GOVERNMENT POLICIES AND FINANCING FOR PRIVATE TECHNICAL EDUCATION

By
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A. STATUS OF PRIVATE TECHNICAL EDUCATION

1. *Indices of Status*

There are a number of indices that we may use to demonstrate the role and significance of private vocational/technical education. These are standard indices, such as school population, enrolment, graduate output, investment in technical education, per student cost, employment status and productivity contribution of graduates. It is relatively easy to derive figures for school population, enrolment and graduates. But there are constraints and difficulties in calculating aggregate and per student investment data and it is still harder to assess productivity contribution of private vocational/technical school graduates. Yet these latter two indices are more useful in assessing the role of private vocational/technical education to national development.

However, there is no crucial need for these refined indices to show that vocational/technical education in the Philippines is critically important and that the contribution of private vocational/technical education is significant. Policy concerns for education will likely direct higher priority for vocational/technical education and commit a proportionately larger endowment of resources to implementing vocational/technical education programs.

2. *Some Quantitative Indices: Capacity for Manpower Generation*

To help in providing perspective in appreciating the magnitude of the financing problem, it may be useful to show some indicative data.

a. The 1969-70 *Statistical Bulletin* of the Bureau of Private Schools (BPS) reports that there are 643 private vocational/technical schools in the country of which some 105 (based on the 1968 report) are trade technical schools.

b. Total enrolment for 1969-70 in these schools was 90,685 broken down into

58,441 for the provinces and 32,244 for the cities. In Manila and Rizal province alone, there were 41,203 students in private vocational/technical schools.

c. The *Bulletin* also shows that in 1968-69 there were 48,110 graduates of private vocational/technical schools (17,493 males and 30,617 females). Thus, there was a graduate to enrolment ratio of 1:2, a relatively very high proportion. Expectedly, the graduates are those from three-six month, and one-three year course programs.

d. By course programs, the *Bulletin* breaks down the enrolment as follows:

Business and commerce	95,309
Beauty and fashion	42,454
Practical arts/trade courses	1,131
Technical/Vocational program	18,248

This breakdown is indicative of the relative priority problem within vocational/technical education itself. For instance, enrolments in the first two programs (business/commerce and beauty/fashion) are disproportionately large compared to those for practical arts/trade courses and technical/vocational program. Yet, development priorities may require emphasis on technical/vocational programs.

e. Items (a) to (d) above give some indications of the manpower-generation capacities of private vocational/technical education. To get some insight about how significant the contribution of private/technical education is and some expectation of the development growth in the capabilities of private/technical education institutions with respect to technician and skilled manpower, some indicative manpower demand data may be helpful.

3. *Some Quantitative Indices: Manpower Demand Situation*

A number of studies done in the past tend to verify the general observation that there is a critical shortage of technician and skilled manpower. Two national studies, still of limited coverage, substantially support this basic conclusion. Last year, the Presidential Commission to Survey Philippine Education (PCSPE) undertook a nationwide survey of firms to find out their manpower requirements, and, therefore, to determine the training and development strategy to satisfy these requirements. One-hundred sixteen firms responded (a cross-section of industries) employing a total of 95,498 people (9.7% which are in management and staff, 9.98% in sales and 80.33%, in production). Of the 76,708 production workers (out of 95,490 workers), 3.91% are scientists and

engineers, 7.04% are technicians, 43.07% are skilled workers and 45.98% are nonskilled workers.

These same firms indicated the following manpower requirements for 1971 to 1973:

	1971	1972	1973	Total	Per Cent Distribution
Management and Staff	385	344	264	893	4.27%
Sales	190	156	171	517	2.47%
Production	7,120	5,769	6,638	19,527	93.25%

PRODUCTION WORKERS

	1971	1972	1973	Total	Per Cent Distribution
C.1. Scientist	7	4	7	18	.09%
C.2. Engineers	290	269	253	812	4.16%
C.3. Technicians	382	1,098	458	1,938	9.92%
C.4. Skilled	2,811	2,253	2,655	7,719	39.53%
C.5. Nonskilled	3,630	2,145	3,265	9,040	46.29%
	7,120	5,769	6,638	19,527	

Approximately 70% are needed in Manila and 30% in the provinces. Clearly for these 116 firms, approximately 49.4% of their total production manpower requirements call for skilled and technician personnel. Personnel management experts will tell us that these relevant manpower category requires expensive and specialized training.

A related study of the education commission involved detailed case studies of twenty-eight firms. The case studies aimed to find out specific manpower requirements by functions, skills categories, educational attainment and training requirements. Ten of these firms were recommended by the Personnel Management Association (PMA) as having model personnel programs and the other twenty-two were conveniently sampled all among the top 200 Philippine firms.

All firms indicated critical shortages of people for the next five years in the categories of management and staff; and skilled and technician. Almost all indicated the necessity of providing the necessary training because at the middle level, the schools are not turning out well-prepared graduates.

In early 1971, the National Manpower and Youth Council, assisted by ILO-UNDP, completed a nationwide training needs survey covering 2,532 firms with a total employment of 702,046 (11.75% technician, 27.81% skilled mechanics and craftsmen, 26.98% semiskilled, 33.46% operatives basically non-skilled). The employment distribution is 19.39% in mining and quarrying, 61.54% in manufacturing, 1.47% in utilities, 4.60% in construction, 11.22% in transportation and communication and 1.03% in others.

The relevant findings of the survey include identification of training needs and annual requirements in increments for technician manpower. One thousand twenty-nine indicated technician-training needs, with the manufacturing and transportation sections indicating the greatest need.

In terms of incremental requirements for technician, the following table sums up the situation:

	1971	1972	1973
Mining and quarrying	56	332	332
Manufacturing	2,176	4,391	2,947
Utilities	182	141	83
Construction	8	17	33
Transportation/communication	473	233	199
Others	373	182	149
TOTAL	3,217	5,296	3,743

This survey has emphasized the technician manpower outlook, because this is the skill category that is critically short and for which training requirements are substantial.

In another context but indicating similar manpower problem, the Board of Investments Fourth Priorities Plan lists a fairly cross-sectional representation of firms with their indicated labor requirements of supervisory or skilled, semi-skilled and unskilled manpower. Total manpower (labor) requirement is 21,893 (of which 7,746 are in supervisory, or skilled category, or 34% ; 8,361, or 38% of semiskilled category; and 5,786, or 28% in unskilled category). These requirements indicate a relatively large technician or middle-level manpower requirements.

One can understand this high requirement for technician. BOI-type industries are heavily in raw materials and finished parts manufacture, operations that are generally technician-intensive.

B. SOME POLICY GUIDELINES FOR PRIVATE TECHNICAL EDUCATION

Another paper prepared for this conference discusses the policy issues regarding private technical education. For the purpose of this paper, it may be helpful even at the risk of redundancy, to mention or highlight some broad policy guidelines or areas of concerns, which may specify the course and development of vocational/technical education in general and of private vocational/technical education in particular. The intention here is of course to appreciate further the magnitude and character of the financing problem for private/technical education.

First, national development needs as indicated in the Four-Year Development Plan, 1972-75, and as our statistical indices show, call for higher priority on technician and skills training. Accordingly, a rational plan for technician and skilled manpower training is to be drafted.

Second, that the government must adopt some definite position with respect to the role and contribution of private vocational/technical education in particular and with respect to private education in general. There is in fact an emerging policy in this respect as the Board of National Education has approved the recommendation of the PCSPE to the effect that national government assistance be encouraged and directed toward private educational institutions which will establish and implement high-priority manpower development programs. The implication of this policy is that the government may commit public financial resources for the support of some selected private institutions, indicating a possible new source of financing for private educational institutions.

Third, vocational/technical education is a capital-intensive and high operating-

cost proposition that any policy of upgrading and expanding skills training and technician education means a larger commitment of resources and for private institutions this means inability to implement such programs without substantial assistance or subsidy from the state.

On the other hand, the government at present is hard-pressed even at supporting public vocational/technical schools that the expectation is that for private technical education institutions to continue operating, much more upgrade and expand, is to expand private financing sources which indicate basically the rise in tuition fees.

Fourth, that vocational/technical education should no longer be looked at as primarily the educational system's responsibility. The private business sector has a major stake on the quality and quantity of output from the vocational/technical schools. Accordingly, either by government fiat or encouragement or by voluntary arrangement, the private business sector should consider assistance in many forms to vocational/technical education institutions, and, accordingly, the institutions themselves must activate programs to effect such possibilities.

Fifth, that greater cooperation and complementation be effected among private and public vocational/technical schools instead of duplicating offerings. This may be the possibility if the government is to extend assistance, financial or otherwise, to private technical institutions.

Sixth, that even with upgraded and expanded capabilities to generate skilled and technician manpower, the rapid pace of technology and the increasing degree and number of specializations indicate that in the long run, refinement of skills and acquisition of specialized ones may take place in nonformal training centers. Accordingly, the formal training institutions may examine their priorities in the light of these possibilities as they would have a bearing on investments or financing requirements for vocational/technical programs.

And lastly, since vocational/technical education and occupations are still accorded low social status as to affect enrolment and placement patterns, vocational/technical institutions, both public and private, may need to institute guidance and placement service programs in addition to their basic training functions. This may mean further commitment of financial and personnel resources. Private businesses may be tapped to cooperate if it recognizes that this socio-cultural problem indeed affects not only training inputs but also their own recruitment programs.

These policy concerns are therefore helpful in providing guidelines for investment priorities for vocational/technical education.

C. THE FINANCING OF PRIVATE TECHNICAL EDUCATION

1. *Data on Private Education: Financing and Expenditures*

The PCSPE, in its study of educational finance, had a major difficulty of accounting for expenditures on private education and much more on private vocational/technical education. There are, however, some gross magnitudes and comparative data for public vocational/technical education which may be helpful in conveying some indications of the magnitude and nature of the financing problem for private technical education.

a. *Expenditures on Private Education*

The following tables showing estimates prepared by the Education Task Force (ETF) indicate comparative expenditure figures for all levels of education and by sectors. Attention can be directed to the sector "Private Education Sector Subtotal," for each level. The figures corresponding to vocational/technical education show much smaller shares for both *recurring* and *capital* costs, but they are significant amounts and increasing.

Just to highlight the financing comparison, the following summarizes the data for just the three years (1969-1971) and, covering recurring expenditures.

AMOUNT IN (000 PESOS)

	1969	1970	1971
A. Post-secondary Schools			
1. State Colleges and Universities	14,504	16,591	19,229
2. Bureau of Vocational Education			
Trade/Technical	1,465	1,083	1,329
Agriculture	3,729	3,249	4,012
SubTotal for Public Vocational/Technical covering 224 institutions	19,698	20,923	24,570

B. Private Vocational/Technical			
Trade/Technical	**5,904**	**6,706**	**8,214**
Agriculture	**1,067**	**1,266**	**1,591**
SubTotal for Private Vocational/Technical Schools, covering 643 institutions.	**6,971**	**7,972**	**9,805**

In one respect, these aggregates show that given enrolment and number of institutions, expenditures for private vocational/technical education are significant enough but definitely much lower than the demand for educational services, and more so when compared with resources given to public vocational/technical institutions.

b. *Per Student Cost and Financing Requirements*

A useful indicator of the financing problem of an educational institution is the per student cost, both for capital or recurring costs. This index, in the absence of a more sophisticated quality index, is one measure of the standard or quality of educational services provided. Since the per student cost is a relational ratio between enrolment and investment for educational services it becomes a useful guide for indicating the adequacy or inadequacy of investments, or vice-versa, given the present educational investment, the ratio may indicate a desirable level of enrolment which the school may accommodate.

The following per student cost figures were derived from studies done by the Presidential Commission and the Education Task Force.

Selected Operating Cost/Student
For Selected Institutions and for Selected Averages

GREATER MANILA (COLLEGIATE), 1968-69	**P 546**
PAASCU Average, 1968-69	**623**
Ateneo de Manila, 1968-69	**1,262**
De La Salle, 1968-69	**1,138**
University of the Philippines	**2,400**
REGIONAL (1969)	
Ilocos Region	**P 244**
Cagayan	**360**

Central Luzon	163
Southern Luzon	163
Bicol Region	87
Western Visayas	269
Eastern Visayas	211
Northern Mindanao	116
Southern Mindanao	188

Public Vocational (1969)	P 480
Trade/Technical	364
Agriculture	617
Fishery	700
Private Vocational (1969)	386

The enclosed figures above are the more relevant for our purpose. If we take the ratio as a quality index, private vocational education needs to come up to the standard of public vocational. Given the present enrolment and even using the 1969 per student cost, private vocational education will have to upgrade/expand by allocating for operating costs an additional amount of P8.5 million [90,685 x (480 – 386)], annually. Yet, even public vocational education requires some substantial quality and capacity improvement. Some estimates point to a figure of P650 – P750 as the per student cost that would indicate a desirably adequate standard of vocational/technical education. This means again that private vocational/technical education might require an additional annual outlay of P23.94 million just to come up to acceptable minimum quality standards given present enrolment. When we consider enrolment expansion say by 10% for 1972, or 9,068 students, the additional operating financing to handle enrolment expansion for private vocational/technical education will be P6.8 million (P750 x 9,068).

These seem to be small amounts particularly if we consider the country's manpower requirements. Yet relative to the capacity and sources of private schools financing, these may be substantial requirements.

Since this exercise is based on rough estimates, some *caveats* ought to be taken in interpreting the calculations. Nevertheless, these figures indicate the magnitude problem of private vocational/technical education financing.

c. *Financing of Technical Education*

A concrete example of what it takes to implement a high-quality technician education is shown by a project studied and presented by the ETF for external financing assistance. This is the establishment of Technical Institutes. Three are being proposed. Based on a 2,900 student capacity basis the financing requirements are as follows:

PER INSTITUTE (IN 000's)

Capital (000's)	**P2,513.40**
Annual Recurring (000's)	**3,510.22**
	P6,023.62

Therefore,

Cost/student: P6,023,620/2900 = P2,077/student

What does it take therefore for the private sector to implement a legitimate high-quality technician education? It is to raise, roughly, per student investment from P380 to P2,077. The total financing requirements are therefore staggering.

The expectation is, of course, selective financing for viable institutions and programs.

D. CONCLUSIONS: FINANCING STRATEGY FOR PRIVATE TECHNICIAN EDUCATION

We have made some rough indications about the financing problems of private vocational/technical education – given the present state of the educational sector and some indications of policy directions. It seems reasonable to expect that private vocational/technical education may adopt the following as part of its financing strategy:

First, upgrade selectively in accordance with national development priorities and make a strong case for government subsidies or assistance for priority programs, particularly in areas where public institutions are inadequate.

Second, tap special sources of funding for vocational/technical education similar to the special funds for educational programs under Republic Act 5447.

Third, it may be necessary to formulate a national program to encourage greater private sector participation through scholarships, fellowships and straight assistance.

And *fourth*, tap foreign sources of funding from private entities abroad or even from foreign governments. The German government, for instance, has an ongoing program of assistance to selected technical institutions.

Tuition fees will of course continue to be the primary source of financing but sooner or later other sources will have to be considered. Private technical education institutions in the long run can not become viable if they operate on a profit basis. They do not have the profit-making capabilities of the large comprehensive colleges and universities whose well-populated teacher-education, liberal arts, commerce and business departments provide the revenue leverage which subsidizes their costly programs, such as engineering and technical education.

RECURRING EXPENDITURE FOR EDUCATION BY LEVEL OF EDUCATION AND BY SECTOR FY's 1966-1967 TO 1974-1975 (P000)

	ACTUAL						ESTIMATES		
	1967	1968	1969	1970	1971	1972	1973	1974	1975
ELEMENTARY: TOTAL	729,887	817,749	898,511	933,444	1,011,794	1,078,213	1,359,233	1,426,525	1,490,431
National Government	696,279	780,425	853,875	886,634	962,554	1,026,224	1,293,067	1,357,474	1,418,354
Local Government	Nil	Nil	Nil	Nil	Nil	Nil	Nil	Nil	
Private Sector	33,608	37,324	44,636	46,810	49,240	51,989	66,166	69,051	72,077
SECONDARY: TOTAL	220,275	234,893	248,376	275,183	329,623	364,902	399,022	447,056	498,414
National Government: Sub-Total	35,979	37,801	43,188	41,326	48,585	54,225	61,443	69,885	80,148
General	2,900	3,293	3,718	4,342	5,972	6,809	7,729	8,773	10,025
Vocational (BVE)	33,079	34,508	39,470	36,984	42,613	47,416	53,714	61,112	70,123
Agricultural	13,727	14,424	16,538	15,617	17,897	19,819	22,345	25,606	29,101
Trades	14,720	15,149	17,866	16,516	18,664	21,005	23,580	26,828	30,994
Fisheries	4,632	4,935	5,566	4,851	6,051	6,592	7,789	8,678	10,027
Local Government: Sub-Total	72,964	80,931	76,735	83,257	95,944	107,004	113,324	129,904	143,824
Provincial	20,589	23,447	23,011	24,977	27,056	31,031	33,997	36,632	41,708
City	43,940	46,557	41,968	47,206	57,758	61,527	64,254	75,604	82,698
Municipal	8,435	10,927	11,756	11,906	11,129	14,445	16,205	17,667	19,416
Private Sector: Sub-Total	111,332	116,161	128,453	150,600	185,094	203,673	224,255	247,267	274,442
Academic	104,763	109,192	120,997	141,776	174,267	191,716	211,070	232,704	258,306
Vocational (Trade & Tech)	5,900	6,040	6,749	7,951	9,791	10,817	11,885	13,035	14,600
Agriculture	669	929	707	873	1,036	1,140	1,300	1,508	1,536
POST SECONDARY: TOTAL	215,875	234,453	249,655	287,832	347,374	379,191	414,416	455,642	488,824

	ACTUAL					ESTIMATES			
	1967	1968	1969	1970	1971	1972	1973	1974	1975
National Government: Sub-Total	56,605	60,081	64,165	70,679	81,627	85,775	90,273	96,375	103,858
State Colleges & Universities	46,274	49,533	52,662	60,333	69,619	73,718	78,228	83,331	89,492
Vocational/Technical	10,747	12,006	14,504	16,591	19,229	20,383	21,685	23,166	25,147
Professional	35,427	37,527	38,158	43,742	50,390	53,335	56,543	60,165	64,345
Normal Schools	5,903	5,942	6,309	6,014	6,667	5,888	4,953	3,907	2,736
Vocational (BVE)	4,428	4,606	5,194	4,332	5,341	6,169	7,092	9,137	11,630
Trade/Technical	1,379	1,336	1,465	1,083	1,329	1,535	1,709	2,622	2,919
Agricultural	3,049	3,272	3,729	3,249	4,012	4,634	5,383	6,515	8,711
Local Government: Sub-Total	N.A.	N.A.	N.A.	690	943	950	1,107	1,379	1,538
Private Sector: Sub-Total	159,270	174,372	185,490	216,463	264,704	292,466	323,036	357,938	383,428
Colleges & Universities (Professional)	152,193	167,831	178,619	208,491	254,984	281,739	311,136	342,220	366,503
Vocational	7,077	6,541	6,871	7,972	9,720	10,727	11,900	15,718	16,925
Trade/Technical	6,051	5,508	5,904	6,706	8,214	9,075	10,046	13,641	14,601
Agriculture	1,026	1,033	1,067	1,266	1,506	1,652	1,854	2,077	2,324
GRAND TOTAL	1,166,037	1,287,095	1,396,542	1,496,459	1,688,691	1,822,306	2,172,671	2,329,273	2,477,669

Education Task Force
December, 1971

RECURRING EXPENDITURES ON EDUCATION
BY SECTOR AND BY LEVELS
FYs 1966-1967 TO 1974-1975
(P000)

	1967	1968	1969	1970	1971	1972	1973	1974	1975
NATIONAL GOVERNMENT: TOTAL	788,863	878,307	961,228	998,639	1,092,766	1,166,224	1,444,783	1,523,734	1,602,357
Elementary	696,279	780,425	853,875	886,634	962,554	1,026,224	1,293,067	1,357,474	1,418,354
Secondary	35,979	37,801	43,188	41,326	48,585	54,225	61,443	69,885	80,145
Post-Secondary	56,605	60,081	64,165	70,679	81,627	85,775	90,273	96,375	103,858
LOCAL GOVERNMENT: TOTAL	72,964	80,931	76,735	83,947	96,887	107,954	114,431	131,283	145,362
Elementary	-	-	-	-	-	-	-	-	-
Secondary	72,964	80,931	76,735	83,257	95,944	107,004	113,324	129,904	143,824
Post Secondary	n.a.	n.a.	n.a.	690	943	950	1,107	1,379	1,538
PRIVATE SECTOR: TOTAL	304,210	327,857	358,579	413,873	499,038	548,128	613,457	674,256	729,947
Elementary	33,608	37,324	44,636	46,810	49,240	51,989	66,166	69,051	72,077
Secondary	111,332	116,161	128,453	150,600	185,094	203,673	224,255	247,267	274,442
Post-Secondary	159,270	174,372	185,490	216,463	264,704	292,466	323,036	357,938	383,428

Education Task Force
December 1971

BY LEVEL OF EDUCATION AND BY SECTOR
(P 000)

Education Task Force
December, 1971

	ACTUAL					ESTIMATES			
	1967	1968	1969	1970	1971	1972	1973	1974	1975
ELEMENTARY									
National Government	256,175	313,551	374,444	468,977	554,952	604,746	655,678	716,836	785,218
Local Government	-	-	-	-	-	-	-	-	-
Private Sector	43,116	37,611	43,975	51,156	62,253	66,690	74,106	80,754	88,495
SECONDARY									
National Government									
General	414	505	582	708	937	1,072	1,215	1,388	1,564
Vocational (BVE)	1,925	2,107	3,633	2,622	3,770	5,120	5,809	6,566	7,531
Agricultural									
Trades									
Fisheries									
Local Government	78,008	84,721	95,374	120,857	152,450	173,743	197,046	223,228	254,120
Provincial									
City									
Municipal									
Private Sector	181,089	156,890	173,415	206,906	254,141	279,304	306,696	337,539	374,360
Academic									
Vocational (Trade/Tech.)									
Agriculture									
POST-SECONDARY									
National Government									
State Colleges & Universities									
Professional	12,711	12,750	14,083	16,260	18,903	19,989	21,178	22,561	24,233
Vocational/Technical	12	28	1,169	32	37	39	41	44	47

Normal Schools (BPS)	2,610	2,596	2,638	2,495	2,770	2,426	2,017	1,596	1,130
Vocational (BVE)	258	281	478	303	472	653	745	966	1,236
Trade/Technical									
Agriculture									
Local Government	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Private Sector	116,978	144,391	166,887	194,551	237,368	261,871	288,936	319,464	341,442
Colleges & Universities (Prof.)									
Vocational: Trade/Technical									
Agriculture									
GRAND TOTAL	743,296	755,431	876,678	1,064,620	1,287,739	1,414,847	1,553,031	1,710,918	1,879,847