

# Vocational Education and Training

## Introduction

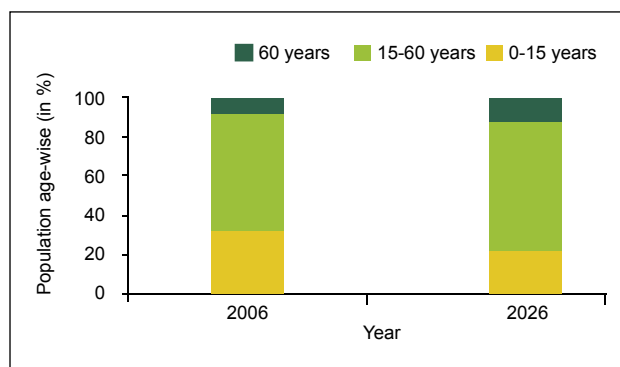
The transition of India into a knowledge-based economy requires a skilled workforce, and therefore a renewed focus on the vocational education and training (VET) system. Moreover, the current and expected demographic composition of the country's population (See Figure) makes it imperative that the issue of employability and skills be addressed immediately. A third of India's population was below 15 years of age in 2000 and close to 20 per cent were young people in the 15-24 years age group. If this demographic dividend is not optimally utilised through skill development, we run the risk of growing unemployment among high skilled "formally trained" personnel and shortages of low level skilled and vocationally trained people in the labour market.

## Current Scenario

In India, skill acquisition takes place through two basic structural streams – a small formal one and a large informal one. Some of the major formal sources are listed in Table 6:

**Status of vocational training received/being received:**  
In the NSS 61<sup>st</sup> round, among persons of age 15-29

**Figure 9: Demographic Composition of India's population**



Source: Based on the Report of the Technical group on population projections constituted by the National Commission on Population, May 2006

years, only about 2 per cent reported to have received formal vocational training and another 8 per cent reported to have received non formal vocational training.

**Age specific rate for formal vocational training received:** The proportion of persons who received formal vocational training generally increases with age of persons. In fact, the proportion increased from 0.6 per cent for the age group 15-19 years to 1.8 per cent for the age group 20-24 years and then, to 1.9 per cent for the age group 25- 29 years in the rural areas.

**Table 6: Vocational education and training in India**

Type of Source	Institute	Capacity	Quantity
Mainstream education system	Centrally Sponsored Scheme of Vocationalisation of Secondary Education run by the Ministry of Human Resource Development	Enrolling less than three per cent of students at the upper secondary level	9,583 schools offering about 150 educational courses of two years duration
Training institutions outside the school and university systems	Industrial Training Institutes (ITIs) and Industrial Training Centres (ITCs)	Total seating capacity of 7.85 lakh	5488 public (ITI) and private (ITC) institutions imparting VET, of which 1922 are ITIs and 3566 are ITCs.
Diploma level	Polytechnics	1,244 polytechnics run by MHRD with a capacity of over 2.95 lakhs	1,747 AICTE approved diploma programs with 294,370 seats

**Formal vocational training and broad activity status:** The proportion of persons (15-29 years) who received formal vocational training was the highest among the unemployed. The proportion was around 3 per cent for the employed, 11 per cent for the unemployed and 2 per cent for persons not in the labour force

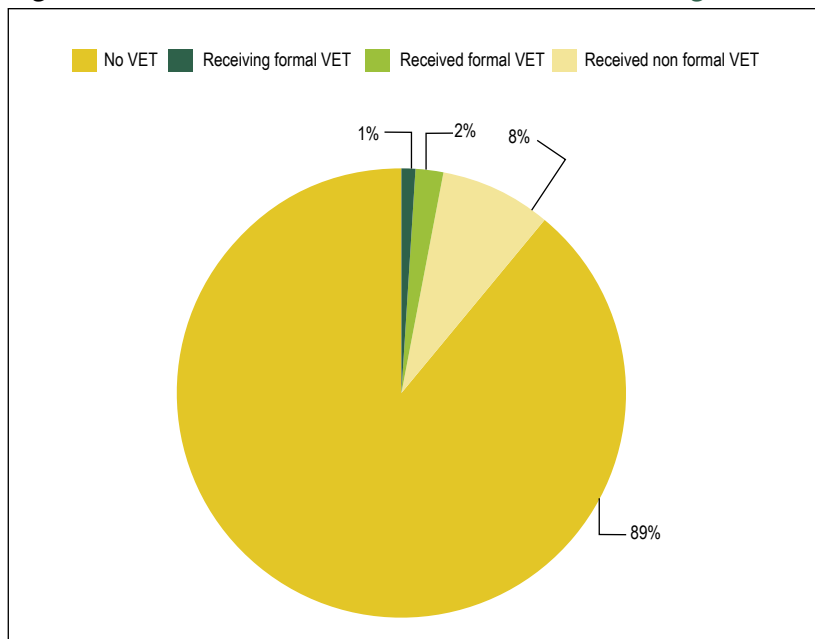
## Issues in the Current Framework

**1. Participation:** The Kothari Commission on Educational Reforms, 1966 had visualised that 25 per cent of the students at the secondary stage would go for the vocational stream. At present only about 5 per cent of the children of the 16 to 18 age group are in the vocational stream. This is despite the fact that in urban areas, only about 19.6 per cent of male and 11.2 per cent of female workers possessed marketable skills, whereas, in rural areas only about 10 per cent of male and 6.3 per cent of female workers possessed marketable skills. This figure is far higher in developed even developing countries

**2. Capacity utilisation:** There is little capacity in vocational education and even that is under-utilised. Only 6,800 schools have received grants and the total enrolment reported is only about 5 per cent at most. More recent information suggests that the enrolment figure is less than three per cent of the students attending Grades 11-12. The weighted average capacity utilisation of the schools receiving grants is about 42 per cent. This implies that between 350,000 to 400,000 students are enrolled in vocational education, which works out to less than three per cent of the 14 million students or more in Grades 11 and 12, implying that less than one per cent of students who had entered Grade 1 over the last decade or so would have eventually participated in vocational education. It is also widely recognised that existing student capacity in ITIs/ITCs largely goes unutilised.

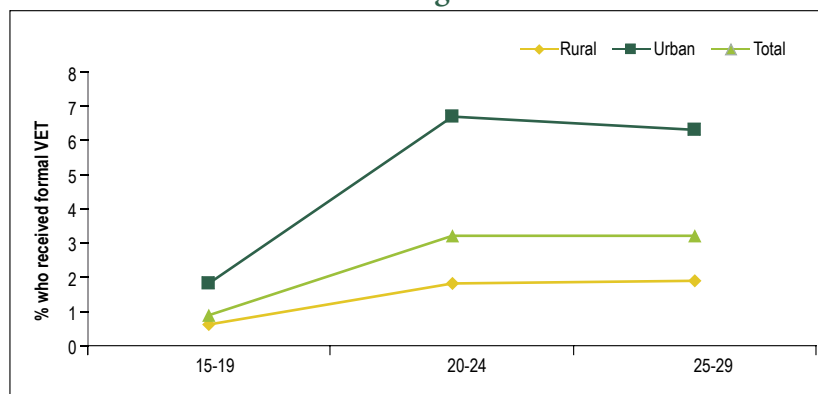
**3. Flexibility:** The current framework requires minimum qualifications, varying

**Figure 10: Status of Vocational Education and Training (VET)**



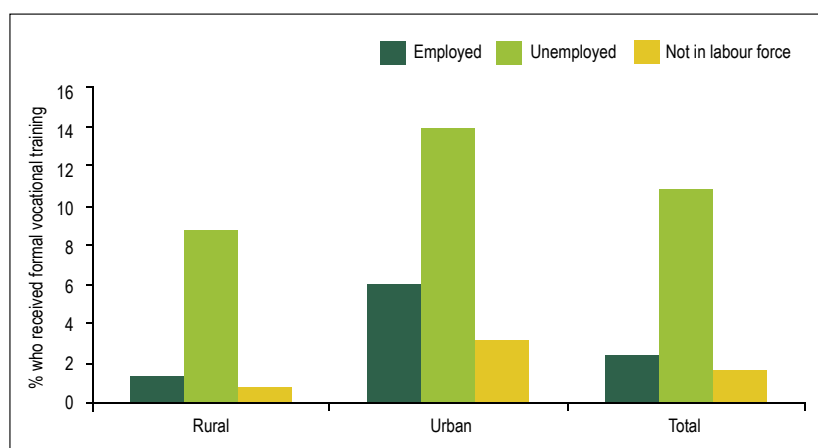
Source: Status of Education and Vocational Training in India, 2004-05, NSS 61<sup>st</sup> Round

**Figure 11: Urban-rural break up of Vocational Education and Training**



Source: Status of Education and Vocational Training in India, 2004-05, NSS 61<sup>st</sup> Round

**Figure 12: Activity status of persons receiving vocational training**



Source: Status of Education and Vocational Training in India, 2004-05, NSS 61<sup>st</sup> Round

**Table 7: International comparisons on size of vocational-secondary education**

Country	Secondary enrolment ratio	Number of students (thousands)	Vocational-technical share (per cent of total secondary enrolments)
Russia	88	6277	60
China	52	15300	55
Chile	70	652	40
Indonesia	43	4109	33
Korea	93	2060	31
Mexico	58	-	12
Malaysia	59	533	11
South Africa	77	-	1

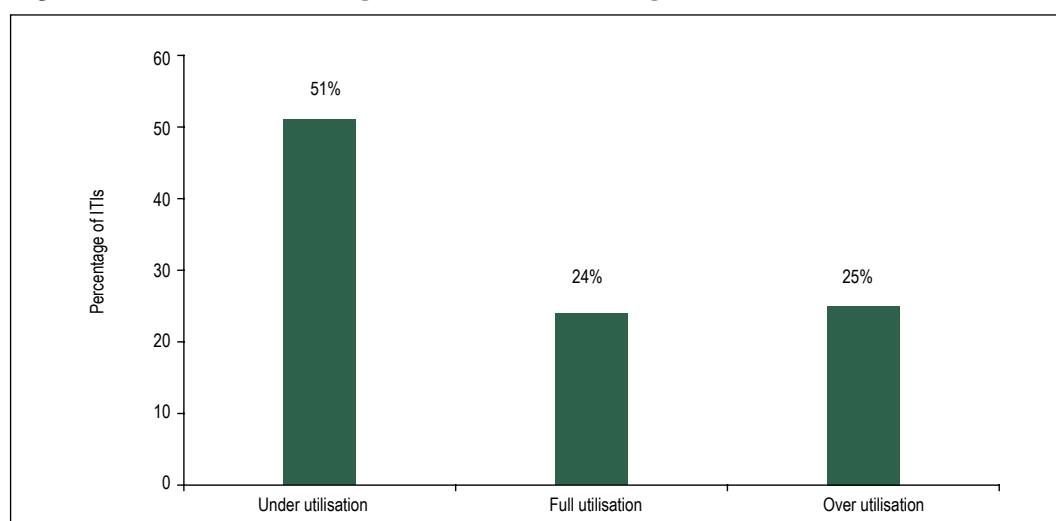
Source: World Bank, 2006

**Table 8: All India seats utilisation in respect of technician, trade and graduate apprentices**

	Seats located	Seats utilised	Per cent utilisation
Technician apprentices	39004	22837	59 per cent
Trade apprentices	182046	127741	70 per cent
Graduate apprentices	20420	6084	22 per cent

Source: Annual Report 2002-03, Ministry of Labour, Govt. of India

**Figure 13: Seat utilisation against sanctioned strength**



Source: FICCI Survey, 2006

from Class VIII – Class XII, for participation in formal vocational training. While this may be necessary for certain trades, it is unnecessarily restrictive in others. Also, once an individual leaves mainstream education for vocational training, there is no provision for him/her to return to the former at a later stage. Not only does this encourage a general view of work and study being mutually exclusive options, it also increases the perceived risk of taking up vocational training. The system is also not responsive to labour market

demand conditions. The inflexibilities in the course/ curriculum set-up, lead to over supply in some trades and shortages in others. Moreover, there is not enough emphasis on short training course designed to impart specific skills. Vocational education and training in India relies exclusively on a few training courses with long duration (2 to 3 years) covering around 100 skills. In China, on the other hand, there exist about 4000 short duration modular courses which provide skills more closely tailored to employment requirements.

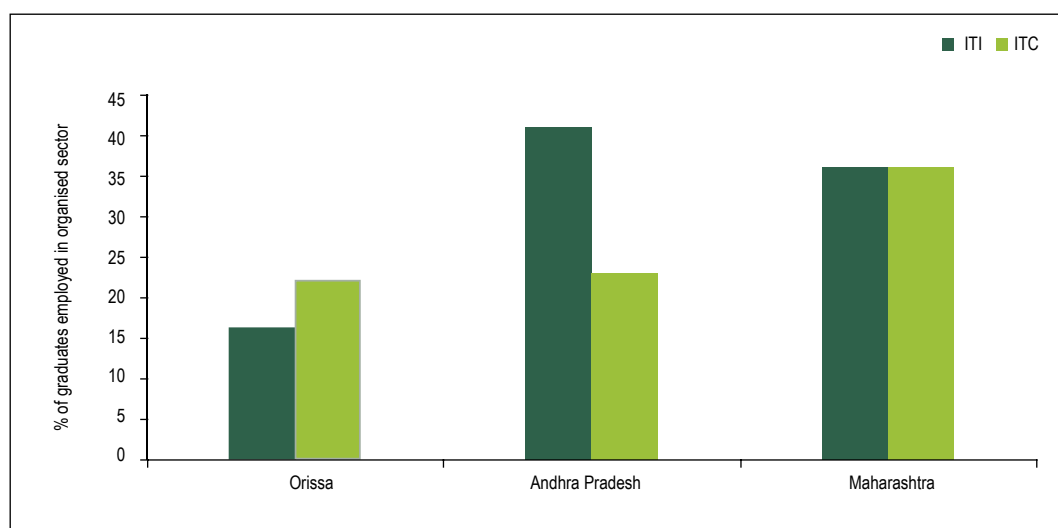
**4. Impact:** Of the trained candidates, the labour market outcomes as seen from placement/ absorption rates are reportedly very low. Although countrywide figures on the labour market success of ITI/ITC graduates are difficult to come by, an ILO study reports that in the states of Orissa, Andhra Pradesh and Maharashtra, the percentages of graduates found to be in wage employment/self-employment upon graduation from ITIs were 16.2 per cent, 41 per cent and 35 per cent respectively. The corresponding percentages for those graduating from ITCs were 21.3 per cent, 22.8 per cent and 35.6 per cent respectively

**5. Industry linkages:** Although provisions exist for the participation of industry representatives/experts in the setting of curriculum and hiring of apprentices, there is a significant mismatch between industry skill requirements and the talent pool emerging from ITIs/ITCs. This is one of the factors contributing to low success in the labour market for VET graduates. The private sector does undertake in-house training programs and to a very limited extent also trains 'outsiders'. However, such programs are limited to catering to their own felt needs,

in the nature of captive skill development. Low paying capacity of learners and the reluctance of industries to train workers for fear of losing them to competition has resulted in chronic deficiency in private investment in this area.

**6. Quality and accreditation:** The quality of the training imparted is also a matter of concern, as the toolkits, faculty, and curriculum are reportedly sub-standard. The existing institutions also lack financial and administrative autonomy. The testing, certification & accreditation system is reportedly weak, and since the deliverables are not precisely defined, there is no effort at evaluating outcomes and tracking placements. The problem is further complicated with lack of industry-faculty interaction on course curricula and other factors. The system of vocational training is currently characterised by a lack of ongoing monitoring for quality in institutions imparting VET. Although a system of inspections by State governments is in place, this is sub-optimal because it permits the proliferation of rent-seeking practices and does not achieve its stated objectives. An autonomous system of accreditation is missing in the VET sector.

**Figure 14: Employment status of ITI/ITC graduates**



Source: Industrial Training Institutes of India: The Efficiency Study Report, ILO, 2003

**Table 9: Internal efficiency of ITIs and ITCs in 3 states**

Indicator	Orissa		Andhra Pradesh		Maharashtra	
	ITIs	ITCs	ITIs	ITCs	ITIs	ITCs
Student retention	80.9	94.9	68.3	84.8	85.6	89
Graduation rate	88.3	95.6	62.9	62.7	77.5	79.4
Capacity utilisation	102.1	101	77.4	83.3	92.2	91
Student:Teacher ratio	9.3	5.4	5.5	9.6	-	-
Overall internal efficiency	73.8	90.9	31.8	45.7	62.6	61.1

Source: Industrial Training Institutes of India: The Efficiency Study Report, ILO, 2003