

## **Status of 'Out of school' Children in Navi Mumbai region: Statistical Analysis**

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### **Abstract:**

On 1<sup>st</sup> April 2010 our government created history by giving right of free and compulsory education to Indian children under the Right to Education Act. This is a giant step in the right direction in a country where nearly eight million children do not go to school. It is now a legally enforceable right granted to every child between six and fourteen years to demand free and compulsory education.

The Government of India has launched Sarva Shiksha Abhiyan (SSA) for Universalization of Elementary Education in 2001. SSA framework clearly states that "SSA will ensure that every child with special needs, irrespective of the kind, category and degree of disability, is provided education in an appropriate environment. SSA will adopt zero rejection policy so that no child is left out of the education system. It will also support a wide range of approaches, options and strategies for education of children with special needs" This includes education through open learning system and open schools, non formal and alternative schooling, distance education and learning, special schools, wherever necessary, home based education, inherent teacher model.

### **Goals of SSA:**

- 1) All 6-14 age children in school/EGS centre bridge course by 2005.
  - 2) Bridge all gender and social category gaps at primary stage by 2007 and at elementary education level by 2010
  - 3) Universal retention by 2010
  - 4) Focus on elementary education of satisfactory quality with emphasis on education for life. The low levels of attainment make the process of primary education a struggle for many of the children. Each child needs to be helped to overcome his/her particular educational hurdles. The large number of children who are out of the school either due to non- enrolment, drop-out or simply absenteeism, so it is necessary to know or find out who is out of school and why?
- This Research paper aims to study the status of 'Out of School' children in Navi Mumbai region. Applying various Statistical tools the status is presented.

**Keywords:** SSA, RTI, CIDCO, Out of School etc.

**Introduction:** Navi Mumbai is close to Mumbai. The Maharashtra Government industrial promotion policy leads to development of industrial belt in Navi Mumbai. These industries, in turn, attracted a large population as workers. Also, the cost of real estate and housing in Navi Mumbai is much less than costs in Mumbai and sub-urban areas. Many government and corporate offices have been shifted from Mumbai to Navi Mumbai. Chemical, Pharmaceutical, Engineering, Textile Processing, Petrochemical, Electronics, Oil and Processing, Paper, Plastic, Steel and Food Industries in the Taloja and Thane Belapur Industrial Belt of Navi Mumbai offer job opportunities of every conceivable kind - from engineers to mechanics to clerks to peons. As a result a large population of service class and middle class population shifted to Navi Mumbai.

The population residing within NMMC area has increased from 3.18 lakhs in 1991 to 7.04 lakhs. The decadal growth rate in various zones of NMMC varied from 8% in Airoli to 309% in Digha. The overall increase in population during 1991-2001 was 82 percent.

Navi Mumbai, with a population of 200,000, now includes 95 villages/Localities an industrial zone and large tracts of agricultural as well as barren and marshy lands. Nevertheless a huge fraction of the

residents commute to the island city daily. Vashi, just across the Thane Creek from Mumbai, has developed into the core of Navi Mumbai, offering 56% of the area's employment.

Navi Mumbai, strategically located on the proposed Mumbai Pune 'Knowledge Corridor', has been receiving a lot of thrust with respect to Information Technology. The Government of Maharashtra has plans drawn up to develop Navi Mumbai as high tech habitats for IT Industry.

The growth of Mumbai city is constrained by sea at south, east and west. As a result total land area available for development of Mumbai is limited. Hence, developmental planners, in late 1960s started exploiting alternative for dispersal and control of Mumbai population. Eminent architects, Charles Coria, Shirish Patel and Pravin Mehta suggested Navi Mumbai as alternative to Mumbai.

Navi Mumbai has been developed as a planned city, a counter magnet for Mumbai. It has been developed as an independent, fully self-contained metro city. Navi Mumbai is the world's large, totally planned, well-balanced, modern city. Navi Mumbai has been planned and developed by CIDCO to meet the infrastructural needs of a modern metropolis.

City and Industrial Development Corporation (CIDCO) is a State Public Sector Undertaking registered under Companies Act in March 1970. CIDCO prepared developmental plan for Navi Mumbai covering 95 villages from Thane and Raigad district covering total area of 343.70 sq km . This was approved by the Government of Maharashtra in August 1979.

In all 199 schools are registered in the region Navi Mumbai Maharashtra. These schools belong to S.S.C. Board, Mumbai, Maharashtra. Majority Schools have Marathi and English Medium of instruction, while few are with Hindi, Urdu, and Gujarathi medium. Compared to this number very less i.e. 10 schools belong to CBSE/ICSC Board.

In Municipal corporation 30 various social Institutions and trusts and working form Education and Upliftment of disadvantaged.

### **Objectives:**

1.To study whether the tendency of 'Out of School' is more in girls than boys after completing primary education.

2. To study Drop outs in stages.

**Assumption:** The statistical data available for the years 2008-09 and 2009-10 which are projected figures are nearer to the actual ones.

**Methodology:** Through web search various sites were visited to collect the required information. Secondary Data were obtained for the years 2005-06, 2006-07, 2007-08, 2008-09 and 2009-10. Using various Statistical Techniques such as Tabulation, Classification, Charts, Tests of Hypothesis viz. Chi- Square, the data is analysed.

**Hypothesis:** Sex and Stages (Primary/Upper Primary) are independent as far as 'Out of School' characteristic is concerned.

The above hypothesis is tested for 2005-06, 2006-07& 2009-10.

### **Statistical Analysis**

**Table No. 1**

**Title: Enrolment of Boys (Classes I to VIII) during 2005-2010**

Class	2005-06	2006-07	2007-08	2008-09	2009-10
I	7185	8821	9945	10176	12034
II	7001	8398	9413	9945	10176
III	7186	8260	9200	9413	9945
IV	6672	8194	8686	9200	9413

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V	6307	7778	8471	8686	9200
Total (Pry)	<b>34351</b>	<b>41451</b>	<b>45715</b>	<b>47420</b>	<b>50768</b>
VI	6943	7090	7800	8471	8686
VII	6535	6691	7305	7800	8471
VIII	7134	6222	6352	7305	7800
Total (UP)	<b>20612</b>	<b>20003</b>	<b>21457</b>	<b>23576</b>	<b>24957</b>
Total (Elementary)	<b>54963</b>	<b>61454</b>	<b>67172</b>	<b>70996</b>	<b>75725</b>

Source: Navi Mumbai Corporation Education Board

Table No. 2

Title: Enrolment of Girls (Classes I to VIII) during 2005-2010

Class	2005-06	2006-07	2007-08	2008-09	2009-10
I	6914	7750	8595	8809	9023
II	5829	7371	8029	8595	8809
III	6450	7327	8051	8029	8595
IV	5895	7007	7653	8051	8029
V	5506	6772	7221	7653	8051
Total (Pry)	<b>30594</b>	<b>36227</b>	<b>39549</b>	<b>41137</b>	<b>42507</b>
VI	5827	8153	6915	7221	7653
VII	5413	5830	6398	6915	7221
VIII	6025	5343	5619	6398	6915
Total (UP)	<b>17265</b>	<b>19326</b>	<b>18932</b>	<b>20534</b>	<b>21789</b>
Total (Elementary)	<b>47859</b>	<b>55553</b>	<b>58481</b>	<b>61671</b>	<b>64296</b>

Source: Navi Mumbai Corporation Education Board

Table No. 3

Title: Enrolment in Primary (I to V) schools sex wise , Year wise

Year	Boys	Girls	Total
2005-06	34351	30594	<b>62914</b>
2006-07	41451	36227	<b>64913</b>
2007-08	45715	39549	<b>65681</b>
2008-09	47420	41137	<b>77678</b>
2009-10	50768	42507	<b>80527</b>

Source: Navi Mumbai Corporation Education Board

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**Table No. 4**

**Title: Enrolment in Upper Primary(VI to VIII) schools sex wise , Year wise**

Year	Boys	Girls	Total
2005-06	20612	17265	<b>24337</b>
2006-07	20003	19326	<b>32943</b>
2007-08	21457	18932	<b>37877</b>
2008-09	23576	20534	<b>39329</b>
2009-10	24957	21789	<b>42314</b>

Source: Navi Mumbai Corporation Education B

**Table No.5**

**Title: Enrolment of Children (Classes I to VIII) during 2005-2010**

CLASS	2005-06	2006-07	2007-08	2008-09	2009-10
I	14099	16571	18540	18985	21057
II	12830	15769	17442	18540	18985
III	13636	15587	17251	17442	18540
IV	12567	15201	16339	17251	17442
V	11813	14550	15692	16339	17251
<b>Total A:(Pry)</b>	<b>64945</b>	<b>77678</b>	<b>85264</b>	<b>88557</b>	<b>93275</b>
VI	12770	15243	14715	15692	16339
VII	11948	12521	13703	14715	15692
VIII	13159	11565	11971	13703	14715
<b>Total B:(UP)</b>	<b>37877</b>	<b>39329</b>	<b>40389</b>	<b>44110</b>	<b>46746</b>
<b>Total A+B</b>	<b>102822</b>	<b>117007</b>	<b>125653</b>	<b>132667</b>	<b>140021</b>

Source: Navi Mumbai Corporation Education Board

**Table No. 6**

**Title: Drop out rate (Primary) Year wise, Sex wise**

Year	Boys	Girls
2005-06	4.08	4.48
2006-07	10.33	10.93
2007-08	10.61	10.67
2008-09	3.68	3.53
2009-10	1.91	1.35

Source: Navi Mumbai Corporation Education Board

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Table No. 7

**Title: Drop out rate (Upper Primary) Year wise, Sex wise**

Year	Boys	Girls
2005-06	3.65	3.25
2006-07	11.63	11.28
2007-08	11.78	10.74
2008-09	8.14	7.75
2009-10	6.79	5.82

**Source: Navi Mumbai Corporation Education Board**

Table No. 8

**'Out of School Children' Year wise, Sexwise, Stagewise**

Year	Primary			Upper Prim		Total			
	B	G	Tot	B	G	Tot	B	G	Total
2005-06	878	559	1437	774	551	1325	1652	1110	2762
2006-07	154	119	273	52	43	95	206	162	368
2007-08	243	253	496	198	206	404	441	459	900
2008-09	68	42	110	19	18	37	87	60	147

**Footnote:**

**B:Boys**

**G: Girls**

**Source: Navi Mumbai Corporation Education Board.**

**Hypothesis Testing**

**Year 2005-06**

**Null Hyp: Stages(Primary, Upper Primary) and Sex are Independent as far as**

**'Out of School' is concerned.**

**Table of Observed Frequencies**

**Table of Expected Frequencies**

Stage	Boys	Girls	Total	Stage	Boys	Girls	Total
Primary	878	559	1437	Primary	859	578	1437
Upper Primary	774	551	1325	Upper Primary	793	532	1325
Total	1652	1110	2762	Total	1652	1110	2762

Level of Significance: 5%      Degrees of Freedom : 1

Table Value: 3.8414591      Chi-Square Statistic: 2.178628

Since Calculated Value is Less than Table Value, Null Hyp. is accepted at 5% level of Significance . Hence  $H_0$  is accepted overall.

Conclusion: **Stages** and **Sex** are **independent** as far as 'Out of School' criterion

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is concerned

**(I) Year 2006-07**

Null Hyp: Stages(Primary, Upper Primary) and Sex are Independent as far as

Out of School' is concerned.

**Table of Observed Frequencies**      **Table of Expected Frequencies**

Stage	Boys	Girls	Total	Stage	Boys	Girls	Total
<b>Primary</b>	<b>154</b>	<b>119</b>	<b>273</b>	Primary	153	120	273
Upper Primary	52	43	95	Upper Primary	53	42	95
<b>Total</b>	<b>206</b>	<b>162</b>	<b>368</b>	Total	206	162	368

Level of Significance: 5%      Degrees of Freedom : 1  
Table Value: 3.8414591      Chi-Square Statistic: .057547

Since Calculated Value is Less than Table Value, Null Hyp. is accepted at 5% level of Significance  
Hence  $H_0$  is accepted overall.

Conclusion: **Stages** and **Sex** are **independent** as far as 'Out of School' criterion is concerned

**(II) Year 2007-08**

Null Hyp: Stages(Primary, Upper Primary) and Sex are Independent as far as

Out of School' is concerned.

**Table of Observed Frequencies**      **Table of Expected Frequencies**

Stage	Boys	Girls	Total	Stage	Boys	Girls	Total
<b>Primary</b>	<b>243</b>	<b>253</b>	<b>496</b>	Primary	243	253	496
Upper Primary	198	206	404	Upper Primary	198	206	404
<b>Total</b>	<b>441</b>	<b>459</b>	<b>900</b>	Total	441	459	900

Level of Significance: 5%      Degrees of Freedom : 1  
Table Value: 3.8414591      Chi-Square Statistic: 1.57E-18 i.e.  
approx 0

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Since Calculated Value is Less than Table Value, Null Hyp. is accepted at 5% level of Significance

Hence  $H_0$  is accepted overall.

Conclusion: **Stages** and **Sex** are **independent** as far as 'Out of School' criterion is concerned

**(III) Year 2008-09**

Null Hyp: Stages(Primary, Upper Primary) and Sex are Independent as far as

Out of School' is concerned.

Table of Observed Frequencies      Table of Expected Frequencies

Stage	Boys	Girls	Total	Stage	Boys	Girls	Total
Primary	68	42	110	Primary	65	45	110
Upper Primary	19	18	37	Upper Primary	22	15	37
Total	87	60	147	Total	87	60	147

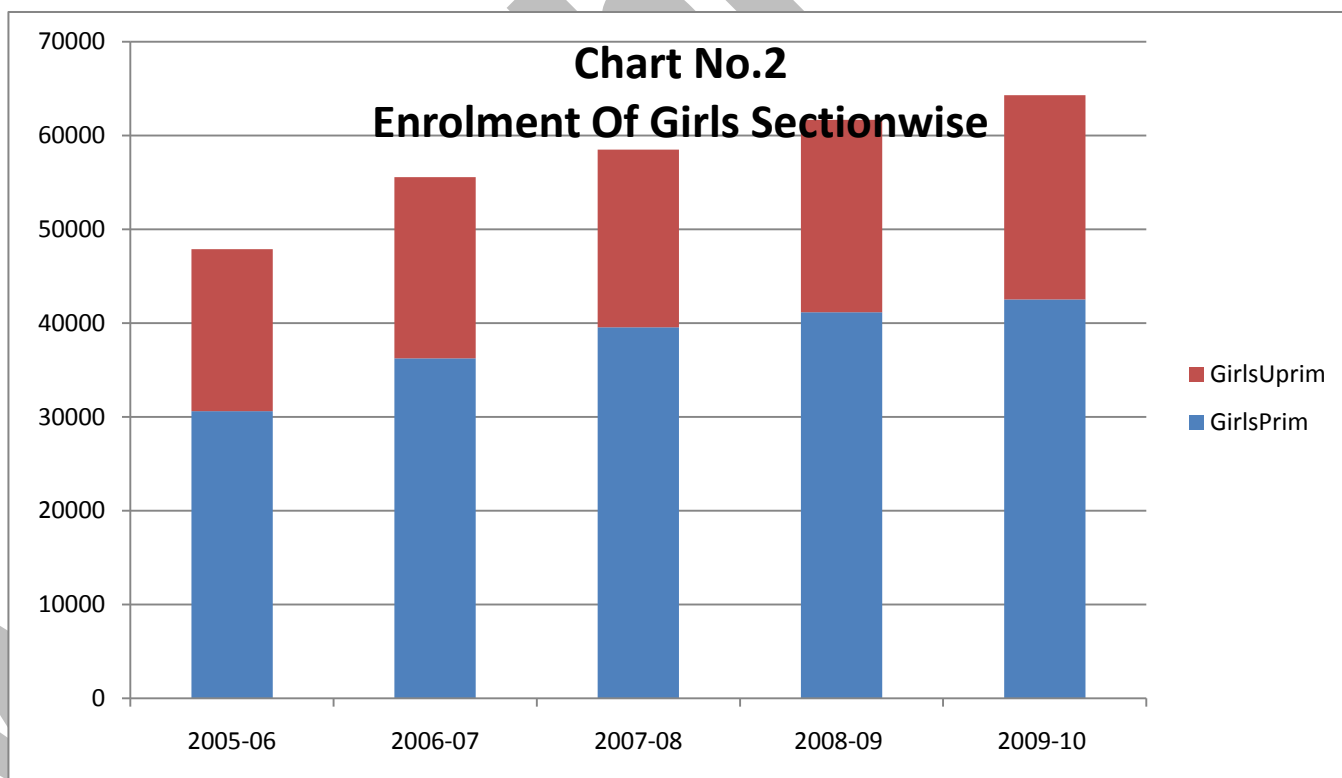
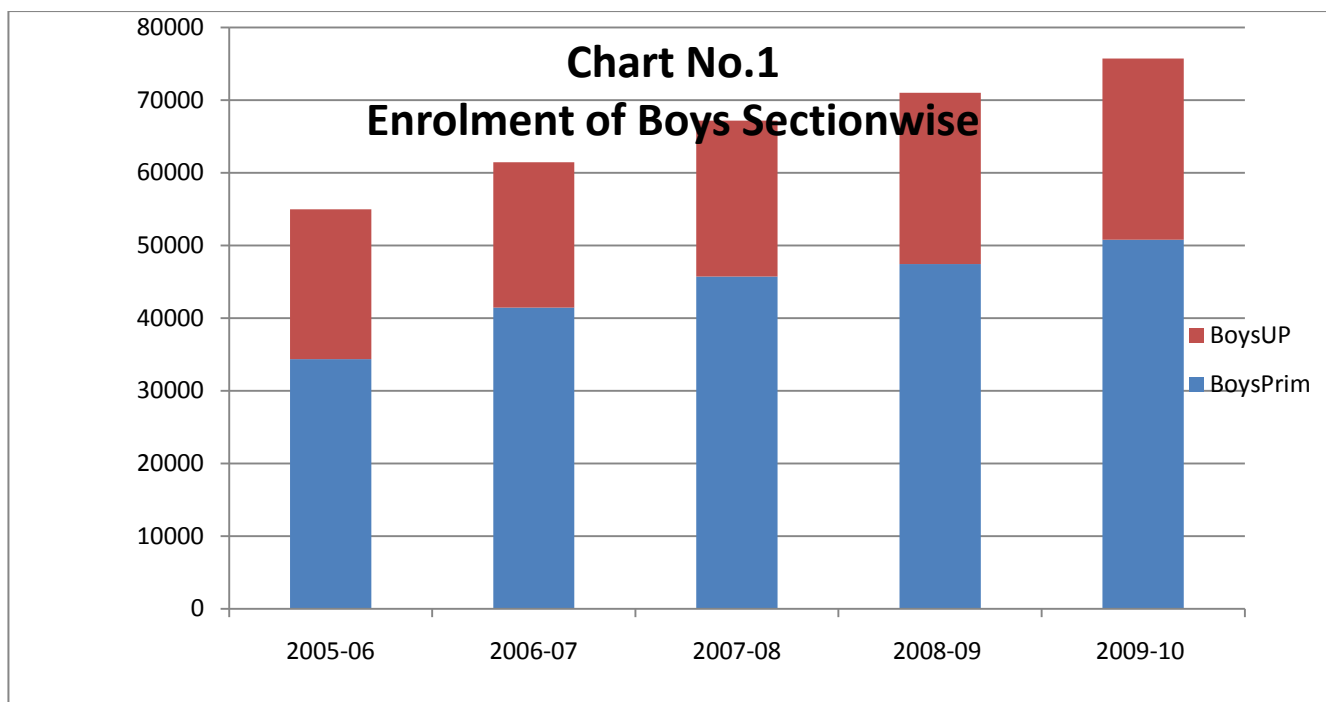
Level of Significance: 5%      Degrees of Freedom : 1

Table Value: 3.8414591

Chi-Square Statistic: 1.347552

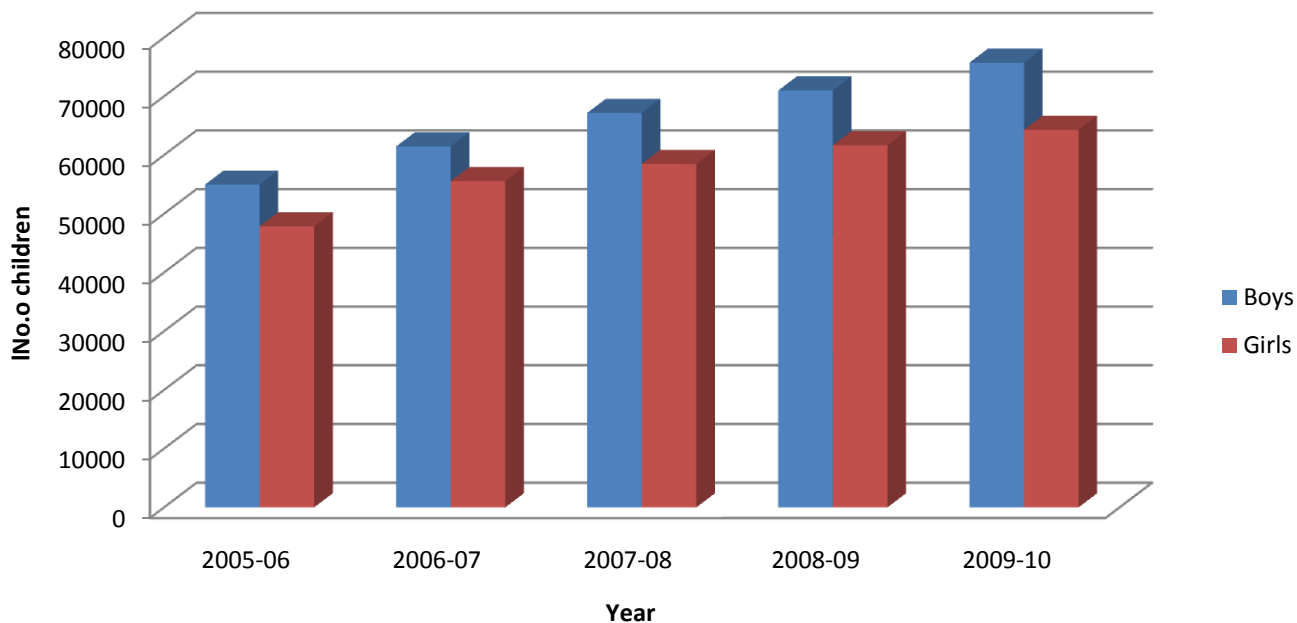
Since Calculated Value is Less than Table Value, Null Hyp. is accepted at 5% level of Significance .Hence  $H_0$  is accepted overall.

Conclusion: **Stages** and **Sex** are **independent** as far as 'Out of School' criterion is concerned



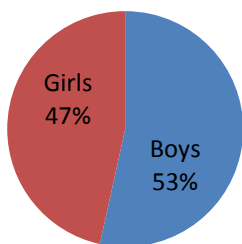


**Chart No. 3 Enrolment of children in Navi Mumbai Schools**

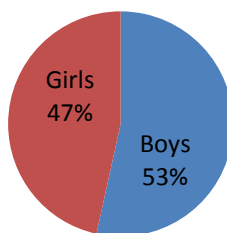


**Proportion of Boys and Girls from 2005-06 to 2009-10**

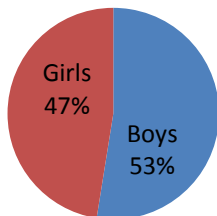
**Chart No.4**  
**2005-06**



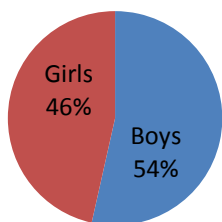
**Chart No.5**  
**2006-07**



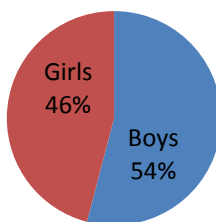
**Chart No. 6**  
**2007-08**



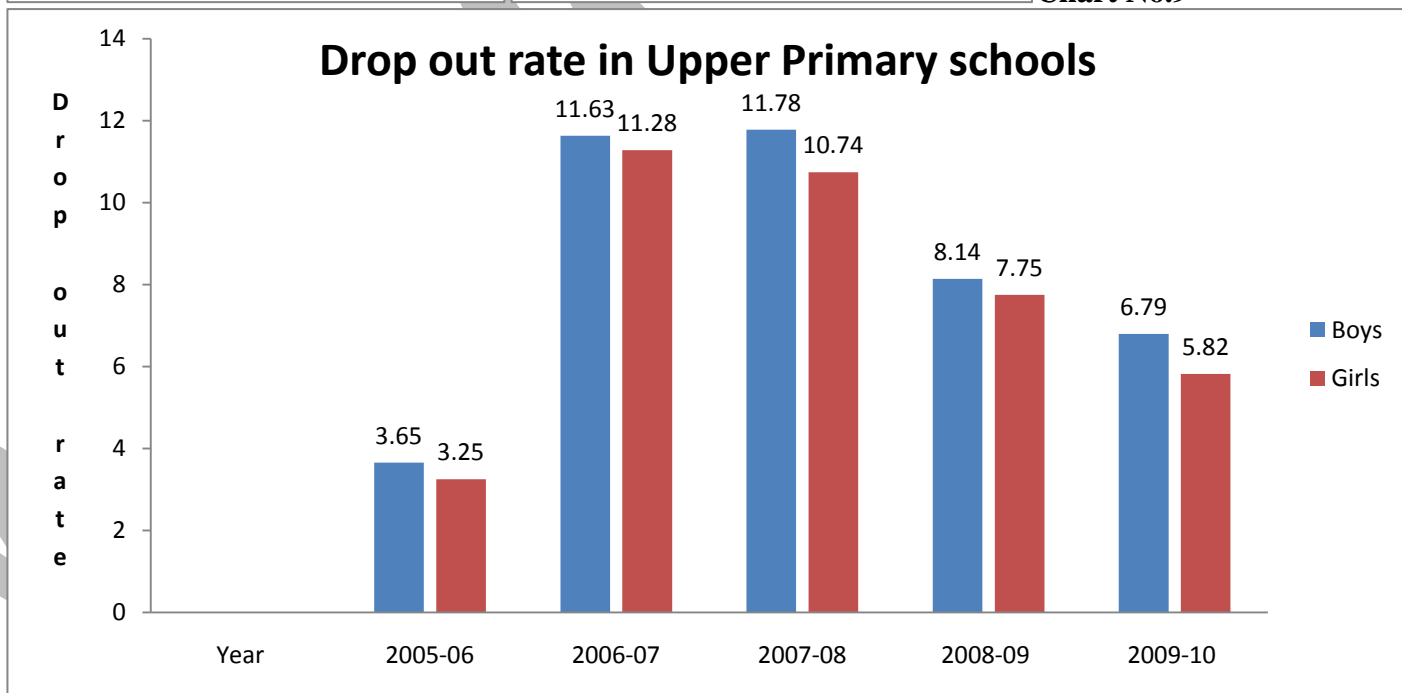
**Chart No. 7**  
**2008-09**



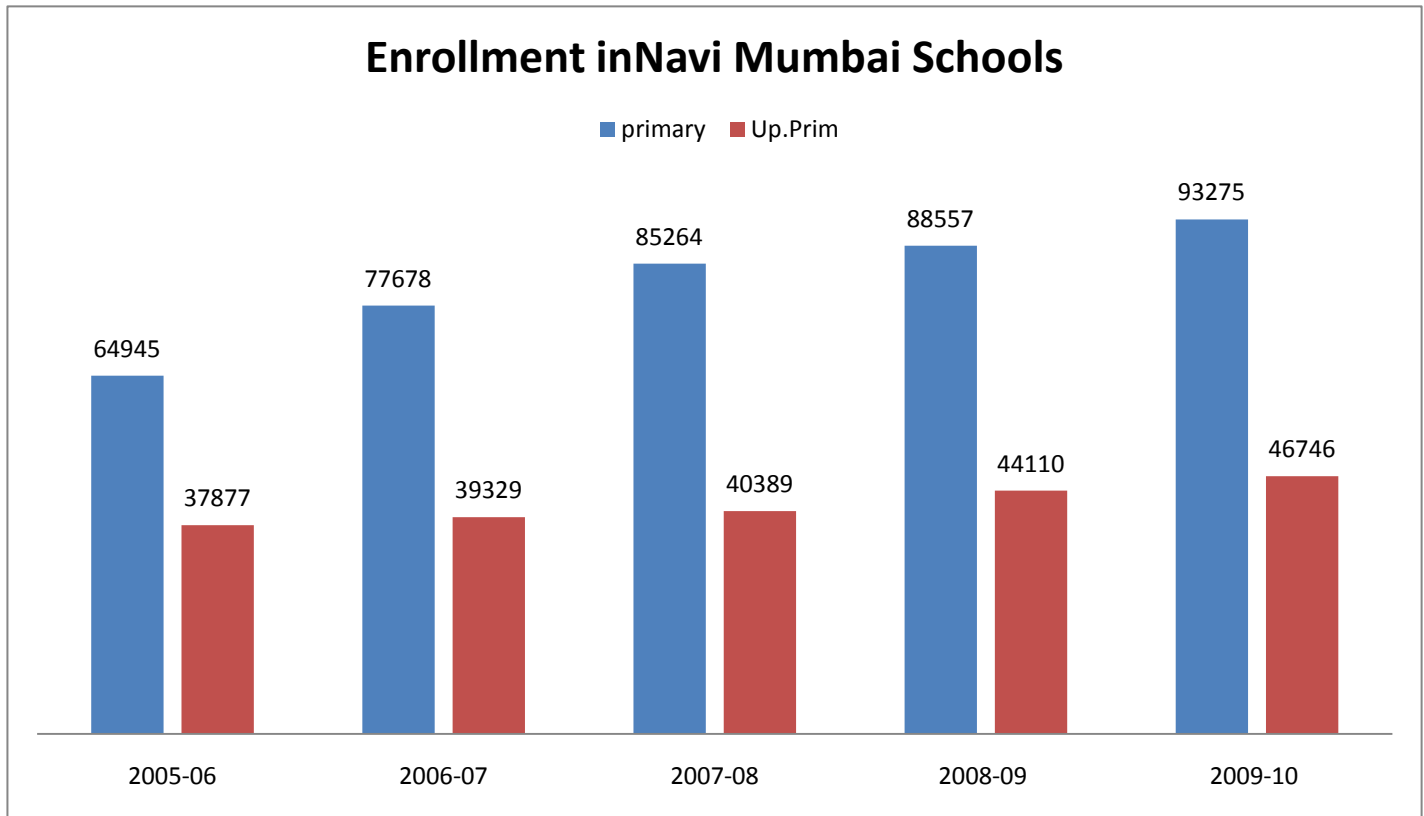
**Chart No.8**  
**2009-10**



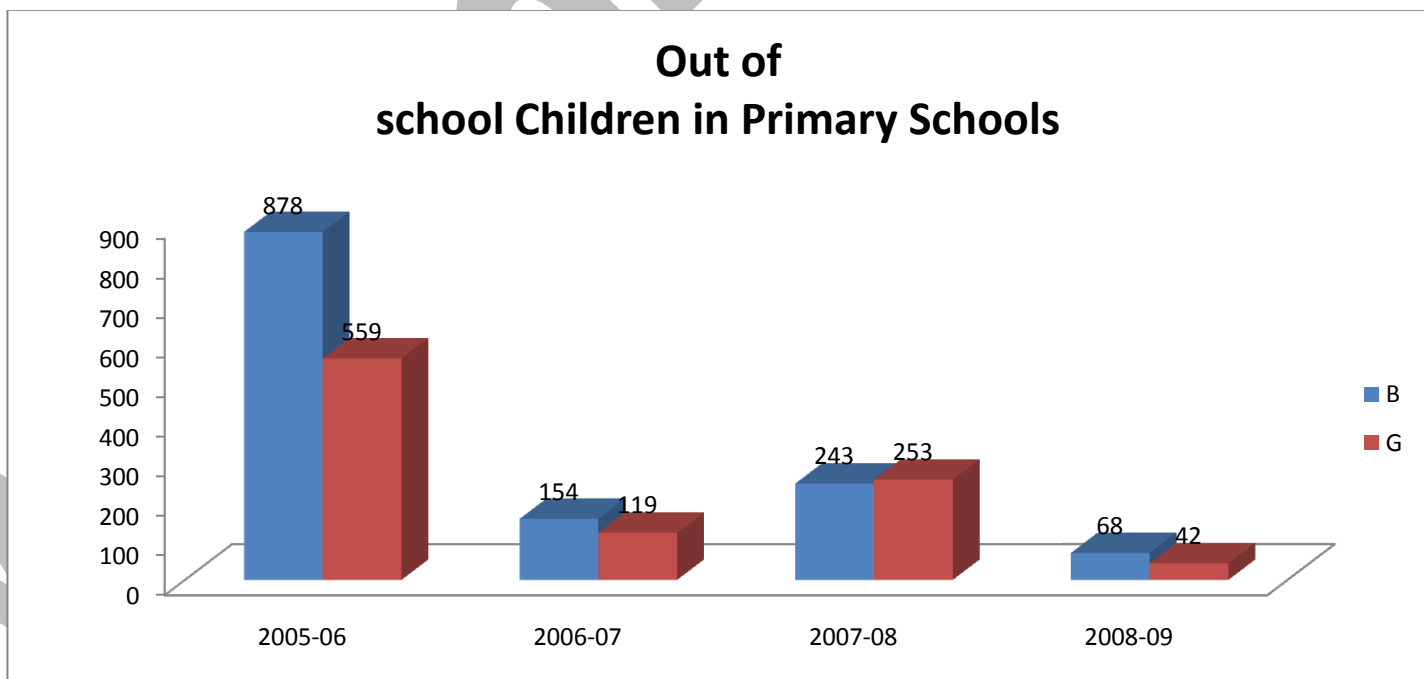
**Chart No.9**



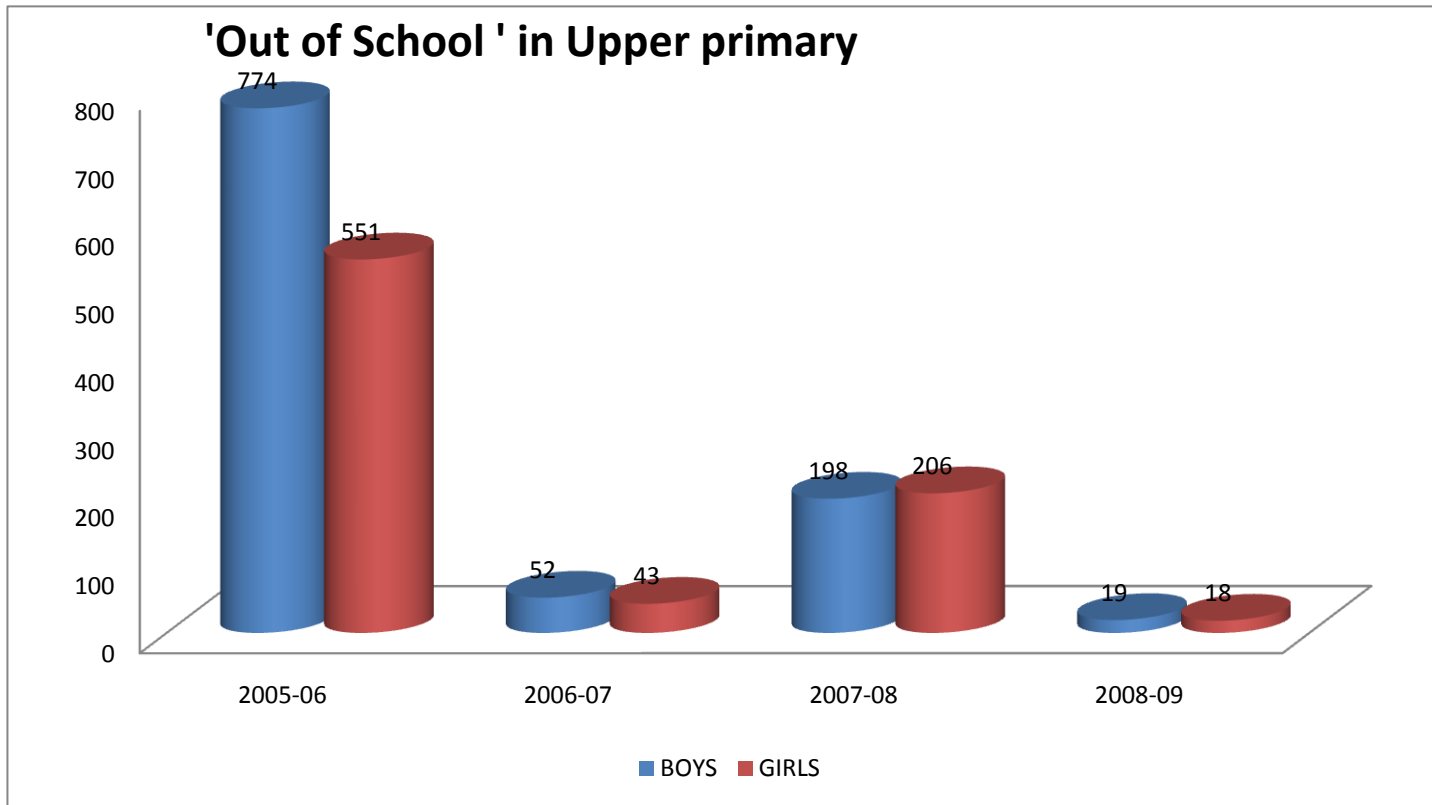
**Chart No.10**



**Chart No. 11**



**Chart No. 12**



**Chart No. 13**

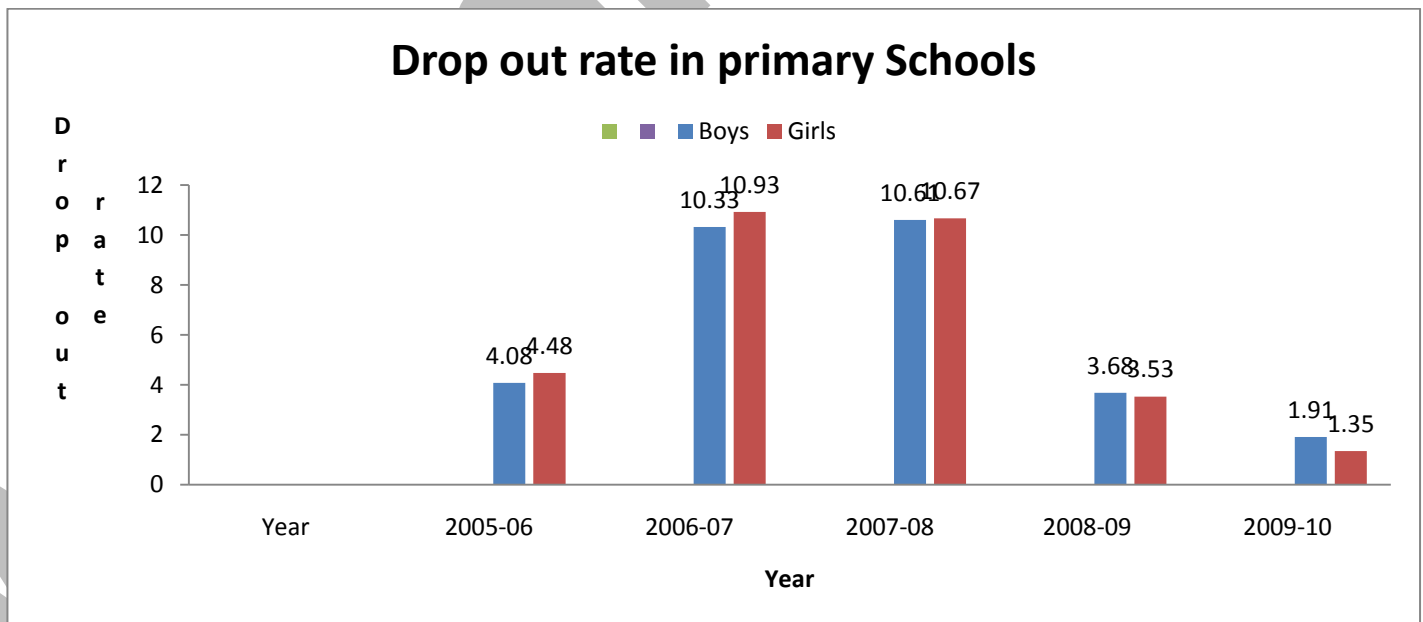
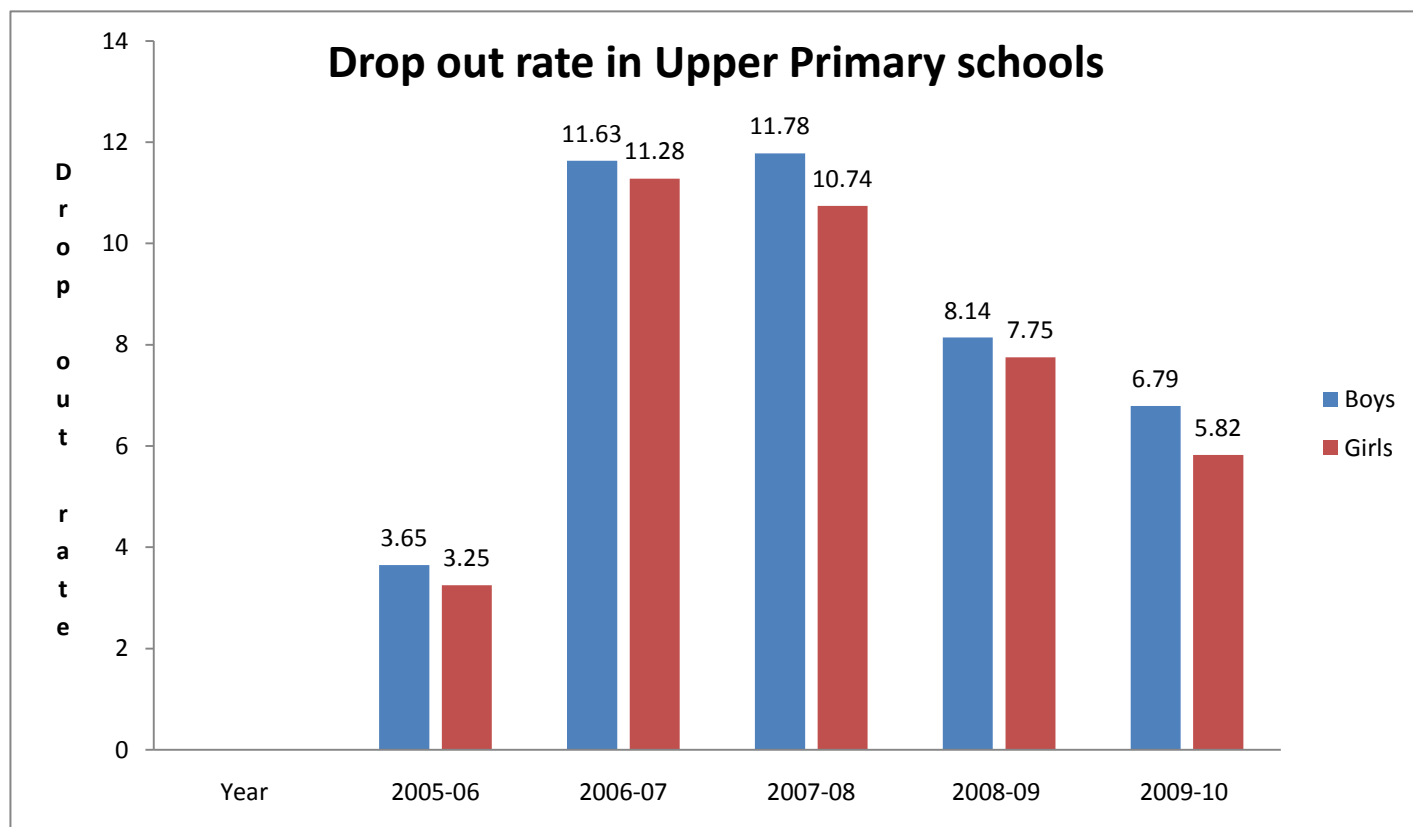


Chart No. 14



### Conclusions

- An increasing trend is observed in overall Enrolment. [ From charts 1,2,3] Also same pattern is observed in enrolment of Boys and Girls [ From charts 4 to 8]
- Proportion of Boys and Girls remains almost same from the year 2005 -06 to 2009 – 10. [From charts 4 to 8]
- Decreasing trend is observed in Drop out rate from 2007 -08 onwards. It may be due to effective implementation of Sarva Shiksha Abhiyan projects. Also the tendency of ‘Out of School’ is also in decreasing direction. [from charts 9 to 14]
- From the conclusions of Hypothesis Testing it can be concluded that Girls are forced to leave schools to help in household work or Boys to earn rather than study. Whatever dropouts observed is irrespective of gender. It is remarkable sign of giving equal status to girls. Parents are believing Girls and Boys are equal in society.

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**Web sites:**

- 1) [http://www.education.nic.in/ssa/ssa\\_1.asp#1.0](http://www.education.nic.in/ssa/ssa_1.asp#1.0)
- 2) [http://ssa.nic.in/page\\_portletlinks?foldername=list-of-state-societies](http://ssa.nic.in/page_portletlinks?foldername=list-of-state-societies)
- 3) [http://www.indg.in/primary-education/education-as-fundamental-human-right/inclusion-discovering\\_new\\_paths.pdf](http://www.indg.in/primary-education/education-as-fundamental-human-right/inclusion-discovering_new_paths.pdf)
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