EXECUTIVE SUMMARY
In addition to the firms and the TVIS, the study also covered trainees that are in the firms during the time of the visit. The instrument focused more on the perception of the trainees on the firms training program. A total of 112 trainees participated in the survey.

**RESULTS OF THE STUDY**

The results show that overall cost of training per trainee per month is about PhP 12,800 (or about US$ 272.00), but the figure varies across regional location and type of industry. A substantial percentage of this average cost goes to the allowances and other benefits given to the trainees (cost of trainees), representing about 44 percent of the aggregate average cost. The second biggest component of the aggregate average cost is the physical cost (e.g. materials and equipment used by the trainees), followed by the cost for the trainers.

The results show that overall short terms benefits for firms derived from the DTS program is about PhP 5,487.00 or US$ 117 per trainee per month, representing about 43 percent of the average cost of training. This number also varies across regional location and type of industry. It should be noted that the average short term benefits is almost equal (at the sample) to the direct costs for trainees (PhP 5,588 or US$ 119).

In addition to the short-term benefits, the DTS trainees also provide long-term benefits to the firm if the trainees stay in the firm after the training. The long-term benefits include savings in recruitment costs, such as cost of ads and the cost of personnel that will process the externally recruited workers, the benefit the firms’ gains due to the productivity differences between DTS-trained workers and the new externally-hired workers and the cost in the orientation of new workers, which includes orientation materials and personnel doing the orientation.

One item in the long-term benefits is the long-run productivity difference between a DTS trained worker and an externally-hired (non-DTS) worker, which is quite substantial at about 16 percent (about PhP 2,032) of the average over-all cost per person.

The survey data also reveals that total costs and benefits in running the DTS vary across firm size (in terms of number of employees), industry type.
and duration of training. For example, as the size of the firm gets larger, the average cost per trainee gets smaller. Moreover, the average short-term benefits are highest as the size of the firm gets larger.

Comparison of the costs and short-term benefits by firm size shows that short-term benefits, as a percentage of overall costs, is the highest for large firms where the short-term benefits derived from the DTS program account for about 58 percent of the overall cost.

To determine the full benefits of the DTS for large firms, the study performed a simulation to calculate both the short-term and long-term benefits of the DTS program under the assumption that a trainee stays in the firm for three (3) months. The simulation exercise shows that combined short- and long-term benefits is bigger than the overall costs by about 3500 pesos (about US$ 75) per trainee thereby providing incentive for large firms to engage in the DTS program.

Comparison of average cost and short-term benefits by industry type also shows that short term benefits of the DTS program is higher as percentage of the overall cost for firms in the Hospitality and Manufacturing sectors. In both industries, the short-term benefits account for about 55 percent of the overall cost for the trainee per month.

The combined short-term and long-term benefits from the DTS amount to about Php 40,183.00 (or US$ 855) for a typical firm in the manufacturing industry. The overall cost is estimated to be about Php 29,925.00 (or US$ 637), thereby creating an average net benefit, or the difference between total benefits less total cost, of about Php 10,258.00 (or US$ 218) per trainee.

The combined short-term and long-term benefits for an average firm in the Hospitality industry total about Php 41,053.00 (or US$ 873), while the total cost is around Php 29,700.00 (or US$ 632). This results in a net benefit of Php 11,353.00 (or US$ 242) per trainee.

The empirical evidence suggest that practice of the DTS program will be beneficial to the firms in the Manufacturing and Hospitality industries, where there is a substantial and positive net benefit that can be acquired by the firms from the program.

In addition to the short-term and long-term benefits derived by the firms from the DTS training program, there is also a substantial spillover benefits to the trainees undergoing the program. The results show that about one-third (33 percent) of the trainees are hired by the firms hosting the training. Moreover, discussion with human resources personnel during the survey revealed that majority of the DTS-trainees not absorbed by the company are being recruited by other firms in the same line of business here and abroad.

Not all firms showed large and positive net benefit, however, as firms in the Construction and Motor Vehicle Repair experienced large overall costs in running the DTS program. At the current state, given the high overall cost per trainee, this may create dis-incentive for firms in the Construction and Motor Vehicle Repair sectors to participate in the DTS program.

SIMULATION EXERCISE
Combined short- and long-term benefits bigger than overall costs by Php 3,500 (US$ 75) per trainee
Incentive for large firms to engage in the DTS program.
For duration of training, the results show that average cost is highest per trainee for short-term programs (less than three months) and the average benefit derived by the firms account for only about 27 percent of the overall cost. For firms where the DTS program ranges from 3 months to 12 months, the short-term benefit is about 59 percent of the average cost per trainee per month. For firms in the DTS program lasting for more than 12 months, the short-term benefit accounts for about 51 percent of the average cost per trainee per month.

For training duration of between 3 to 12 months, the combined short- and long-term benefits per trainee are estimated at Php 60,395.00 (or US$ 1,285). The overall cost of running the DTS program is around Php 58,639.00 (US$ 1,248), giving a net benefit of Php 1,756.00 (US$ 37) per trainee.

The results suggest that it is beneficial for firms to engage in training programs that are a bit longer than the usual three months because of relatively higher benefits. Moreover, human resources and training personnel of firms prefer longer program (minimum of 6 to 9 months), since the trainees acquire skills better when they are engaged in the operations of the firm longer.

In addition to the financial gain for the firms, there are other non-monetary benefits derived from the DTS. The non-monetary benefits include the positive image for the firm of being a responsible company helping the young members of society become productive through training, and also the potential increase in the welfare of the trainees (e.g. higher salary in the future, higher probability of being employed). The positive image can improve the firms’ standing with its clients and customers, suppliers and future applicants in the DTS program.
The Cost and Benefit Study (CBS) of the Dual Training System (DTS) of TESDA reveals important results that can be used as inputs in further strengthening of the DTS program of the country. For one, contrary to the popular belief, the study shows that the combined short-term and long-term benefits derived by the firms from the DTS program clearly outweigh the cost. The simulations made for firms in the Manufacturing and Hospitality sectors show that combined short and long term benefits are higher than overall cost by at least 30 percent. The results are similar for large and medium-sized firms.

Moreover, across geographical areas, calculations made show that combined benefits can be 20 to 75 percent higher than average cost (for firms in the NCR, Region 3 and Region 4A) and thus, it will be worthwhile for the firms to participate in the DTS program. While there are firms reporting higher average cost in running the DTS program (such as those in Region 10, consisting mostly of micro-enterprises), the empirical evidence leads us to conclude that the DTS program is beneficial for the firms.

Moreover, the DTS program produces substantial positive spillover effects on the DTS-trained workers – the trainees become more productive, as shown by the substantial long-run productivity difference between a DTS-trained and non DTS-trained workers. In addition, one-in-three DTS trainee is employed by the firm that trains them. Higher probability of being employed is the trademark of the enterprise-based program such as the DTS over other modes of training.

The success of the DTS program will depend on the individual actions and cooperation among the three key players: TESDA, TVIs and the Firms.

The TVIs should be flexible enough to catch up with the changes in the technology through capacity building of the TVI trainers. Partnering with the firms where the firms’ training personnel trains the instructors of the TVIs on the use of the latest technology may be an area the TVIs should look into.

There is a need to entice more firms to participate in the DTS program, as well as to expand the involvement of the firms that are already participating in the DTS program. The TESDA, as the country's regulator of the DTS, needs to intensify its monitoring and engagement efforts with the firms so it can propose appropriate policy handles to polish and sharpen the DTS program.

Some of the recommendations for TESDA are the following:

a. Need to have an update or census on the number of TVIs in the DTS program to identify which TVIs are engaged in the DTS; how many students are enrolled in the DTS and who are the firm-partners of the TVIs. The current list of TVIs and firms under TESDA’s monitoring office should be evaluated regularly. The research team from the School of Statistics noted that a number of firms on the list have either closed shop already or are no longer involved in the DTS program.
b. To properly monitor the employment rate of the DTS trainee; and to validate if the employment is in the formal sector or informal sector (type of industry or services)

c. For TESDA to help the firms, particularly firms classified as micro-enterprise where the average cost of running the DTS is relatively high, on how to avail of the government incentives related to the DTS program. The procedures on how to apply for the incentives should be clarified and simplified.

d. Review and possibly amend the DTS Law. The law was approved more than 20 years ago and the structure of the economy, as well as how the firms operate, have changed substantially. For one, a large percentage of the firms’ contribution to economic activity is via Business Processing Offices (BPO) which operates round-the-clock. Firms from the BPO and other similar activities require employees to report on midnight shift and these firms are also requesting if DTS trainees can follow the same schedule for their training.

e. To review the current DTS training duration. The empirical evidence suggests that average combined short-term and long-term benefits are higher when firms have training duration between 3 month to 12 month and for more than 12 months. The same data also show that average benefits, as percentage of cost, is lowest for firms with training duration of less than 3 months. A substantial number of the firms that participated in the study favor longer training duration: at least 6 to 9 months.

The Philippine Chamber of Commerce and Industry (PCCI), being the leading organization of enterprises, local chambers and industry association representing various sectors of business, has an important role to play in encouraging firms to participate in the DTS program, as well as in the promotion of the DTS. Some of the recommendations for the PCCI are the following:

a. The Cost-Benefit Study shows higher benefits for firms in the Manufacturing and Hospitality sectors, as well as for large and medium-sized firms. The PCCI should strongly encourage its members, at the national and local levels, to participate in the DTS program. The empirical evidence shows that DTS program will be beneficial for the PCCI members. The PCCI should promote the DTS program to its members via one of its standing committees.

b. To track accomplishment, the PCCI can set its own indicator performance related to the DTS, such as targeting a number of new PCCI members who will join the DTS program on a yearly basis.

c. For TESDA and PCCI to work together and review the Apprenticeship Bill (HB 1594) and the DTS Law (RA7686), harmonize the features of the two legislative initiatives and come up with a common proposal on the needed amendments to the DTS Law.