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# **Education and Literacy in Andhra Pradesh\***

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## **Abstract**

The present background paper reviews the progress of education including K12, vocational and higher education, skill development and literacy particularly during the last two decades in Andhra Pradesh and an attempt is made to identify gaps. It is observed that pre-primary education in the state, as is the case of all over India, still neglected and needs a strong policy intervention. With respect to school education, although the quantitative expansion is remarkable in the state as well as in India thanks to DPEP and SSA initiatives, the quality of education is still cause of concern. Besides, the progress in school education is still short of meeting the goal of universal elementary education. The higher education too is suffering with the quantity-quality trade-off. The expansion of vocational education is inadequate and there is a lacuna skill development programmes in the state. Again, despite the progress in expansion of education in the state literacy rate is one of the lowest in Andhra Pradesh when compared with rest of the states in India. Simulation exercise has shown that unless there is a strong policy intervention, Andhra Pradesh will never achieve universal adult literacy in the near future. All these are pertinent issues particularly in the context of harnessing demographic dividend in the state as well as all over India.

**Key Words:** Andhra Pradesh, School Education, K12, Pre-Primary, Primary, Secondary, Higher Education, Vocational Education, Literacy, Adult Literacy, Skill Development.

**JEL Classification:** I20, I21, I22, I23, I24, I25, I28.

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\* It is prepared as a background Paper Andhra Pradesh Approach to 12<sup>th</sup> Five Year Plan (2012-17).

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## **Introduction**

Education is one of the critical aspects of the social and economic progress at the individual as well as at the national level. Also in human capital, human development, and in the rights perspective it is an essential factor.

On the lines of International movement towards Education for All (EFA) especially since early 1990s the Government of India is also committed to the Education for All (EFA). The EFA encompasses six goals of early childhood care and education, universal elementary education, adult literacy, adolescent and life skill education, gender equality and the quality of education. Aspects of elementary education are included in another global initiative the Millenium Development Goals (MDGs) and India being part of the initiative it has committed these goals.

At the state level, Andhra Pradesh is committed to EFA and MDGs and thus making efforts towards achieving these goals. At the elementary level, the foundation of the pyramid in the formal education system, the state has experienced some kind of break through especially during the last two decades under DPEP and Sarva Shiksha Abhiyan (SSA). However, the goal of universalisation of elementary education is yet to be achieved. Moreover, now it is realised that in a emerging knowledge based economy a mere eight years of elementary education would be grossly inadequate for the young children to acquire necessary skills that industry demands and hence to compete in the job market. Therefore there is need for universalisation of secondary education which is a goal of Rashtriya Madhyamik Shiksha Abhiyan (RMSA) a scheme launched by Government of India in 2009. Andhra Pradesh has to make efforts towards achieving this goal. Besides, the higher and technical education is also important especially in its economic growth point of view.

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\* It is prepared as a background Paper Andhra Pradesh Approach to 12<sup>th</sup> Five Year Plan (2012-17).

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When the performance of the state with respect to education can be seen in terms of Access, Enrolment, Retention, Equity, and Quality, there has been a substantial progress over time. Nevertheless it is not substantial enough in terms of goals especially with respect to elementary and secondary education. In this regard, the state needs to make stringent efforts towards achieving goals of universalisation of quality elementary and secondary education and substantial progress in higher and technical education.

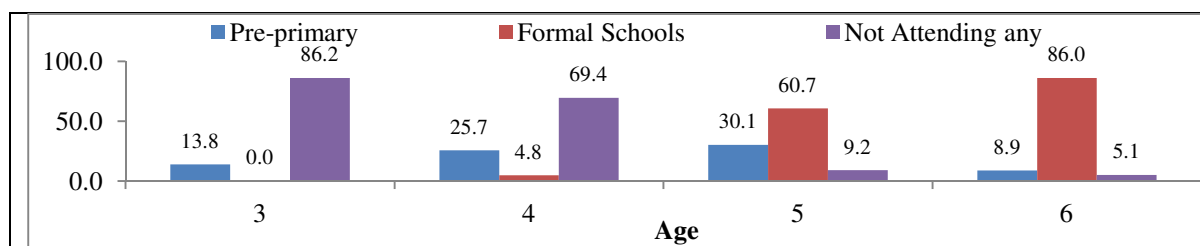
This background paper presents the situational analysis of education system in Andhra Pradesh ranging from pre-schooling to higher education with respect to important parameter such as access, enrolment, retention, equity and quality of education.

### **I Pre-Schooling: Early Childhood Care and Education**

Pre-schooling or pre-primary education for the 3 to below 6 years age children is most important. Age between 3 to 6 years is the preparation stage for the formal schooling. It is observed that lack of universal pre-schooling (including Early Childhood Care and Education - ECCE) and consequent poor vocabulary and poor conceptual development of mind makes even enrolled children less participative in the class, even for learning by rote (Erickson, 2007; Barnett, 2008).

However, in Andhra Pradesh, pre-schooling for 3 to under six years age children appears to be not customary. About 86% of 3 years age and about 70% of 4 years children in the state, according latest information (2009-10), are not attending any type of pre-schooling centres. Only 13.8% of the 3 years age one-fourth of the 4 years age children in the state are attending pre-schooling centres. With respect to 5 years age children in the state, while above 90% of children either attending pre-schooling centres (30%) or formal schools (61%), the rest 9% are not attending any school/centre. About 5% of 4 years old and 61% of 5 years old attending formal school could be a burdensome as many of the formal schools primary classes especially in the public sector are not equipped to deal with pre-primary. These pre-primary age/stage children attending formal school could be reasoned in lack of pre-primary schooling centres in the state. Therefore there is a need for building up such a system of pre-primary schooling especially in the public sector.

**Figure 1.1: Attendance Rate (%) of Pre-school age (3-6 years) Children in Andhra Pradesh, 2009-10**



**Note:** 1. Rural and Urban combined; 2. Pre-primary including those attending nursery/kindergarten etc.

**Source:** Estimated using NSS 66<sup>th</sup> (2009-10) Round Employment and Unemployment Survey unit record data.

In India in general and Andhra Pradesh in particular so far do not have any such type of pre-school centres attached to the formal schools especially in the public sector to make the transition to formal school smoother from a preparation stage. In the private sector such provision is there but the affordability of such private sector service is a major problem. Although there were some efforts through the initiatives of supplementary nutrition programme which includes non-formal pre-school education for the 3 to 6 years children, the pre-school education under the programme is not made as a mandatory rather it was a discretionary.

In accordance with the National Policy for Children, Integrated Child Development Services (ICDS) Scheme was introduced in the year 1975 in India to tackle malnutrition and health problems among children below 6 years of age and mothers<sup>1</sup>. Wherein *Anganwadi* centres and *Anganwadi* workers, are the gross route level functionaries of the ICDS Scheme. The main services provided under the scheme are: immunization, supplementary nutrition, health check-up, referral services, pre-school non formal education, and nutrition and health information. However, the Supplementary Nutrition Programme (SNP) that is applicable for 6 months olds to below 6 years age children, is an important service rendered under ICDS scheme. Although the non-formal pre-school education is part of the ICDS scheme, it has not been successful as much as that supplementary nutrition programme (SNP) all over India in general and Andhra Pradesh in particular.

In Andhra Pradesh the total number of *Angawadi* Centres (AWCs) sanctioned (as on August 2011) are 89,952<sup>2</sup> (74,516 in rural, 7,446 in Tribal and 7,990 in urban areas). That means, given the total state population at 8.5 crore, one AWC is sanctioned for every 1000 population. The number of AWCs sanctioned for rural areas in the state appeared to be more

<sup>1</sup> i.e Pregnant Women and Lactating Mothers.

<sup>2</sup> Information extracted from the source: <http://www.ap.anganwadi.in>.

than the number of villages (around 26 thousands revenue villages) but matching with the number of hamlets in the state. It means most of the hamlets are having AWC sanctioned. However, the functioning of these AWCs and coverage of target group is a matter of concern. In terms of coverage, although the implementation of ICDS programme is universal in nature, there is a self-exclusion of economically and socially better of households.

The Annual Status of Education Report (ASER) 2010 shows that the attendance of 3 to 6 years old children in pre-schooling centres (either *Balawadi*, *Anganwadi*, or other privately managed Kindergarten (Nursery/LKG/UKG) centres) in rural Andhra Pradesh seems to be substantial (Table 1.1). Nevertheless, there are gaps in coverage especially of the 3 years old rural children in the state 28% have not attended any pre-school centres. Moreover about 68% of the 5 years old (rural) children who are supposed be in the pre-schooling system are attending formal schools. However, the high attendance rate may not indicate the provision of non-formal pre-school education especially in these *balwadis/anganwadis*. Most of them may not be equipped to do so rather they act as a centre for distribution of nutritional food. The high attendance rate could be because of to get benefit from the supplementary nutrition programme.

**Table 1.1: Percentage of Children aged 3 to 6 years in Rural Andhra Pradesh by their Attendance in Different Types of Pre-schools and Schools, 2010**

Age (in Years)	in Balwadi or Anganwadi	In LKG/ UKG Centres	in (Formal) School			Not going anywhere	Total
			Govt	Private	Other		
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
Age 3	63.8	8.0	-	-	-	28.2	100
Age 4	57.1	33.8	-	-	-	9.1	100
Age 5	17.2	10.5	27.9	39.9	0.3	4.2	100
Age 6	2.3	5.3	44.2	46.0	0.2	2.0	100

**Note:** 1. Refers to rural area only; 2. In (Formal) School – in those schools having Class I and above.

**Source:** ASER, 2011.

There are two types of nutritional supplementation programmes in the state: in one programme these *balwadis/anganwadis* provide the ready to eat (RTE) food wherein the physical attendance of the beneficiary child may be compulsory. The other one is distribution of nutritional food (to carry home) on weekly or monthly basis and hence daily attendance of beneficiary child may not be compulsory. In the latter types of *Anganwadis* the intended services of ICDS in terms of pre-school education may not be given to all those children registered in these centres. In those *balwadis/anganwadis* centres in which daily presence of children is required how long these centres in a day keep/hold those children who attend. This

aspect of ICDS, that is the pre-school education, needs to be focussed during the 12<sup>th</sup> Five Year Plan in the state.

## II School Education

The school education in India in general and in Andhra Pradesh in particular consists of elementary and secondary education. Within the elementary system there are primary and upper primary (middle) cycles. The secondary school education in the state represents only lower secondary classes (IX and X classes).

### 2.1 Elementary

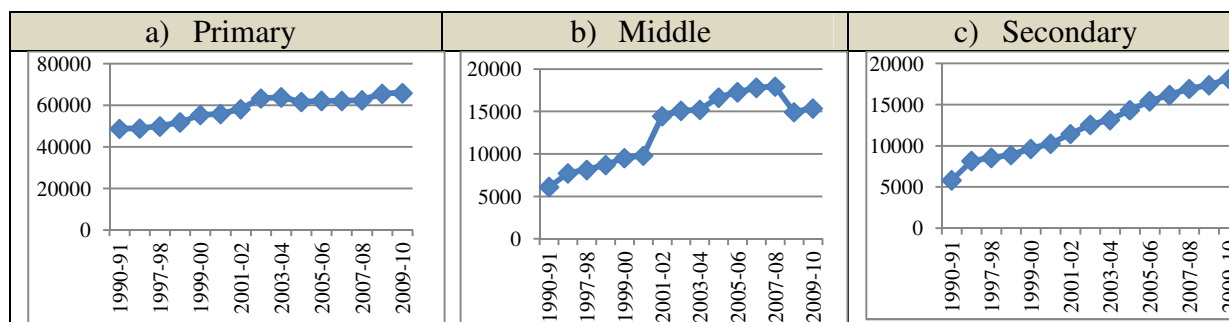
The Indian Constitution under Directive Principles assures the provision of free and compulsory (elementary) education for all the children below 15 years of age. The recent Right to Education Act (Right of Children to Free and Compulsory Education Act, 2009) provides the legislative framework for Universalisation of Elementary Education (UEE).

The important programmes/schemes that are implemented in the state are Operation Black Board (OBB), DPEP, SSA, Mid-Day-Meal Scheme (MDMS), Kasturiba Gandhi Balika Vidyalaya Scheme (KGBVS), and National Programme for Education of Girls at Elementary Level (NPEGEL).

#### Access

The state of Andhra Pradesh has witnessed a rapid growth in number of schools available for primary and upper primary classes in the state during the last two decades especially through the initiatives under DPEP and SSA programmes.

**Figure 2.1: Growth in Number of Schools in Andhra Pradesh**



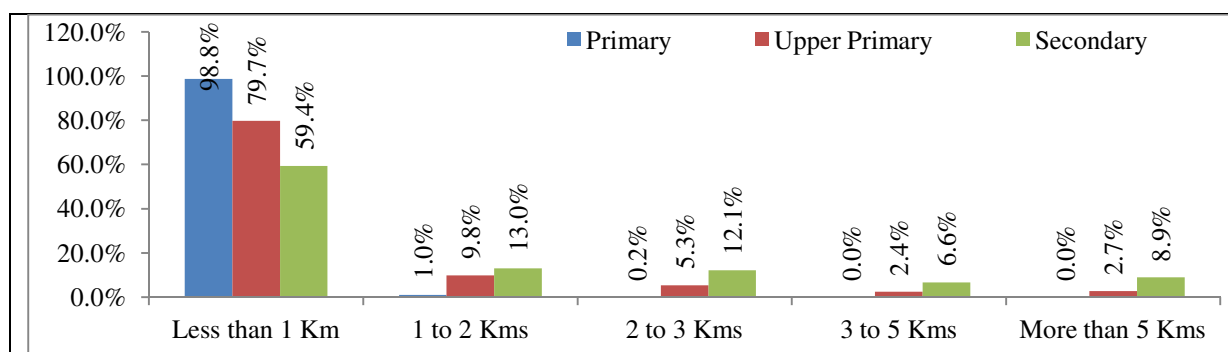
**Note:** 1. Based on information provided under \* question no. 12047 in the Parliament; 2. The declining trend shown during the last two years could be due to up-gradation of upper primary schools to secondary level.

**Source:** Ministry of Human Resource Development, Govt. of India. & Commissioner and Director of School Education, Govt. of Andhra Pradesh.

The District Information on School Education (DISE) shows that there are around 84 thousand schools available in the state for the primary classes (up to V). Given the state population at 8.4 crores, there are about 100 schools with primary classes per lakh population in the state. It also shows that number of schools available for primary classes is higher than the number of hamlets in the state and hence indicates that most of the hamlets in the state have at least a primary school.

For the middle level schooling there are around 33 thousand schools available in the state. There are 40 schools with middle schooling classes (VI and VII) per lakh population. The ratio of middle schools to the primary ones is around 1:2.5 (one middle school for three primary schools) and the ratio is within the limits of SSA norms.

**Figure 2.2: Access to Schooling in Andhra Pradesh – Percentage of Population by their Nearest Distance to School, 2007-08**



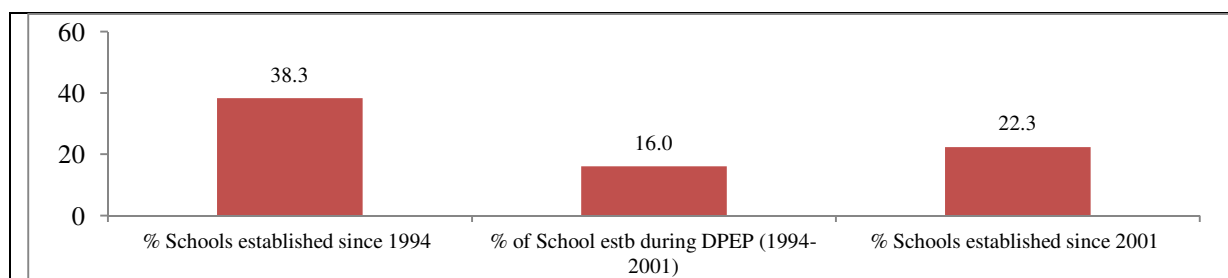
**Note:** Refers to Schools with primary, middle and secondary classes.

**Source:** Based on NSS 64<sup>th</sup> (2007-08) Round Survey on Literacy and Participation Education (Sch 25.0) unit record data.

In terms of the population coverage under a school with primary, upper primary and secondary classes, it is observed that 99% of the total population in the state had a school with primary classes within a distance of one kilometre (Figure 2.2). For the middle level schooling also about 90% of the population covered with these schools located within two kilometre distance. Availability of schools in the neighbourhood has improved and thereby access to schooling is made easy during the last two decades especially during the implementation of DPEP and SSA. A large number of primary schools in the state are established during this period (Figure 2.3).



**Figure 2.3: Percentage of Primary Schools Established in Andhra Pradesh under DPEP and SSA, 2009-10**



Source: DISE, 2009-10.

The analysis indicates that at the primary level access is not much a problem at present in the state. There is enough number of schools serving all the eligible (school-age) population.

### *Enrolment*

The current attendance rates of elementary school age children (i.e. 5-14 years age) shows that the state of Andhra Pradesh is about to reach universal attendance. Thanks of DPEP and SSA initiatives the enrolment in elementary classes has dramatically improved during the last two decades. At present, 2009-10, as many as 95% of the 5-9 age group, 94% of 10-14 age group children are attending schools.

**Table 2.1: Attendance Rates in Educational Institutions across Age Groups in Andhra Pradesh and India**

Sno	Age Groups	Andhra Pradesh			All India		
		1995-96	2007-08	2009-10	1995-96	2007-08	2009-10
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1	5 to 9	76.0	93.7	95.3	64.7	85.1	86.7
2	10 to 14	60.2	85.8	93.7	69.8	85.3	90.8
3	5 to 14	68.2	89.7	94.5	67.2	85.2	88.8
4	15 to 19	28.5	45.5	59.3	37.2	48.3	58.8
5	20 to 24	5.7	10.1	17.8	9.1	12.0	18.1
6	25 to 29	0.2	0.8	2.2	0.5	1.2	2.7

**Note:** 1. Attendance rate refers attendance in educational institutions such as schools, colleges, institutes, centres, research institutes.

**Source:** Using NSS 52<sup>nd</sup> (1995-96) and 64<sup>th</sup> (2007-08) Rounds Literacy and Participation in Education Survey (Sch. 25) and 66<sup>th</sup> (2009-10) Employment and Unemployment Survey unit record data.

As per the school records data (DISE), there are about 11 million children in Andhra Pradesh enrolled in elementary classes. If one observes the trend in enrolment during last half a decade (2005-10) the number of children enrolled in elementary classes appears to be declining. It is because of negative growth of young age population in the state as a result of demographic transition taken place during the last two decades.

**Table 2.2: Elementary level Grade-wise Total Enrolment in Andhra Pradesh**

Grade/Class	2004-05	2005-06	2006-07	2007-08	2008-09	2009-10
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
Grade I	1570421	1631554	1720169	1639559	1611321	1617930
Grade II	1491928	1412387	1538502	1481180	1450898	1438751
Grade III	1559096	1423787	1408718	1441329	1424948	1409511
Grade IV	1513223	1454154	1387204	1332653	1387235	1381969
Grade V	1557743	1470040	1450398	1355758	1331766	1381032
Grade VI	1331660	1379616	1358174	1329345	1278840	1255093
Grade VII	1244524	1263689	1319584	1285099	1264236	1226043
Grade VIII	1066846	1087713	1124070	1173463	1161119	1140919
Total (I-VIII)	11335441	11122940	11306819	11038386	10910363	10851248

**Note:** Refers to All (male and female, rural and urban combined).

**Source:** DISE.

Although there is a dramatic improvement in terms of number of enrolled children and thereby enrolment rates, the state of Andhra Pradesh is yet to achieve the goal of universalising elementary education. In terms of number, it is estimated that during the academic year 2009-10 still there are 3.3 lakhs children in the 5-9 and 4.9 lakhs in the 10-14 age group children together 8.2 lakhs children (5-14 age group) remained out of school. If efforts are made, there is a possibility that during the 12<sup>th</sup> Five Year Plan, it can achieve the goal.

### *Retention*

Retention of those enrolled in the first class till their completion of primary and then elementary cycle with free flow from a class/grade to higher and smooth transition between primary middle cycles is also most important factor for the progress of school education.

Although grade-wise drop-out rates appear to be low in Andhra Pradesh, its cumulative effect (based on apparent cohort method) is significantly large - about one-third of a cohort entered in class/grade I dropout before they reach final grade (VIII) of elementary education. About one-fifth of the cohort drops out before completion of primary cycle.

It indicates that still high dropout rate is a problem that is affecting the efficiency of the elementary education system in the state. This high dropout rate before reaching the last grades of primary and middle cycle affects the completion rates. It is not only the enrolment, but also the retention and completion rates, have been the policy concern.

**Table 2.3: Grade/Class-wise Dropout, Repetition and Promotion Rates at Elementary level in Andhra Pradesh**

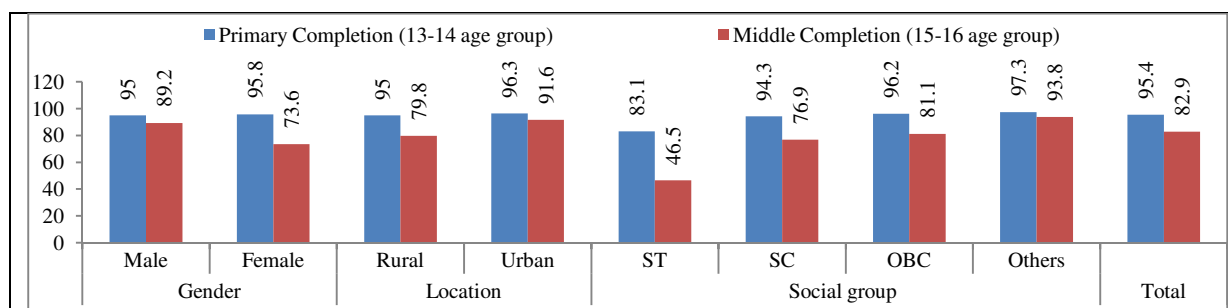
Grade / Class	Dropout Rate				Repetition Rate				Promotion Rate			
	2005-6	2006-7	2007-8	2008-9	2005-6	2006-7	2007-8	2008-9	2005-6	2006-7	2007-8	2008-9
<i>I</i>	2	3	4	5	6	7	8	9	10	11	12	13
Grade I	4.8	1.2	9.9	8.2	8.6	6.9	5.9	5.0	86.7	91.9	84.2	86.8
Grade II	4.0	-0.3	5.6	3.3	3.4	2.7	2.1	1.8	92.6	97.5	92.2	94.9
Grade III	6.1	2.2	5.1	3.4	2.7	2.2	1.6	1.4	91.1	95.6	93.4	95.3
Grade IV	2.8	0.1	2.2	0.0	2.2	1.8	1.3	1.0	94.9	98.1	96.5	99.0
Grade V	10.9	7.2	8.3	5.6	2.1	1.6	1.1	0.9	87.0	91.1	90.6	93.5
Grade VI	5.1	4.1	5.2	4.7	1.9	1.3	1.1	0.9	93.1	94.6	93.7	94.4
Grade VII	11.7	10.7	10.8	9.6	2.0	1.2	1.0	0.7	86.3	88.1	88.2	89.7
Grade VIII	-	-	-	-	1.3	1.0	0.8	0.7	-	-	-	-

**Note:** Figures presented above are rates in percentage form.

**Source:** Computed based on DISE District level raw data.

Despite the persistence of substantial level of dropout rate in the state about 95% of 13-14 age group children in the state still managed to have completed primary cycle and 83% of 15-16 years olds managed to have completed their middle schooling (Figure 2.4).

**Figure 2.4: Primary and Middle Completion Rates (%) by Gender, Location and Social Groups in Andhra Pradesh, 2009-10**



**Source:** NSS 66<sup>th</sup> (2009-10) Round Employment and Unemployment Survey Unit Record Data.

It indicates although the state is nearing the goal of 100% primary completion rates but short fall of reaching the goal of 100% middle/elementary completion rate due to short fall of middle completion rate. There exist disparities across sub-population groups of children. (The discussion on completion rates by gender, location and social groups is placed in the following section on equity).

#### *Equity – Gender, Area, Social and Income Groups*

As in case of many socio-economic aspects the inequality in educational attainment by gender, location and income is a prominent problem in India as well as in Andhra Pradesh. To address the gender inequality in educational attainment there are gender sensitive schemes/programmes in order to improve the enrolment and retention of girl children.

Despite the efforts drawn towards achieving equity in the elementary education through DPEP and SSA, still there appears to be differences in school attendances rates of 5-14 age children in the state (Table 2.4). Although the progress in terms of reducing inequalities in attendance rates is commendable, the ultimate aim of equity and universalisation of elementary education among all the relevant age group children irrespective gender, caste and other socio-economic characteristics is yet to be achieved.

**Table 2.4: School Attendance Rates (%) among 5-14 year Age Children by Gender, Location and Social Groups in Andhra Pradesh**

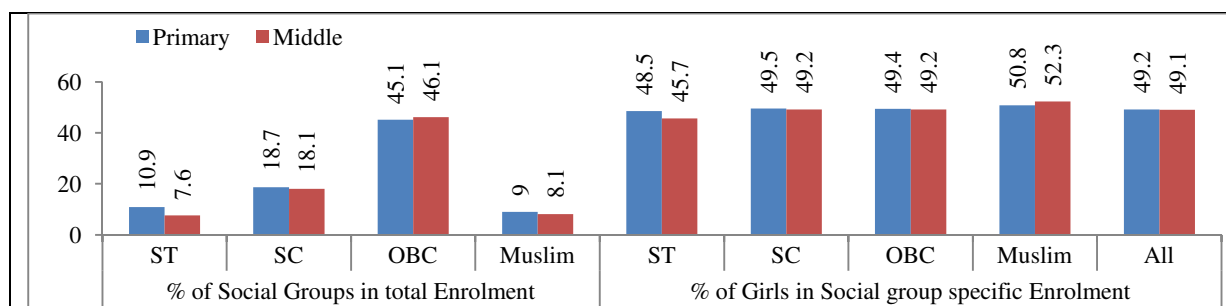
Year	Gender		Location		Social Group			Total
	Male	Female	Rural	Urban	ST	SC	Others	
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
1995-96	71.6	64.4	62.8	82.4	47.7	57.7	72.8	68.2
2007-08	91.8	87.5	84.0	89.4	83.1	89.6	90.4	89.7
2009-10	95.2	93.6	93.9	95.8	82.0	94.4	95.6	94.5
<b>Change (1996-2008)</b>	<b>14.6</b>	<b>28.2</b>	<b>31.1</b>	<b>13.4</b>	<b>34.3</b>	<b>36.7</b>	<b>22.8</b>	<b>26.3</b>

**Note:** 1. Attendance rates are group specific ones – among male, female, rural, urban, ST, SC and Others group children; 2. Change during 1996-2010 indicates an improvement in group specific attendance rates.

**Source:** Using NSS 52<sup>nd</sup> (1995-96) and 64<sup>th</sup> (2007-08) Rounds Literacy and Participation in Education Survey (Sch. 25) unit record data.

The latest DISE State Report Card shows that the share of children belonging to ST, SC, OBC social groups and Muslim religious minorities in the total enrolment in elementary classes in the state is almost proportionate with the respective group's share in the total population of the state (Figure 2.3). As regards the gender, across social groups except among ST children, female children are proportionately representing in the group-specific and in the total enrolment in elementary classes in the state.

**Figure 2.3: % Share of Social Groups in the Total Enrolment at Elementary Level in Andhra Pradesh, 2009-10**



**Source:** DISE, 2009-10.

Although all the social groups in the state are proportionately (with respect to their share in the population) representing in the total enrolment at elementary level, the group specific

attendance rates among the children of 5-14 years age are varying by gender, location, and caste especially between ST and others.

Despite the proportional representation of gender, social and other minority groups in the enrolment at elementary level, the retention/dropout rate and completion rates vary. The difference in completion rates explicit from the Figure 2.4 presented above. By gender, female children are having primary (for 13-14 age groups) and middle completion (15-16 age group) rates lower than their male counterparts in the state. Similarly rural children are having lower completion rates than their urban counterparts. Across social groups, the children belonging to ST and SC communities are not faring well when compared to the other social groups in terms of completion rates. Universalisation elementary completion of relevant age group children is possible with universalisation of enrolment of children at the right age and universal retention in the elementary school system with a promotion to subsequent classes without repetition/stagnation and dropout.

### *Quality of Schooling*

The quality of schooling itself is an important factor in raising the demand for schooling and thereby the enrolment and retention rates. Although the progress in terms of quantitative expansion of the elementary school education is considerable over a period especially during the last two decades, the quality of schooling is a cause of concern. The ASER 2011 shows that about 40% of Class V students in the state could not read even the text of level (Standard) 2. In terms of numerical abilities, about 60% of Class V students in the state could not perform divisions.

**Table 2.4: Class-wise Distribution (%) of Children by their Reading and Arithmetic Level in Andhra Pradesh, 2010**

Standard /Class	Reading Level						Arithmetic Level					
	Nothing	Letter	Word	Level 1	Level 2	Total	Nothing	Recognizing		Subtract	Divide	Total
	2	3	4	5	6	7	8	9	10	11	12	13
I	21.3	45.9	22.7	7.1	3.1	100	18.3	40.6	35.8	3.4	1.9	100
II	6.8	27.7	39.8	17.8	7.9	100	4.2	20.7	54.7	17.7	2.7	100
III	2.8	13.7	33.5	27.0	23.0	100	2.3	9.4	44.3	35.2	8.7	100
IV	1.4	7.3	17.7	30.2	43.5	100	1.3	4.3	27.4	43.0	24.0	100
V	0.8	4.7	10.4	23.8	60.3	100	0.7	2.7	18.3	37.7	40.5	100
VI	1.0	2.5	6.8	17.7	72.1	100	0.4	1.3	12.9	33.4	52.1	100
VII	0.6	1.7	5.1	13	79.6	100	0.5	1.2	12.1	26.3	59.9	100
VIII	0.3	1.1	3.1	9.2	86.3	100	0.2	0.8	8.1	21.7	69.2	100
Total	4.5	13.4	17.7	18.5	45.9	100	3.6	10.4	27.1	27.6	31.4	100

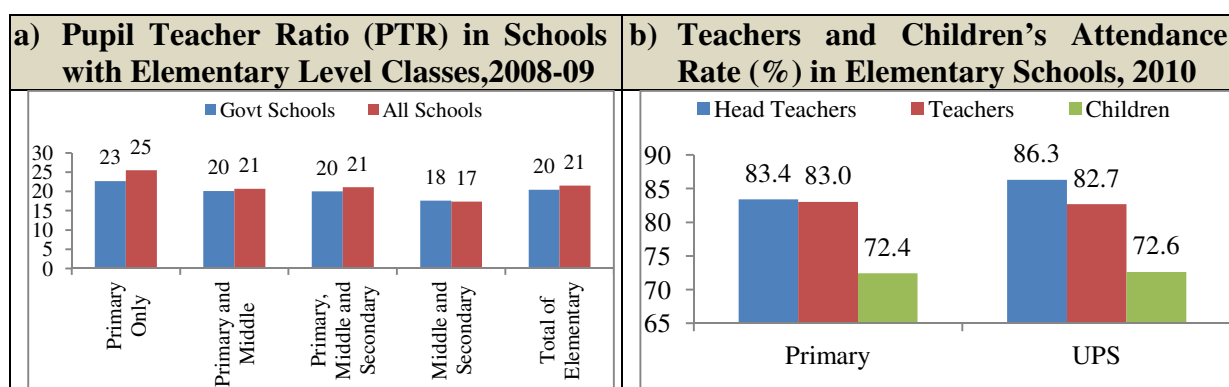
**Note:** 1. Reading and Arithmetic level indicates what extent child can perform well; 2. Level 1 refers to Standard 1 Text and Level 2 of Standard 2 Text.

**Source:** ASER, 2010.

The important aspects that factors in the quality of schooling are adequate number of Teachers, Classrooms and Infrastructure, Teachers’ Training, Teaching and Learning Materials, Teaching method and Classroom learning.

In terms of teacher-pupil ratio (TPR), the state of Andhra Pradesh appears to be it has gone beyond the normative TPR at the aggregate (state) level as well as at the school level. The number schools with TPR below normative (40 or 30) level in the state are very meagre.

**Figure 2.4: PTR and Teacher Attendance Rate in Andhra Pradesh**



Source: DISE, 2008-09.

Source: ASER, 2011.

The above analysis indicates now it is the time for improving quality of schooling which itself increases the demand for schooling.

## 2.2 Secondary

On the one hand, as mentioned above, a mere eight years of elementary education would be grossly inadequate for our young children to acquire necessary skills to compete in the job market. On the other hand, thanks of DPEP and SSA initiatives, increasing enrolment and retention rates in elementary classes resulted in increasing the number of elementary graduates which in turn increased the demand for secondary schooling. Having recognised importance of secondary school education, the Government of India has launched Rashtriya Madhyamik Shiksha Abhiyan (RMSA) in 2009 with a goal of universalisation of secondary education (USE) by 2022. The state of Andhra Pradesh is also making efforts in this respect.

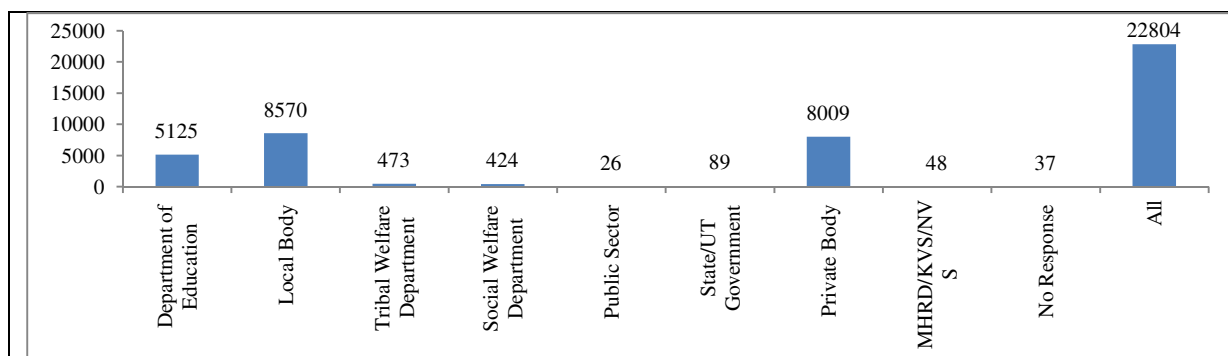
### Access

The number of secondary schools in the state has shown a rapid growth during the last two decades (see Figure 2.1c). During the last decade many of the middle schools in the state are upgraded to secondary level. The Secondary Education Management Information System (SEMIS) 2009-10 shows that there are 22,804 schools in the state available for (lower)

secondary classes (i.e. VIII, IX and X) and across states, Andhra Pradesh is the second largest Indian state next to Rajasthan in terms of number schools available for secondary classes. Availability of schools for secondary classes, given the state population at 8.5 crores, indicates that there are 27 schools, on an average, per lakh population in the state.

By management, Local Bodies and the Local Bodies (Zilla Parishads and Municipalities) manage maximum number of secondary schools. Private bodies manages about one-third of the total secondary schools in the state. About one-fifth of the schools are managed by the Department of Education.

**Figure 2.5: Number of Schools for Secondary Classes by the Management in Andhra Pradesh, 2009-10**



**Note:**

**Source:** SEMIS, NUEPA.

In terms of population coverage of schools by distance, from the Figure 2.2 it can be observed that only 10% of population in the state is beyond the coverage of schools with secondary classes within a 5 Kms distance.

With respect to higher/senior secondary education (i.e. Class/Grade XI and XII), Andhra Pradesh is one of those states having unique system. The higher secondary classes (XI and XII) in the state separated from the secondary school education system and brought under Intermediate Board.

In terms of access, the number of colleges/institutions available for higher secondary classes increased over time especially during the last two decades. At present there are around 5000 junior colleges available for higher secondary classes (XI and XII) in Andhra Pradesh. It includes college of general education and vocational education at higher secondary level. More than half of these colleges are managed by private bodies without any Government aid. There are about 13 government residential junior colleges (APRJC) in the state.

**Table 2.5: Number of Junior Colleges Available for Higher Secondary Classes (XI and XII) by Type of Management in Andhra Pradesh, 2011-12**

Sno	Category	Number	%
1	APRJC	13	0.2
2	Co-operative	99	1.9
3	Disabled Welfare	2	0.0
4	Government	806	15.5
5	Govt. Vocational Junior Colleges	12	0.2
6	Govt. of India	10	0.2
7	Incentive	175	3.4
8	Private Aided	275	5.3
9	Private Unaided	2850	54.8
10	Railway	4	0.1
11	Social Welfare	200	3.8
12	Tribal Welfare	58	1.1
13	Private Vocational	698	13.4
<b>Total</b>		<b>5202</b>	<b>100</b>

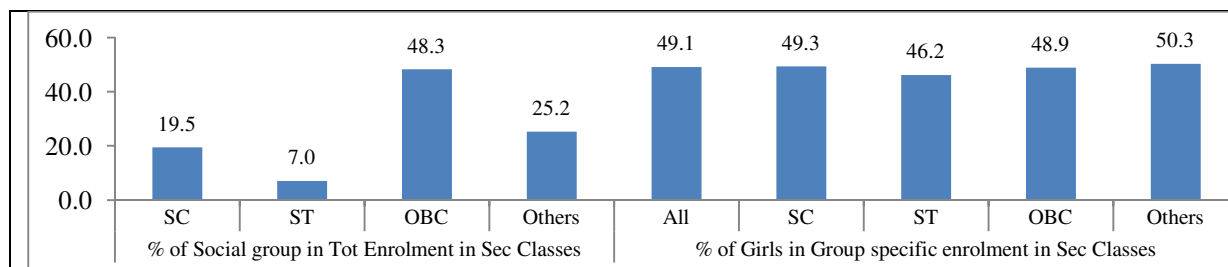
**Note:** Including institution providing vocational courses at higher secondary (10+2) level.

**Source:** Socio-Economy Survey (2011), Andhra Pradesh.

### ***Enrolment, Retention and Equity***

The enrolment in secondary classes in the state has also has grown very rapidly. The recent and latest Secondary Education Management Information System (SEMIS, 2009-10) data shows that the enrolment in secondary classes (i.e. Class IX and X) is around 20.8 lakhs in the state and the estimated population of secondary school age (14-15 years) is around 32.5 lakhs. Therefore the gross enrolment ratio (GER) at secondary classes (i.e. Class IX and X) is 64% in the state for the year 2008-09.

**Figure 2.7: Representation (%) of Social Groups in Enrolment in Secondary Classes (IX and X) in Andhra Pradesh, 2009-10**



**Source:** SEMIS

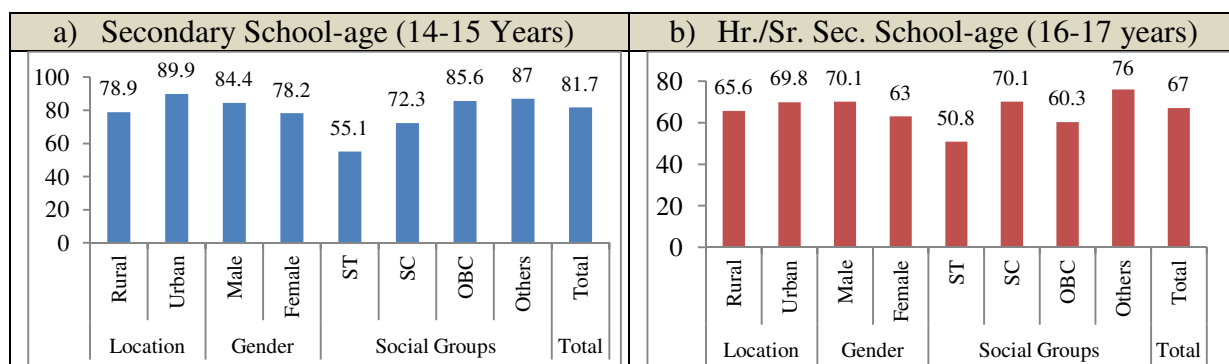
In terms of equity when examined representation of social groups in the total enrolment in secondary classes, SC children in the enrolment is on far with proportion of SCs in the total population of state. For STs, the representation in enrolment in secondary classes is below their share in the population. With respect to gender equity in secondary enrolment, it appears



that equity is almost achieved at the overall level. But across social groups especially among STs and OBCs the share of girls in the group-specific enrolment (total ST and OBC children enrolled) in secondary classes is lower than their share in the population.

For the universalisation of secondary education two factors are important: elementary completion rates and school attendance rate among the secondary school-age children. In terms of school attendance rate of secondary school age children, irrespective of the class that they are attending, shows that by the age-specific attendance rate of secondary school age (14-15 and 16-17 years), 82% of the secondary school-age (14-15) children and 67% of the higher/senior secondary school-age (16-17 years) children are attending schools. Although this attendance rate does not ensure their attendance in secondary classes, the attendance rate is important.

**Figure 2.8: Attendance Rate (%) of Secondary School-Age Children across Social Groups in Andhra Pradesh, 2009-10**



**Note:** Refers to percentage attending in relevant age group in each social group.

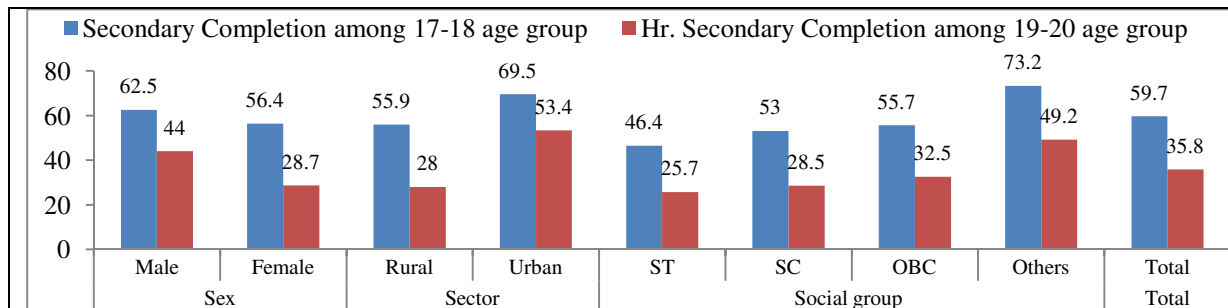
**Source:** Estimated using NSS 66<sup>th</sup> (2009-10) Employment and Unemployment Survey unit record data.

Secondly, the elementary completion rate among the secondary school-age children and the transition from elementary to (lower) secondary classes and then to higher secondary classes are important aspects of the secondary education system. According to DISE data there were 11.61 lakh children enrolled in class VIII in the state during 2008-09 and the number of children in the state enrolled in Class IX in the subsequent year (200-10), according to SEMIS data, were 10.6 lakhs. It indicates a gap in terms of transition from elementary to secondary level. Further the retention in secondary level classes another problem. Similarly there exists a gap in terms of transition from lower secondary to higher secondary classes.

Having such internal efficiency problems wastage and stagnation owing to dropouts and repetition, the completion rate of secondary level is even lower than that of elementary level.

Around 60% of children in the 17-18 years age have completed their secondary education and the rest might have dropped out before reaching secondary level.

**Figure 2.9: Secondary Completion Rates in Andhra Pradesh, 2009-10**



**Note:**

**Source:** Estimated using NSS 66<sup>th</sup> (2009-10) Employment and Unemployment Survey unit record data.

One of the constraints in terms transition from lower secondary to higher secondary is the pass percentage in the metric (SSLC) examination. Then the percentage of passed or lower secondary graduates enrolled for the higher secondary classes. Although over a period the pass percentage in SSLC examination has increased, still one-fifth of the children appeared for the SSLC examination in the state could not get through. Although gender differences are appeared to have been negligible, difference in pass percentage across social groups is substantial wherein SC students are lagging behind even from the ST students.

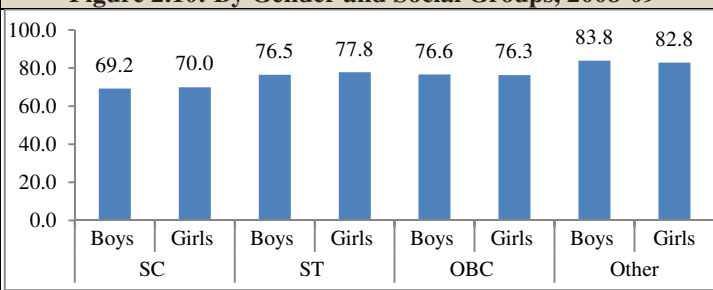
**Pass Percentage in X Class Examination in Andhra Pradesh**

**Table 2.6: By Gender during last 5 years**

Year	Boys	Girls	Total
1996-97	56.9	56.3	56.7
2000-01	64.8	65.6	65.1
2005-06	73.2	73.1	73.2
2006-07	71.5	71.8	71.7
2007-08	75.1	75.8	75.5
2008-09	78.6	79.1	78.8
2009-10	81.3	82.0	81.6
2010-11	82.7	83.5	83.1

**Source:** Socio-Economic Survey, Planning Department, GoAP, Hyderabad.

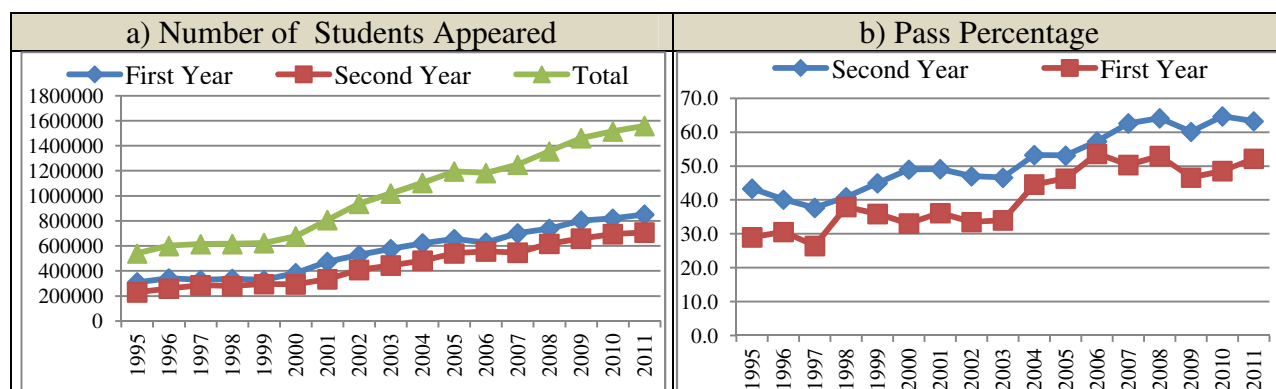
**Figure 2.10: By Gender and Social Groups, 2008-09**



**Source:** SEMIS, NUEPA.

With respect to the senior secondary level, the number of students in the state appeared for the Board of Intermediate exam has been continuously increasing especially since mid-1990s. The passing out percentage is also increasing over time.

**Figure 2.11: Pass Percentage at Senior Secondary/Intermediate Level in Andhra Pradesh**



Source: Board of Intermediate, GoAP, Hyderabad.

On the whole one may say that the RMSA goal of universalisation of secondary education is directly linked with the universalisation of elementary education. Universalisation of secondary education for the secondary school age children (14-15 age group) may not be possible unless all of this age group children had completed elementary schooling. Otherwise the possible outcome would be universalisation secondary education for those who have completed the elementary schooling.

### *Quality of Secondary Education*

Quality of schooling is important factor at the secondary level. The quality of schooling can be seen in terms of the following parameters: Teacher, Classrooms, Infrastructure, Teachers' Training, Teaching and Learning Materials, Teaching method and Classroom learning process. The recent SEMIS data shows that in terms of school infrastructure around half of the secondary schools in the state do not have library and laboratory.

**Table 2.7: Secondary Schools in Andhra Pradesh Without Facilities, 2008-09**

Sno	Parameter/Indicator	Number	%
<b>Total Number of Schools</b>		<b>22408</b>	<b>100</b>
1	Single Teacher Schools	365	1.6
2	Single Classroom Schools	682	3.0
3	Without Classrooms	7533	33.6
4	Without Library	11285	50.4
5	Without Laboratory	11081	49.5
6	Without Teachers	8605	38.4
7	Without Enrolment	5710	25.5
8	Without Building	3898	17.4
9	Without Computer	10738	47.9
10	Without Water	1747	7.8
11	Without Electricity	2657	11.9
12	Without Toilets	6001	26.8
13	Without Toilets for Girls	7226	32.2

Note:

Source: SEMIS, 2008-09.

In terms of sufficiency of classrooms and teachers, for the academic years 2008-09, according to SEMIS there are xxx classroom and more than two lakhs teachers available for secondary classes in the state. More than one-thirds of schools/institutions available for secondary classes in the state do not have even a single classroom/teacher available for these classes.

### **III Technical and Higher Education**

#### ***3.1 Vocational Education***

The vocational education is a distinct stream of education intended to prepare students for identified occupations spanning several areas of activity. The aims and objectives of vocational education are: to diversify a segment of children/youth at the higher/senior secondary stage to the world of work by linking education with productivity, economic development and individual prosperity; to meet the skilled and middle level manpower needs of the growing sectors of the economy – both organised and unorganized; to reduce the mismatch between demand and supply of manpower; to prepare students for self-reliance and gainful employment and; finally to prevent aimless pursuit of higher education.

As a policy concern, vocational education in India received its due attention soon after the independence in the Radhakrishnan Commission (1948) recommendation<sup>3</sup>. The Secondary Education Commission (1952) also emphasized need for vocational education<sup>4</sup>. Then the Kothari Commission (1964) and subsequent National Policy on Education (1968) . In the Kothari Commission's restructuring of education system to 10+2+3 pattern, distinct streams of general and vocational education at the higher secondary stage were recommended<sup>5</sup>. Subsequently, the Central Advisory Board of Education (CABE) entrusted the NCERT in 1975 to prepare curricula and help the State Governments in implementing Vocational Education. The vocational education programme at higher secondary stage was thus initiated in 1976<sup>6</sup>. As a result the vocational education at higher/senior secondary level came into

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<sup>3</sup> The Commission said that in order to direct students to vocations at the end of class X, a large number of intermediate colleges should be opened. "The aim of these colleges would be to meet a variety of needs of our young men and women by giving a vocational bias to their courses by retaining at the same time their value in a system of general education as preparation for university courses".

<sup>4</sup> "the secondary education is a complete unit by itself and not merely a preparatory stage, that at the end of this period, the student should be in a position, if he wishes, to enter into responsibility of life and take up some vocations". It also recommended diversification of the course at the secondary stage. This resulted in the creation of multipurpose schools.

<sup>5</sup> with an intention of intercepting the goalless climb-up of the youth on the educational ladder and diverting them to a productive path.

<sup>6</sup> when the NCERT document "Higher Secondary Education and its Vocationalisation" was presented to the country setting out a conceptual framework for implementation.

existence. The National Policy on Education (1986) and subsequent Plan of Action (1992) has also accorded very high priority to the programme of Vocationalization of Education<sup>7</sup>. However, the progress of implementation has been very slow in India as well as in Andhra Pradesh because of inadequate resources, lack of proper management system, inadequate teacher training etc.

**Table 3.1: Number of Colleges Running Vocational Courses (at 10+2 Level) in Andhra Pradesh, 2009**

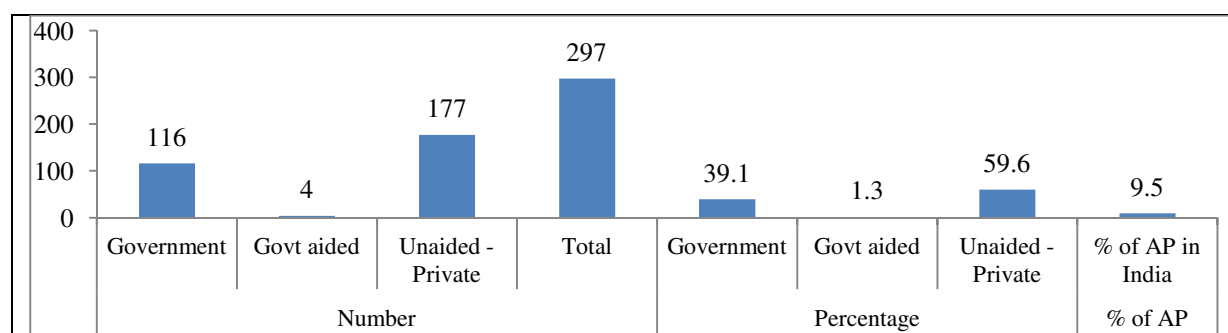
Description		Number
<b>Junior College running Vocational Courses</b>		
A	Government Junior Colleges	369
B	Private Aided Junior Colleges	91
C	Private unaided Junior Colleges (including exclusive vocational junior colleges)	281
D	Private Unaided Exclusive Voc Junior Colleges	129
E	A.P.S.W.R. Vocational Junior Colleges	05
<i>Total</i>		<i>746</i>
<b>Total Sections sanctioned by Government of Andhra Pradesh</b>		<b>1680</b>

**Note:** APSWR – Andhra Pradesh Social Welfare Residential.

**Source:** Hand Book on Vocational Education in Andhra Pradesh, Board of Intermediate, Hyderabad.

In Andhra Pradesh the number of institutions imparting vocation course at higher secondary levels are increasing over a time. There are about 746 such institutions in the state and providing more than 30 vocational courses. In addition, there are Industrial Training Institutes (ITIs). The other forms of institutions providing vocational education are Polytechnics. Although they are part of technical education, they impart multiple vocational courses and life skills. There are about 300 polytechnic institutes in Andhra Pradesh. A majority of them are under private (unaided) management.

**Figure 3.1: Polytechnic Colleges in Andhra Pradesh**



**Source:** AICTE – <http://www.aicte-india.org/statistics.htm>.

<sup>7</sup> It states that and that vocational courses will ordinarily be provided after the secondary stage, but keeping the scheme flexible, they may also be available after class VIII. It envisages, children at the Higher Secondary level are imparted generic vocational courses which cut across several occupational fields and which are not occupational specific.

Herein one can say that the number of institutions providing vocational courses seems to be inadequate given the rising demand for education and life skills and the demand for skilled labour in the industry especially at the lower and middle level skilled manpower. Moreover the quality of education that the existing institutions provided is a matter of concern. Knowledge and acquiring a relevant skill and application of acquired skill in the practical world is relevant for the graduates in vocational education. The quality and relevance of vocational education involved with identification of relevant vocational courses which meets the demand for particular skill in the industry, relevance of curriculum, teaching-learning process, adequate infrastructure, human and financial resources etc.

### **3.2 Higher and Technical/Professional Education**

In the emerging knowledge based economies, development of human resources with educational levels beyond schooling are essential. With respect to higher education including professional, technical and general education, the state has shown a remarkable progress. The 1990s was the watershed point in terms of the growth of number of institutions available for higher education. Thereafter to till date there is rapid growth in number of institutions. In 2007-08 there are 420 degree colleges, about 28 universities, and 25 medical colleges in the state. Besides there are number of polytechnic, business management and other training institutes in the state. The state is having higher number of engineering colleges than degree colleges. The strength of the state is intake and outgoing professionals out of these higher educational institutes.

**Table 3.2: Higher Education Institutes in Andhra Pradesh, 2007/8**

Sno	Colleges	Number		Per 10M pop		Per lakh Sq Km GA	
		AP	India	AP	India	AP	India
<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>	<b>6</b>	<b>7</b>	<b>8</b>
1	Number of Degree Colleges	420	11698	51	103	153	356
2	Number of Universities	28	337	3	3	10	10
3	Number of Medical Colleges	25	2063	3	18	9	63

Source: 1. DES (2009); 2. APSHE; 3. MHRD.

The coverage of these higher education institutions in terms of population indicates there are 51 degree college, 3 universities, and 3 medical colleges per 10 million population in the state. In terms of geographical coverage there are 153 degree college, 10 universities, and 9 medical pharmacy colleges per lakh Sq. Kms. of geographical area of the state. When compared with all-India average in terms of coverage, the state is relatively better in terms of engineering colleges only, for the other institutions the is having lesser number of institutions per 10 million population.

When it comes to technical and professional education, there is rapid growth in number of institutions and intake capacity especially during last one and half decade. Around one-fifth of engineering colleges, more than one-third of management colleges, more than half of MCA colleges and one-fourth of the total pharmacy colleges in the India are located in Andhra Pradesh. All that it indicates that technical and professional education institution in India are highly concentrated in Andhra Pradesh. Similarly the intake capacity of these technical and professional educational institutions in the state hold highly disproportionate share in the total at all India level. Most of the growth in these technical and professional education institutions in the state is observed in the private sector. The proliferation of private sector in the technical and professional education domain has its ramification in terms of quality of education.

**Table 3.3: Number of Technical/Professional Education Institution and their Intake Capacity (Seats) in Andhra Pradesh, 2011-12**

Sno	Course	No of Institutions			Intake Capacity		
		AP	India	% of AP	AP	India	% of AP
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>
1	Engineering	709	3393	20.9	304080	1485894	20.5
2	Management (MBA)	926	2385	38.8	86905	352571	24.6
3	MCA	644	1228	52.4	46795	92216	50.7
4	Pharmacy	290	1137	25.5	29520	102746	28.7
5	Others	15	349	4.9	-	-	-

**Note:** 1. % of AP to All India; 2. Others – include Applied Crafts, Architecture, and Hotel Management.

**Source:** AICTE Website <http://www.aicte-india.org/statistics.htm>.

In terms of participation rates of youth in the higher education as shown in the Table 1.1.1, it has improved remarkably in the state during the last one and half decade. The participation rates in educational institutions for the 15-19 age youth has improved from 28.5% during 1990s (1995-96) to 59.3% in the recent past (2009-10). Similarly for the 20-25 years age youth, the participation rates have improved from 5.7% in 1995-96 to 17.8% in 2009-10. When compared to the all India average, the participation rates of youth in the educational activities/institutions in the state almost similar.

However, the cause of concern is the quality of higher and technical/professional education provided in the state. In order to nurture a large number of highly intelligent postsecondary students in a proper manner and thereby knowledge and intellectual base of the country, quality of higher, technical and professional education emerges as the issue of paramount importance.

In the technical education domain, the Indian Engineering Education represents one of the largest educational systems in the world. Andhra Pradesh is contributing substantially to the total number of engineering graduates in India. The recent rapid expansion in the domain of technical education has come at the cost of quality education, particularly noted in case of engineering education in India particularly in Andhra Pradesh (See Biswas et al, 2010, Aspiring Minds, 2012). In the practical world any vocational, technical or professional education is relevant for the graduate if it meets the needs of the industry. Academic programs have to be evaluated and revised periodically so they endow graduates with skills pertaining to different sets of activities.

#### IV Literacy and Adult Education

Literacy and adult education another important that needs urgent policy concern in the state. Although the performance of the state in terms schooling and higher education improved and state has emerged as one of the better performing states in India, in terms of literacy Andhra Pradesh remained as one of the backward states.

Over a period especially since 1961, the improvement in overall literacy rate in the state is the largest during the 1980s (14 percentage points increase between 1981 and 1991) and 1990s (17 percentage points increase between 1991 and 2001). During the last decade (i.e. between 2001 and 2011) the improvement in the literacy rate of the state is around 6.6 percentage points which is very low when compared to its performance in the previous decades.

**Table 4.1: Literacy Rate (%) in Andhra Pradesh and India**

Year	Andhra Pradesh			All-India		
	Person	Male	Female	Person	Male	Female
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>
1961	21	30	12	28	40	15
1971	25	33	16	34	46	22
1981	30	39	20	44	56	30
1991	44	55	33	52	64	39
2001	61	71	51	65	76	54
2011 <sup>\$</sup>	67.66	75.56	59.74	74.04	82.14	65.46

**Note:** 1. \$ - Provisional Figures; 2. Literacy is for 5 + age population till 1981, thereafter it is for 7 + age population.

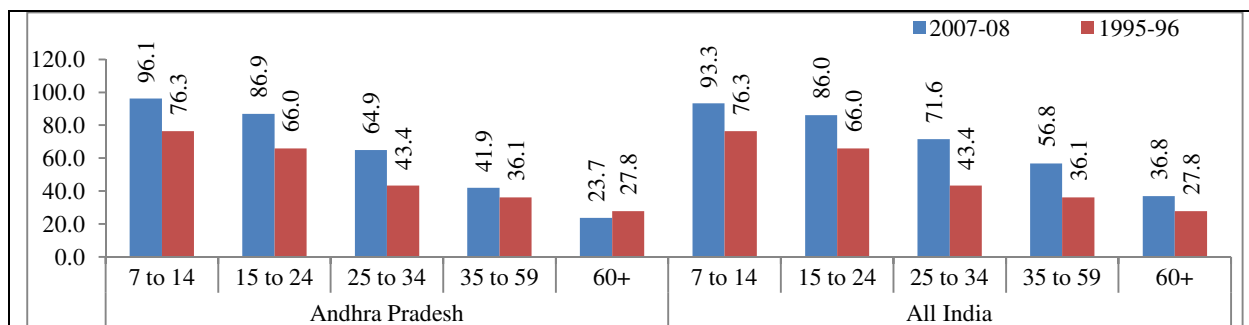
**Source:** 1. Census of India.

Age group specific literacy rate varies across age groups wherein the literacy levels declines along with the higher age groups. Moreover, the improvement in the literacy rate over the



period is relatively higher among the younger age groups than that of the adult and older age group (Figure 4.1). But the specific targeted adult literacy programmes can improve the literacy levels among the adults and older age groups.

**Figure 4.1: Improvement in Literacy Rate (%) by age groups in A P and India**

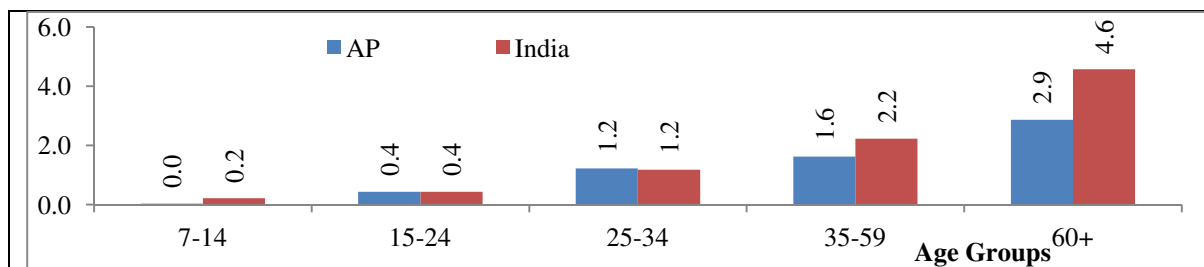


**Note:** Age group specific literacy rates.

**Source:** Based on the unit record data of NSS 52<sup>nd</sup> (1995-96) and 64<sup>th</sup> Round (2007-08) Surveys on Literacy and Participation in Education (Sch. 25).

There are different means i.e. formal and informal ways and non-formal educational programmes, that impart basic skills (reading, writing and numeracy) required for literacy – formal schooling and informal methods. When observed the percentage of those literates who have become literates (or who acquired literacy skills) through all the informal ways and through non-formal educational programmes or adult literacy programmes to the total literates in the state are very marginal (below one percent among 7 + years age literates). When we refer it as the percentage of literates without formal schooling, by age groups the share is increasing marginally. The percentage is higher (around 3%) among the older age groups (60 + years age). However, when compared to all India average, the percentage of literates without formal schooling is lower in the state across age groups (Figure 4.2).

**Figure 4.2: Percentage of those who became Literates without Formal Schooling (through Informal/Non-formal Education) to the Total Literates by age groups in Andhra Pradesh and India, 2007-08**

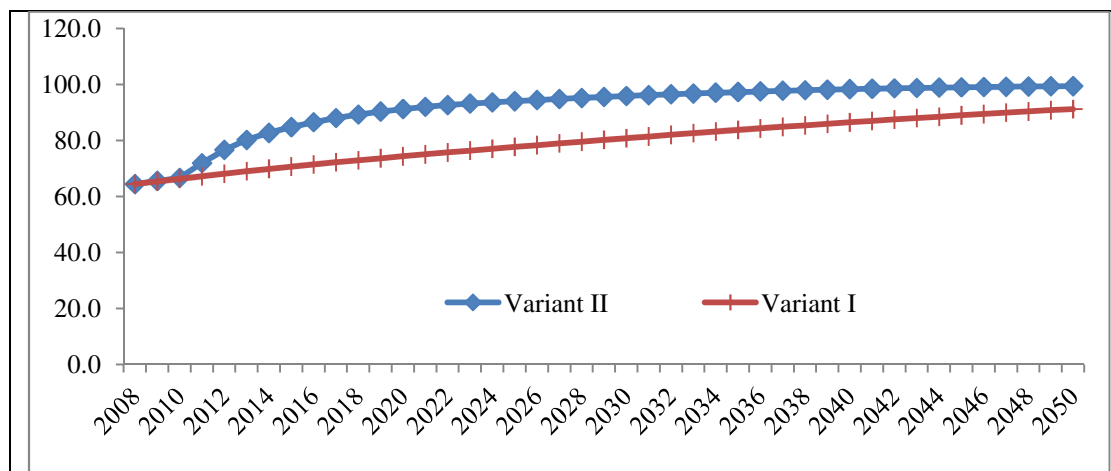


**Note:** 1. Age group specific percentages; 2. Informal/Non-Formal Education includes Total Literacy Campaign (TLC), NFEC, AIEP, AEC, and others.

**Source:** Based on the unit record data of NSS 64<sup>th</sup> Round (2007-08) Surveys on Literacy and Participation in Education (Sch. 25).

In this respect, an attempt through simulation exercise that explored the prospects of literacy levels in the state indicates that unless the state policy concentrates on improving adult literacy and hence designs appropriate programmes especially for illiterates of both the 15-35 and 35 to 60 age groups and implements them rigorously, achieving 100% literacy rate in the state is simply not possible in the near future (even by 2050).

**Figure 4.3: Projected Literacy Rate (7+ age Population) in Andhra Pradesh**



**Note:** 1. Variant I is normal course - literacy through formal schooling during the childhood; Variant II is through policy intervention – Adult literacy programmes.

**Source:** Ravi and Venkatanarayana (2012).

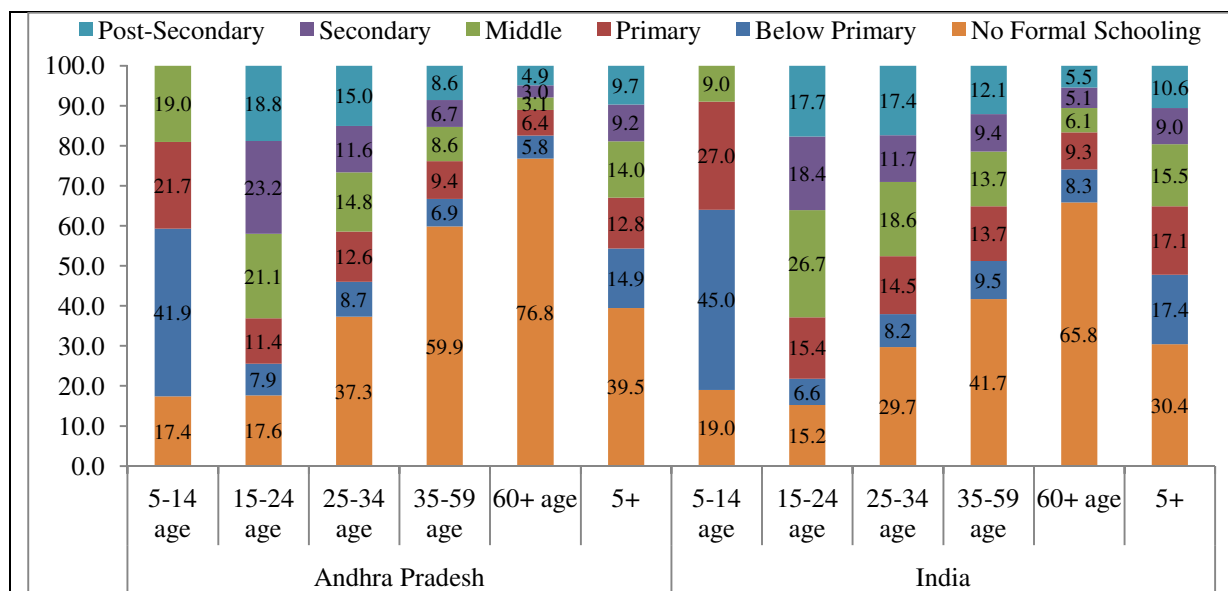
Hence, there is a strong need for rejuvenating the State Literacy Mission (SLM) and designing state specific adult literacy programmes if the policy making body in the state is intend to achieve 100% literacy rate in the near future. The Total Literacy Campaign (TLC) under the National Literacy Mission (NLM) of India targets only 15-35 age group illiterate population. But there is a sheer need to target the 35 to 60 age group illiterates and even the older age illiterate population under the adult literacy programmes in order to achieve 100% literacy rate in the state in the near future. Unless the state improves its literacy levels remarkably, it will remain one of those poor performing states in India in terms of human development index (HDI) and ranking of states based it. Because education is one of the three components with one-third weight each involved in the computation of HDI. Adult literacy is one of the two sub-components and accounts two-thirds of weight in the education component.

## V Skill Development

About half of the population in Andhra Pradesh are working - engaged in one or the other activities. But the concern is not only the quantity of labour force but the quality and thereby productivity of the labour force that makes difference in the development process. The improvement in quality of labour has direct implications for the economic status and well-being at the household level and growth of economy at the macro level. The improved quality of labour force increases the productivity of the labour and thereby their earnings. Therefore the policy concern must be improvement in quality of the labour force.

The basic minimum quality factor for the population in the human development perspective as well as for labour force in the productivity perspective in any economy is literacy level. But Andhra Pradesh is considered to be one of backward states in India in terms of literacy rates. Beyond literacy level, the educational levels are important for the quality of population as well as labour force. In Andhra Pradesh for the older age groups/cohorts (60+) more than three-fourths of population did not have any kind of formal schooling and in the younger age cohorts it is less than one-fifth of the respective age group population which did not have formal schooling. It indirectly indicates that over a period, the proportion population without formal school has been declining in the state and there is a corresponding increase in the population having formal schooling. However, when compared to all-India averages across age cohorts the percent of population without formal schooling is higher in the state.

**Figure 5.1: Levels of Education in the Population by Age Group, 2007-08**



Source: NSSO 64<sup>th</sup> Round (2007-08) Employment and Unemployment (Sch. 25.2)

Similarly, literacy levels among the adult workers (15+ age person in the workforce) indicate that about half of the workforce in the state are illiterates (Table 5.1). But the higher literacy levels among younger age cohort workers than that of older age cohorts indicates the improvement over a period. Similarly, with respect to the formal schooling, about half of the adult workers in the state did not have any kind of formal schooling. When compared to all-India average, the literacy level and formal schooling level among workers in the state are lower.

**Table 5.1: Educational Level of Workers by Age Group in Andhra Pradesh, 2007-08**

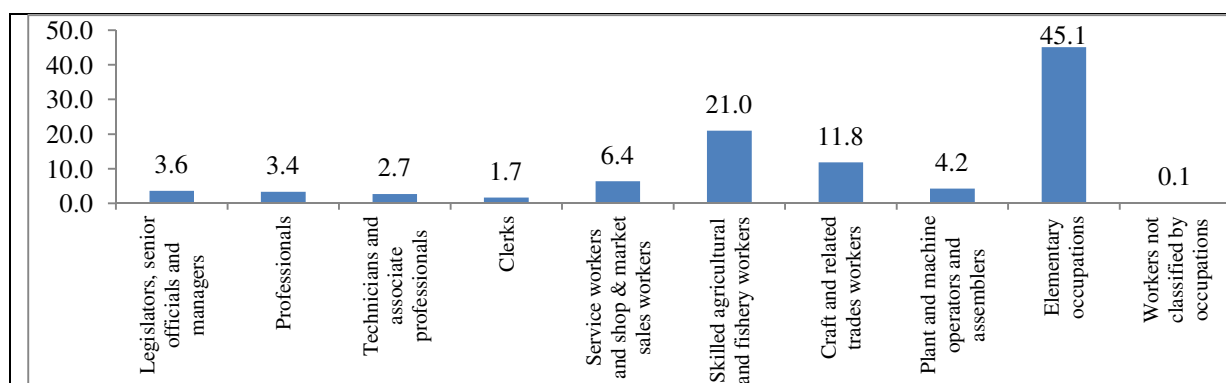
Education Level	Andhra Pradesh					All India				
	15-24	25-34	35-59	60+	15+	15-24	25-34	35-59	60+	15+
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>	<i>10</i>	<i>11</i>
<b>Literacy</b>										
Illiteracy	24.4	39.4	61.2	74.9	48.9	19.3	27.9	42.2	62.7	35.7
Literacy	75.6	60.6	38.8	25.1	51.1	80.7	72.1	57.8	37.3	64.3
<i>All</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>
<b>Formal Schooling</b>										
No Formal Schooling	25.1	40.1	61.7	75.2	49.5	20.0	28.9	43.5	64.2	36.8
Below Primary	11.1	9.5	6.8	7.3	8.5	9.5	8.4	9.1	9.3	9.1
Primary	17.1	12.6	8.6	8.5	11.5	20.4	15.2	13.0	11.0	15.0
Middle	21.1	14.0	8.2	3.8	11.9	26.4	19.1	13.1	6.3	16.6
Secondary	16.3	10.4	6.0	2.0	8.8	12.4	11.6	8.9	4.7	9.9
Post Secondary	9.3	13.5	8.7	3.2	9.7	11.3	16.9	12.4	4.5	12.7
<i>All</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>	<i>100</i>

**Note:** Workers – Usual principal and subsidiary status.

**Source:** Source: NSSO 64<sup>th</sup> Round (2007-08) Employment and Unemployment (Sch. 25.2)

When examined percentage of workforce engaged in different occupations categorised by skill levels, very high percentage, around half of the workforce in Andhra Pradesh is engaged in elementary occupations in the state (Figure 5.2).

**Table 5.2: Percentage Distribution of Total Workforce in Andhra Pradesh by Different Occupations Distinguished by Skills, 2009-10**

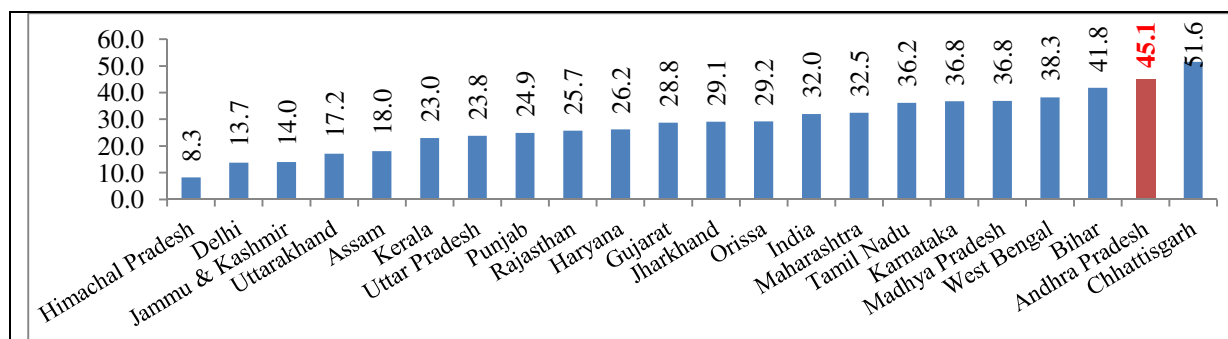


**Note:** percentage of total Workforce involved in elementary occupations.

**Source:** NSS 66<sup>th</sup> (2009-10) Employment and Unemployment Survey Report.

Moreover Andhra Pradesh stands on the top next to Chattisgarh in terms of states having high percentage of workforce involving in elementary occupations (Figure 5.3). It indicates the state's poor performance in terms of skill development of its labourforce.

**Table 5.3: Percentage of Workforce Engaged in Elementary Occupations across Major States in India, 2009-10**



**Note:** percentage of total Workforce involved in elementary occupations.

**Source:** NSS 66<sup>th</sup> (2009-10) Employment and Unemployment Survey Report.

On the whole the above analysis indicates the demographic dividend of the state at present is relatively higher than that of the country average. But the relative advantage of the state may not last for longer time as the proportion of younger age cohorts in the distribution is declining faster in the state than that the all-India average. The entry of lower size younger age cohorts into working age group in the state and the cohorts' transit through the working age group over a period reduces the state's relative advantage. Therefore the state has to take advantage of relatively higher demographic dividend and garner it as early as possible.

Definitely bulging working age population is a demographic dividend and advantage for the growth of economy. However, it may turn into liability/disadvantage unless and until it is properly harnessed. The demographic dividend may turn into over surplus labour and led to unemployment and under employment or disguised unemployment.

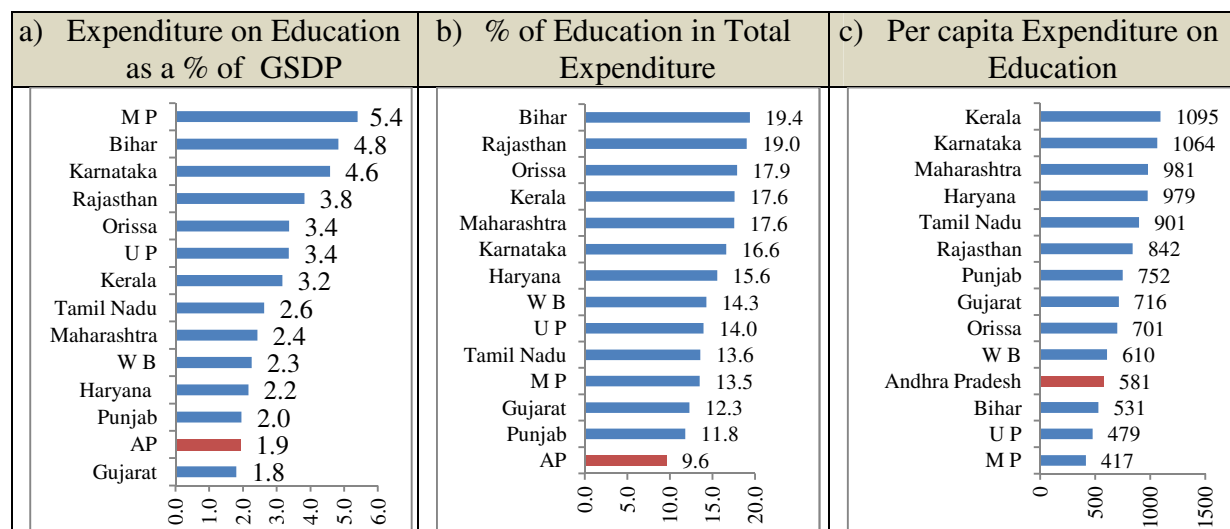
In the Andhra Pradesh state context one of lacunae in harnessing the demographic dividend is low levels of literacy and educational levels of the population especially in the working age population. In this regard the state policy has to focus on improving the literacy and educational levels in the population. Although for the younger age the literacy level and attendance in educational institutions is relatively better in the state than that of all-India average, for adult age group there is a relative disadvantage for the state. In this regard the policy measure can be adult literacy and education programmes.

More than education it is skill development that meets industry demand. Therefore there is need for quantitative expansion and qualitative improvement in the technical education. In addition to usual general academic and technical courses there must be training and skill development programme with a content of updated skills that industry demands. To meet the industry demand for the skilled labour Skill Development Programmes must be designed for developing occupational and technical skills required. Instead of letting unskilled labour enter into labour force, their entry may delayed for short period and in the meantime letting them to have better equipped with occupational and technical skills through skill development programme or training programme. Besides it is equally important is developing entrepreneurship.

## VI Public Expenditure on Education

A better education system depends on the sound financial allocations to the system. Having such an importance in human capital and economic development point of view as well as that of human development, education needs sound investment especially the public investment given its externalities and thereby the public good nature of education. Taking note of the importance of education, Kothari Commission (1964) has recommended for a minimum of 6% of GDP/GSDPs must be spent education related matter. Nevertheless the 6% norm has not realised so far either at all India levels in any states except a few like Himachal Pradesh and Kerala that to for in one or two years.

**Table 6.1: Expenditure on Education as Percentage of GSDP and Total Expenditure across Major States, 2008-09**



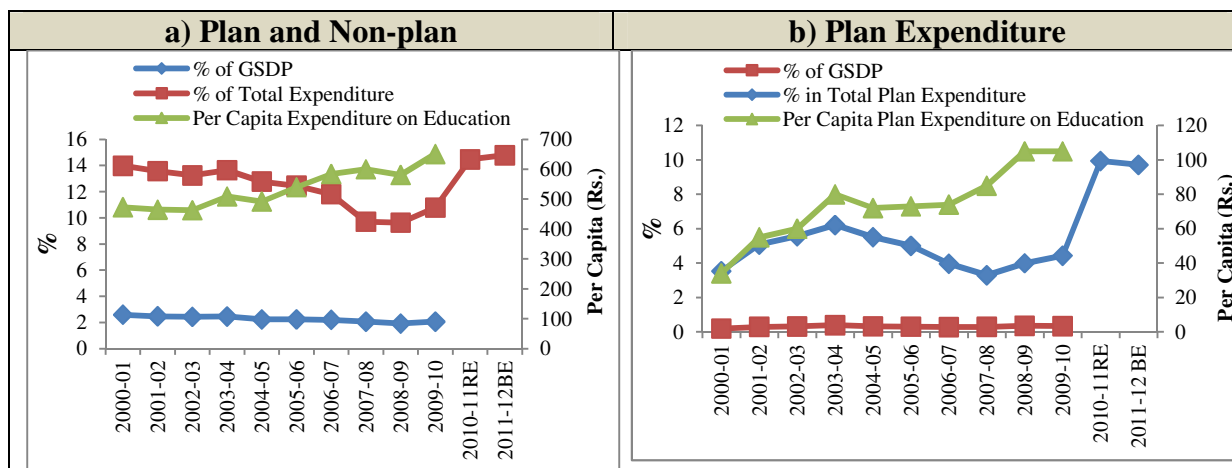
**Note:** 1. Expenditure including Plan and Non-plan; 2. Per Capita Expenditure is in real terms (1999-2000 prices).

**Source:** Sridevi (2011).

In case of Andhra Pradesh the expenditure on education has never been more than 3% of its GSDP since its formation and in the recent past it reduced to around 2%. When compared with the major states, expenditure education as a percentage GSDP and total expenditure, Andhra Pradesh seems to be spending lesser percentage on education.

The comparison shows that economically backward states like Madhya Pradesh and Bihar are spending higher percentage of their GSDP and in the total public expenditure on education than that of Andhra Pradesh. However, in terms of per capita expenditure on education, Andhra Pradesh better than these economically backward states but it is lower than the other states.

**Table 6.2: Expenditure on Education as % of GSDP and Total Expenditure - A P**



**Note:** 1. Per Capita Expenditure is in real terms (1999-2000 prices).

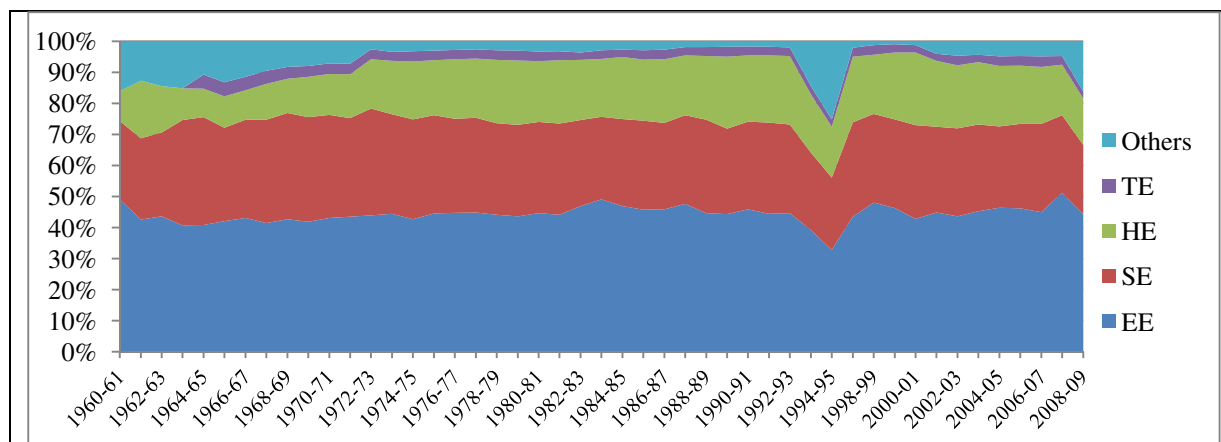
**Source:** Sridevi (2011).

The expenditure on education as a percentage of total plan expenditure in the state has increased during 9<sup>th</sup> plan period but declined during 10<sup>th</sup> plan and appears to be recovered during 11<sup>th</sup> plan period.

The trend in inter-sectoral distribution of public expenditure within the education sector shows that the shares of each sector remained almost constant and a major deviation was during early 1990s where the ‘other’ category consists of adult education and language development have received significantly higher share than the usual.

More than the changing inter-sectoral distribution of educational expenditure in favour of one or the other sub-sectors within the education, the critical aspect is increasing the total expenditure on education such level to meet the 6% norm (i.e. 6% of GSDP on education).

**Figure 6.3: Inter-Sectoral Distribution of Expenditure on Education in Andhra Pradesh**



**Note:** EE – Elementary Education; SE – Secondary Education, HE- Higher Education; TE – Technical Education.

**Source:** Various Budget Documents.

## VII Concluding Remarks

Andhra Pradesh is committed to Education for All (EFA) and thus making efforts towards achieving these goals. At the elementary level, the foundation of the pyramid in the formal education system, the state has experienced a kind of break through especially during the last two decades with the initiatives of DPEP and Sarva Shiksha Abhiyan (SSA). However, the goal of universalisation of elementary education is yet to be achieved. Moreover, in an emerging knowledge based economy a mere eight years of elementary education would be grossly inadequate for the young children to acquire necessary skills that industry demands and hence to compete in the job market. Therefore, universalisation of secondary education has become a policy concern. Besides, the higher and technical education is also important especially in its economic growth point of view.

However, the situational analysis of progress of education in Andhra Pradesh shows that although there is remarkable progress especially during last two decades, it is yet achieve first of all the universalisation of elementary education then the goal of universalising the secondary education. Moreover, the quality of education at all levels (primary, secondary and higher education) is a cause of concern. The quantitative expansion of school and higher education appears to be foregoing the quality. The most crucial and building block for the school education is the pre-primary education but there is a long way to universalise it in Andhra Pradesh. Again, despite its quantitative expansion in school and higher education, the literacy rate is one of the lowest in Andhra Pradesh when compared with rest of the states in



India. Simulation exercise has shown that unless there is a strong policy intervention, Andhra Pradesh will never achieve universal adult literacy in the near future. There is also a lacuna in the expansion of vocational education and skill development programmes in the state. All these issues are more pertinent particularly in the context of harnessing demographic dividend in the state as well as all over India.

A better education system depends on the sound financial allocations to the system. The expenditure on education has never been more than 3% of GSDP since its formation and in the recent past it reduced to around 2%. The Kothari Commissions' 6% norm has not been realised so far in the state. When compared with the major states, expenditure education as a percentage GSDP and total expenditure, Andhra Pradesh seems to be spending lesser percentage on education.

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