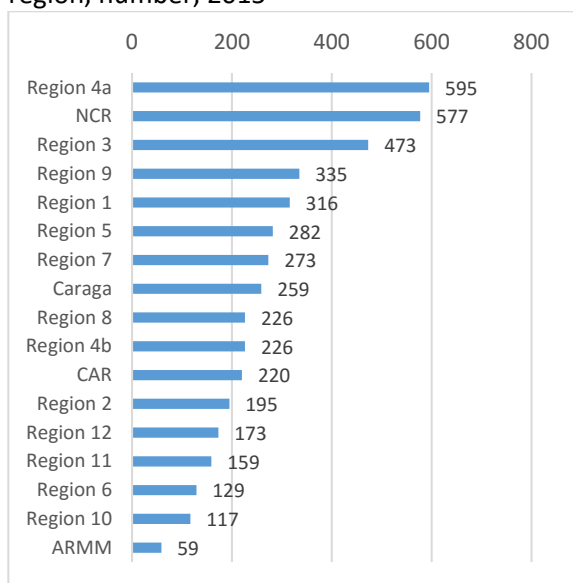
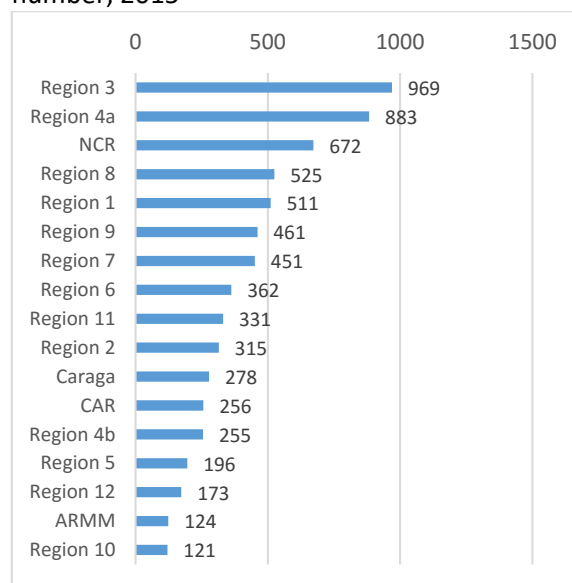


Figure 11. Distribution of assessors by region, number, 2015

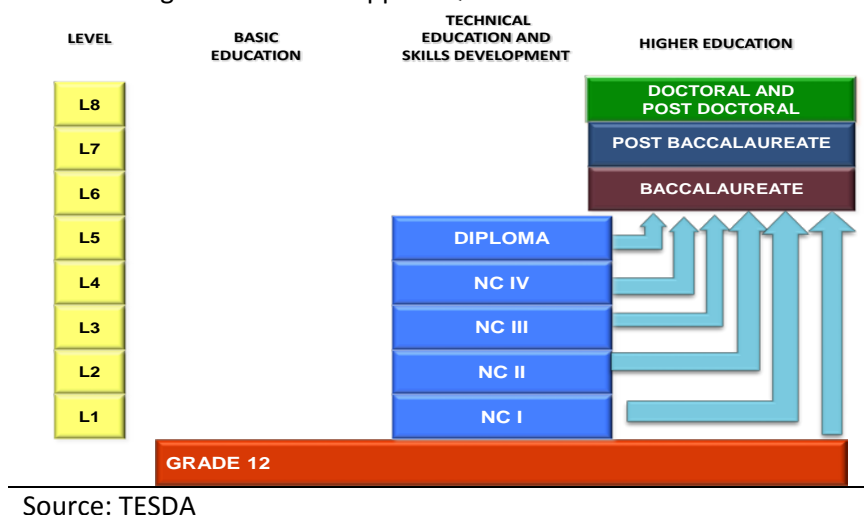


Source: Certification Office, TESDA

4. TVET and the Philippine Qualification Framework (PQF)

The PQF was institutionalized through Executive Order No 83 series of 2012. The EO also created the PQF National Coordinating Committee chaired by DepEd with TESDA, CHED, DOLE and PRC as members. The PQF was established with the following objectives: (a) to adopt national standards and levels for outcomes of education; (b) to support the development and maintenance of pathways and equivalences which provide access to qualifications and assist people to move easily and readily between the different education and training sectors and between these sectors and the labor market; and (c) to align the PQF with international qualifications with international qualifications framework to support the national and international mobility of workers through increased recognition of the value and comparability of Philippine qualifications. The PQF has 8 levels described Figure 9. TVET certificates corresponds to Levels 1 to 5.

Figure 12. The Philippine Qualifications Framework



Source: TESDA

In response to the institution of the PQF, one of the major reforms instituted by TESDA was competency based TVET. In partnership with industry, it developed competency standards and officially promulgated these as part of Training Regulations. These standards are benchmarked against industry and international standards. These are also the bases for curriculum development, training delivery, assessment, competency assessment and certification.

D. Analysis of Performance of the Existing System

Estimation of the demand for TVET Services

Unfortunately there seems to be no commonly accepted estimate of the demand for TVET services. What are available are enrollment and graduation data reported by TESDA. These are reflective of both demand and supply of TVET services. Tables 2 shows that the number of enrollees in 2014 is a little over 2 million and the graduates for the same year 1.8 million. It was mentioned earlier that distribution across the regions of enrollment and graduates follows closely the distribution of TVIs (Figures 6 & 9). In addition, the distribution of graduates by sector also shows that the bulk of graduates are in the growth areas of ICT, tourism and health and social services (Figure 7).

Besides the enrollment and graduation data, the other estimate of the demand for TVET services is the number who have completed a TVET course. It was only starting 2012 when the Labor Force Survey (LFS) ask respondents who of the working age population (15 years and above) have graduated from a TVET course⁸. Prior to this the only estimate is given by the data on highest grade completed. This would underestimate those who have taken TVET courses because those who have some college or are college graduates and above will not mention TVET as their highest grade completed. The January round of the 2013 LFS estimates those who had completed a TVET course to be 3.2 million (4.8%) of the 66.2 million working age population. This estimate represents a higher proportion than the one mentioned in Orbeta and Abrigo (2013) where only 3.1% of the working age population had TVET using APIS 2008 data and the highest grade completed as the indicator. Another indication that this is indeed an underestimate is that the APIS 2008 estimates only 147 thousand enrolled in post-secondary education for 2008 while the TESDA estimate for the same year is 2 million enrollees. However, even with this more reliable estimate of 3.2 million appears to be low if the TVET graduates is more than a million a year.

Access by Workers

There appears to be no readily available direct measure of access by workers to TVET. A good indicator of access is the profile of enrollees as well as graduates. Unfortunately, there is no readily available data on the profile of enrollees. The only available data to characterize access by workers is the profile of graduates in the IES of TESDA. As mentioned in the earlier sections, the clients of TVET are not merely high school graduates but includes a considerable proportion of college graduates and college undergraduates. Data on 2012 graduates show that as much as 74% of the graduates were unemployed before they went into training. As Figure 5 shows, the bulk of the trainees embark on training to gain employment (45%) and to gain skills (38%).

Access by Vulnerable groups

There appears to be no notable discrimination in access to TVET by sex as the male and female composition of graduates in 2012 is about even 50.6% for males and 49.4% for females. As expected majority of the graduates in 2012 are in young age groups of 15-24 (61%) and 25-34 (23%) years old. By socio-economic status⁹, the distribution of those enrolled in post-secondary and those who had post-secondary education is clearly not favoring the poor (Figures 13 & 14). While there is some tendency for public TVIs to enroll more from the lower socioeconomic status, the bigger proportions of enrollment are still in the middle socioeconomic classes. In terms of highest grade completed, this is even more favoring the upper classes. One well known explanation is that the poor rarely finish elementary so they are already dropping out of the school system at early ages.

⁸ In earlier rounds of LFS does not include TVET courses among the highest grade completed. Even if this is included, as in APIS, this would underestimate those who have taken TVET courses because those who have some college or are college graduates and above will not mention TVET as their highest grade completed. We already mentioned using data from TVET graduates of 2010 that as much as 19% of TVET graduates are either college undergraduates or graduates before taking TVET course.

⁹ This should be qualified by the earlier comment that this data set appears to be an underestimate of those who have taken TVET courses. Unfortunately, APIS is the only dataset that allows showing the enrollment and highest grade completed TVET courses by different income classes.

Figure 13. Distribution of Enrollment in Post-Secondary Courses by Per Capita Income Decile, by Type of TVI, 2013

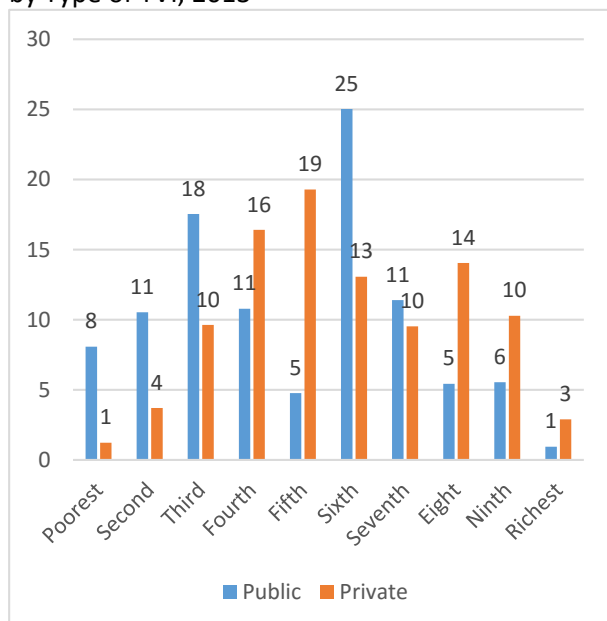
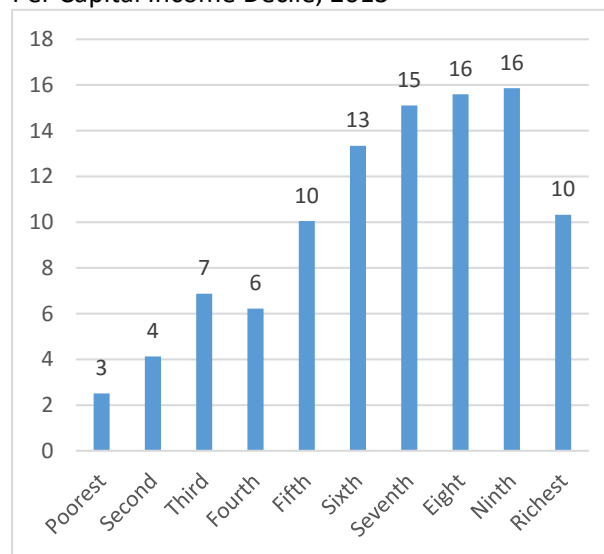


Figure 14. Distribution of 15 years and above with Post-Secondary as Highest Grade Completed by Per Capital Income Decile, 2013



Source of basic data: PSA APIS 2013

Access by SMEs

As mentioned earlier, the access of SMEs to TVET is critical to improve their productivity and competitiveness. Unfortunately, there appears to be no readily available data that can describe the extent of access of the SMEs to TVET.

Funding the System

The only attempt at understanding the sources and uses of financing TVET in the Philippines was done by Peano et al (2008). Their estimate puts a structure to sources and uses of TVET financing. In terms of funding sources, they found that 46.5% of the resources come from the public sector with the contribution of LGUs of about 14% (Figure 15). The 53.5% contribution from private sources came from trainees (28.6%), firms (15.6%), NGOs and foundations (6.8%) and income generation (2.5%). In terms of uses the findings are that the highest proportion is in the longer 1 to 3 year courses (47%) followed by the short courses of less than 3 months (20%), administration (15%), apprenticeship and learnerships (12%) and medium length courses of 3 to 9 months (6%) (Figure 16).

Figure 15. Financing TVET by Source, 2002

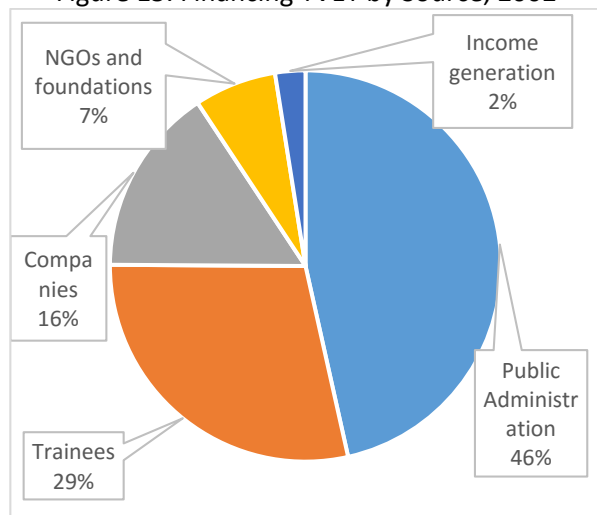
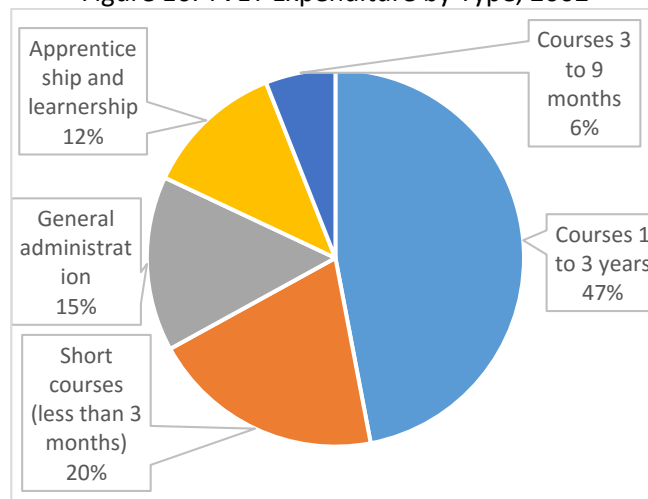


Figure 16. TVET Expenditure by Type, 2002



Source: Peano et al. (2008)

Nearly one-third (30.4%) of the graduates in 2012 have a scholarship (IES 2013). This represents a substantial increase from 17% among 2007 graduates (Orbeta and Abrigo, 2013). Majority of the beneficiaries are for TWSP (56.8%), followed by PESFA (10.3) and the rest (32.9%) are from a long list of scholarships including those from legislators, LGUs and private organizations.

Financing for TESDA programs come from different sources. The NTESDP 2011-2016 reports that for the period 2008-2010 half (50.4%) of the funding came from contribution of legislators and less than 1% came directly from appropriations from the government budget. An important component of private financing came from training fees (28.6%). Other private funding sources are companies who fund apprenticeships and learnership programs and NGOs and foundations who run short courses.

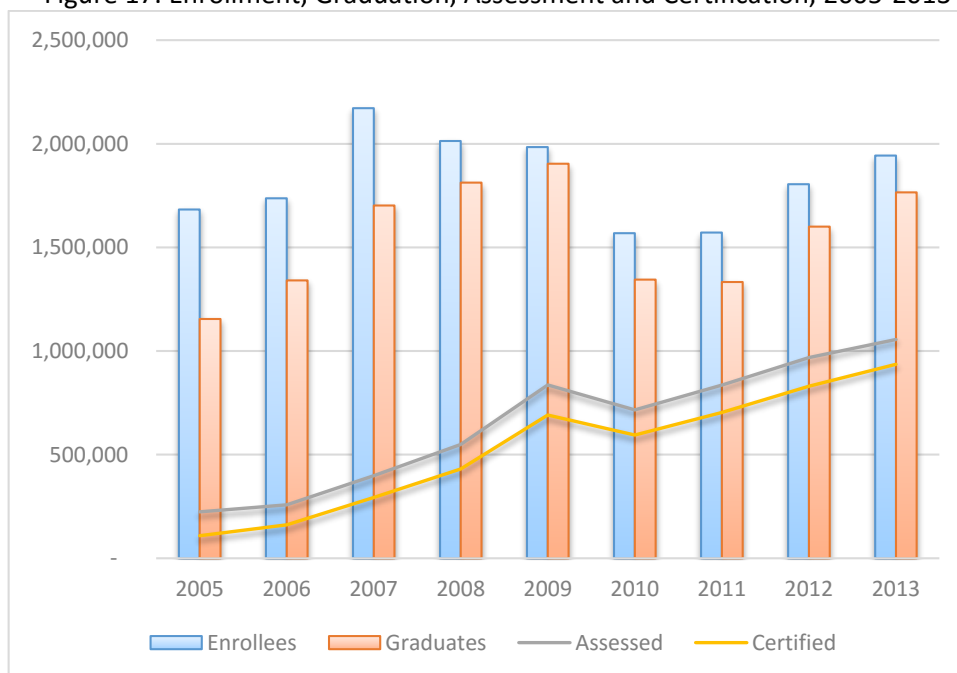
The large dependence on the financing from legislators in the financing structure of the TESDA programs in recent years is worrisome. This structure of financing may not help achieve comprehensive equity and efficiency objectives as legislators are known to respond more to local needs of constituents rather than based on a comprehensive assessment of TVET needs. Another reason is that this may not be sustainable.

Quality Control Mechanisms

The main components of the quality control systems appears to be in place. As described earlier, this starts with mandatory registration of all TVET training. Before the issuance of the Certificate of Program Registration (CoPR), compliance to the requirements of existing training regulations are ascertained. After graduation, an assessment and certification process is also in place leading to issuance of National Certificates (NCs).

One of the issues raised in the earlier review of Orbeta and Abrigo (2013) is that less than half of the TVET graduates in 2007 took the assessment test. This issue seems to have been addressed consistently. Figure 17 shows the proportion seeking certification. This is clearly shown to be increasing consistently through the years – a good indication that this part of the quality control mechanism is being promoted. This has been made mandatory by the TESDA Board. It also shows that the certification rates are consistently very high.

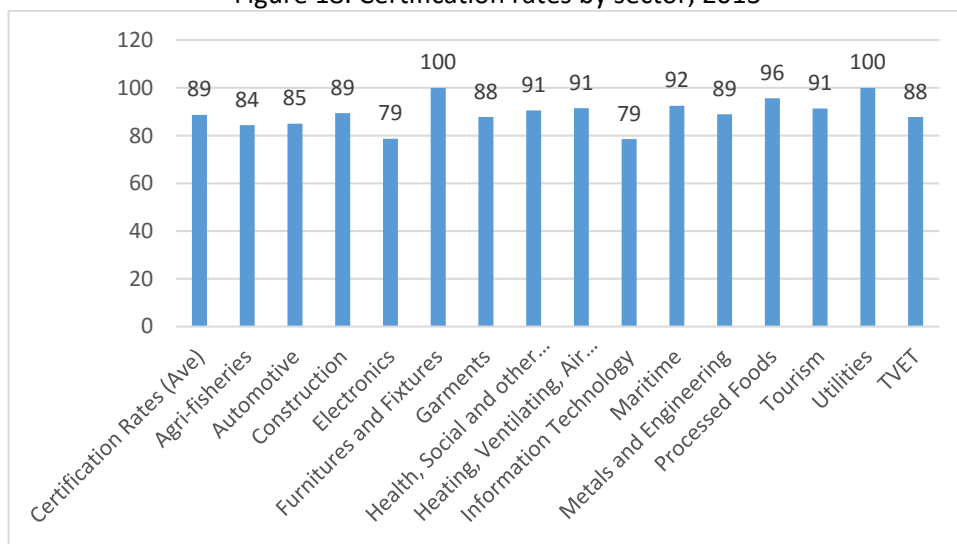
Figure 17. Enrollment, Graduation, Assessment and Certification, 2005-2013



Source of Basic Data: PSA-BLES Yearbook of Labor Statistics 2014

By sector, the certification rates appear to be uniformly high for all sectors. Data from the BLES Current Labor Statistics show that except for ICT and electronics which had certification rates of less than 80%, all other fields have higher certification with two (furniture and fixtures and utilities) having perfect certification rates (Figure 18).

Figure 18. Certification rates by sector, 2013

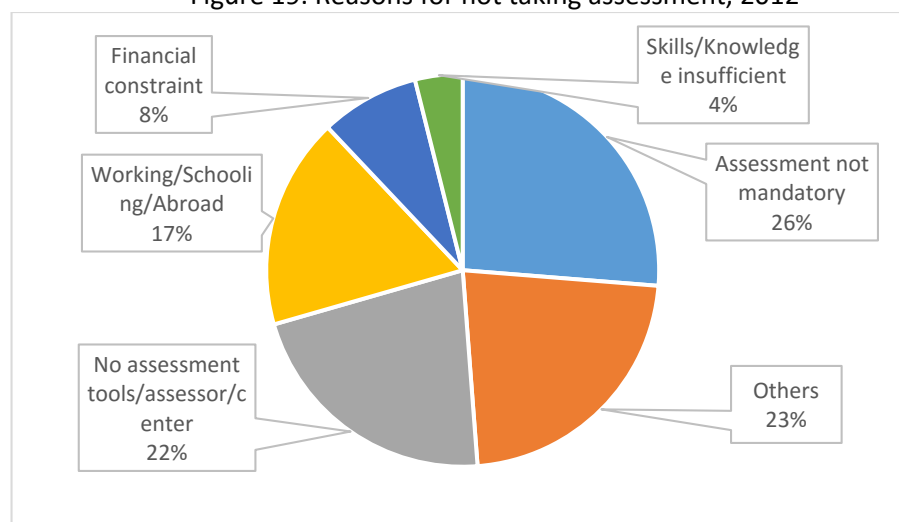


Source: Current Labor Statistics, Bureau of Labor and Employment Statistics, June 2015

The system for regulating curriculum content appears to be in place with the institution of UPTRAS requiring registration of all programs offered in public and private TVIs. What is needed is to work towards a 100% coverage both on registration of course offerings as well as on development training regulations for each course. The data from 2012 graduates show that while the number of training with training regulations is already 68%, there are still 19% registered with no training regulations and 14% not registered. Data from the TVET provider side shows a substantially higher proportion with 91% of their offerings having training regulations.

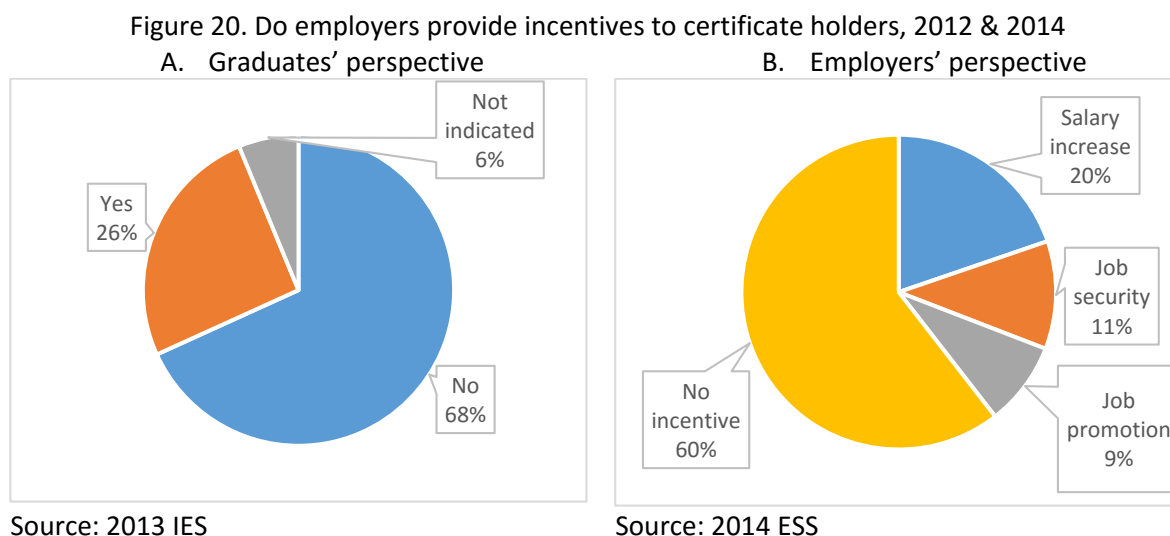
It is revealing that from the IES data for 2012 graduates the major reasons for not taking assessment examinations is that assessment is not mandatory (26%) and that there is no assessment tools or assessor or assessment center in the area (22%). A relatively smaller proportion are because they are working, schooling or abroad (17%), financial constraint (8%), and feeling that skills are insufficient (4%) (Figure 19). There is then a case for working on making assessment much more universally available for both skills and areas.

Figure 19. Reasons for not taking assessment, 2012



Source: 2013 IES

There is no direct measure of the importance of certification to firms/employers. A close enough measure is the question in the IES that asks graduates whether their employers provides incentives for certificate (NC/COC) holders. Data from the 2013 IES reveals that 68% does not and only 26% do (Figure 20A). This clearly indicates that there may be a need to work harder to make the certifications a valuable tool for firms. Another indirect indicator is provided by the Employers Satisfaction Survey (ESS) where a similar question is asked. The 2014 round shows that a higher proportion (40%) of employers compared to those estimated in the IES provide incentives to certificate holders including salary increase (20%), job security (11%) and job promotion (9%) (Figure 20B).



What requires a lot of work is the registry of trainers and assessors and their profiles. Up to now there is no readily available data on the profile of trainers and assessors. The number and profiles of trainers and assessors need to be publicly available.

The performance of TVIs in terms of graduation and passing rates in the assessment examinations by program appears not to be compiled and publicized. These are very important pieces of information for an informed decision of prospective trainees, regulators and policy makers.

Organizational structure and coordination across institutions

By law TESDA is mandated to manage the whole TVET system. But it is also operates 122 training institutes scattered throughout the country. It is thus both a player and a regulator at the same time. This has been criticized by many (e.g. Lanzona, 2008) as giving undue advantage to TESDA training institutes compared to private TVIs.

At the policy level, the TESDA Board, the highest policy making body is composed of government and private sector representatives. The government representatives consist of Secretary of Labor as Chair and co-chaired by DepEd and with DTI, DA, DILG, DOST CHED and TESDA as members. The private sector members consist of representatives from employers, labor, education, business and investments. The Board is the primary point of coordination at the policy level.

At the operational level, from the training institute side, coordination is achieved in the development and continuous review of training regulations. The development and review is done by industry experts convened by TESDA. TESDA also accredits trainers.

On the trainee side, assessment and certification are conducted in accredited private assessment centers under the supervision of TESDA which issues certification.

It is to the credit of TESDA to have continuously conducted several rounds of impact evaluation surveys. This really are more like tracer studies. This is the source of the basic data used to describe the system in this report. In order to continuously improve the instrument and generate more exhaustive analysis from the dataset, TESDA should consider putting out a public use file (PUF) and invite researchers to analyze the data to answer questions about the TVET system in the country. As in many surveys of the PSA, opening the data for more eyes would improve quality of the datasets as

the instrument and survey procedure will be exposed to survey specialists and analysts. The primary link of the TVET to other labor market policies is through the TESDA Board. It is also worth reiterating that the Board is chaired by the Secretary of Labor, the department where labor market policies are cleared and issued.

While there is constant push for better labor market information, it is not clear how much of this had been supplied. Understandably, it is even more unclear how much of whatever information is supplied had been used to inform decisions to review training regulations, course offerings of TVIs and decision of would trainees.

E. Proposals to Improve Philippine NSTVET

This section provides a summary of recommendations to reform the NSTVET in the country. Some of the recommendations came from recent sectoral reviews and presentations in TVET congresses. Others are additional proposals from more recent literature and assessment done for this review. Still others came from the stakeholder consultations conducted to elicit comments to earlier and draft of this report.

TESDA focus more on regulation and information provision

TESDA is currently the regulator of the NSTVET but at the same time operates 122 training institutions scattered throughout the country making it both regulator and a player. The call is for TESDA to focus more on regulation and information provision (Lanzona, 2008; Orbeta and Abrigo, 2013). Regulation and information provision are the main functions of government in the TVET sector. Provision is only called for when the private sector choose not to provide a critical training service. If government needs to be in the provider market, it should also make sure that their programs are contestable by other providers so it will also be subject to market discipline like the offerings of the private sector. The problem with non-contestable programs is that these will continue to exist even with doubtful performance because financing is not related to performance.

Greater emphasis on enterprise-based trainings

Enterprise-based training is widely accepted as a preferred mode of delivery. Secretary Baldoz in her presentation in the Second TVET Congress in (Oct 2013) identified the improvement in apprenticeship / internship as a key action agenda. Many analysts (e.g., Lanzona, 2008; di Gropello et al., 2010, Orbeta and Abrigo, 2013) highlight that enterprise-based training and TVET modalities that involves firms – such as the DTS – deserve more emphasis. One obvious rationale is that it results in high employment rates - the ultimate objective of training. However, data reveals it also continues to account for the smallest proportion of trainees among the different modes of delivery. From the previous section it shows that it only accounts for 4% of enrollment and 4% of graduation in 2010 (Table 1).

One can list many reasons for this puzzling outcome. Fundamental of these is the incompatibilities of underlying incentives and possible sources of financing. Another important issue is that this can also be subject to strategic behavior of firms because in-firm wage-training contracts will be difficult to monitor, hence, also difficult to enforce. As a result this can be viewed a way for firms to avoid paying commensurate wages and benefits.

Finding ways of promoting enterprise-based training is a long standing recommendation. Corollary to this recommendation is the review of legislation on apprenticeships and dual training are recommended. There is in fact a bill (HB 5303) that recently passed the House of Representatives proposing amendments to the apprenticeship law.

There is a need to understand better enterprise-based training so that ways of promoting this mode of delivery can be discovered. The importance of this mode is expected to be heightened with fast changing technology in the work place where schools will increasingly be left behind as technology changes.

Make training continuously relevant to industry needs.

This recommendation come in different forms and many are articulated in the 2nd TVET Congress. For instance, Secretary Baldoz, tourism and agriculture representatives called for the continued review of curriculums and training regulations. Another recommendation with the same objective is establishing or convening of industry councils for regular labor market signaling. Still another recommendation is for TVET to address specific skill needs of roadmaps and important value chains. Still another recommendation is increasing TVI-industry linkages. Finally, di Gropello et al., (2010) pointed out that a simple way to ensure continued inputs from industry in TVET is to increase the representation of industry in the TESDA board. Relevance of training should ultimately be measured by the employment rates of trainees.

Greater performance orientation in access to public training funds

Government had some experience with contracting service provision such as the experience with Information Technology-Business Process Association of the Philippines (IT-BPAP) on training IT and business process workers. When government contracts out service provision, selection should be by competitive contracting with well-defined performance measures. This presupposes clear performance standards that would facilitate decision on whether a beneficiary should continue to have access to government subsidies or not. This also means that effective sanction mechanisms are in place that will prevent providers from receiving government subsidies when performance is below standards (Lanzona, 2008; di Gropello et al, 2010)

There is considerable public financing for training. This can be used to nudge TVET to achieve strategic development objectives. For instance, it can be harnessed to increase industry participation in training like the experience with IT-BPAP and similar arrangements. However, all of these strategic interventions should be subjected to independent rigorous evaluations and promote performance orientation.

Improve targeting and sufficiency of financial assistance for TVET.

Secretary Baldoz in the 2nd TVET Congress argues for continued provision of financial assistance to skill training. Orbeta and Abrigo (2013) argued for a more transparent beneficiary selection methods. They have argued that a more transparent criteria will minimize influence peddling in the selection of beneficiaries. The objective of financial assistance is to help the poor gain the skills they are not able to pay. Loans for the financially constrained but non-poor should be considered as well. The practice of providing financial assistance to those who do not pass qualifying exams lowers the

probability of beneficiaries satisfactorily completing the program resulting into wasteful investments.

Another dimension of financial assistance for training is sufficiency for the needs of the targeted beneficiary. Many of financing grants intended to help poor are insufficient for their training needs. When financing is insufficient, the poor cannot benefit even if they are the primary beneficiary because they don't have resources to top up the insufficient financing.

Ensure Quality in Community-Based Training

Community-based training competes with institution-based training as the major mode of providing training. It has been mentioned that many of these don't have their own training facilities raising concerns on quality. Some are worried that these might be mostly supply-driven training. Yet, recent data from the Impact Evaluation Surveys for graduates in 2012 shows that it has the highest employment rates (72.5%) among the three modes of delivery higher even than enterprise-based training (72.2%). One view that explains this seeming puzzle is that these are more responsive to community needs than institution-based training. Another view is that since community-based training are conducted in collaboration with institution-based providers, their quality will be as good as the TVIs they are cooperating with. These are but hypothesis and more studies are needed to have a more definitive answers to these puzzles. For the moment, there should be a systematic effort at ensuring that the quality of community-based training are acceptable if only because they account for the proportion of graduates that is similar to institutions-based mode. TESDA consistently providing assistance is a step in the right direction.

Improve Data generation and Dissemination

Supporting the proposal that TESDA focus more on regulation would be better NSTVET information. As shown in this report, it appears that TESDA has data on many components of NSTVET including (a) graduates including their profile from the IES, (b) TVET institutional providers including program offerings, (c) accredited assessment centers and assessors. One of the poorest segment on the information on NSTVET is the characteristics of the TVIs, the trainers, the assessment centers and assessors. Enrollment data by institution and programs is also not readily available. The enterprise-based provider database needs to be expanded to include enrollees, graduates and assessment test results. Similarly, the listing of community-based providers also need to be done. Completing these missing components of the NSTVET information system needed to enable TESDA to perform better its primary function of regulating the TVET industry.

Another missing characteristic of the NSVET database is the lack of integration to facilitate analyses. While the data on the main components of the NSTVET is available, these are not currently organized to facilitate analyses of essential relationships which are very important for TESDA to perform well its regulatory function. For instance, data on TVET institutions is separate from accredited instructors. Data on accredited assessment centers and assessors are separate. An improved NSVET information system should be able to trace students from enrollment, graduation and assessment by program and by training provider. Data on training providers should be linked with accredited trainers and training resources. Similarly assessment centers should be linked with assessors and other resources. Finally, trainers and assessors should have profile information.

Finally, besides the internal needs of TESDA, training consumers, training institutes, stakeholders and policy makers also needs regular information to enable them to make informed decisions. Information such as the following should be regularly provided and disseminated: (a) what training are available; (b) how much does it cost to acquire training on specific fields; and (c) how training providers perform in terms of competency assessment and employment at the program level.

Improve capacity for monitoring and evaluation

As TESDA focuses more on regulation and strategic financing, there will be a continuous need to design and test regulatory and financing instruments. There is therefore a need to systematically build capacity in TESDA to continuously design better instruments, test them and analyze their impacts rigorously. This would include capacities for both ex-ante regulatory impact analysis and ex-post impact evaluation analysis.

Improve the Image of TVET

To this day the image of TVET is low compared to college and university education. There is a need to formulate a strategic communication plan to uplift the image of TVET. Clarifying better its role in development

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