Comparative Report on Educational Indicators

Year 2007-08 to 2010-11

Sindh-EMIS Reform Support Unit
Department of Education & Literacy
Government Of Sindh

Table of Contents

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The data in this report should not be reproduced without proper acknowledgement made to the source, nor should any of the data be altered. The data were captured through the Annual School Census (ASC) exercises from 2007-08 to 2010-11, and the data verification and cleaning exercise performed to the Ministry's database. The statistics contained in this document is as at 31st May. 2011, which is the compilation data for the Annual School Census.

The data in this statistical bulletin are official statistics for the Ministry of Education. The Statistics in the Statistics Bulletin uses the Population Census Origination (PCO) official population projections.

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Executive Summary

The Comparative Report on Educational Indicators is based on the assessment of the data collected by Annual School Census of **2007-08, 2008-09, 2009-10 and 2010-11**. For the evaluation of participation, efficiency, provision for education and quality of education the indicators has been used that are prescribed by UNESCO. The data is bifurcated in gender, level, class and year wise. The indicators that are used are Promotion Rate (PR), Repetition Rate (RR), Dropout Rate (DR), Student Teacher Ratio (STR) and Student Class Ratio (SCR).

Promotion Rates in the last four years have been improving if those are ascertained class wise. However the **Repetition Rates** have shown mix trends with an increase in repetition rates of class 1 and 2, class 12 shows the least repetition rates if determined class wise. While the **Dropout Rates** in the year 2010-11 has decreased except few classes.

On the other hand the **Student Teacher Ratio** on level wise basis increase is seen in all levels except primary level that showed a STR of 32.25 and higher secondary level has shown the highest repetition rate. Whereas, the **Student Class Ratio** (SCR) on level basis has decreased in all levels except higher secondary level when compared with previous four years and in 2010-11 the SCR is highest is higher secondary level and lowest in middle level.

1.1 Promotion Rate

Promotion Rate is the proportion of pupils who have successfully completed a given grade and proceeded to the next grade the following year. The progression rate shows s the relative size of the group who successfully moved to the next grade within the education program. It is used to measure the performance of the education system in promoting pupils from a cohort from grade to grade, and its effect on the internal efficiency of educational systems. It is also a key indicator for analyzing and projecting pupil flows from grade to grade within the educational cycle. Ideally, the rate should approach 100%; a high rate reflects high internal efficiency of the educational system. When compared across grades, the patterns can indicate specific grades for which there is low promotion.

Comparative Repetition Rates of Year 2007-08 to 2010-11: Class Wise

In the last few years promotion rates in Public Sector schools of Sindh, according to reported data in Annual School Census, has shown many trends. By observing class wise promotion rate (as shown in table below) it can be seen that the passing rate has improved in most of the classes. Among which class 11-12 showed an increase i.e. form 92.53 percent in 2007-08 to 103.07 percent in 2010-11. The only decrease is seen only in class 5-6 and 10-11. In the last four years Class 10-11 has shown the least promotion rates.

Table 1.1: Promotion Rate of 2007-08 till 2010-11 Class Wise

Class	2007-08	2008-09	2009-10	2010-11
Class 1-2	60.80%	59.07%	69.99%	68.67%
Class 2-3	78.35%	84.27%	83.36%	80.63%
Class 3-4	80.92%	87.10%	85.99%	82.82%
Class 4-5	82.51%	88.43%	85.90%	82.90%
Class 5-6	61.19%	60.75%	62.39%	60.05%
Class 6-7	88.16%	92.13%	98.23%	91.26%
Class 7-8	93.84%	94.65%	96.88%	92.72%
Class 8-9	86.84%	91.65%	93.63%	90.35%
Class 9-10	89.89%	94.55%	95.06%	90.17%
Class 10-11	22.89%	13.12%	18.71%	21.12%
Class 11-12	92.53%	78.80%	88.49%	103.07%

Figure 1.1: Promotion Rate of 2007-08 till 2010-11 Class Wise
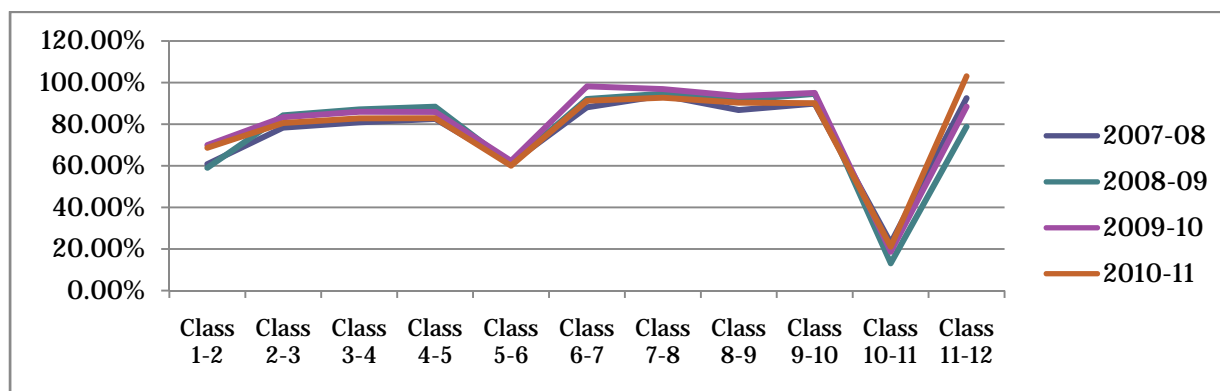
Figure 1.2: Promotion Rates of 2007-08 Class Wise

2007-08

Class	Rate
Class 1-2	60.80%
Class 2-3	78.35%
Class 3-4	80.92%
Class 4-5	82.51%
Class 5-6	61.19%
Class 6-7	88.16%
Class 7-8	93.84%
Class 8-9	86.84%
Class 9-10	89.89%
Class 10-11	22.89%
Class 11-12	92.53%
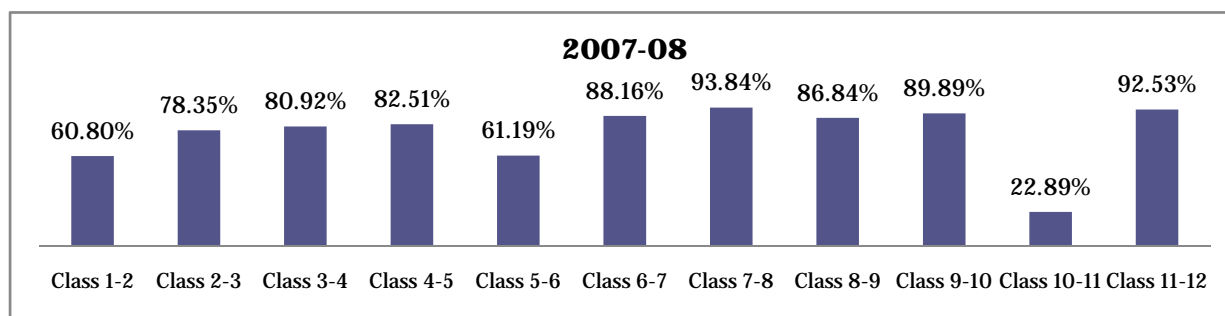
Figure 1.3: Promotion Rates of 2008-09 Class Wise

2008-09

Class	Rate
Class 1-2	59.07%
Class 2-3	84.27%
Class 3-4	87.10%
Class 4-5	88.43%
Class 5-6	60.75%
Class 6-7	92.13%
Class 7-8	94.65%
Class 8-9	91.65%
Class 9-10	94.55%
Class 10-11	13.12%
Class 11-12	78.80%
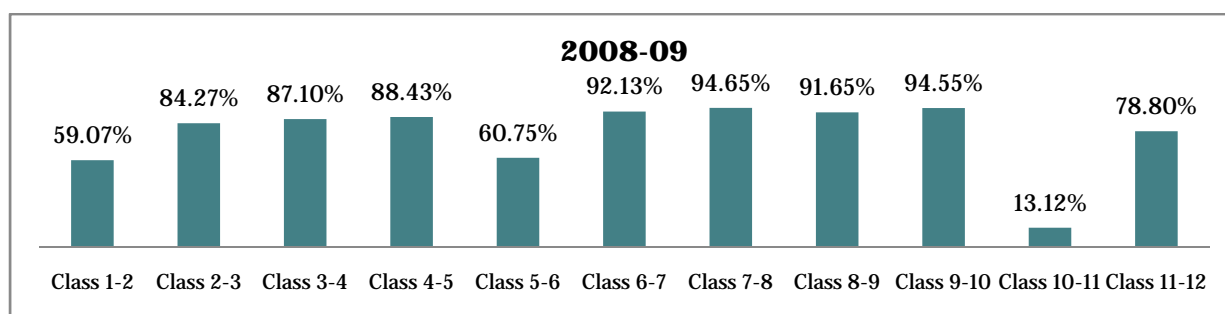
Figure 1.4: Promotion Rates of 2009-10 Class Wise

2009-10

Class	Rate
Class 1-2	69.99%
Class 2-3	83.36%
Class 3-4	85.99%
Class 4-5	85.90%
Class 5-6	62.39%
Class 6-7	98.23%
Class 7-8	96.88%
Class 8-9	93.63%
Class 9-10	95.06%
Class 10-11	18.71%
Class 11-12	88.49%
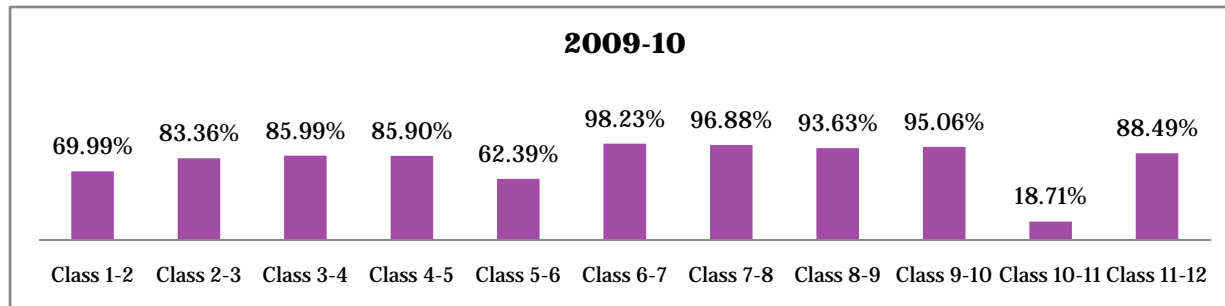
Figure 1.5: Promotion Rates of 2010-11 Class Wise

2010-11

Class	Rate
Class 1-2	68.67%
Class 2-3	80.63%
Class 3-4	82.82%
Class 4-5	82.90%
Class 5-6	60.05%
Class 6-7	91.26%
Class 7-8	92.72%
Class 8-9	90.35%
Class 9-10	90.17%
Class 10-11	21.12%
Class 11-12	103.07%
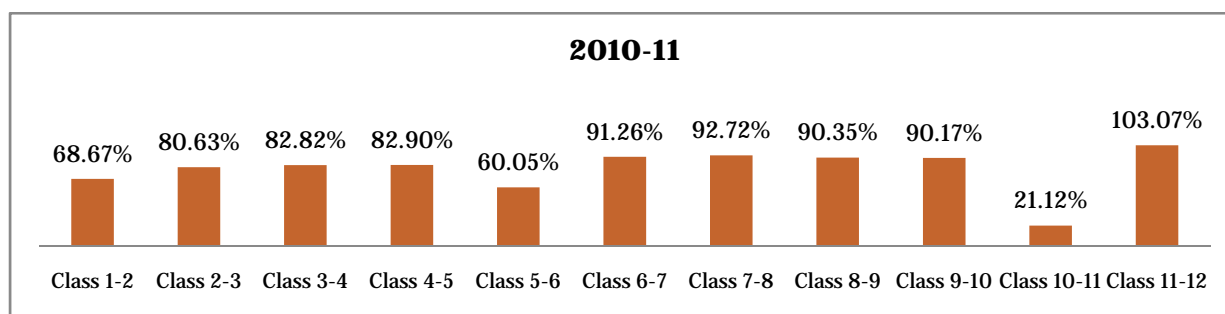
Figure 1.6: Promotion Rates of Class Wise

Class 1-2

Year	Rate
2007-08	60.80%
2008-09	59.07%
2009-10	69.99%
2010-11	68.67%

Class 2-3

Year	Rate
2007-08	78.35%
2008-09	84.27%
2009-10	83.36%
2010-11	80.63%

Class 3-4

Year	Rate
2007-08	80.92%
2008-09	87.10%
2009-10	85.99%
2010-11	82.82%

Class 4-5

Year	Rate
2007-08	82.51%
2008-09	88.43%
2009-10	85.90%
2010-11	82.90%

Class 5-6

Year	Rate
2007-08	61.19%
2008-09	60.75%
2009-10	62.39%
2010-11	60.05%

Class 6-7

Year	Rate
2007-08	88.16%
2008-09	92.13%
2009-10	98.23%
2010-11	91.26%

Class 7-8

Year	Rate
2007-08	93.84%
2008-09	94.65%
2009-10	96.88%
2010-11	92.72%

Class 8-9

Year	Rate
2007-08	86.84%
2008-09	91.65%
2009-10	93.63%
2010-11	90.35%

Class 9-10

Year	Rate
2007-08	89.89%
2008-09	94.55%
2009-10	95.06%
2010-11	90.17%

Class 10-11

Year	Rate
2007-08	22.89%
2008-09	13.12%
2009-10	18.71%
2010-11	21.12%

Class 11-12

Year	Rate
2007-08	92.53%
2008-09	78.80%
2009-10	88.49%
2010-11	103.07%

Comparative Promotion Rates of Year 2007-08 to 2010-11: School Level Wise

According to the following table, the promotion rates of secondary level have been on higher side as compared to other levels in the last four years i.e. 2007-08 to 2010-11. Whereas promotion rate of higher secondary level throughout last years have been lowest as compared to other levels. The promotion rate of primary level has increased from 75.65 percent in 2007-08 to 78.76 percent in 2010-11. On the other hand the middle level's promotion rate has increased from 81.07 percent in 2007-08 to 81.34 percent in 2010-11. Whereas the promotion rate of secondary level has increased from 88.36 percent in 2007-08 to 90.26 percent in 2010-11. However, the promotion rate of higher secondary level has increased from 57.71 percent in 2007-08 to 62.09 percent in 2010-11. As the said figures suggest the promotion rates of all school levels have increased among which secondary level has shown the higher promotion rates.

Table 1.2: Promotion Rates of 2007-08 till 2010-11 Level Wise

School Level	2007-08	2008-09	2009-10	2010-11
Primary	75.65%	79.71%	81.31%	78.76%
Middle	81.07%	92.81%	85.83%	81.34%
Secondary	88.36%	93.10%	94.34%	90.26%
Higher Sec	57.71%	45.96%	53.60%	62.09%

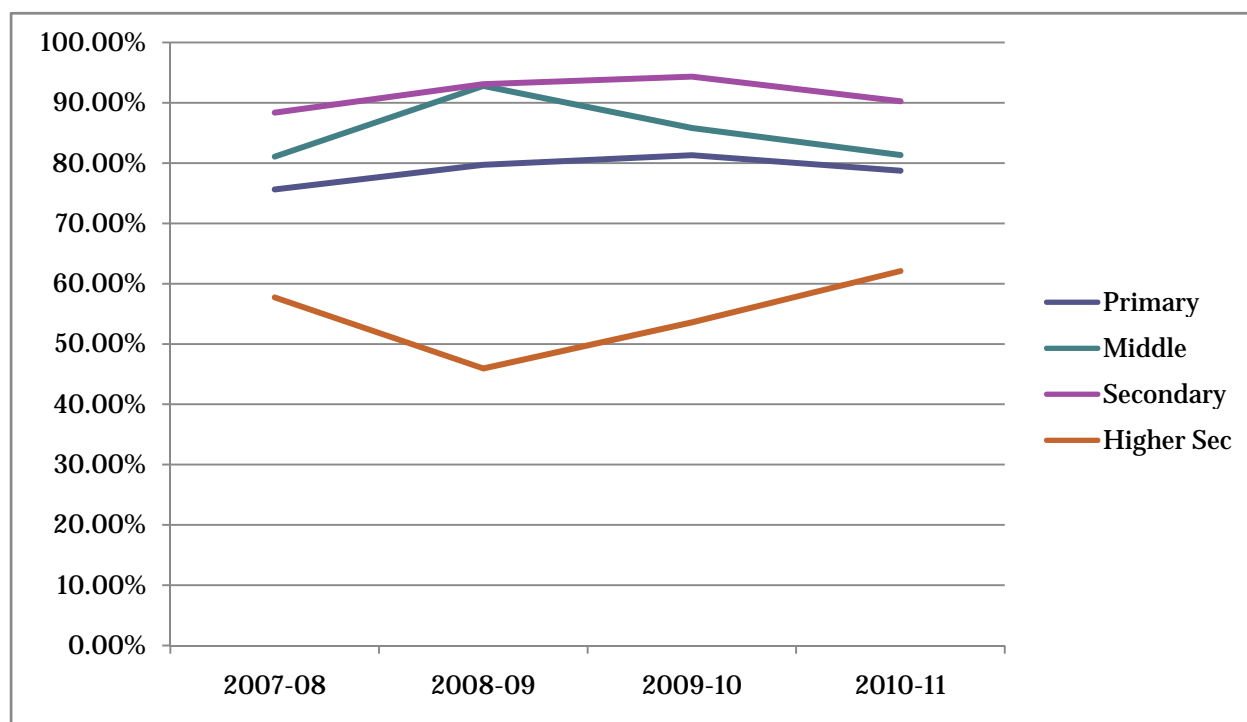*Figure 1.7: Promotion Rate of all School Level Year Wise:*

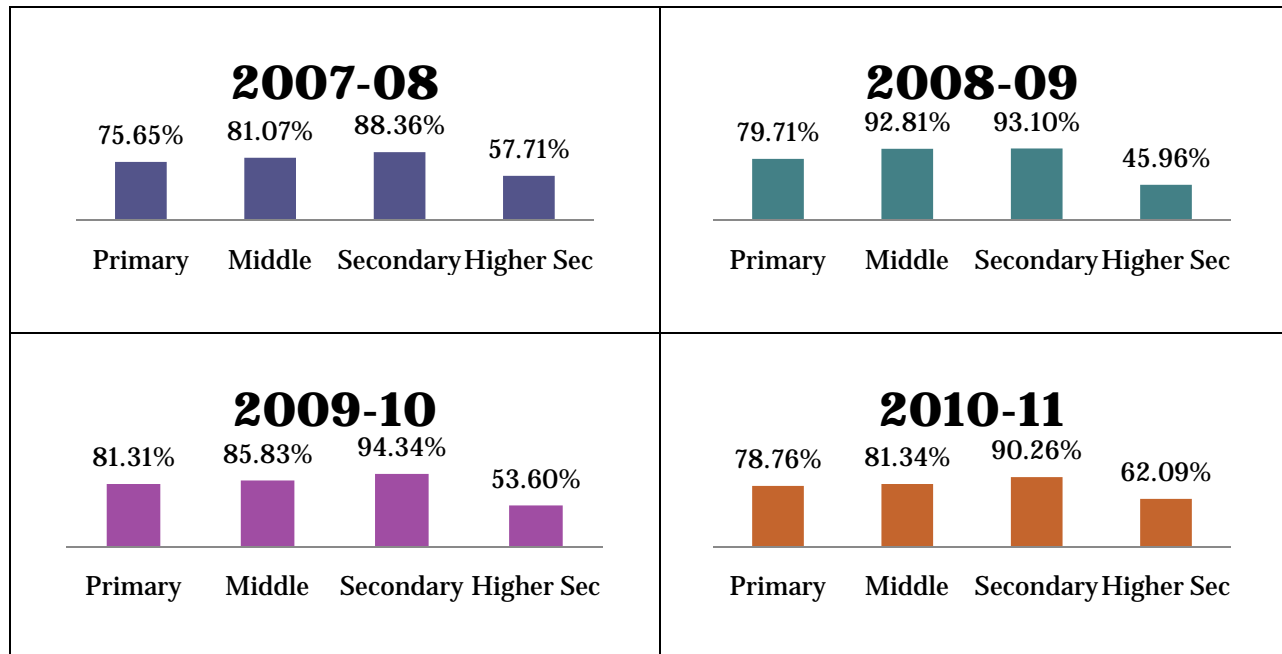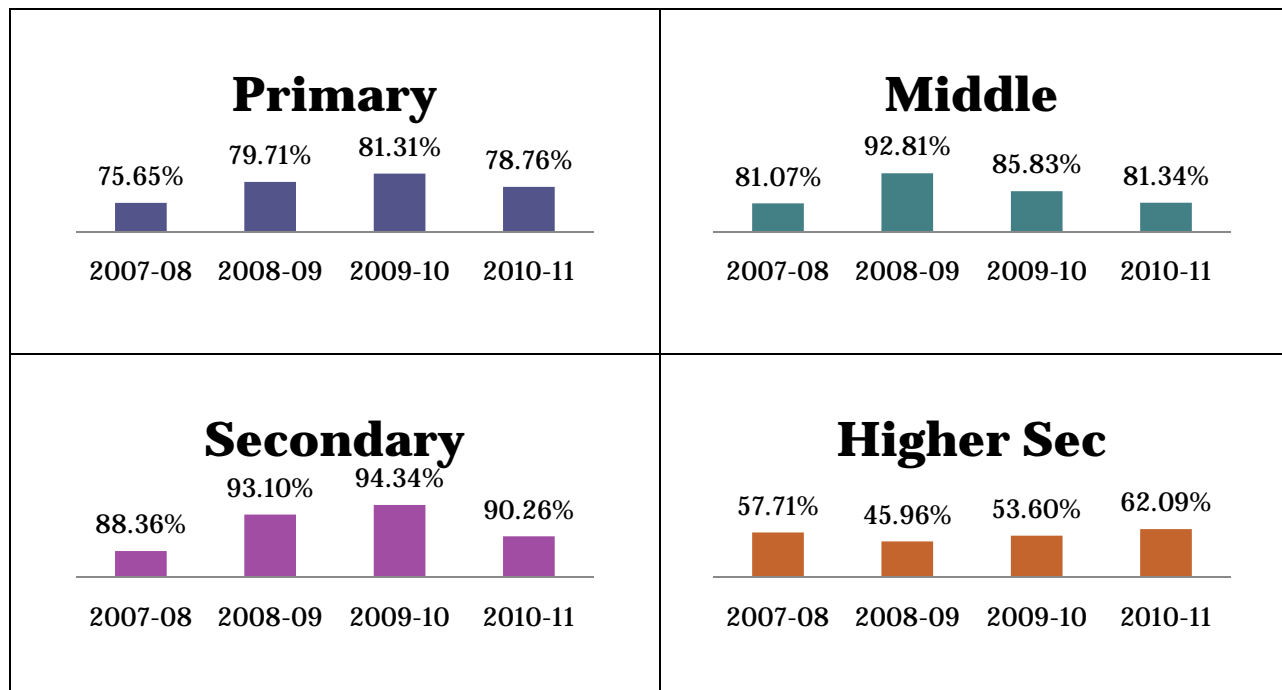*Figure 1.8: Promotion Rates of Years School Level Wise*

Figure 1.9: Promotion Rates of School Level Year Wise

2.1 Repetition Rate

Repetition rate measure the phenomenon of students from a cohort repetition a grade, and its effect on the internal efficiency of educational systems. In addition, it is one of the key measures for analyzing and projecting student flows from grade to grade within the educational cycle. Repetition Rate ideally should approach zero percent; a high repetition rate reveals problems in the internal efficiency of the educational system. The calculation method that is used to ascertain the repetition rate of a particular grade by dividing the number of repeaters in a given grade (e.g.Grade1) in school year i.e. 2009-10 by the number of pupils from the same cohort enrolled in the same grade in the previous school i.e. 2008-09. Ideally Repetition Rate should approach zero percent.

Comparative Repetition Rates of Year 2007-08 to 2010-11: Class Wise

According to the reported data in ASC of years 2007-08 to 2010-11, on average the repetition rates have shown a mix trends in Public sector schools of Sindh. All classes has shown a slight increase in about all classes when the figures are compared with the figures of 2010-11 with the 2007-08. The higher repetition rate has been seen in class 1 and 2 throughout the last four years. However class 12 has shown the least repetition rates. The following table and figures illustrates the overall trends of repletion rate over last four years.

Table 2.1: Repetition Rate of 2007-08 till 2010-11 Class Wise

Class	2007-08	2008-09	2009-10	2010-11
Class 1	5.17%	6.46%	6.71%	6.25%
Class 2	2.97%	4.39%	3.79%	3.72%
Class 3	2.32%	3.51%	2.85%	3.02%
Class 4	2.04%	2.96%	2.21%	2.38%
Class 5	1.23%	2.20%	1.47%	1.66%
Class 6	1.52%	1.31%	1.85%	2.05%
Class 7	0.97%	1.33%	1.59%	1.82%
Class 8	0.78%	1.01%	1.41%	1.53%
Class 9	0.43%	1.12%	0.89%	1.04%
Class 10	0.33%	1.76%	0.88%	1.03%
Class 11	0.25%	29.78%	0.79%	1.73%
Class 12	0.19%	1.04%	1.05%	1.81%

Figure 2.1: Repetition Rate of 2007-08 till 2010-11 Class Wise
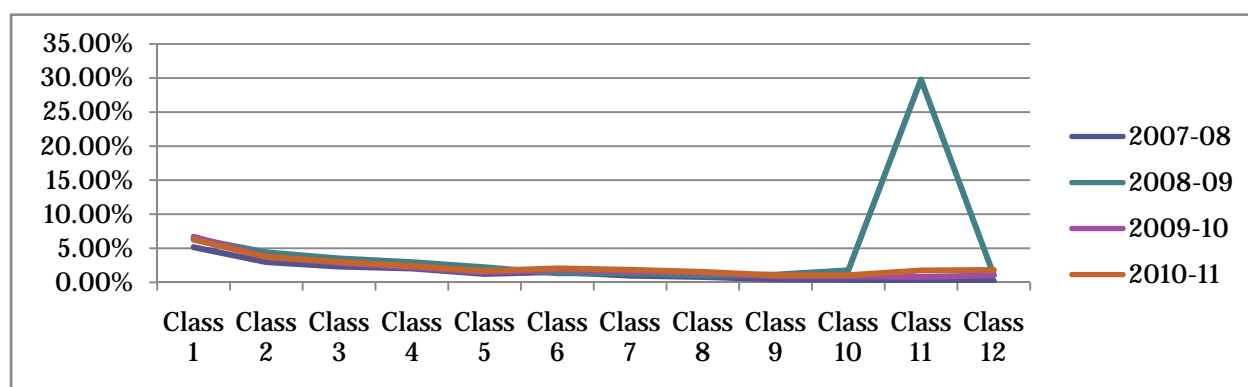
Figure 2.2: Repetition Rate of 2007-08 Class Wise

2007-08

Class	Rate
Class 1	5.17%
Class 2	2.97%
Class 3	2.32%
Class 4	2.04%
Class 5	1.23%
Class 6	1.52%
Class 7	0.97%
Class 8	0.78%
Class 9	0.43%
Class 10	0.33%
Class 11	0.25%
Class 12	0.19%
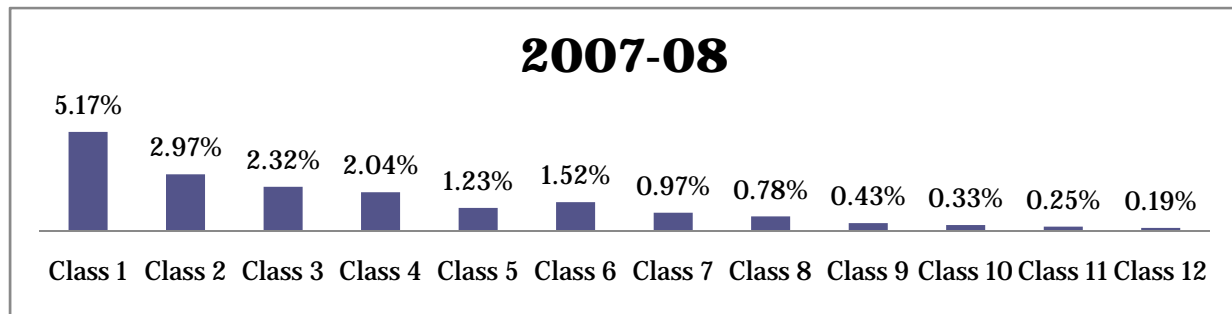
Figure 2.3: Repetition Rate of 2008-09 Class Wise

2008-09

Class	Rate
Class 1	6.46%
Class 2	4.39%
Class 3	3.51%
Class 4	2.96%
Class 5	2.20%
Class 6	1.31%
Class 7	1.33%
Class 8	1.01%
Class 9	1.12%
Class 10	1.76%
Class 11	29.78%
Class 12	1.04%
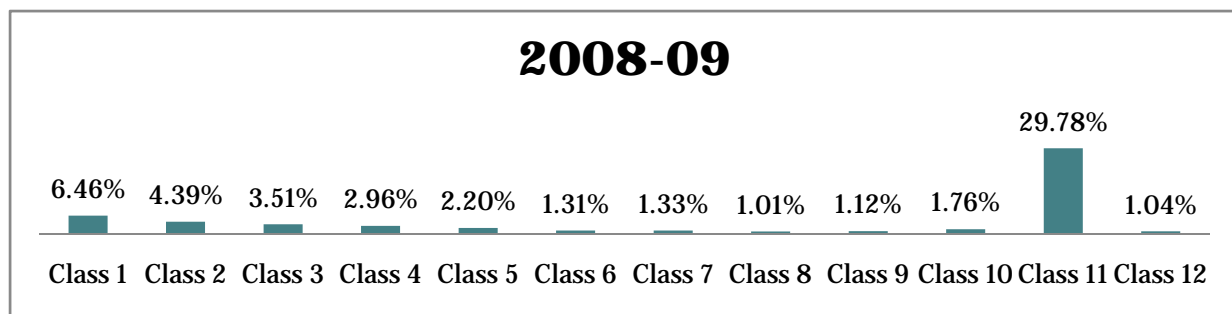
Figure 2.4: Repetition Rate of 2009-10 Class Wise

2009-10

Class	Rate
Class 1	6.71%
Class 2	3.79%
Class 3	2.85%
Class 4	2.21%
Class 5	1.47%
Class 6	1.85%
Class 7	1.59%
Class 8	1.41%
Class 9	0.89%
Class 10	0.88%
Class 11	0.79%
Class 12	1.05%
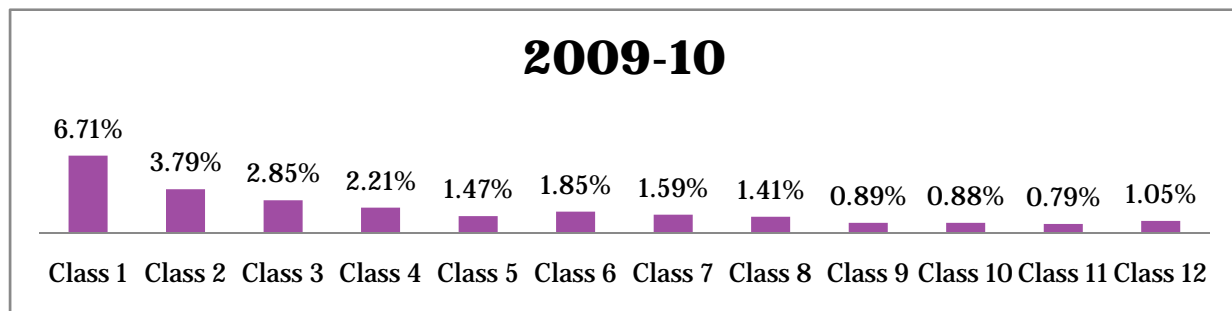
Figure 2.5: Repetition Rate of 2010-11 Class Wise

2010-11

Class	Rate
Class 1	6.25%
Class 2	3.72%
Class 3	3.02%
Class 4	2.38%
Class 5	1.66%
Class 6	2.05%
Class 7	1.82%
Class 8	1.53%
Class 9	1.04%
Class 10	1.03%
Class 11	1.73%
Class 12	1.81%
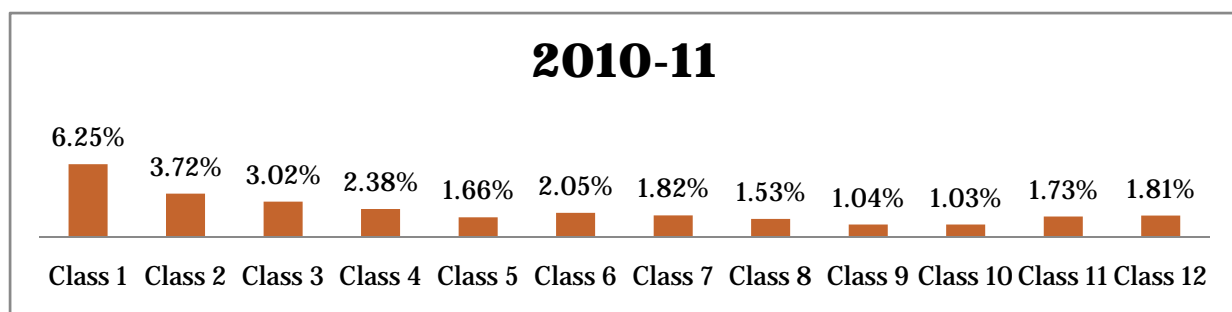
Figure 2.6: Repetition Rate of Classes Year Wise
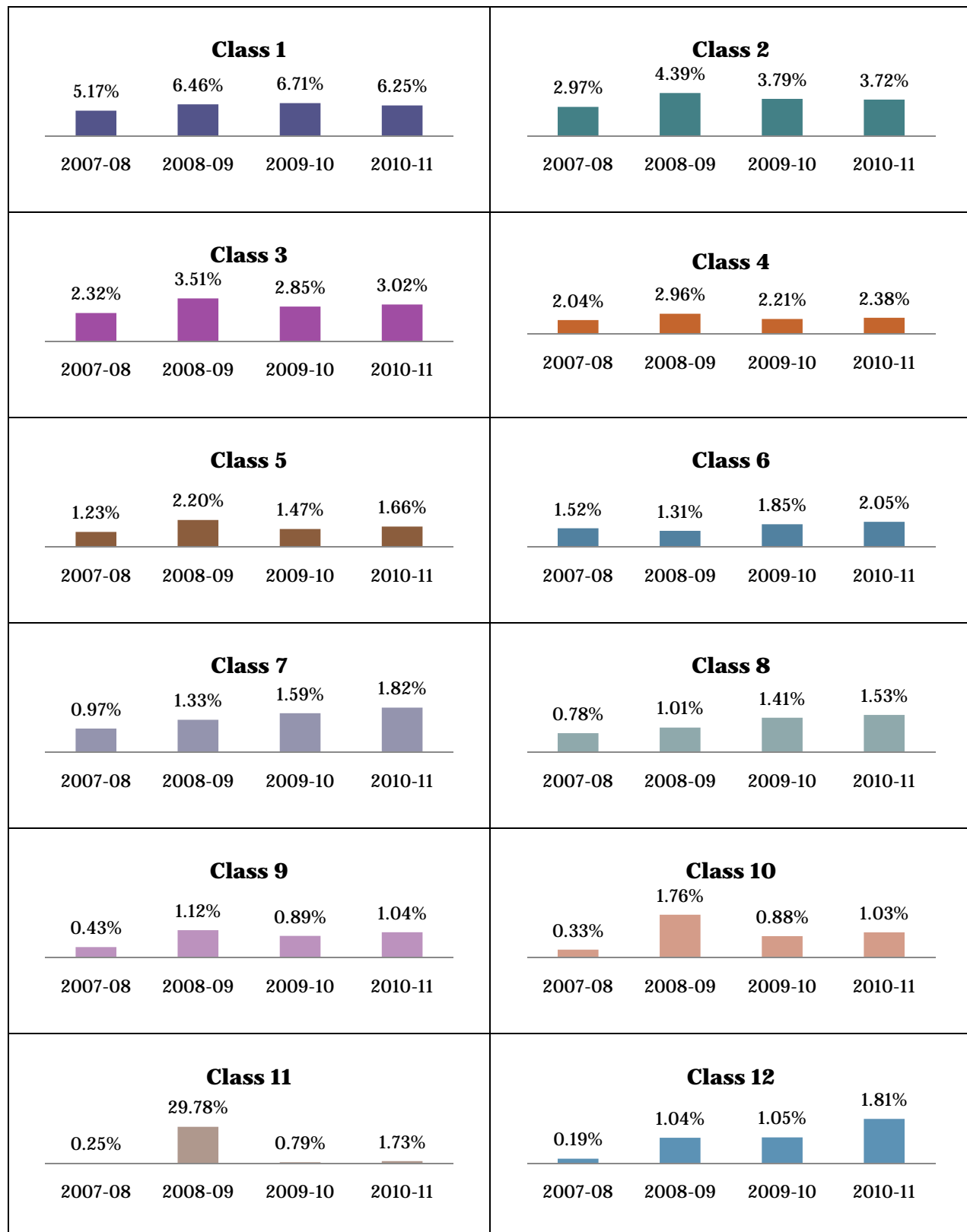
Comparative Repetition Rates of Year 2007-08 to 2010-11: School Level Wise

According to the reported data in ASC of years 2007-08 to 2010-11, on average the repetition rates have increased gradually in Public sector schools of Sindh. The Repetition rate for the levels of school has been ascertained by taking average of repetition rates of classes. As it is evident in the following table, the repetition rate of primary level is illustrating the highest repetition rate throughout the last four year from 2.74 percent in 2007-08 to 3.41 percent in 2010-11. While, repetition rate of secondary and higher secondary level have shown more increase in the repetition rate since 2007-08.

Table 2.2: Repetition Rate of 2007-08 till 2010-11 Level Wise

School Level	2007-08	2008-09	2009-10	2010-11
Primary	2.74%	3.91%	3.89%	3.41%
Middle	1.09%	1.22%	1.63%	1.80%
Secondary	0.38%	1.44%	0.89%	1.04%
Higher Sec	0.22%	15.41%	0.92%	1.77%

Figure 2.7: Repetition Rate of 2007-08 till 2010-11 Level Wise
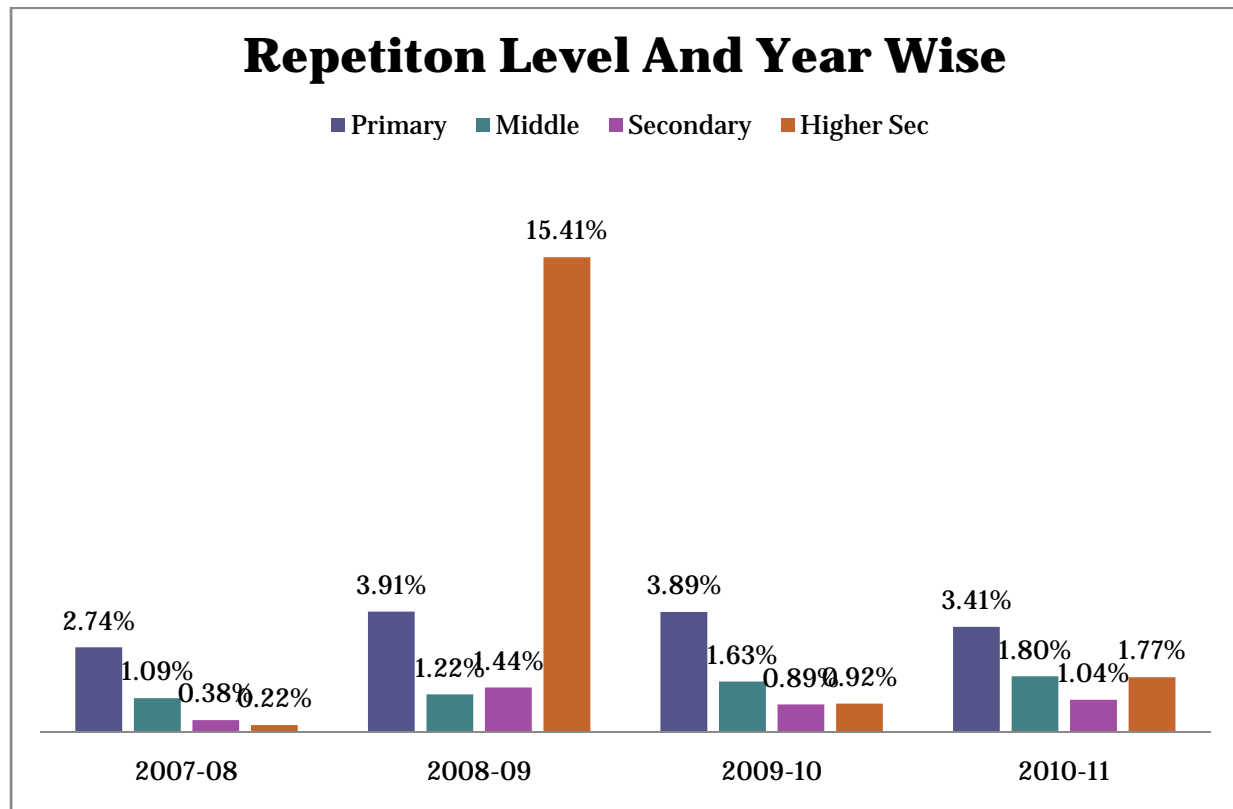
Figure 2.8: Repetition Rate of Years School Level Wise

2007-08

2.74% Primary
1.09% Middle
0.38% Secondary
0.22% Higher Sec

2008-09

3.91% Primary
1.22% Middle
1.44% Secondary
15.41% Higher Sec

2009-10

3.89% Primary
1.63% Middle
0.89% Secondary
0.92% Higher Sec

2010-11

3.41% Primary
1.80% Middle
1.04% Secondary
1.77% Higher Sec
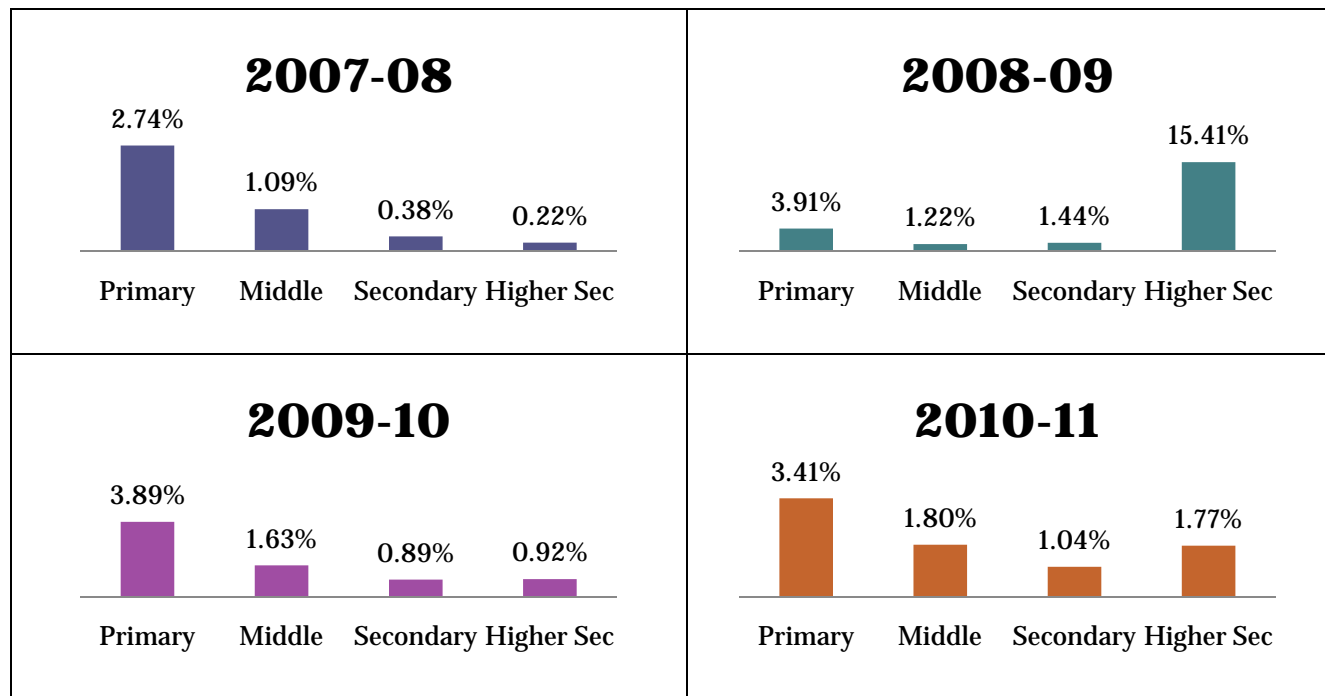
Figure 2.9: Repetition Rate of School Level Year Wise

Primary

2.74% 2007-08
3.91% 2008-09
3.89% 2009-10
3.41% 2010-11

Middle

1.09% 2007-08
1.22% 2008-09
1.63% 2009-10
1.80% 2010-11

Secondary

0.38% 2007-08
1.44% 2008-09
0.89% 2009-10
1.04% 2010-11

Higher Sec

0.22% 2007-08
15.41% 2008-09
0.92% 2009-10
1.77% 2010-11
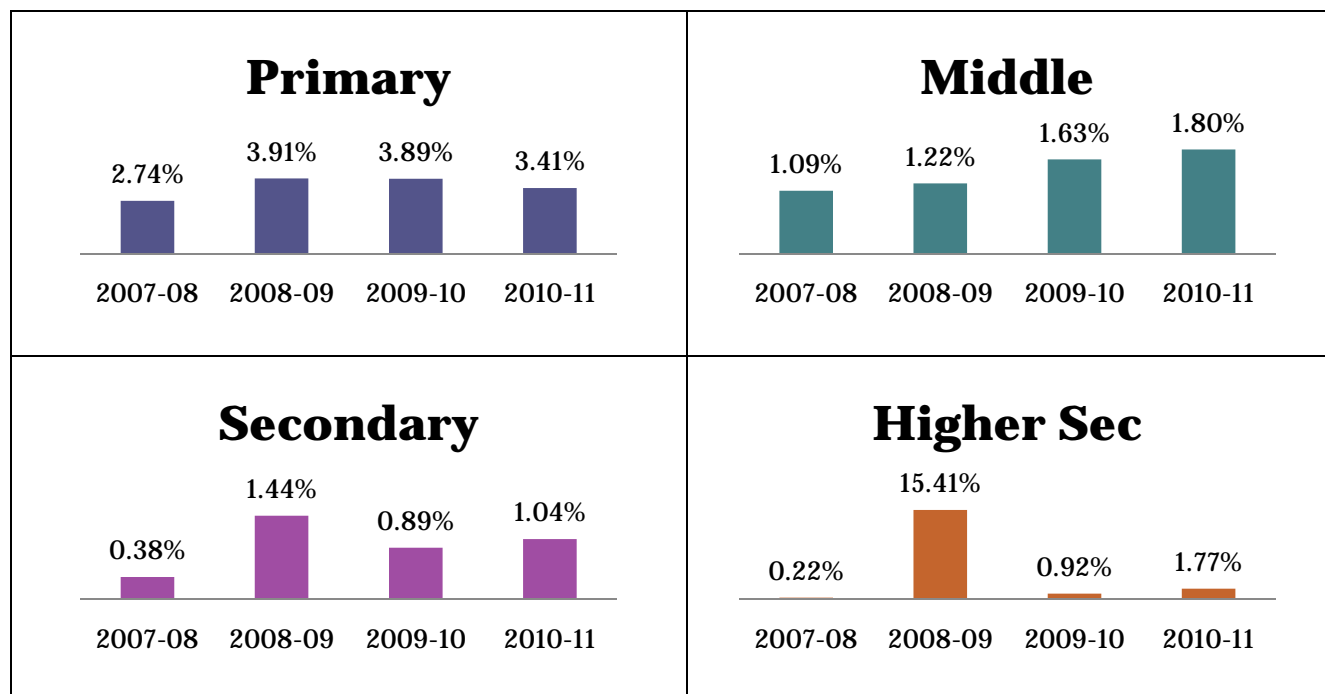
3.1 Dropout rate

Dropout rate is the proportion of students who leave the system without completing a given grade in a given school year. This rate shows the extent to which students abandon school. High dropout rates imply high input/output ratios and hence lead to low internal efficiency. The Purpose of ascertaining dropout rates is to measure the phenomenon of students from a cohort leaving school without completion, and its effect on the internal efficiency of educational systems. In addition, it is one of the key indicators for analyzing and projecting student flows from grade to grade within the educational cycle. The Calculation method that is used to find Dropout rate of a grade is done by subtracting the sum of promotion rate and repetition rate from 100 in the given school year.

Comparative Dropout Rates of Year 2007-08 to 2010-11: Class Wise

According to the reported data in recent years, of public sector in Sindh, following are the dropout rates of classes in last four years i.e. 2007-08 to 2010-11. As it is evident from the following table and graphs that ratio of students leaving schooling system is higher in Class 5-6, 7-8 and 10-11when compared to 2007-08 and the rest of the classes show a decrease in the dropout rates with class 11-12 showing the most decrease i.e. minus 4.79 percent. The highest dropout rate observed in class 10-11 i.e. 77.85 percent in after class 10 in 2010-11.

Table 3.1: Dropout Rates of 2007-08 till 2009-10 Class Wise

Class	2007-08	2008-09	2009-10	2010-11
Class 1-2	36.23%	36.54%	26.21%	25.08%
Class 2-3	19.33%	12.22%	13.79%	15.65%
Class 3-4	17.04%	9.94%	11.80%	14.16%
Class 4-5	16.26%	9.37%	12.63%	14.71%
Class 5-6	37.29%	37.94%	35.76%	38.28%
Class 6-7	10.87%	6.55%	0.18%	6.69%
Class 7-8	5.38%	4.33%	1.70%	5.45%
Class 8-9	12.73%	7.23%	5.48%	8.12%
Class 9-10	9.78%	3.70%	4.06%	8.78%
Class 10-11	76.86%	57.10%	80.50%	77.85%
Class 11-12	7.28%	20.17%	10.46%	-4.79%

Table 3.1: Dropout Rates of 2007-08 till 2010-11 Class Wise
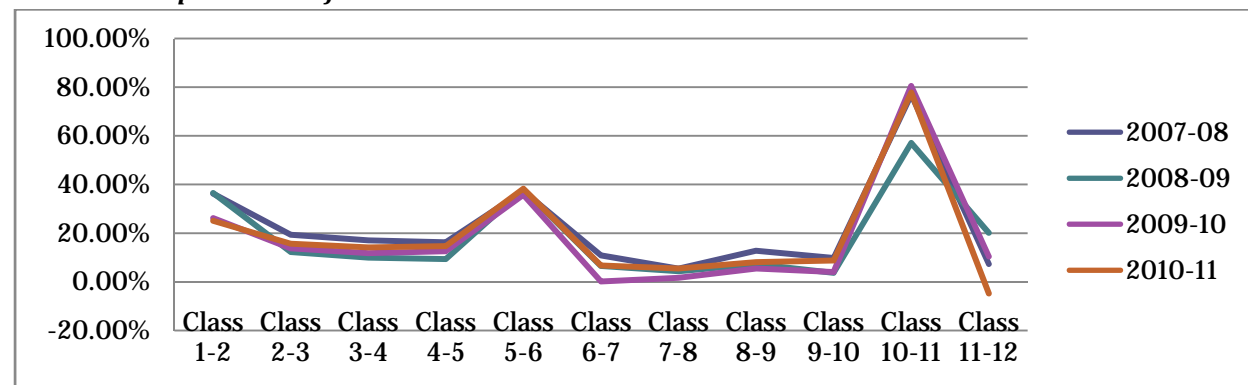
Figure 3.2: Dropout Rates of 2007-08 Class Wise

2007-08

Class	Rate
Class 1-2	36.23%
Class 2-3	19.33%
Class 3-4	17.04%
Class 4-5	16.26%
Class 5-6	37.29%
Class 6-7	10.87%
Class 7-8	5.38%
Class 8-9	12.73%
Class 9-10	9.78%
Class 10-11	76.86%
Class 11-12	7.28%
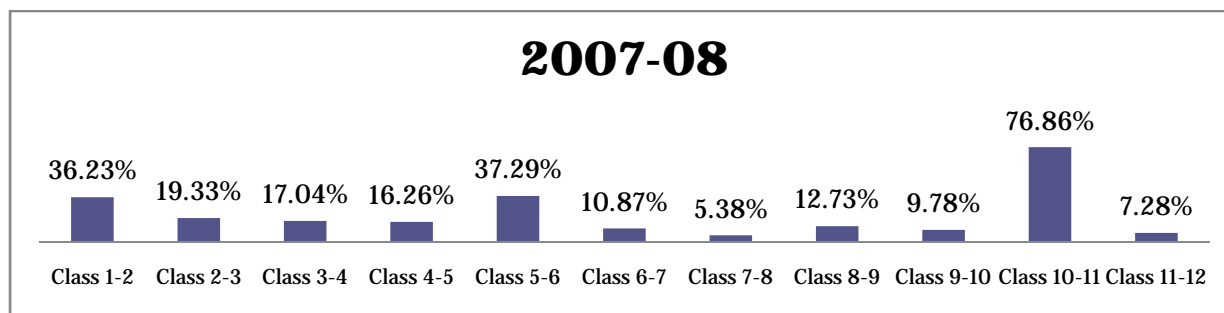
Figure 3.3: Dropout Rates of 2008-09 Class Wise

2008-09

Class	Rate
Class 1-2	36.54%
Class 2-3	12.22%
Class 3-4	9.94%
Class 4-5	9.37%
Class 5-6	37.94%
Class 6-7	6.55%
Class 7-8	4.33%
Class 8-9	7.23%
Class 9-10	3.70%
Class 10-11	57.10%
Class 11-12	20.17%
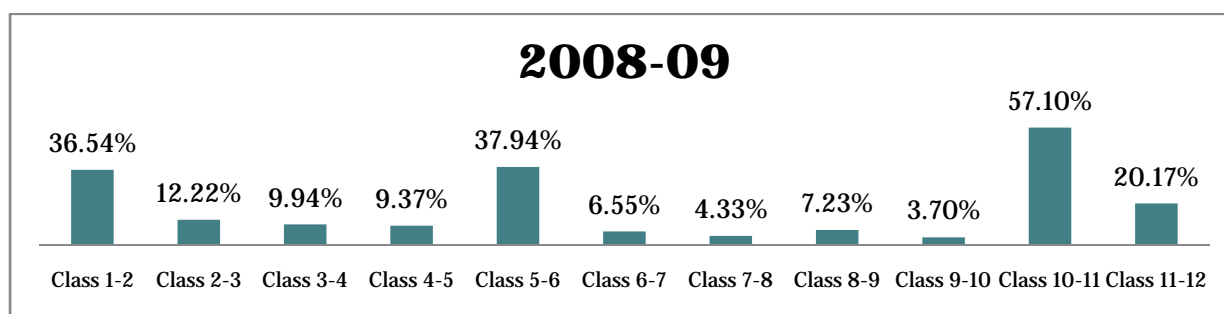
Figure 3.4: Dropout Rates of 2009-10 Class Wise

2009-10

Class	Rate
Class 1-2	26.21%
Class 2-3	13.79%
Class 3-4	11.80%
Class 4-5	12.63%
Class 5-6	35.76%
Class 6-7	0.18%
Class 7-8	1.70%
Class 8-9	5.48%
Class 9-10	4.06%
Class 10-11	80.50%
Class 11-12	10.46%
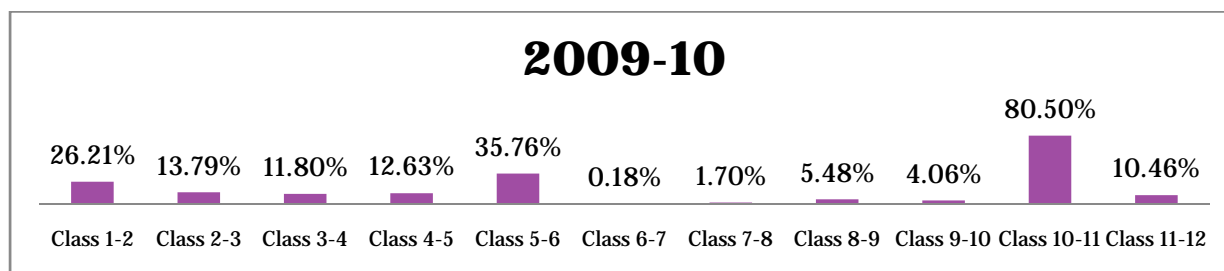
Figure 3.5: Dropout Rates of 2010-11 Class Wise

2010-11

Class	Rate
Class 1-2	25.08%
Class 2-3	15.65%
Class 3-4	14.16%
Class 4-5	14.71%
Class 5-6	38.28%
Class 6-7	6.69%
Class 7-8	5.45%
Class 8-9	8.12%
Class 9-10	8.78%
Class 10-11	77.85%
Class 11-12	-4.79%
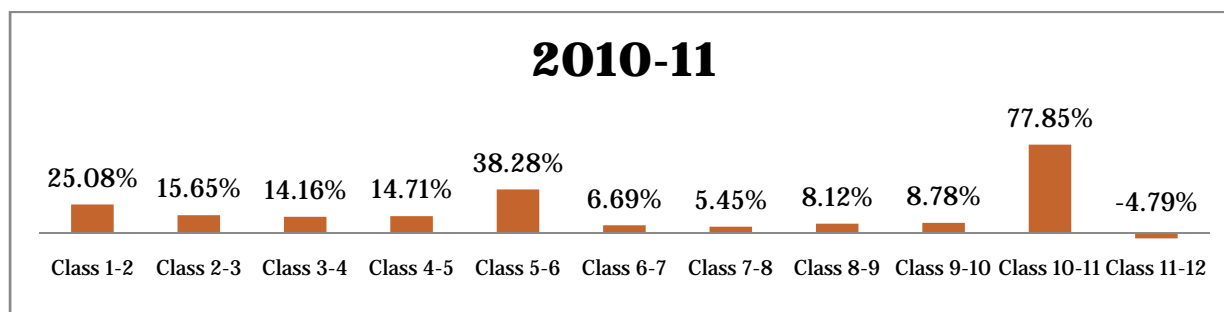
Figure 3.6: Dropout Rates of Classes Year Wise

Class 1-2

2007-08	2008-09	2009-10	2010-11
36.23%	36.54%	26.21%	25.08%

Class 2-3

2007-08	2008-09	2009-10	2010-11
19.33%	12.22%	13.79%	15.65%

Class 3-4

2007-08	2008-09	2009-10	2010-11
17.04%	9.94%	11.80%	14.16%

Class 4-5

2007-08	2008-09	2009-10	2010-11
16.26%	9.37%	12.63%	14.71%

Class 5-6

2007-08	2008-09	2009-10	2010-11
37.29%	37.94%	35.76%	38.28%

Class 6-7

2007-08	2008-09	2009-10	2010-11
10.87%	6.55%	0.18%	6.69%

Class 7-8

2007-08	2008-09	2009-10	2010-11
5.38%	4.33%	1.70%	5.45%

Class 8-9

2007-08	2008-09	2009-10	2010-11
12.73%	7.23%	5.48%	8.12%

Class 9-10

2007-08	2008-09	2009-10	2010-11
9.78%	3.70%	4.06%	8.78%

Class 10-11

2007-08	2008-09	2009-10	2010-11
76.86%	57.10%	80.50%	77.85%

Class 11-12

2007-08	2008-09	2009-10	2010-11
7.28%	20.17%	10.46%	-4.79%

Comparative Dropout Rates of Year 2007-08 to 2010-11: Class Wise

The table and figure below shows the data reported in Annual School Census of 2007-08, 2008-09 and 2009-10 and 2010-11. The following table shows the dropout rates of school levels, the rates have been ascertained by taking average of the rates of their respective classes (i.e. Class 1-5 for primary, Class 6-8 for middle, Class 9-10 for secondary and Class 11-12 for higher secondary).In the present year the dropout rates in all levels have decreased considerably when compared to last four years. In 2010-11 higher secondary level shows the highest dropout rates than other levels i.e. 36.53 percent, however the lowest dropout rates has been observed in secondary level i.e. 8.45 percent

Table 3.2: Dropout Rates of 2007-08 till 2010-11 Level Wise

School Level	2007-08	2008-09	2009-10	2010-11
Primary	22.22%	15.96%	16.11%	17.40%
Middle	17.84%	15.88%	12.55%	16.81%
Secondary	11.26%	5.83%	4.77%	8.45%
Higher Sec	42.07%	38.27%	45.48%	36.53%

Table 3.7: Dropout Rates of 2007-08 till 2010-11 Level Wise
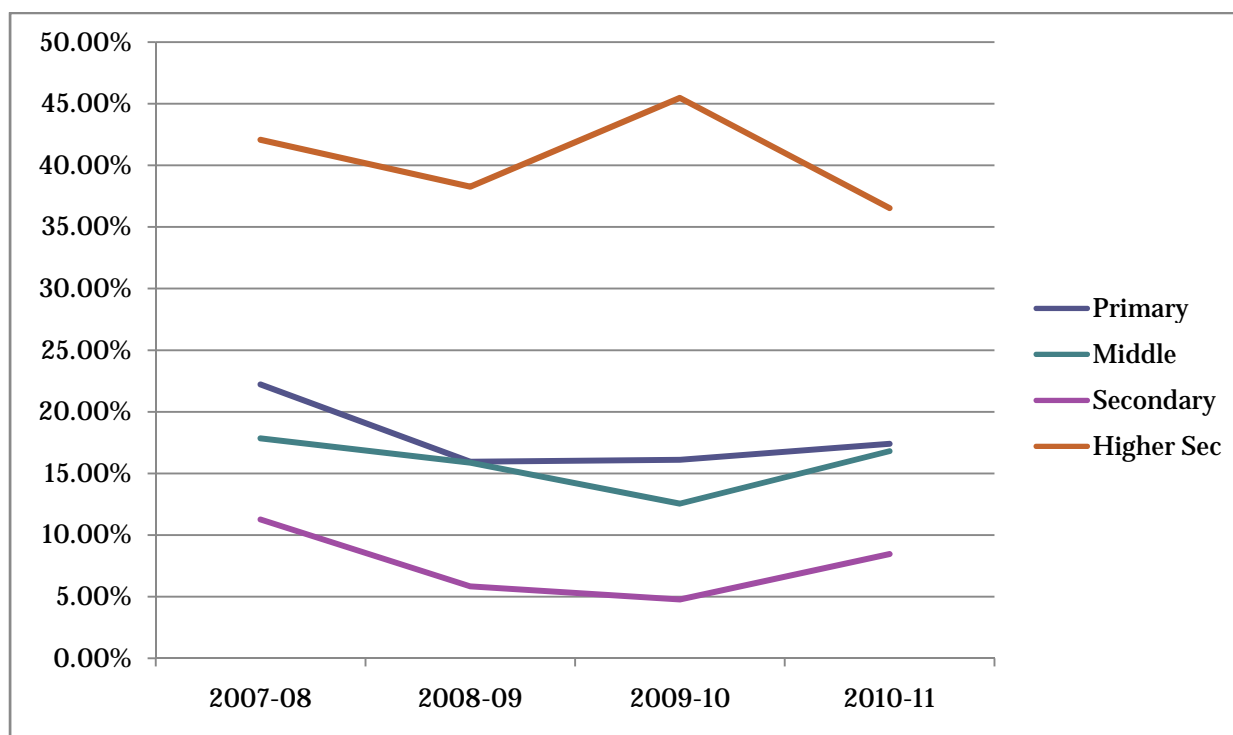
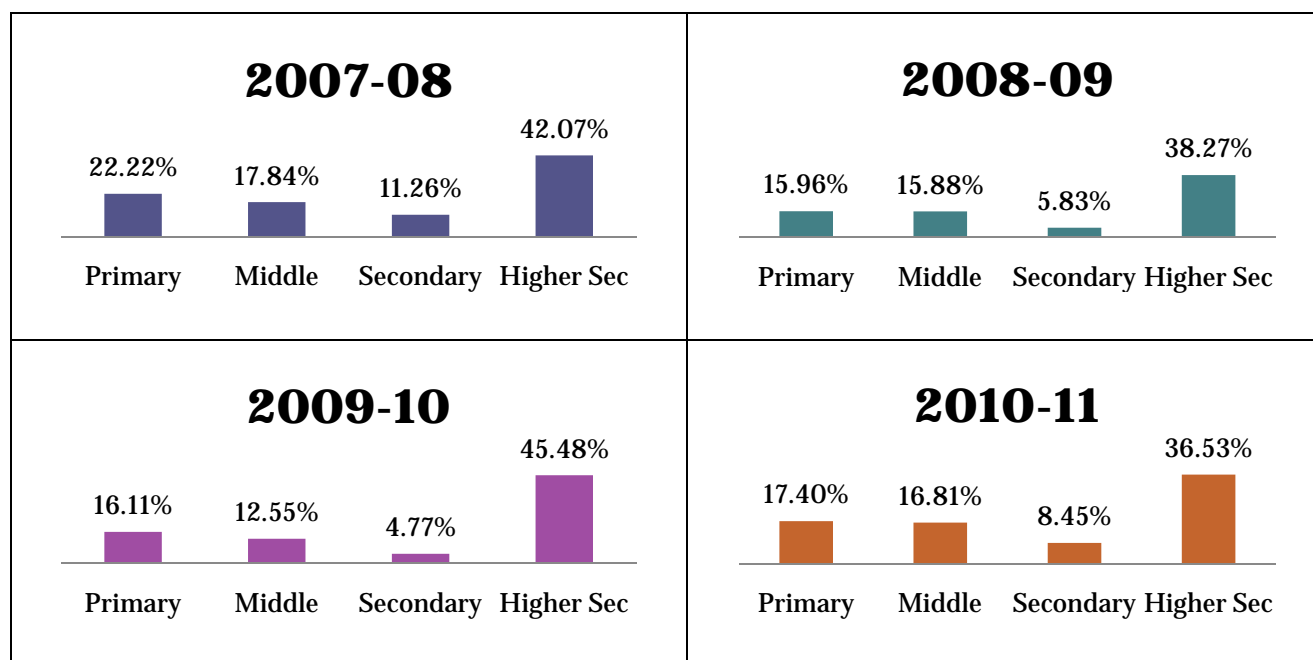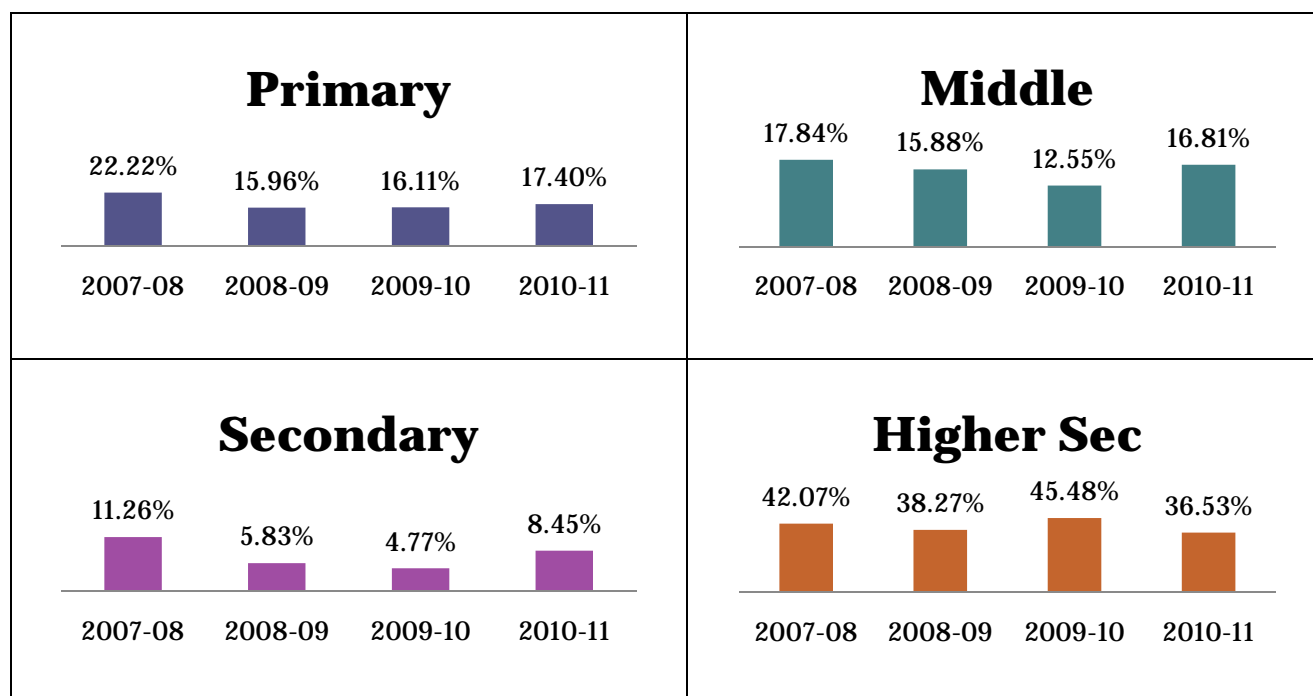*Figure3 .8: Dropout Rates of Years School Level Wise*

2007-08

Level	Rate
Primary	22.22%
Middle	17.84%
Secondary	11.26%
Higher Sec	42.07%

2008-09

Level	Rate
Primary	15.96%
Middle	15.88%
Secondary	5.83%
Higher Sec	38.27%

2009-10

Level	Rate
Primary	16.11%
Middle	12.55%
Secondary	4.77%
Higher Sec	45.48%

2010-11

Level	Rate
Primary	17.40%
Middle	16.81%
Secondary	8.45%
Higher Sec	36.53%

Figure 3.9: Dropout Rates of School Level Year Wise

Primary

Year	Rate
2007-08	22.22%
2008-09	15.96%
2009-10	16.11%
2010-11	17.40%

Middle

Year	Rate
2007-08	17.84%
2008-09	15.88%
2009-10	12.55%
2010-11	16.81%

Secondary

Year	Rate
2007-08	11.26%
2008-09	5.83%
2009-10	4.77%
2010-11	8.45%

Higher Sec

Year	Rate
2007-08	42.07%
2008-09	38.27%
2009-10	45.48%
2010-11	36.53%

4.1 Student Teacher Ratio

Student Teacher Ratio is used to measure the level of human resources input in terms of the number of teachers in relation to the size of the student enrolment. This indicator does not take into account factors which could affect the quality of teaching, such as differences in teachers' qualifications, educational training, experiences and status, teaching methods, teaching materials and variations in classroom conditions. The calculation is done by dividing the total number of students enrolled at the specified level of education by the number of teachers at the same level.

A high student teacher ratio suggests that each teacher has to be responsible for a large number of students. In other words, the higher the student/teacher ratio, the lower the relative access of student to teachers. It is generally assumed that a low student-teacher ratio signifies smaller classes, which enables the teacher to pay more attention to individual students, which may in the long run result in a better performance of the students.

Comparative Student Teacher Ratios of Year 2007-08 to 2010-11: Level Wise

Following are the ratios of student per teacher, in the public sector of Sindh from 2007-08 to 2010-11 reported in the Annual School Censuses of their respective years. By examining the following table it is evident that averagely primary and higher secondary levels have high student teacher ratio than middle and secondary levels. By the passage of time the STR of primary has improved slightly from 34.80 to 32.25 percent which means that the span of supervision of has reduced for primary teacher, where as in the case of other levels the span is increased as the ratio of middle level has increased from 22.65 percent in 2007-08 to 23.80 percent in 2010-11, however secondary level from 22.22 percent in 2007-08 to 24.26 percent in 2010-11 and while higher secondary level's ratio increased from 31.61 percent in 2007-08 to 36.19 percent in 2010-11.

Table 4.1: School Teacher Ratio of 2007-08 till 2010-11 Level Wise

School Level	2007-08	2008-09	2009-10	2010-11
Primary	34.80	32.94	33.38	32.25
Middle	22.65	20.63	23.81	23.80
Secondary	22.22	21.81	24.67	24.26
Higher Sec	31.61	31.61	34.86	36.19

Figure 4.1: School Teacher Ratio of 2007-08 till 2010-11 Level Wise
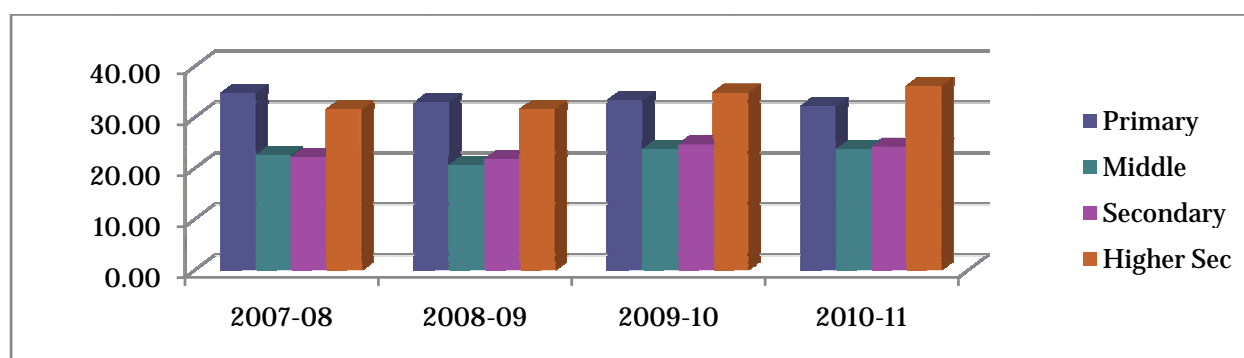
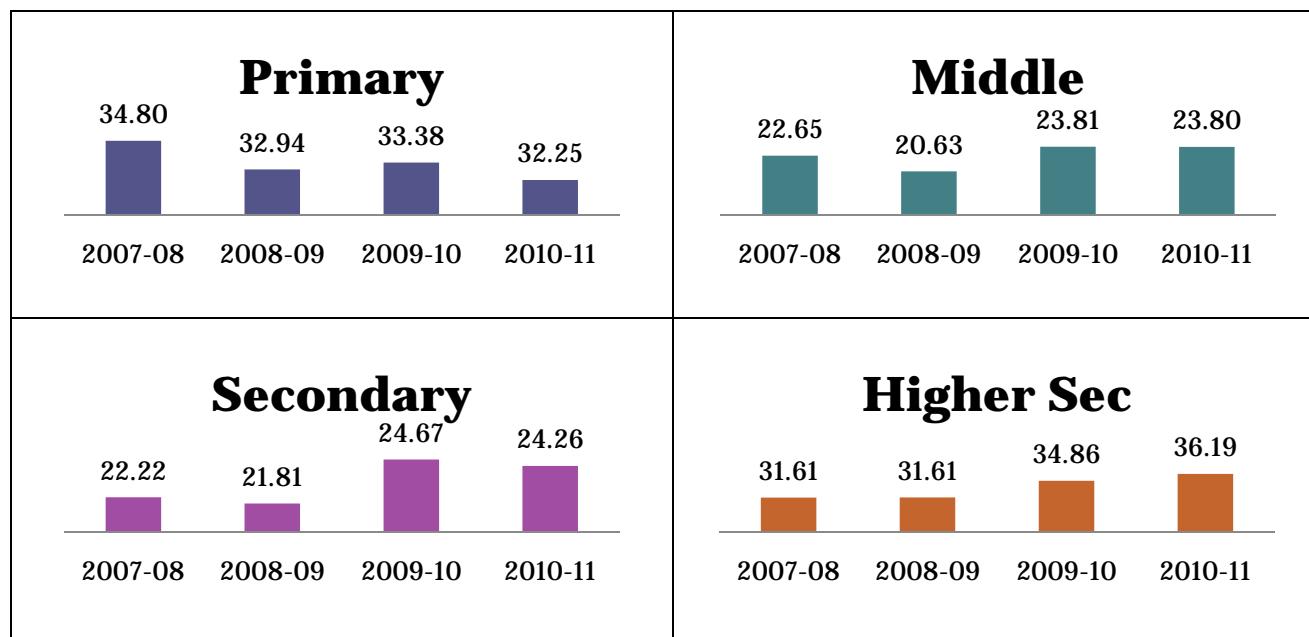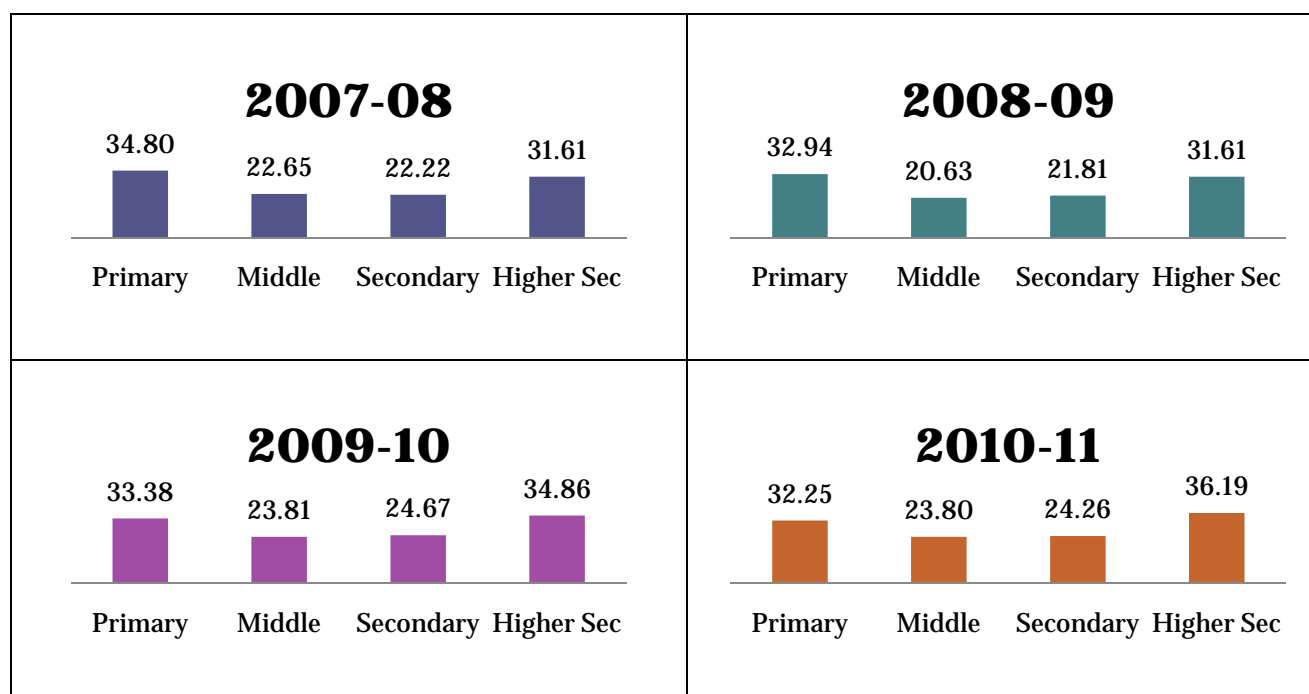*Figure 4.2: Student Teacher Ratio of Levels: School Year Wise*

Primary

Year	Value
2007-08	34.80
2008-09	32.94
2009-10	33.38
2010-11	32.25

Middle

Year	Value
2007-08	22.65
2008-09	20.63
2009-10	23.81
2010-11	23.80

Secondary

Year	Value
2007-08	22.22
2008-09	21.81
2009-10	24.67
2010-11	24.26

Higher Sec

Year	Value
2007-08	31.61
2008-09	31.61
2009-10	34.86
2010-11	36.19

Figure 4.3: Student Teacher Ratio of School Years: level Wise

2007-08

Level	Value
Primary	34.80
Middle	22.65
Secondary	22.22
Higher Sec	31.61

2008-09

Level	Value
Primary	32.94
Middle	20.63
Secondary	21.81
Higher Sec	31.61

2009-10

Level	Value
Primary	33.38
Middle	23.81
Secondary	24.67
Higher Sec	34.86

2010-11

Level	Value
Primary	32.25
Middle	23.80
Secondary	24.26
Higher Sec	36.19

5.1 Student Class Ratio

Student Class ratio is used to measure the level of capital resources input in terms of the number of classrooms in relation to the size of the student enrolment. The calculation is done by dividing the total number of students enrolled at the specified level of education by the number of classrooms at the same level. A high student class ratio suggests that each class has to accommodate a large number of students. In other words, the higher the student/class ratio, the lower the quality of education due to high span of supervision for teacher. It is generally assumed that a low student-teacher ratio signifies smaller cohorts of students in class, which enables the teacher to pay more attention to individual students, which may in the long run result in a better performance of the students.

Comparative Student Class Ratios of Year 2007-08 to 2010-11: Level Wise

Following are the ratios of student per class, in the public sector of Sindh from 2007-08 to 2010-11 reported in the Annual School Censuses of their respective years. The following table shows that during the year 2010-11 the highest ratio of student per classroom was noticed in higher secondary level, which not only was highest in 2010-11 but is highest in respect of its increase when compared to ratios of last four years, as in 2007-08 the ratio of higher secondary was 65.15 percent which increased to 67.50 percent in 2010-11. Whereas the second highest ratio noticed was in secondary level that decreased from 40.75 students per class in 2010-11 to 43.80 students per class in 2006-07. While, the middle level's student class ratio has also decreased from 26.54 percent in 2007-08 to 25.05 percent in 2010-11. On the other hand the student class ratio of primary level has also decreased considerably i.e. 44.21 percent in 2007-08 to 37.69 in 2010-11.

Table 5.1: School Class Ratio of 2007-08 till 2010-11 Level Wise

School Level	2007-08	2008-09	2009-10	2010-11
Primary	44.21	43.58	43.85	37.69
Middle	26.54	26.06	27.62	25.05
Secondary	43.80	45.42	49.23	40.75
Higher Sec	65.15	67.26	73.67	67.50

Figure 5.1: School Class Ratio 2007-08 till 2010-11 Level Wise
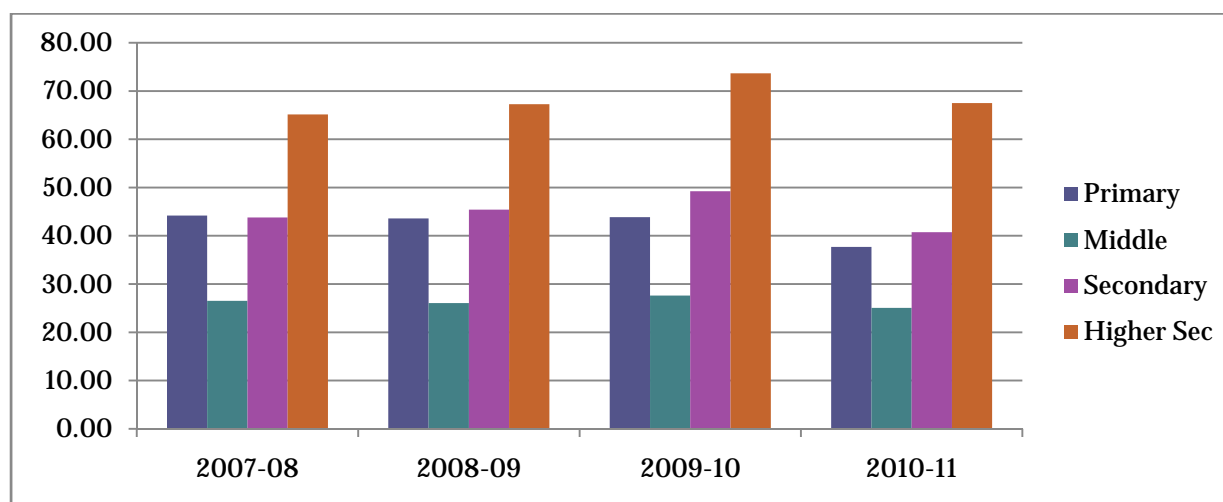
Figure 5.2: Student Class Ratio of Years School Level Wise

2007-08

	Primary	Middle	Secondary	Higher Sec
	44.21	26.54	43.80	65.15

2008-09

	Primary	Middle	Secondary	Higher Sec
	43.58	26.06	45.42	67.26

2009-10

	Primary	Middle	Secondary	Higher Sec
	43.85	27.62	49.23	73.67

2010-11

	Primary	Middle	Secondary	Higher Sec
	37.69	25.05	40.75	67.50
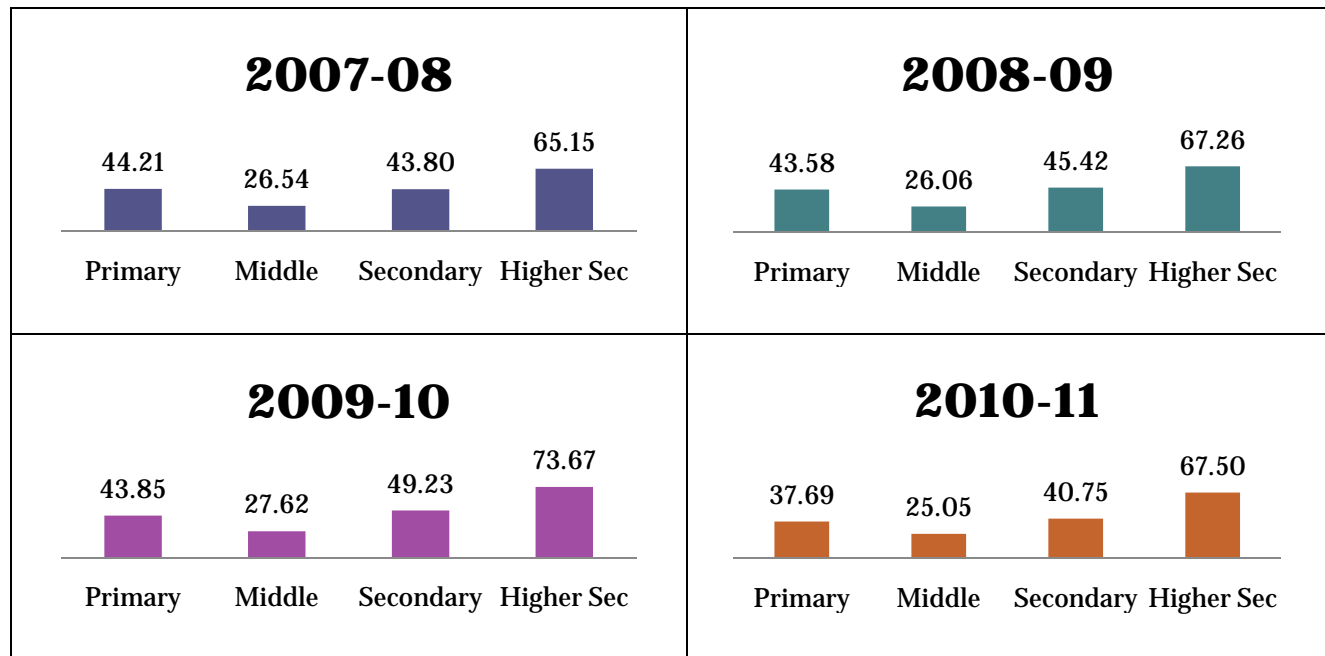
Figure5.3: Student Teacher Ratio of School Levels Year Wise

Primary

	2007-08	2008-09	2009-10	2010-11
	44.21	43.58	43.85	37.69

Middle

	2007-08	2008-09	2009-10	2010-11
	26.54	26.06	27.62	25.05

Secondary

	2007-08	2008-09	2009-10	2010-11
	43.80	45.42	49.23	40.75

Higher Sec

	2007-08	2008-09	2009-10	2010-11
	65.15	67.26	73.67	67.50
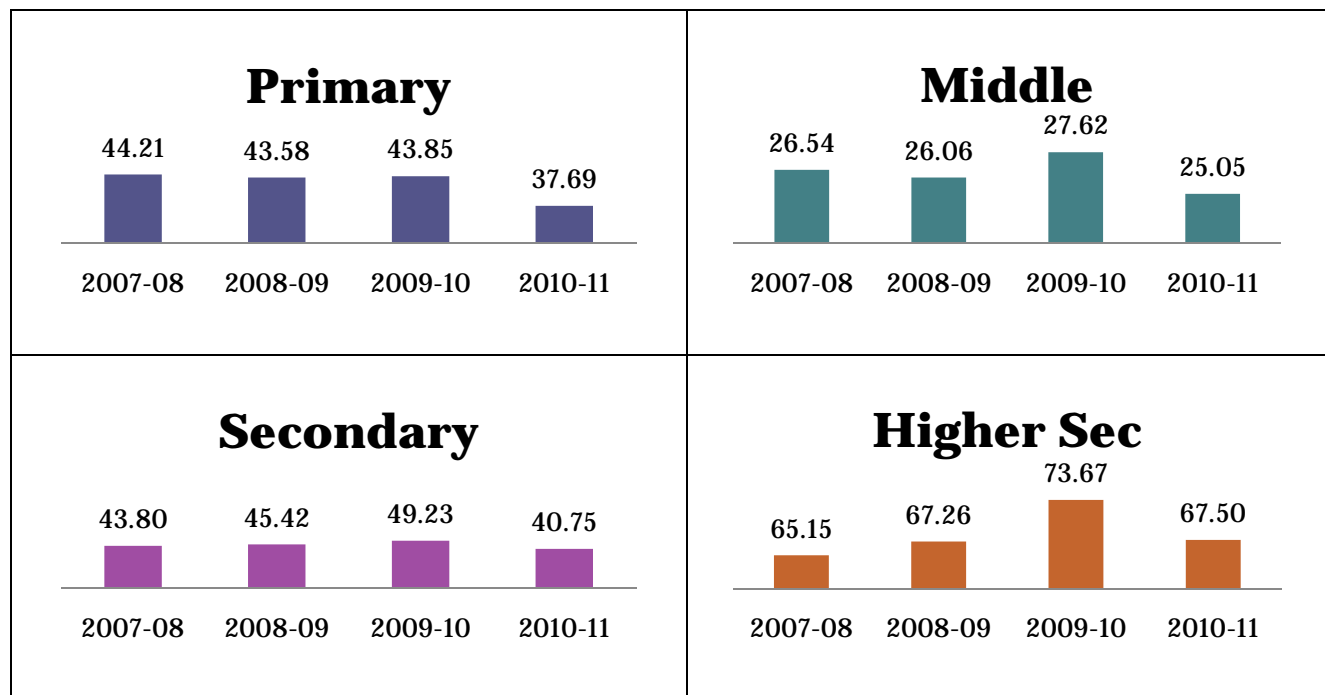
6.1 Gender Parity Index

The GPI measures progress towards gender parity in education participation and/or learning opportunities available for women in relation to those available to men. It also reflects the level of women's empowerment in society. A GPI equal to 1 indicates parity between females and males. In general, a value less than 1 indicates disparity in favor of boys and a value greater than 1 indicates disparity in favor of girls.

According to the following table and figures the GPI in public sector schools of Sindh during 2007-08 to 2010-11, has increased slightly except higher secondary level where it decreased significantly. This means that female's ratio in enrolment in primary, middle and secondary levels have increased against male's ratio except in higher secondary where the female ratio of enrolment has decreased. The most no. of enrolment of female against males has been seen in middle level in 2010-11.

Table 6.1: Gender Parity Index during 2006-07 till 2009-10 Level Wise

School Level	2007-08	2008-09	2009-10	2010-11
Primary	0.67	0.67	0.69	0.69
Middle	0.76	0.87	0.95	0.99
Secondary	0.67	0.64	0.67	0.70
Higher Sec	0.63	0.58	0.55	0.57

Figure 6.1: Gender Parity Index during 2007-08 till 2009-10 Level Wise and Year Wise
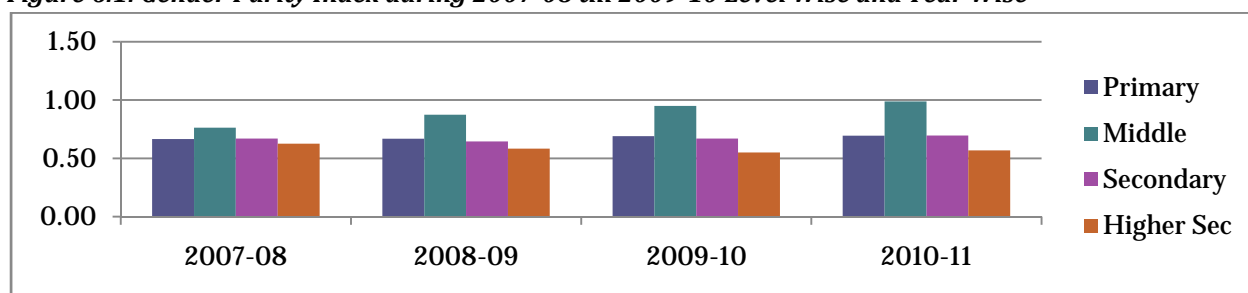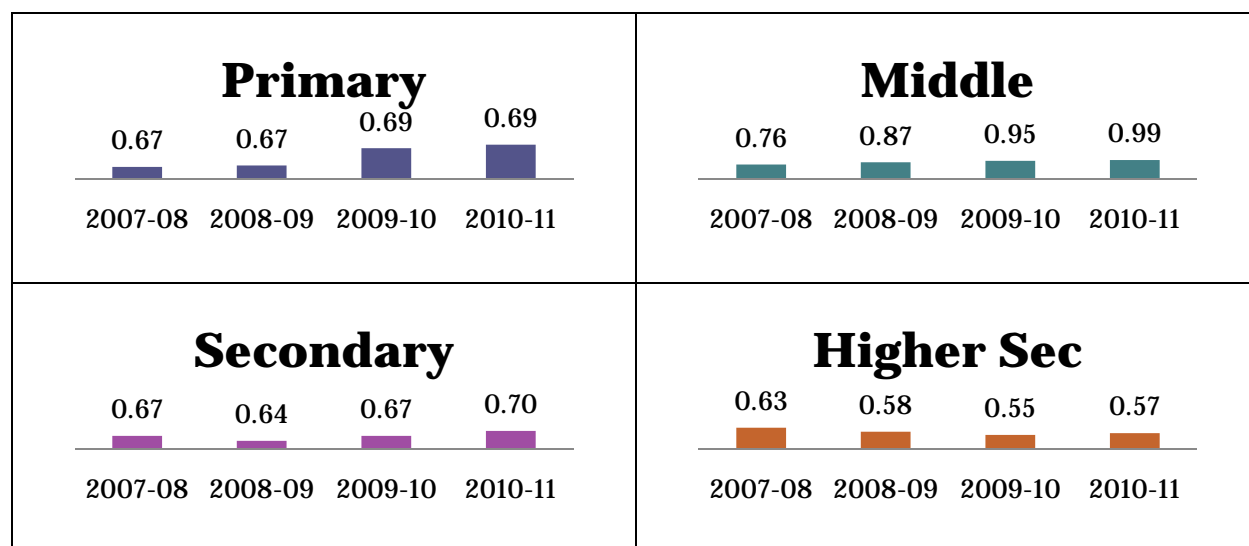

Figure 6.2: Gender Parity Index of Levels Years Wise

Calculations

Gender Parity Index

$$GPI_i^t = \frac{F_i^t}{M_i^t}$$

Where,

GPI_i^t Gender parity index of a given indicator i in year t

F_i^t Female value of a given indicator i in year **t**

M_i^t Male value of the same indicator i in year **t**

Promotion Rate

$$PR_i^t = \frac{NE_{i+1}^{t+1}}{E_i^t}$$

Where:

PR_i^t Promotion Rate at grade i in school year **t**

NE_{i+1}^{t+1} New entrants to grade **i+1**, in school year **t+1**

E_i^t Number of pupils enrolled in grade **i**, in school year **t**

Repetition Rate

$$RR_i^t = \frac{R_i^{t+1}}{E_i^t}$$

Where:

RR_i^t Repetition Rate at grade **i** in school year **t**

R_i^{t+1} Number of pupils repeating grade **i**, in school year **t+1**

E_i^t Number of pupils enrolled in grade **i**, in school year **t**

Dropout Rate

$$DR_i^t = 100 - (PR_i^t + RR_i^t)$$

Where:

DR_i^t Dropout Rate at grade i in school year **t**

PR_i^t Promotion Rate at grade i in school year **t**

RR_i^t Repetition Rate at grade i in school year **t**

Student Teacher Ratio

$$PTR_h^t = \frac{E_h^t}{T_h^t}$$

where:

PTR_h^t Pupil-teacher ratio at level of education **h** in school year **t**

E_h^t Total number of pupils or (students) at level of education **h** in school year **t**

T_h^t Total number of teachers at level of education **h** in school year **t**