

## Trends in Enrolment of Students by Sex in Primary and Upper Primary Schools in Andhra Pradesh

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### Abstract

Primary education constitutes a very important part of the entire structure of education. It is at this stage, the child starts going to a formal institution and formal education starts. Elementary education in India has been under the control of a number of agencies. It is still under the management of some private agencies, though, the State is increasingly taking the responsibility of providing free and compulsory elementary education to all. Article 45 of the Constitution provides for free and compulsory education for all children in the age-group 6-14 years, up to a minimum level. The whole idea has been woven into the concept of Universalisation of Elementary Education (UEE). The level of compulsory education as envisaged in this Article corresponds to the elementary education of eight year's duration from class I to class VIII for the children aged 6-14 years. Universalisation of upper primary education in India is normally in terms of enrolling and retaining all children belonging to the group 11 to 14. The Universalisation of Elementary Education has been recognized as a constitutional obligation in India by the year 1960 but the target has not been achieved even after 54 years of the target year.

Enrolment of boys in primary schools by class implies that total as well as class wise enrolment declined over study period. Enrollment of children at the upper primary level showed that it was not commensurate with the growth of population in the relevant age group, notwithstanding the fact that universalization of elementary education has been the avowed objective of the government. The quantitative growth of enrollment has been faster in the case of girls than in the case of boys throughout the study period of upper primary education

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### Introduction

Education offers various economical benefits and contributions to the society. It provides returns to not only individual but also to the society. Education brings economic stability to any society. The Indian Education Commission (1964-66) in its Report "Education and National Development", point out that "education creates awareness among the poor and it induces the middle class to aspire for better passions and also it enables the affluent to achieve greater success". It is also observed that "a society which is based on Science and Technology, it is the education that determines the level of prosperity,

welfare and security of the people. The quality and number of people achieving success at schooling and colleges will depend on the success in the raising and reconstructing of the standard of living of the people".

Education is often described as economic goods. Education is also regarded as a producer's goods and consumer's goods. According to Baljit Singh "there is demand for education partly, because it is a consumption goods providing immediate satisfaction, but mainly because it is an investment good intended to help in the production of additional goods at some future date".

Economists have asserted that education affects economic growth of a country. Education influences the economy directly through employment, composition of labor, mobility and division of labour and productivity. There is also indirect influence of education on economic development through increased savings by small families and by developing right kinds of attitudes and skills, also by removing some obstacles to social change,

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innovations and progress. Education acts as an agent and at the same time as a condition for change. Paul A Samuelson and William D. Nordhaus observe "educated people make more productive workers. Therefore, investment in schooling and other programmes reduce illiteracy. Beyond reading and writing train people in new techniques of agriculture and industry by sending the best minds abroad to bring back knowledge of engineering and business. But, beware of brain drain: too often the ablest get drawn off to the affluent north. Schultz, reminded the economists of their families to treat human resources explicitly as a form of capital, as a means of production, as the product of investment. Following Schultz, Becker, Harbison and Meyer and Blaug have provided the theoretical basis for analyzing the contribution of human capital as a growth promoter and income equalizer.

There has been a marginal fall in the primary school enrolment from 13.7 crore in 2011-12 to 13.4 crore in 2012-13, and 4.8 per cent rise in upper primary enrolment from 6.19 crore to 6.49 crore during the same period. Data also shows that 92.14 lakh children in the 6-14 age group are still out of school. The figures are part of the most comprehensive school education report based on District Information of School Education data compiled by the National University of Educational Planning and Administration (NUEPA). Sources said, "The fall in primary school enrolment could be ascribed to cleaning up of enrolment data by many states. There are cases of children being enrolled in government schools as well as private schools in the neighborhood." The decline in primary level enrolment is sharpest in Bihar at 11.6 per cent and lowest in Madhya Pradesh (3.9 per cent). At primary level, retention rate has increased from 75.9 per cent to 78.65 per cent.

The paper is intended to analyze the enrolment by total pupils, sex wise, class wise, level wise i.e., in primary and upper primary level. The present study covers the time period of 12 years i.e., from 2000-2001 to 2011-2012 for which the uniform and comparable secondary data is available. Secondary data relating to the enrolment by total pupils, sex wise, class wise, level wise is tapped from various issues of District Information System of Education (DISE). Supplementary information relating to secondary data is also drawn from Annual Status of Education Report (ASER) 2012, Socio Economic Survey, Planning Department, Government of Andhra Pradesh, 2012 – 13, and Working Group Report on Elementary Education and Literacy, 12th Five Year Plan, 2012-2017, Government of India.

## 1. Trends in Enrolment of total Students by sex at Primary and Upper Primary level

Table-1 is intended to present information about primary and upper primary schools by enrolment considering total as well boys and girls. From the Table it is observed that, the total enrolment (boys and girls put together) in primary schools declined from 60,60,394 to 52,76,876 and accounted for an average enrolment of 56,02,564 pupils during the study period 2000-12. At the same time, enrolment of boys declined from 30,54,724 to 26,80,955 while that of girls declined from 30,05,670 to 25, 95,921. Further, average enrolment of boys and girls during the study period recorded as 28, 27,816 and 27, 74,748 pupils respectively.

Moreover, enrolment of boys and girls declined at an annual rate of 0.8 per cent and 1.04 per cent respectively (which are not statistically significant), while total enrolment declined at an annual rate of 1 per cent, which is not statistically significant. It is pertinent to note that, the share of boys and girls in the total enrolment of primary schools is recorded as 50.47 per cent and 49.53 per cent respectively and thus, difference in sex wise enrolment is less than 1 per cent. As revealed by the values of coefficient of variation, total enrolment as well that of boys and girls in respect of primary schools declined more or less with the same trend.

Total enrolment (boys and girls) in UP schools, during the study period declined from 26,28,185 to 21,57,321 while that of for boys declined from 14,00,905 to 11,17,233 enrolment of girls declined from 12,27,280 to 10,40,088. Further, average total enrolment recorded as 28,80,588 while that of for boys and girls stood at 15,01,472 and 13,79,116 respectively. Further, total enrolment in UP schools declined at an annual rate of 2.97 per cent, while enrolment of boys and girls declined at annual rate of 3.04 per cent and 2.8 per cent respectively during the study period. However, the negative growth rate of enrolment of boys is statistically significant at 5 per cent level, while that of for girls and total are statistically significant at 5 per cent level. It is interesting to note that the share of boys in the total enrolment recorded as 52.12 per cent, while that of girls accounted for 47.88 per cent. Based on the values of coefficient of variation, it is inferred that total enrolment as well that of for boys and girls in respect of UP schools declined more or less with the same trend.

Figure- 1 presents the comparative changes took place in the enrollment in respect of primary and

**Table 1:** Trends in Enrolment of total Students by sex at Primary and Upper Primary level

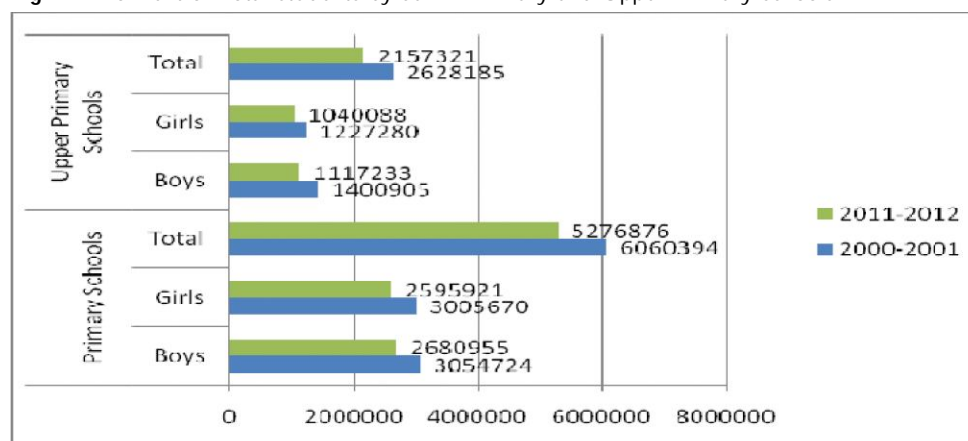
Sl. No.	Year	Primary Schools			Upper Primary Schools		
		Boys	Girls	Total	Boys	Girls	Total
1	2000-2001	3054724 (50.40)	3005670 (49.60)	6060394 (100.00)	1400905 (53.30)	1227280 (46.70)	2628185 (100.00)
2	2001-2002	2610881 (49.91)	2619867 (50.09)	5230748 (100.00)	1729772 (52.06)	1593054 (47.94)	3322826 (100.00)
3	2002-2003	3197135 (50.34)	3153937 (49.66)	6351072 (100.00)	1761580 (51.98)	1627609 (48.02)	3389189 (100.00)
4	2003-2004	3006457 (50.38)	2960553 (49.62)	5967010 (100.00)	1636883 (51.97)	1513081 (48.03)	3149964 (100.00)
5	2004-2005	2779410 (50.31)	2744953 (49.69)	5524363 (100.00)	1647443 (51.92)	1525434 (48.08)	3172877 (100.00)
6	2005-2006	2720336 (50.40)	2677672 (49.60)	5398008 (100.00)	1651337 (52.06)	1520797 (47.94)	3172134 (100.00)
7	2006-2007	2788122 (50.57)	2725033 (49.43)	5513155 (100.00)	1691111 (52.10)	1554985 (47.90)	3246096 (100.00)
8	2007-2008	2719721 (50.68)	2647228 (49.32)	5366949 (100.00)	1615903 (51.95)	1494783 (48.05)	3110686 (100.00)
9	2008-2009	2875478 (50.57)	2810567 (49.43)	5686045 (100.00)	1302469 (52.26)	1189729 (47.74)	2492198 (100.00)
10	2009-2010	2725513 (50.54)	2666740 (49.46)	5392253 (100.00)	1248562 (52.11)	1147287 (47.89)	2395849 (100.00)
11	2010-2011	2775065 (50.79)	2688831 (49.21)	5463896 (100.00)	1214470 (52.13)	1115260 (47.87)	2329730 (100.00)
12	2011-2012	2680955 (50.81)	2595921 (49.19)	5276876 (100.00)	1117233 (51.79)	1040088 (48.21)	2157321 (100.00)
	Average	2827816	2774748	5602564	1501472	1379116	2880588
	C V	6.13	6.3	6.2	15.22	15.58	15.38
	G R	-0.8	-1.04	-0.9	-3.04**	-2.8**	-2.97**

Source: DISE data

Note: Figures in parentheses indicate percentages to total

\*\*,\*\*\* indicate that the coefficients are significant at 1 per cent, 5 per cent and 10 per cent

**Fig. 1:** Enrolment of Total students by Sex in Primary and Upper Primary Schools



upper primary schools considering total as well as boys and girls. For the sake of simplicity bar diagrams are presented for the first year and Last year of the study period i.e. 2000-01 and 2011-12.

## 2. Trends in Enrolment of Boys by Class (Class I to Class V)

Table-2 presents the information about class wise enrolment of boys from class I to class V. From the Table it is clear that, enrolment of boys in class I declined from 11, 61,617 to 7, 85,884 and resulted in an average number of 8, 72,909 pupils during the study period 2000-12. The enrolment of class I boys declined at an annual rate of 2.85 per cent, which is statistically significant at 5 per cent and the share of class I in the total enrolment (of five classes) varied in the range 22 per cent to 26 per cent during the study period. Moreover, based on the values of coefficient of variation, enrolment of class I boys noticed to fluctuate widely when compared with total enrolment and enrolment of other classes.

Enrolment of boys in class II declined from 9,39,454 to 7,38,031 and accounted for an average number of 7,90,261 pupils over the study period. The enrolment of class II boys declined at an annual rate is of 2.62 per cent, which is statistically significant at 5 per cent level and the share this enrolment in total enrolment found to vary in the range 19 per cent to 22 per cent. As revealed by the values of coefficient of variation, enrolment of class II is relatively less fluctuated compared to that of class I but, relatively more fluctuated compared to that of other classes.

Enrolment of boys in class III declined from 8,85,243 to 7,23,300 during the study period and declined at an annual rate of 2.27 per cent, which is statistically significant at 5 per cent level. The average enrolment of boys in class III stood at 7, 67,436 pupils and its share in total enrolment is noticed to oscillate between 19 per cent to 20 per cent. Based on the values of coefficient variation, enrolment of boys in class III experienced relatively less fluctuations compared to that of for class I and class II, while relatively more fluctuated compared to that of for class IV and class V.

Enrolment of boys in class IV declined from 8,06,360 to 6,85,491 during the study period 2000-12 and accounted for an average enrolment of 7,37,530 pupils. Further, enrolment of boys in class IV declined at an annual rate of 1.85 per cent, which is statistically significant at 10 per cent level

and its share in the total enrolment found to vary in the range 18 – 20 per cent. Moreover, the value of CV reveals that enrolment of boys in class IV is relatively more fluctuated when compared to that for class V, but relatively less fluctuated when compared to that for other classes.

Enrolment of boys in class V declined from 7, 60,373 to 6, 87,987 and resulted for an average number of 7, 31,684 pupils during the study period. Further, the enrolment of boys in class V declined at an annual rate of 1.38 per cent, which is not statistically significant and its share in the total enrolment varied in the range 17 to 20 per cent. Enrolment in class V is noticed to experience relatively least fluctuations when compared to all other classes.

Total enrolment of boys (from class I to class V) declined from 45, 53,047 to 36, 20,633 during the study period and averaged to 38, 99,823 pupils and registered for a negative rate of 2.22 per cent per annum, which is statistically significant at 10 per cent.

Analysis of enrolment of boys in primary schools by class implies that total as well as class wise enrolment declined over study period. The enrolment is noticed to be relatively low in the descending order, when move from class I to class V. The total enrolment declined at an annual growth rate of 2.22 per cent, while that of in class I by 2.85 per cent, in class II by 2.62 per cent, in class III by 2.27 per cent, in class IV by 1.85 per cent and in class V by 1.38 per cent respectively. Further, Average enrolment of boys in all classes is found to be 38,99,823 pupils, while that of in class I is 8,72,909 pupils, in class II is 7,90,261 pupils, in class III is 7,67,436 pupils, in class IV is 7,37,531 pupils and in class V is 7,31,684 pupils respectively over the study period.

Figure-2 presents the comparative changes in the class wise enrollment relating to boys. For the sake of simplicity, bar diagrams are presented for the first year and last year of the study period i.e. 2000-01 and 2011-12.

## 3. Trends in Enrolment of Girls by Class (Class I to class V)

Table-3 presents the information relating to class wise enrolment of girls from class I to class V. From the Table it is observed that, enrolment of girls in class I declined from 11,27,603 to 7,37,755 and accounted for an average number of 8,38,641 pupils during the study period. Further, the enrolment for

**Table 2:** Trends in Enrolment of Boys by Class (2000 – 2012)

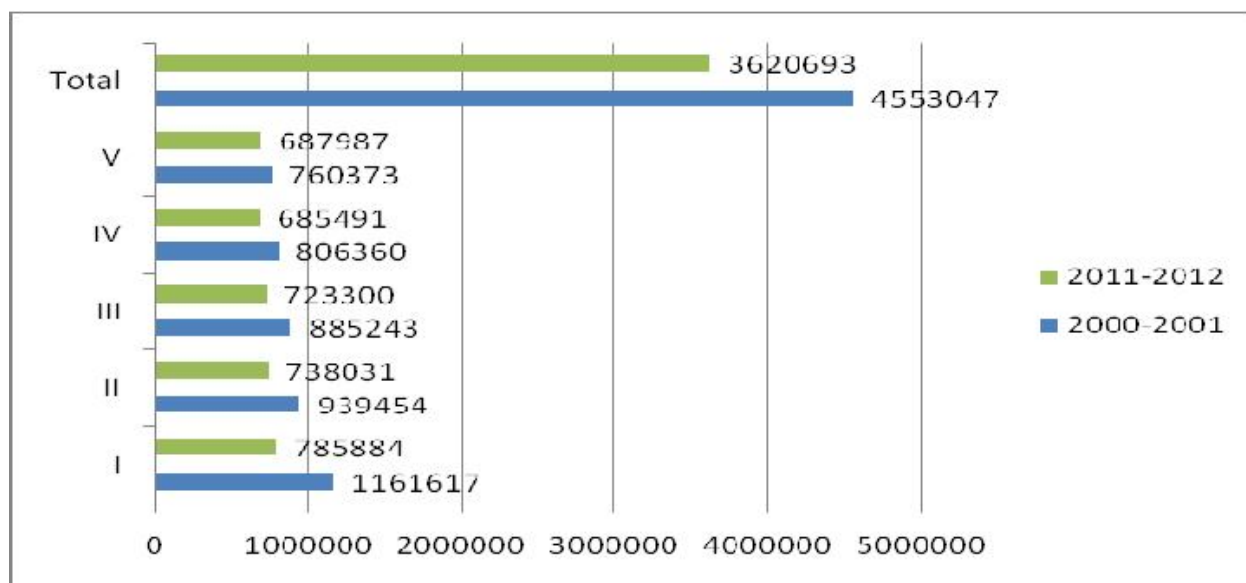
Sl. No.	Year	I	II	III	IV	V	Total
1	2000-2001	1161617 (25.51)	939454 (20.63)	885243 (19.44)	806360 (17.71)	760373 (16.70)	4553047 (100.00)
2	2001-2002	988101 (22.55)	965569 (22.03)	853555 (19.48)	802931 (18.32)	771882 (17.61)	4382038 (100.00)
3	2002-2003	977991 (22.62)	876054 (20.26)	885375 (20.48)	799376 (18.49)	784911 (18.15)	4323707 (100.00)
4	2003-2004	848409 (20.98)	828671 (20.49)	801455 (19.82)	803576 (19.87)	762037 (18.84)	4044148 (100.00)
5	2004-2005	800716 (20.56)	751434 (19.29)	785150 (20.16)	764763 (19.64)	792586 (20.35)	3894649 (100.00)
6	2005-2006	829756 (22.17)	713498 (19.06)	719382 (19.22)	735409 (19.65)	744653 (19.90)	3742698 (100.00)
7	2006-2007	849300 (22.73)	757800 (20.28)	704538 (18.85)	696975 (18.65)	728176 (19.49)	3736789 (100.00)
8	2007-2008	818265 (22.48)	738301 (20.28)	722816 (19.86)	674580 (18.53)	686358 (18.85)	3640320 (100.00)
9	2008-2009	800133 (22.23)	719973 (20.00)	713222 (19.81)	695039 (19.31)	671519 (18.65)	3599886 (100.00)
10	2009-2010	810757 (22.36)	717867 (19.79)	708852 (19.55)	694964 (19.16)	694154 (19.14)	3626594 (100.00)
11	2010-2011	803984 (22.13)	736481 (20.27)	706355 (19.44)	690966 (19.02)	695578 (19.14)	3633364 (100.00)
12	2011-2012	785884 (21.71)	738031 (20.38)	723300 (19.98)	685491 (18.93)	687987 (19.0)	3620633 (100.00)
	Average	872909.4	790261.1	767436.9	737530.8	731684.5	3899823
	C V	12.94	11.36	9.37	7.31	5.88	8.78
	G R	-2.85**	-2.62**	-2.27**	-1.85***	-1.38	-2.22***

Source: DISE data

Note: Figures in parentheses indicate percentages to total

\*, \*\*, \*\*\* indicate that the coefficients are significant at 1 per cent, 5 per cent and 10 per cent.

**Fig. 2:** Enrollment of Boys by Class (2000 – 2012)



**Table 3** Trends in Enrolment of Girls by Class (Class I to class V)

Sl. No.	Year	I	II	III	IV	V	Total
1	2000-2001	1127603 (25.90)	921107 (21.16)	848083 (19.48)	760879 (17.48)	695234 (15.97)	4352906 (100.00)
2	2001-2002	965480 (22.75)	954121 (22.48)	832434 (19.61)	768636 (18.11)	723532 (17.05)	4244203 (100.00)
3	2002-2003	957880 (22.75)	870153 (20.67)	867114 (20.60)	770186 (18.29)	744591 (17.09)	4209924 (100.00)
4	2003-2004	816523 (20.77)	820805 (20.88)	787904 (20.04)	779104 (19.82)	727175 (18.50)	3931511 (100.00)
5	2004-2005	769705 (20.27)	740494 (19.50)	773946 (20.38)	748460 (19.71)	765157 (20.15)	3797762 (100.00)
6	2005-2006	801798 (21.97)	698889 (19.15)	704405 (19.30)	718745 (19.70)	725387 (19.88)	3649224 (100.00)
7	2006-2007	813747 (22.44)	746531 (20.59)	683850 (18.86)	674235 (18.59)	708085 (19.53)	3626448 (100.00)
8	2007-2008	782132 (22.14)	722128 (20.44)	710312 (20.10)	652985 (18.48)	665660 (18.84)	3533217 (100.00)
9	2008-2009	769369 (21.93)	703515 (20.05)	698803 (19.92)	683673 (19.49)	653127 (18.62)	3508487 (100.00)
10	2009-2010	769013 (21.90)	694935 (19.79)	688675 (19.62)	678461 (19.33)	679613 (19.36)	3510697 (100.00)
11	2010-2011	752683 (21.56)	709846 (20.33)	683132 (19.57)	668319 (19.14)	677596 (19.41)	3491576 (100.00)
12	2011-2012	737755 (21.3)	703559 (20.31)	696741 (20.11)	663101 (19.14)	662718 (19.13)	3463874 (100.00)
	Average	838640.7	773840.3	747949.9	713898.7	702322.9	3776652
	C V	13.99	12.07	9.35	6.8	5.05	8.6
	G R	-3.21**	-2.89**	-2.29**	-1.6	-0.95	-2.25***

Source: DISE data

Note: Figures in parentheses indicate percentages to total

\*, \*\*, \*\*\* indicate that the coefficients are significant at 1 percent, 5 percent and 10 percent

girls in class I declined at an annual rate of 3.21 per cent, which is statistically significant at 5 per cent level and the share of enrolment of class I girls in the total enrolment is noticed to vary between 20 to 26 per cent. As revealed by the value of coefficient of variation, enrolment of class I girls is subjected to more fluctuations when compared to that of for all other classes.

Class II enrolment of girls declined from 9, 21,107 to 7, 03,559 and thus, resulted in an average enrolment of 7, 73,840 during the study period. Further, the enrolment of girls in class II declined at an annual rate of 2.89 per cent, which is

statistically significant at 5 per cent level during the study period and its share in the total enrolment varied in the range 19 to 22 per cent. Moreover, as revealed by the values of CV, enrolment in class II girls is relatively less fluctuated compared to that of for class I but, relatively more fluctuated when compared to all other classes.

Enrolment of girls in Class III declined from 8,48,083 to 6,96,741 and thus, averaged to number of 7,47,950 pupils over the study period. Further, enrolment of girls in class III declined at an annual rate of 2.29 per cent, which is statistically significant at 5 per cent level during

the study period and its share in the total enrolment varied between 19 to 21 per cent. Based on the values of CV, enrolment class II girls is relatively less fluctuated compared to that of class I and II but, relatively more fluctuated when compared to class IV and V.

Enrolment in respect of girls in class IV, is observed that to decline from 7,60,879 to 6,63,101 and accounted on for an average enrolment of 7,13,899 pupils during the study period. Further, enrolment of girls in class IV is declined at an annual rate of 1.6 per cent, which is not statistically significant and its share in the total enrolment varied between 17 to 20 per cent. As revealed by the values of CV, enrolment in class IV girls is relatively more fluctuated when compared to that of for class V but, relatively less fluctuated when compared to that for all other classes.

Class V enrolment of girls is noticed to decline from 6,95,234 to 6,62,718 and experienced a negative

annual growth rate of 0.95 per cent, which is not statistically significant during the study period 2000-12. The average enrolment of girls in class V is found to be 7,02,323 pupils over the study period and the share of enrolment of class V girls in the total enrolment varied between 16 to 20 per cent. Moreover, the values coefficient of variation implies that, the enrolment of class V is subjected to least fluctuations when compared to that for all other classes.

The total enrolment of girls in all classes from class I to class V is observed to decline from 43,52,906 to 34,63,874 and noticed to experience a negative annual growth rate of 2.25 per cent, which is statistically significant at 10 per cent level and averaged to 37,76,652 over the study period 2000-12.

Figure-3 presents the comparative changes in the class wise enrollment of girls. For the sake of simplicity, bar diagrams are presented for the first year and last year of the study period i.e. 2000-01 and 2011-12.

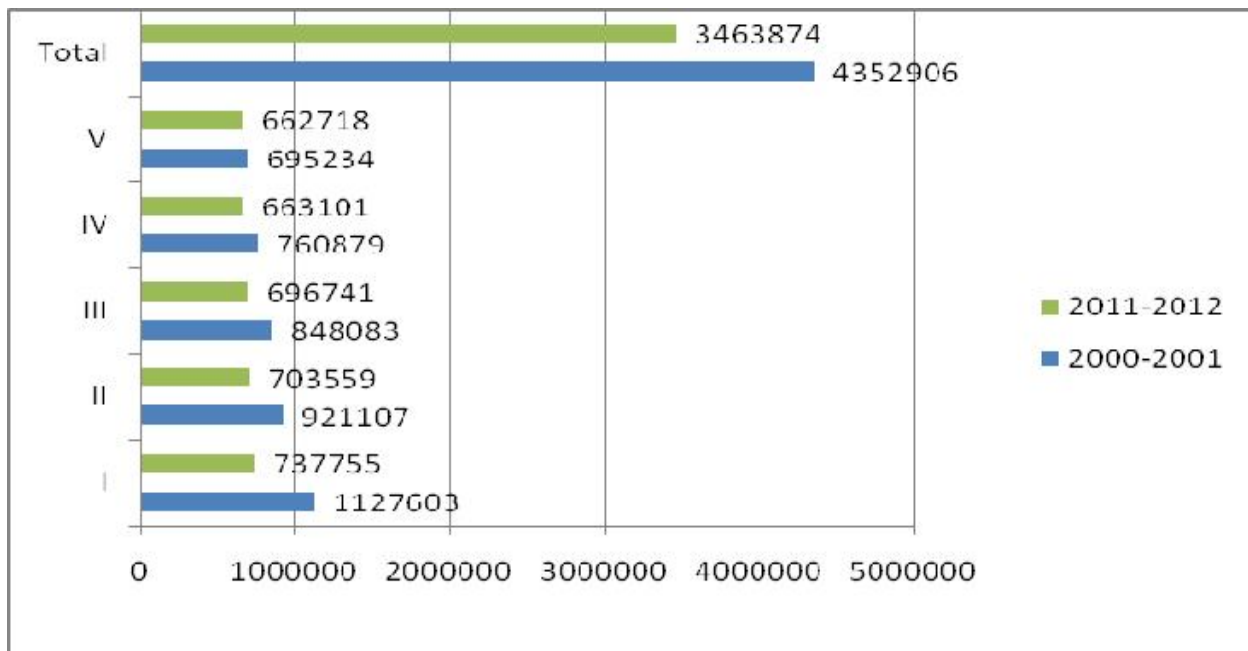


Figure 3 Enrolment of Girls by Class (Class I to class V)

#### 4. Class Wise Enrolment of Total Students at Primary level

Table- 4 presents information about class wise total enrolment considering both boys and girls from class I to class V. From the Table it is observed that, enrolment of class I is declined from 22,89,220 to 15,23,639 and averaged to 17,11,550 pupils over the study period. The enrolment is seen to experience a negative annual growth rate of 3 per cent, which is

statistically significant at 5 per cent level during the study period. The enrolment of class I pupils in the total enrolment is noticed to vary between 20 to 26 per cent. Based on the CV values, it is clear that enrolment in class I is subjected to wide fluctuations when compared to that for all other classes.

Enrolment in class II declined from 18,60,561 to 14,41,590 and registered for an average enrolment of 15,64,101 pupils. Moreover, the enrolment of class II is declined at an annual growth rate of 2.75 per cent,

which is statistically significant at 5 per cent level and the share of class II in the total enrolment varied in the range 19 to 22 per cent. Based on the values of coefficient of variation, enrolment in class II is relatively less fluctuated when compared to that for class I, while relatively more fluctuated compared to all other classes.

Pupil enrolment in class III is declined from 17, 33,326 to 14, 20,041 and averaged to 15, 15,387 pupils during the study period. The enrolment is noticed to decline at an annual growth rate of 2.28 per cent, which is statistically significant at 5 per cent level

during study period 2000-12. Further, the share of enrolment in class III in the total enrolment varied between 19 to 21 per cent. Moreover, enrolment in class III is seen to fluctuate relatively less when compared to that of class I and class II, but more fluctuated when compared to class IV and class V.

Enrolment in class IV is declined from 15,67,239 to 13,48,592 and accounted for an average enrolment of 14,51,435 pupils over the study period. Further, enrolment in class IV experienced a negative annual growth rate of 1.7 per cent, which is statistically not significant and the share of enrolment in class IV in

**Table 4** Class Wise Enrolment of Total Students at Primary Level

Sl. No	Year	CLASS WISE ENROLMENT ALL					TOTAL
		I	II	III	IV	V	
1	2000-2001	2289220	1860561	1733326	1567239	1455607	8905953
		(25.70)	(20.89)	(19.46)	(17.60)	(16.34)	(100.00)
2	2001-2002	1953581	1919690	1685989	1571567	1495414	8626241
		(22.65)	(22.25)	(19.54)	(18.22)	(17.34)	(100.00)
3	2002-2003	1935871	1746207	1752489	1569562	1529502	8533631
		(22.69)	(20.46)	(20.54)	(18.39)	(17.92)	(100.00)
4	2003-2004	1664932	1649476	1589359	1582680	1489212	7975659
		(20.88)	(20.68)	(19.93)	(19.84)	(18.67)	(100.00)
5	2004-2005	1570421	1491928	1559096	1513223	1557743	7692411
		(20.42)	(19.39)	(20.27)	(19.67)	(20.25)	(100.00)
6	2005-2006	1631554	1412387	1423787	1454154	1470040	7391922
		(22.07)	(19.11)	(19.26)	(19.67)	(19.89)	(100.00)
7	2006-2007	1663047	1504331	1388388	1371210	1436261	7363237
		(22.59)	(20.43)	(18.86)	(18.62)	(19.51)	(100.00)
8	2007-2008	1600397	1460429	1433128	1327565	1352018	7173537
		(22.31)	(20.36)	(19.98)	(18.51)	(18.85)	(100.00)
9	2008-2009	1569502	1423488	1412025	1378712	1324646	7108373
		(22.08)	(20.03)	(19.86)	(19.40)	(18.64)	(100.00)
10	2009-2010	1579770	1412802	1397527	1373425	1373767	7137291
		(22.13)	(19.79)	(19.58)	(19.24)	(19.25)	(100.00)
11	2010-2011	1556667	1446327	1389487	1359285	1373174	7124940
		(21.85)	(20.30)	(19.50)	(19.08)	(19.27)	(100.00)
12	2011-2012 Average	1523639	1441590	1420041	1348592	1350705	7084567
		(21.51)	(20.35)	(20.04)	(19.04)	(19.07)	(100.00)
	C V	13.44	11.7	9.35	7.0	5.4	8.72
	G R	-3.0**	-2.75**	-2.28**	-1.7	-1.17	-2.24***

Source: DISE data

Note: Figures in parentheses indicate percentages to total

\*, \*\*, \*\*\* indicate that the coefficients are significant at 1 percent, 5 percent and 10 percent



the total enrolment is noticed vary between 18 to 20 per cent. As revealed by the coefficient of variation, enrolment in class IV is subjected to less fluctuation when compared to that for classes I, II and III, while more fluctuated when compared to that for class V.

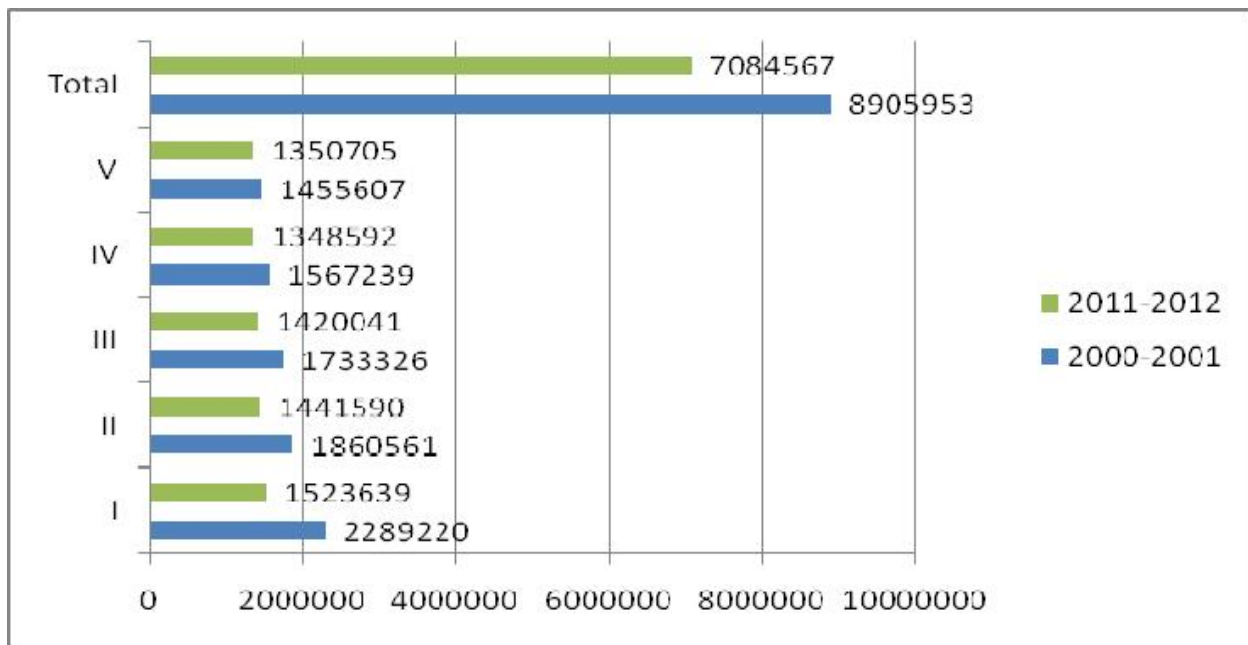
Pupil enrolment in class V is noticed to decline from 14,55,607 to 13,50,705 and averaged for an enrolment 14,34,007 pupils during the study period. Further, the enrolment is observed to decline at an annual growth rate of 1.7 per cent per annum, which is statistically not significant. The share of enrolment in class IV in the total enrolment varied in the range 16 to 20 per cent. Moreover, enrolment in

class IV is seen to be more consistent when compared to all classes, as it possesses the least value of CV.

The total enrolment of all classes from class I to class V is declined from 89,05,953 to 70,84,567 and accounted for an average enrolment of 76,76,480 pupils and experienced a negative growth rate of 2.24 per cent per annum, which is statistically significant at 10 per cent during the study period.

Figure- 4 presents the comparative changes in the class wise enrollment of both boys and girls. For the sake of simplicity, bar diagrams are presented for the first year and last year of the study period i.e. 2000-01 and 2011-12.

Fig. 4 Class Wise Enrolment of Total Students at Primary level



### 5. Trends in Enrolment of Students by Stages at Primary and Upper Primary level

Table-5 is intended to present information about stage wise enrolment of Primary and UP classes. From the Table it is observed that, enrolment in primary stage (I to V classes) is declined from 89,05,953 to 70,84,567 pupils and averaged to 76,76,480 pupils. Further, the enrolment in primary stage experienced a negative annual growth rate of 2.24 per cent, which is statistically significant at 10 per cent during the study period 2000-12. Further, in respect of primary stage during the study period, the enrolment of boys declined from 45,53,047 to 36,20,693 pupils, while that for girls declined from 43,52,906 to 34,63,874 pupils. At the same time, average enrolment of boys and girls stood at 38,99,828 pupils and 37,76,652 pupils respectively. Moreover,

enrolment of boys in primary stage experienced a negative growth rate of 2.2 per cent per annum, while same in respect of girls experienced a negative growth rate of 2.25 per cent per annum. Further, these negative growth rates are found to be statistically significant at 10 per cent level. The share of enrolment of boys in the total primary stage enrolment is noticed to be about 51 per cent, while that of for girls is observed to be about 49 per cent. As revealed by the values of coefficient of variation, of enrolment of boys is slightly more fluctuated when compared to girls.

Enrolment of upper primary stage (VI to VII classes) during the study period is increased from 20,71,461 to 26,06,413 pupils and averaged to 24,94,817 pupils. Enrolment of boys increased from 11,44,609 in 2000 – 01 to 13,76,071 pupils by 2006 – 07 and thereafter declined to 13,13,018 pupils and ultimately averaged to 12,99,014 by 2011 – 12.

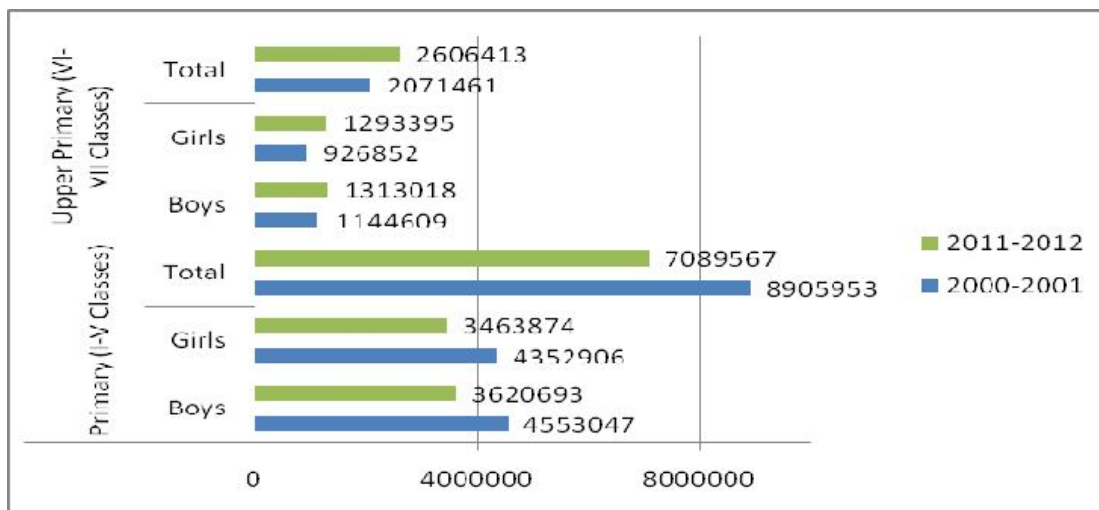
**Table 5** Trends in Enrolment of Students by Stages at Primary and Upper Primary level

Sl. No.	Year	Primary(I - V classes)			Upper Primary (VI-VII classes)		
		Boys	Girls	Total	Boys	Girls	Total
1	2000-2001	4553047	4352906	8905953	1144609	926852	2071461
		(51.12)	(48.88)	(100.00)	(55.26)	(44.74)	(100.00)
2	2001-2002	4382038	4244203	8626241	1222098	1038797	2260895
		(50.80)	(49.20)	(100.00)	(54.05)	(45.95)	(100.00)
3	2002-2003	4323707	4209924	8533631	1307337	1152287	2459624
		(50.67)	(49.33)	(100.00)	(53.15)	(46.85)	(100.00)
4	2003-2004	4044148	3931511	7975659	1322834	1179296	2502130
		(50.71)	(49.29)	(100.00)	(52.87)	(47.13)	(100.00)
5	2004-2005	3894649	3797762	7692411	1349585	1226599	2576184
		(50.63)	(49.37)	(100.00)	(52.39)	(47.61)	(100.00)
6	2005-2006	3742698	3649224	7391922	1373194	1270111	2643305
		(50.63)	(49.37)	(100.00)	(51.95)	(48.05)	(100.00)
7	2006-2007	3736789	3626448	7363237	1376071	1290151	2666222
		(50.75)	(49.25)	(100.00)	(51.61)	(48.39)	(100.00)
8	2007-2008	3640320	3533217	7173537	1340274	1272608	2612882
		(50.75)	(49.25)	(100.00)	(51.29)	(48.71)	(100.00)
9	2008-2009	3599886	3508487	7108373	1294024	1241020	2535044
		(50.64)	(49.36)	(100.00)	(51.05)	(48.95)	(100.00)
10	2009-2010	3626594	3510697	7137291	1263750	1214256	2478006
		(50.81)	(49.19)	(100.00)	(51.00)	(49.00)	(100.00)
11	2010-2011	3633364	3491576	7124940	1281369	1244263	2525632
		(51.0)	(49.0)	(100.00)	(50.73)	(49.27)	(100.00)
12	2011-2012	3620693	3463874	7084567	1313018	1293395	2606413
		(51.1)	(48.9)	(100.00)	(50.38)	(49.62)	(100.00)
Average	Average	3899828	3776652	7676480	1299014	1195803	2494817
	CV	8.78	8.68	8.72	5.0	9.25	6.86
	GR	-2.2***	-2.25***	-2.24***	0.5	1.98***	1.21

Source: DISE data

Note: Figures in parentheses indicate percentages to total

\*, \*\*, \*\*\* indicate that the coefficients are significant at 1 percent, 5 percent and 10 percent

**Fig. 5** Trends in Enrolment of Students by Stages at Primary and Upper Primary level

However, enrolment of girls consistently increased from 9,26,852 pupils to

12,93,395 pupils and thus, resulted in an average enrolment of 11,95,803 pupils. Further, total enrolment of UP stage experienced an annual growth rate of 1.21 per cent, while that of boys and girls experienced annual growth rates of 0.5 per cent and 1.98 per cent respectively. However, the negative growth rate corresponding to girls is statistically significant at 10 per cent, while the negative growth rates corresponding to total UP stage and for boys are observed to be statistically not significant. Further, the share of enrolment of boys in the total UP stage enrolment is noticed to vary between 51 to 55 per cent, while that of girls is observed to vary between 45 to 50 per cent. As revealed by the values of coefficient of variation, enrolment of girls is more fluctuated when compared to boys.

Figure-5 presents the comparative changes in the Stage wise enrollment. For the sake of simplicity, bar diagrams are presented for the first year and last year of the study period i.e. 2000-01 and 2011-12.

## Conclusions

Education in Andhra Pradesh follows more or less the all India pattern. In Andhra Pradesh by 2012, in rural area local body namely Mandal Paja Parishat schools will cater to the needs of rural pupil; while municipal schools provide the education service to pupil in urban area. However, very few Central government schools and State government schools exist in the state besides. Private schools also exist in primary, upper primary and high school level in Andhra Pradesh.

In this paper an attempt is made to analyze the trends in the growth of enrolment of students in Primary and Upper Primary schools. The study covers the time period of 12 years i.e., from 2000-01 to 2011-12 for which the uniform and comparable secondary data is available.

Our data on the trends in the enrollment of children at the Primary and Upper Primary level showed that it was not commensurate with the growth of population in the relevant age group, notwithstanding the fact that universalization of Elementary education has been the avowed objective of the government. The quantitative growth of enrollment has been faster in the case of girls than in the case of boys throughout the period of six and half decades in both primary and upper primary education. Besides, the enrollment of students has

increased at a higher rate than the number of schools and teachers.

The following are the major findings of the study:

1. Total enrolment as well that of boys and girls in respect of both primary as well as UP schools is declined during the study period. Growth rate of girl enrolment in primary schools is relatively (marginally) less declining when compared to that of boys, while the opposite is true in respect of UP schools.
2. Analysis of enrolment of boys and girls in primary schools by class implies that total as well as class wise enrolment declined during the study period. The enrolment is noticed to be relatively low in the descending order, when move from class I to class V.
3. The analysis implies that total enrolment in respect of primary stage has been declining over time at an annual rate of 0.9 per cent, while that of in respect of UP stage is increasing at an annual rate of 2.97 per cent.

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