

Dropouts In Secondary And Senior Secondary Education: Understanding The Problem And Discussing Its Solution

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Abstract

Education is the gateway to a better world; it is an answer to most of the problems. Education is an escape route from the vicious cycle of poverty. But how many children can attain the ability to escape to a better world? Reality could break hearts. In 2016, the United Nations Educational, Scientific and Cultural Organisation reported that 47 million Children could not finish their higher education and drop out of school after secondary school. These numbers have multiplied during the covid-19 pandemic. Moreover, the number is even higher for dropouts after primary or middle school. Due to school dropouts, their entry is blocked from the formal sector, hence forced to join a queue in the low-paying informal sector. Against this background, this paper has attempted to examine the severe issue of school dropouts in India. The problem has been conceptualised by considering existing literature and analysing secondary data on various school boards in India. This paper has also attempted to investigate whether it is the demand-side constraint in terms of lack of demand for higher education or the supply-side constraint in the form of inadequate access to higher education. Taking into account the New Education Policy (NEP) 2020, this study has discussed the intervention mechanisms of the non-profit organisation Lotus Petal Foundation to mitigate the problem of school dropouts. The findings indicate that the issue of school dropout is inter-woven, and its factors are interlinked. The situation can positively improve with effective interventions.

1. Introduction

Do you know in 2021 more than 15 crore students were out of the education system? These numbers are only increasing due to the continuing pandemic. Students have to drop out of school because of various factors. The educational system always faced issues like access to quality education, learning gaps, and low family income of pupils, among others, which exacerbate dropouts; the pandemic amplified these issues and a few others. Unemployment has been massively rising since the covid-19 pandemic, which has pushed parents to prioritize survival over children's education. In contrast, these challenges already existed for children from underprivileged backgrounds. The pandemic has induced a wider disparity with the digital divide and loss

of learning continuity due to online and hybrid schooling. India Today (2021) mentions that a study by NGO Child Fund India indicates that 64% of the children in rural India express the possibility of dropping out if not provided additional educational support. In November 2020, Child Fund India conducted a study in collaboration with the Council for Social Development across 20 backward districts in 10 states of India- Bihar, Chhattisgarh, Delhi, Jharkhand, Madhya Pradesh, Maharashtra, Odisha, Rajasthan, Uttar Pradesh and West Bengal. 1,725 children, 1,605 parents and 127 teachers were included in this survey study (The Print, 2021).

Upadhyay (2007) emphasized that education throughout the developed world is viewed as a means to elevate individuals by supporting

them in realising their ability and in creating efficient manpower/human capital essential for achieving the rapid rate of economic development. In the modern world, the education system not only has social, cultural, and political dimensions but also has an economic dimension. It is this economic dimension of education, which brings in the question of the economic efficiency and productivity of a particular education system (Upadhyay, 2007).

The major argument here is if India has the capacity and political will to reduce dropout rates and eliminate disparities in dropout among socioeconomic groups. How seriously the economic dimension of education is considered in our country? In 1966, Kothari Commission (1964-66) also known as Indian/National Education Commission recommended the allocation of resources equivalent to 6% of the GDP for education. Two decades later in 1986, the National Policy of Education endorsed this recommendation (NCERT Infrexa, 2021). Well, India has the capacity but only spends around 3% of the gross domestic product (GDP) as public spending on primary and secondary education (NASSCOM community, 2020) instead of 6%. In contrast, if India doesn't have the capacity to spend 6% of the GDP on education then it can be increased by reallocating resources from other sectors or by raising more resources for the common pool of government funds or by both (Jandhyala B G Tilak, 2006). Thus, the political will plays a significant role in the development process of any nation and especially in the upliftment of the education sector. Educated citizens understand democracy and are more active in practicing their constitutional rights. Although it is controversial to discuss political will but undoubtedly vote-bank politics have prominently existed since independence. Moreover, the major vote-bank population is illiterate or less educated and can easily be influenced.

A substantial number of students complete their middle school but dropout rates in secondary and senior secondary education have been consistently high. This is linked to the government's 'No-Detention' policy, which obligates schools to promote children to the next grade, even if they are not showing progress. Not achieving grade-appropriate learning levels is a major issue across the whole school education system. According to the National Achievement Survey, NCERT (2017), nearly 50 million primary school students are not able to achieve expected learning levels. This 'No-Detention' policy applies until 8th grade but makes it difficult for students to survive in secondary and senior secondary school due to low learning levels (Menon, 2020). These students almost reach the finish line of completing secondary and senior secondary school. Yet, failing to do so makes it difficult for them to enter the formal job market for which the minimum criterion is to have either a 10th or 12th class certificate. In spite of all the hurdles like poverty, low level of parent's education, lack of motivation and support, and discrimination based on their socio-economic status, they push themselves to reach the finish line. However, later drop out of school and their hard work becomes futile.

Financial constraints alone push students either to stay deprived of education or to drop out before completion of school. The dropout rate at the secondary school level in India is more than 17%. And around 30% of students do not make the transition from secondary to senior secondary level. Dropout rate among boys is quite high at secondary level as compared to primary and upper primary level (VI to VIII). There are 19 states/union territories where the dropout rate at the secondary level is much higher as compared to all India rate (17.3%) (Bureau, ABP News, 2021).

In agreement with India Today (2021), overall, it is our collective responsibility to ensure all children receive a quality education as a society. All stakeholders NGOs, educationists, civil society, etc. must play an active role in

supporting the government in implementation and ensuring that lacunae in the sector are addressed through constructive dialogue and advocacy (India Today, 2021).

This study seeks answers to the following questions:

1. Why are school dropouts a major concern?
2. What are the major institutional factors that influence students to drop out?
3. What are the major financial factors that influence students to drop out?
4. What measures can be taken to prevent further dropouts?

2. Review of Literature

Let's conceptualise the issue of school dropouts and its determinants through work of various authors.

Context of the Problem:

Why are we concerned about school dropouts? According to Rumberger (2001) one, due to the rise in economic activities, there is a demand for skilled labour. However, with high school dropout rates, it is difficult for youth to get job opportunities in the formal sector that pay enough. Dropouts cost the nation with higher unemployment rates and lower-earning which result in lost productivity and reduced tax income. Another concern is the rise in criminal activities, health problems, and dependency on others, which has a larger social cost. For individuals, dropping out of school becomes a prominent factor in staying trapped in a vicious cycle of poverty.

Rumberger (2001) used a multi-dimensional conceptual framework (refer to figure 1 in Annexure A) for better understanding) to explain why students drop out. In this conceptual framework, the author has mentioned two different perspectives for understanding the complex phenomenon of the high school dropout rate. One is an individual

perspective that focuses on individual factors associated with dropping out. Another is an institutional perspective that focuses on factors found in students' families, schools, communities, and peers.

The individual perspective mentioned by (Rumberger, 2001) emphasises on students' attributes like their values, behaviours, and attitudes and how these attributes contribute to their decision to quit school. This framework views these attributes through a concept- of student engagement, which has two dimensions- academic engagement and social engagement. Students' engagement is reflected in their attitude and behaviour with respect to classrooms and school activities (academic engagement) and peer relationships (social engagement). These engagements can have an influence on students to withdraw from school. For instance, students are not able to participate in academic activities, or they can't get along with their peers. Dropping out also represents one aspect of three inter-related dimensions of educational achievement- academic achievement (grades and test scores) , educational stability (students remain in the same school and remain enrolled in school at all), and educational attainment (years of schooling completed and completion of grade/degree/diploma).

The Institutional Perspective: Rumberger (2001) argues that individual attitude and behaviours are shaped by institutional settings. Various settings like families, schools, and communities where students live and interact- shape their behaviour. Family background is one of the most important contributors to success in schooling. A family's socioeconomic status (parental education and income) and structure (two-parent family, parents separated/divorced, single parent) are vital predictors of school achievement and dropout behaviour. Apart from this, a strong relationship between students and their parents reduces the odds of dropping out of school. Schools exert a powerful influence on student achievement and dropout rates. Pupil/teacher

ratio and quality of teaching have a significant relationship with high school and middle school dropout rates. Other factors like school resources (basic and advanced amenities), school structure (structural characteristics-e.g., size, location, type of control- public, private), and school policies affect the dropout rate.

Rumberger (2001) also mentioned that both residential mobility (changing residences) and school mobility (changing schools) induce the risk of dropping out of school. In our study, the underprivileged students have high residential and school mobility because their family occupation is mostly casual labour, which requires frequent mobility from one place to another. Several demographic variables (like gender, caste, religion and migration status) also have a strong influence on school dropouts. The author pointed out an important factor of students' dropping out in high school. Students' early school experience (in elementary and middle school) of academic achievement and engagement can influence their disengagement and withdrawal from high school.

According to Rout (2015) students' negative attitude towards their institutions, poor attendance, low academic achievements, negative attitude of other students towards them, parental level of education, age, sex, lack of motivation, lack of personality adjustment, emotional problems, the unconducive environment at home, family occupation, family income, caste, and religion, etc. are the main factors of students dropping out from higher education. But how much are these factors relevant for students dropping out of school?

We agree with Rout that these factors stand valid for student's dropout rate especially in higher education because students become more sensitive toward their psychosocial development. Moreover, students in secondary and senior secondary education are teenagers; crucial years for physical development and emotional changes. While teenagers are already confused and uncomfortable during this time if

their socioeconomic status is not sound then they bear the double burnt. In case their expectations are not met or if they are not heard at home, they develop aggression toward their institutions. Some students start comparing themselves with their peers and feel more pressure. Hence, they are more prone to develop antagonistic behaviour. Another major challenge during this age is the paradox of 'ambition versus capabilities'. Students have high aspirations and desire to become famous and do something big. But this dichotomy of ambition versus capabilities becomes complicated when students feel indifferent between these two. In other words, they want to become influential personalities and therefore, lose the rationality to explore career options according to their capabilities. However, the question is what propels them to be negatively ambitious? According to our experience with students from underprivileged background, they are vulnerable; can easily be influenced and lured to get out of the vicious cycle of poverty. They have a strong urge to change their lives and progress but they lack maturity to understand that getting out of poverty is a gradual process for most people. But because of their critical age and desperation for success, they become gullible and end up performing below average and eventually dropout. They lose the momentum to stay in academics, which can support them to at least have decent-paying executive jobs. Such students then are forced to join low paying jobs like delivery persons, housekeeping workers, security guards etc.

Worldwide Issue:

Discussing the problem of high school dropout rate worldwide, this issue and its determinants are similar in other under-developed and developing countries. Dagnew (2017) focused on the same issue in Ethiopia for primary schools by explaining out-of-school and in-school factors responsible for students' dropout. Out-of-school factors are low level of parental education, low level of parents' income, lack of parents' encouragement with

academic activities, broken family, pupils or family member's health problems, influence of peer group, involvement in domestic work or economic activities, early marriage, students' low interest towards education, etc. In-school factors are school distance from pupils' home, unsafe road condition from home to school, difficult language of instruction, absence of instruction in the mother tongue, inaccessibility of the school for disabled children, low awareness of teachers to assist students with special education needs in the teaching-learning process, poor school facilities, etc. The author concludes that the school dropout phenomenon is intricate and its determinants are interrelated and interwoven, making it a complex situation. Thus, to improve pupil dropout both out-of-school and in-school-related factors have to be equally considered and improved with cause-and-effect analysis.

Interventions to Prevent School Dropouts:

Rout (2015) pointed out that interventions (refer to figure 2. (a) below) like social and academic integration of students, collaborative and inclusive teaching-learning strategies, pupil-teacher relationship, motivation by parents, etc., have direct effects on classroom participation and improved examination results of students. However, we argue that these interventions are not enough for underprivileged students as their end goal is to secure a job because of family responsibilities and low economic status. In contrast, securing a job after secondary or senior secondary school requires capacity building through skill development program and vocational training focusing on specific sectors. Government schools are already struggling to maintain the student retention rate, in such a scenario capacity building seems like a far-sighted target. Here is a need for third-party intervention, Lotus Petal Foundation trying to fill the gap since 2013.

Like dropout rate is influenced by individual and institutional factors, similarly, intervention

strategies can focus on either or both sets of factors. There is a need to track students' records from elementary school onwards and potential dropouts should be provided with additional resources and support as the intervention. Moreover, other intervention strategies can focus to improve the environment of potential dropouts' families, schools, and communities. These systematic strategies can improve the educational and social outcomes of at-risk students (Rumberger, 2001). The problematic attitudes and behaviour of students at risk of dropping out appear as early as elementary school, dropout prevention strategies should begin early in a child's educational career. Early intervention is the most effective and cost-efficient approach to dropout prevention.

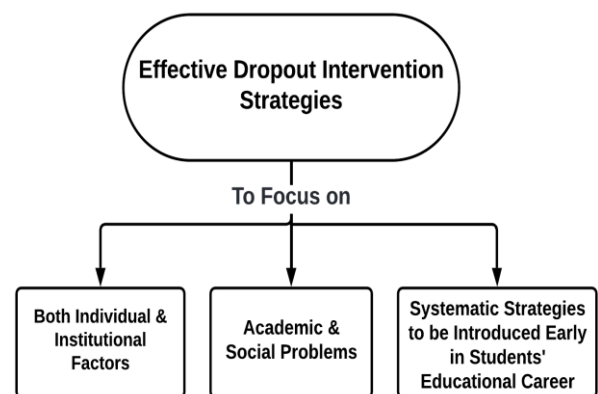


Figure 2 (a): Effective Dropout Intervention Strategies

3. Interventions by Lotus Petal Foundation:

The school education structure in India includes pre-primary school (kindergarten/playschool), primary school (nursery to 5th grade), post-primary/middle school (6th to 8th grade), secondary school (9th and 10th grade) and senior secondary school (11th and 12th grade). But unfortunately, poor people do not have the privilege to follow this school education structure for their children. Most underprivileged children do not have exposure to pre-primary school, where basic etiquettes

about hygiene, food habits, table manners, greetings and so on are taught. They enter the formal education system late; around the age of 4 or 5 years. When a child enters school without any exposure to pre-primary school, it becomes difficult for him/her to adjust in class and focus on learning. He/she faces peer pressure at such a small age and his/her whole learning foundation becomes weak. Unwanted peer pressure hampers their psychological development, which discourages them to stay in the formal education system and they drop out. With this backdrop, Lotus Petal Foundation has been working towards a development model, which consists of education, health, nutrition, livelihood, skill development, and job-oriented vocational training among others. It is running a regular school under the Vidyananda School Program since 2013 (refer to section 14 in Annexure A for key programs of Lotus Petal Foundation). It runs classes with age-appropriate learning objectives from Nursery to Grade 12th. The Vidyananda School program is focused on improving education outcomes by provision of the quality education and developing a sound foundation that prepares children for mainstream life.

The primary objective of this school is to bridge the gap between the low learning levels/ late age of students at the time of admission in nursery class and the outcomes of age and class appropriate learning levels. Students in the first few years of primary school are given complete support to develop all the etiquettes they were supposed to attain in pre-primary (playschool). From nursery to grade 2nd, they are conditioned with pre-primary school along with the curriculum for their respective classes. The course structure is specially customised for children from underprivileged background. For instance, only relevant storytelling activities are conducted instead of conventional stories like snow-white, about Santa clause because the majority of poor students in India don't get the opportunity to experience snow except if they live in high altitude areas. Therefore, such stories might hamper their imaginations and

psychological development. Relatable stories, which can be easily perceived, are given importance in our school program. This collective initiative of pre-primary conditioning and regular schooling in the initial years of the primary school encourages students to be part of the formal education system. These efforts help in filling the learning gaps and prepare students to enter higher classes in primary school i.e. 3rd to 5th grade with strong knowledge foundation.

Also, the normal school itself is not enough in this competitive world hence vocational training is required to compete in the job market. Moreover, attaining a job immediately after school is a need and compulsion for most of the underprivileged students. Around this need, Lotus Petal Foundation has developed this school model.

In addition, to prevent further dropouts and ensure that each child, especially from vulnerable groups, girls, children from minority or migrating groups, among others, receives quality education as per India's commitment to Sustainable Development Goals, here are a few interventions implemented by Lotus Petal Foundation:

Since 2013 Lotus Petal Foundation has been intervening (as mentioned in figure 2a) to prevent further dropouts by improving the quality of education, improving teaching-learning process, strengthening teacher-student relationship, assisting students' families by providing support in their livelihood, focusing on students' health and nutrition by providing them breakfast and lunch.

- Lotus Petal Foundation and its school work rigorously to identify children from the special vulnerable groups through monitoring, locating them, and ensuring they attain the quality education and age-appropriate learning levels.
- Vidyananda School program is regular school in English medium and it

follows NCERT based curriculum with the pedagogy of various fast track programs (especially from classes nursery to 2nd grade, from 6th to 10th grade) ensuring age-appropriate learning, skill development training, job-oriented vocational training.

- Our school program also provides computer and STEM education, which allows children to co-relate what has been learnt in classroom theory to the practical world.
- Conduct regular meetings with parents and community members to encourage them to send their children regularly to school.
- Provide support to children for their holistic development through special academic support, counselling, physical education, art and theatre classes.
- Sensitize parents and teachers on the learning requirements of children and social and emotional development through special modules to support children's holistic education.
- Supporting parents of enrolled students in finding livelihood opportunities through blue khoj program.
- Make the education system more robust by:
 - Intervening through vidya sahyog program to fill the gaps of understaffed issues in government schools.
 - Providing adequate training to government teachers to adapt to the advanced teaching with technology, which is a 'new normal'.
 - To assist government school students for grade-appropriate learning.
 - Re-developing infrastructure of government schools through the vidya sahyog program.
 - Under the vidya sahyog program Lotus Petal

Foundation arrange e-learning setup in government schools, which works efficiently even when schools shut down during the COVID-19 pandemic and rise in air pollution.

- Through Pratishtan learning centre- a fast track education program special support is provided to students having low learning levels according to their age and class.
- Ensuring extra classes and special training for children who have learning gaps.
- Giving vocational training for skill development to young adults to train them for the job market (through the jeevika skill development program).
- Under the jeevika program, skill development is integrated into the school education process to bridge the gap between fractured education and effective learning outcome, improved results and successful placement of students graduating from school.
- The zero hunger food bank a nutrition program of Lotus Petal Foundation makes sure that meals (breakfast and lunch) provided to each student have 550 Kcal and 18 grams of protein every day. This is also mentioned in the guidelines of New Education Policy 2020.
- The zero hunger food bank program also provides a special breakfast to Nursey to grade I students, which includes mashed banana, organic milk, with cerelac of the highest grade, all whipped



- together with an Omega 3 / DHA supplement.
- Subject-specific coaching assistance is provided for entrance exams to students who want to pursue higher education.
- The scholarship (including college tuition fees, hostel fees and other expenses) is provided to students who pursue higher education.



Case Studies of Students Graduated from Lotus Petal Foundation School:

Following are some students among many who have successfully completed their schooling and skill development training at Lotus Petal Foundation and are now working in reputable organisations. These case studies have one thing in common: all of the pass-out students belong to the economically weaker section of society. At the time of joining Lotus Petal Foundation, their learning level was not age and

class appropriate. Most of their parents are daily wage labourers or working in informal sector. With our fast-track program-Pratishthan Learning Centre (PLC) they were supported to achieve class-appropriate learning outcomes and to clear secondary schooling. Once they entered senior secondary school, their skill development training under Jeevika Program began. This training conditioned them to develop skills to enter job market after school. In case, students are interested to pursue higher education then sponsorship programs support their coaching, college fees, hostel fees and other expenses. But along with student-related programs, Lotus Petal Foundation supports students's parents through the blue khoj livelihood program. 1956 students benefited from the PLC program and successfully completed their secondary education. 203 students so far have benefited under the Jeevika Skill Development program. 78 students have received scholarships through Lotus Petal Foundation to pursue higher education.

Students successfully working in prestigious organisations:

Name	Year of Graduation	Employment Details
PUNEET RAJ  Working as a Quality Assessor in Asmara Apparels since April 2018.	2018	His Story: He joined PLC program of Lotus Petal Foundation in 2013. PLC is our fast-track learning program which enables students to complete their grade 6th to grade 10th in 3 years. . In grade 11th and 12th, under Jeevika Program he took courses on computer basics and data entry. After successfully passing 12th standard in 2018 and based on skill development training he got placed in Asmara Apparels as a Quality Assessor.
SALONI RAJ 	2018	Her Story: She joined PLC program of Lotus Petal Foundation in 2013. She is currently in her third year of BDS (bachelor of dental surgery) course in JCD Dental College, Sirsa. She always wanted to become a doctor and with our support her dream is about to come true. She gets scholarship support

Pursuing Bachelors in Dental Surgery (BDS) at JCD Dental College, Sirsa.		for her higher education and other expenses. The support and Lotus Petal Foundation's intervention have made her believe in the possibility of becoming a doctor.
<p>MUNNA AZIZ</p>  <p>Working as a Laboratory-In charge at Bry Air Asia Pvt. Ltd., Gurugram, Haryana.</p>	2019	His Story: He joined PLC program of Lotus Petal Foundation in 2014. With continuous support under PLC and Jeevika programs, he successfully complete his schooling and got placed in Bry Air Asia Pvt. Ltd., as Laboratory-in charge.
<p>GUDIYA KUMAR</p>  <p>Working as a Book-Keeper in Unify Dots.</p>	2021	Her Story: She joined PLC in 2016, at the age of 17 years with learning level of grade 5. In grade 11th and 12th, under Jeevika Program she took courses on computer basics, data entry, internet protocol and computer management. After successfully passing 12th standard in 2021 and because of skill development training she got placed in Unify Dots as a Book-keeper.

4. Brief Discussion on New Education Policy 2020:

This section discusses important points taken from New Education Policy 2020 (NEP) and how Lotus Petal Foundation is already working towards a holistic education system:

Firstly, the important change in NEP 2020 is the extension of the Right to Education from group 6-14 years to 3 -18 years. The policy encourages local language/mother-tongue to be the medium of instruction up to the 5th grade. It seems like a great initiative through NEP 2020 because children find it easier to grasp ideas in their mother tongue. Although the issue of choosing one main language in school education across states is difficult, standardization in the curriculum (discussed in the third point) would reduce the learning gaps among students.

Secondly, NEP 2020 has stressed skill-based education. It is a great initiative to make India an education-driven economy. There is evidence of successful skill-based/vocational education from a young age in south-east Asian countries like China, Singapore, and Taiwan. These countries have witnessed an economic upsurge due to vocational education in the school curriculum.

Since 2013, Lotus Petal Foundation has been following an educational development model, which already has incorporated these features of NEP 2020. Through various programs, (refer section 14 in Annexure A for list of key programs) our organisation is working towards the betterment of the education system and uplifting underprivileged children and their families. We strongly believe that no matter how prestigious and according to world standards our higher educational institutes are,

if we want to fight and root out discrimination, then it should start in schools. Our organisation also believes that primary education plays a vital role in laying the foundation of all aspects of a child's development; psychological, moral, cultural, and educational among others. To train students for grade appropriate learning and encourage them to finish schooling, it is important to focus on quality teaching from primary schools. Lotus Petal Foundation's development model prefers multilingual teaching, especially for primary students to encourage learning without language barriers.

Thirdly, another problem in our education system is inequality. Maurya & Ahmed (2020) mentions the issue of inequality in learning due to the existence of multiple boards in school education. The concept of one-nation education mentioned in NEP 2020 has the potential of becoming an agent to remove social and economic inequalities from the educational system. The uniformity in syllabus, instructional material and type of schooling can bring positive results in terms of equal learning outcomes and a better educational system. Maurya & Ahmed (2020) also discusses India's disparity in terms of landscape, weather, language, culture, religion, and history among others. People desire to embed their cultures and history as part of their educational system. Our youth population, one of the highest in the world, aspires to have diverse career opportunities. Therefore, the feasibility of a unified educational system is doubtful and uncertain.

Conversely, it can be countered that a unified educational system might seem an ambitious goal but it will bring our school education on track. If we want to rise above discrimination, we have to rise above the concept of diversity at least in the educational system. If students will get equal education in every corner of our country; urban and rural areas, mountain and plain areas then they all will become capable of attaining equal higher education. Every student will have an equal chance of giving entrance exams, which will become compulsory

according to NEP 2020 for higher education. The entrance exams like the Joint Entrance Exam (JEE), the National Eligibility cum Entrance Test (NEET), civil service exams conducted by Union Public Service Commission (UPSC) are based on the syllabus prescribed by the Central Board of Secondary Education (CBSE) and the National Council for Education, Research, and Training (NCERT). This causes a disparity among students from other boards. Lotus Petal Foundation is continuously growing and planning to expand its various programs (as explained previously in section 3 and in section 14 of Annexure A) across pan India. These programs provide unified and quality education to school children, support coaching of students for entrance exams for higher education, provide scholarships to students pursuing higher education and its vidya sahyog program works in collaboration with government schools.

Talking about another serious issue- the United District Information System for Education in its report for 2019-20 (edudel.nic.in, 2020) confirmed that more than 92,000 schools in India both at the primary and the secondary levels are running with one teacher only. The problem of understaffed schools makes even the existing educational system incompetent. This report also mentioned that only 12% of rural schools have functional computers. Six states have recorded less than 2% computers and electricity. In this digital era, where education is difficult without computers, our government schools are still struggling for computers and electricity. To bridge this gap, Lotus Petal Foundation is providing e-learning support to around 42 government schools, and our teachers rigorously train students to attain grade-appropriate learning.

5. Trends in Secondary and Senior Secondary School Results

This section has discussed the trends in secondary and senior secondary school results of various education boards- Central Board of Secondary Education (CBSE), Indian

Certificate of Secondary Education (ICSE), State Boards, and National Institute of Open Schooling (NIOS) for the period 2017-2021. The data is converted into graphs (attached in Annexure A) for visualisation and a better understanding. Tables are kept for exact data consideration. To avoid inaccuracy in analysis, missing data of certain years, states and boards are not considered.

Section 2 (Annexure A) shows the total number of students dropout in 10th Class CBSE result. Figure 2 and table A (Annexure A) displays a line graph and data respectively, and clearly shows a sharp rise in school dropout in the year 2018 (out of a total of 16,24,682 students 216082 dropped out) then it declines in 2019, again increases slightly in 2020 and then decreases in 2021. However, while considering the absolute numbers from table A (Annexure A) one can counter that even if the school dropout declines in 2019 and 2021, the absolute number is substantially high (159955 in 2019 and 20132 in 2021). Talking about 12th class CBSE results (Figure 4 & table C), the students dropout in 2018 (out of a total of 11,06,772 students 1,88,040 dropped out) and 2019 (out of a total of 12,05,484 students 2,00,110 dropped out) is high but it then declines.

Students' dropout (for both 10th & 12th class) in lakhs from the year 2017 to 2020. In the year 2021 suddenly the number further drops sharply, however it does not indicate improvement rather due to the covid-19 pandemic the schools are shutting down from time to time, making it difficult to capture accurate data. This sharp decline in students' dropout in 2021 is witnessed in all education boards for 10th as well as 12th class.

The ICSE result for 10th class (figure 3 & table B) also shows a rise in students' dropouts in 2018 (out of a total of 1,83,387 students 3392 dropped out) and it starts declining from 2019. However, ICSE result for 12th class shows (figure 5 and table D) a decline in students' dropouts in 2018 and it rises in 2019 and later again declines in 2020 and 2021. However, the

absolute number of students and dropped out students are low as compared to CBSE result data because limited number of schools have ICSE board (see table B for 10th class & table D for 12th class ICSE results).

The combined result of 10th and 12th class in CBSE indicates a relatively high number of students' dropout (refer to figure 6 & table E). However, it is not the case for 10th and 12th class combined results of ICSE (refer to figure 7 & table F). The reason for the lower number of dropouts in ICSE results for 10th and 12th combined is due to less number of students registering under this board.

The result for 10th and 12th classes for state boards, whose information was available in public domain is shown in section 8, 9, 10, 11, 12, & 13 of annexure A). The dropouts are higher for 10th class in states like Rajasthan, Delhi, Bihar, Jharkhand, Orissa, West Bengal, Chhattisgarh, Madhya Pradesh, and Haryana (see figure 8 & table G). To understand the seriousness of the dropout problem, it is important to look at the aggregate data of last five years (2017-2021), the readers can refer to figure 9 and table H of annexure A. Table H clearly shows the situation is critical for 10th class as the dropouts are way higher when compared with total number of students.

The dropouts in 12th class state boards are higher for Bihar, Orissa, West Bengal, Madhya Pradesh, and Haryana (see figure 10 & table I). Similarly, readers can refer to figure 11 and table J of annexure A for absolute numbers. The situation is critical when we combine state boards' results for both 10th and 12th class (refer to figure 12 & table K of annexure A). The combined (for 10th & 12th class) aggregate data of last five years (2017-2021) is shown in figure 13 and table L.

6. Conclusion

This paper examined the determinants of school dropout rate in secondary and senior secondary schools and analysed how effective interventions can improve the present scenario.

Based on the findings of this study, we have observed that the dropout phenomenon is multidimensional with interwoven factors contributing to its complexities. This paper has explored two different perspectives for understanding the complex phenomenon of the high school dropout rate; individual perspectives and institutional perspectives. It was found that students' attitude and behaviour toward classroom activities, institution, and peer relationships impact their academic performance and is negatively correlated with the dropout rate. Family's socioeconomic status (occupation, income level, and migration history), parent's education level, the relationship between students and their parents, and the mind-set of the community have a strong influence on the educational (in)stability of school students. Pupil-teacher ratio, quality of teaching, school resources, structure and policies also directly impact school dropouts. Our study has also pointed out how institutional anger, peer comparison, paradox of ambition versus capabilities, and vulnerability induced by unstable socioeconomic status makes students from underprivileged background more gullible and often result in high dropouts.

Our study has also attempted to build the understanding on how interventions can improve the critical situation of high dropout rate in secondary and senior secondary schools. In this study it has been revealed that the behaviour of students at risk of dropping out appears as early as elementary school, hence, dropout prevention strategies should begin early in a child's educational career. Therefore, early intervention is the most effective and cost-efficient approach to dropout prevention. All the four questions mentioned in the introduction section are clearly answered and discussed in this study.

Lotus Petal Foundation is constantly working towards the holistic educational development of its students; who come from underprivileged backgrounds. It has been intervening with various mechanisms and programs to improve school dropouts and make the school education

system more robust. Our organisation's pedagogy is to condition its students from nursery grade onwards to train them with age-appropriate learning, maintaining a healthy mind and body through counseling, physical education and nutritious meals (as mentioned in NEP 2020), and also encouraging students to actively participate in extra-curriculum activities, providing employment opportunities to their parents for uninterrupted education. Those students who join Lotus Petal Foundation in the later years of their schooling and have low learning levels are given assistance through fast track program with the objective of providing secondary education with age-appropriate learning. Later, these students in senior secondary classes are given vocational skill development training along with regular teaching support, to prepare them for the job market. Lotus Petal Foundation measures the positive impact of its pedagogy through its alumni, who are successfully working in reputable organizations or are pursuing higher education in the field of medical sciences, management etc. It is apt, to sum up that Lotus Petal Foundation is already following a school education model suggested in NEP 2020 from 2013 onwards.

Thus, to improve quality education and minimize pupil dropout, both individual and institutional factors must be equally considered and improved by identifying their accurate sources and causes. The school education system should have special programs for students having lower learning levels. Schools should understand their responsibility to condition such students for class-appropriate learning.

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Annexure A

1. Conceptual Framework of Determinants of School Dropouts

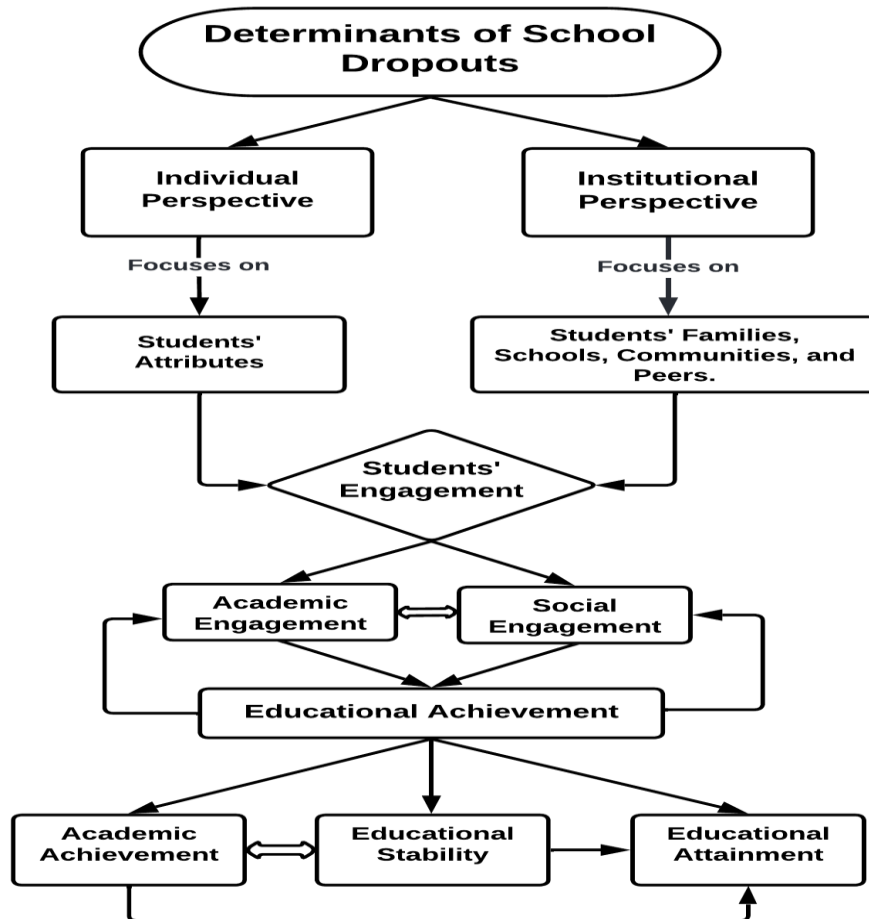


Figure 1: Conceptual Framework of Determinants of School Dropouts

2. Total number of students dropout in 10th Class CBSE board result (2017 to 2021)

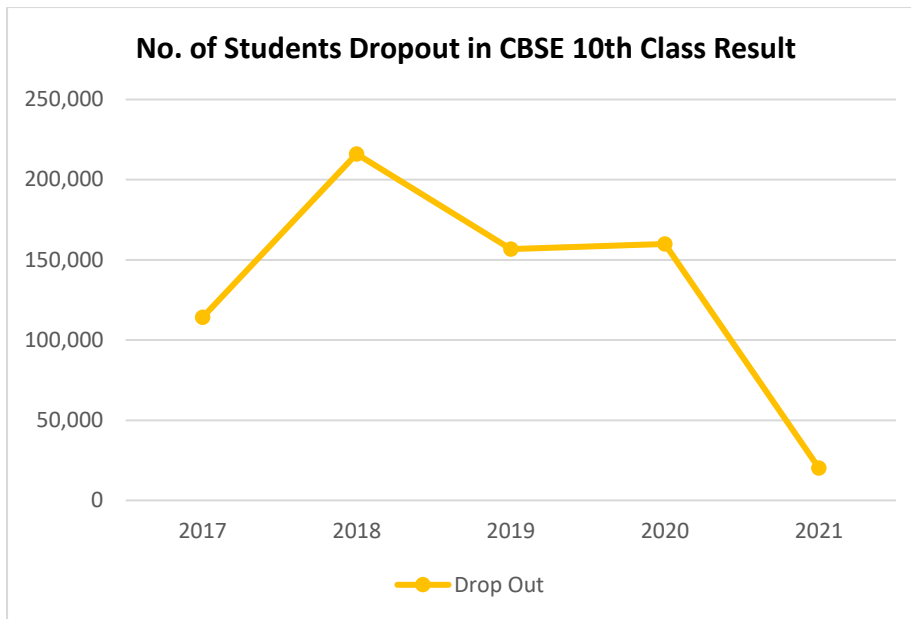


Figure 2: Showing Trends in 10th Class CBSE Board Result

Table A: Total Number of Students, Students Passing & Failing and Dropout in CBSE 10th Class Result (2017-2021)

Year	2017	2018	2019	2020	2021
No of Students	1660123	1624682	1761078	1873015	2097128
Pass %	93.12	86.70	91.10	91.46	99.04
Fail %	6.88	13.30	8.90	8.54	0.96
Drop Out	114216	216082	156735	159955	20132

- Total number of students dropout in 10th class ICSE board result (2017 to 2021)

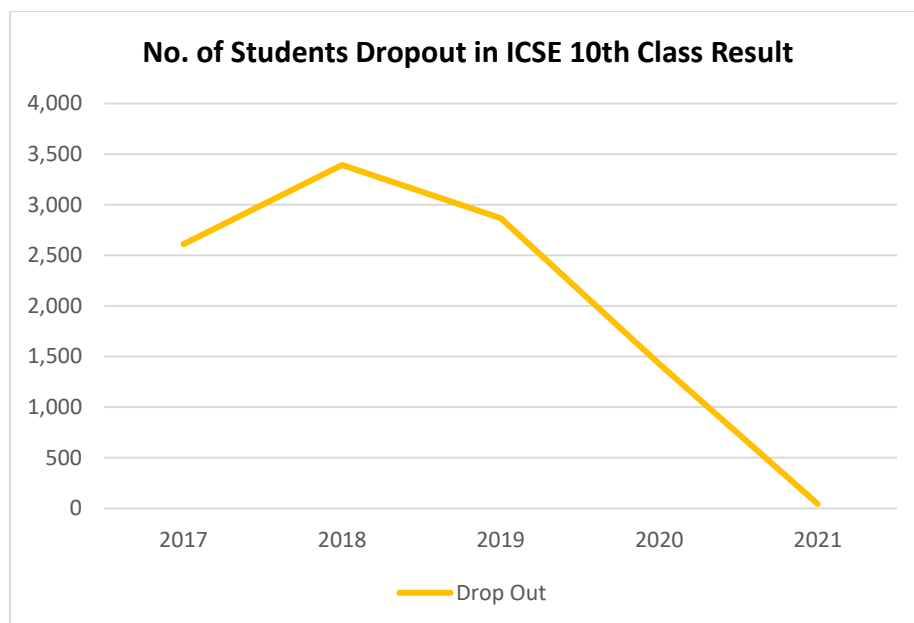


Figure 3: Showing Trends in 10th Class ICSE Board Result

Table B: Total Number of Students, Students Passing & Failing and Dropout in ICSE 10th Class Result (2017-2021)

Year	2017	2018	2019	2020	2021
No of Students	176327	183387	196271	213036	219499
Pass %	98.52	98.15	98.54	99.33	99.98
Fail %	1.48	1.85	1.46	0.67	0.02
Drop Out	2609	3392	2865	1427	43

4. Total number of students dropout in 12th class CBSE board result (2017 to 2021)

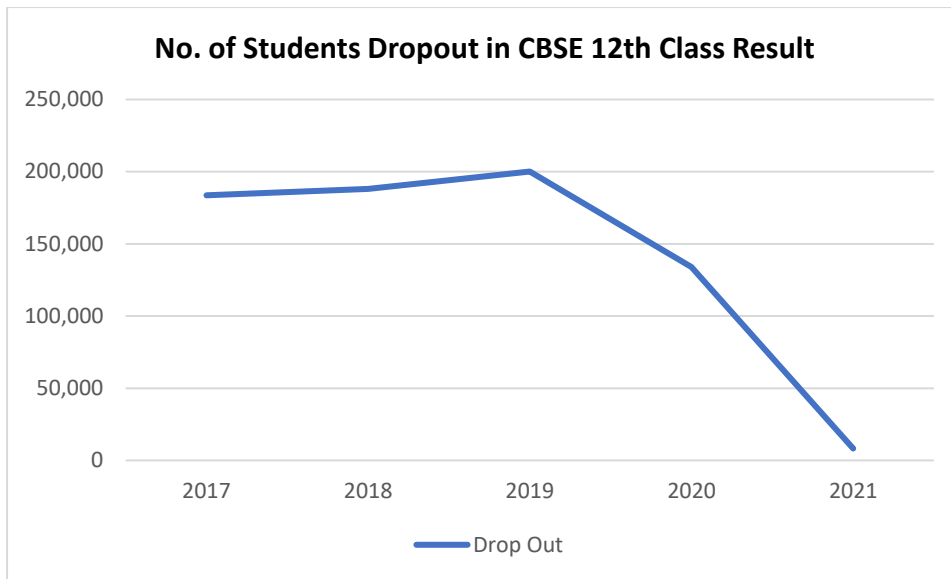


Figure 4: Showing Trends in 12th Class CBSE Board Result

Table C: Total Number of Students, Students Passing & Failing and Dropout in CBSE 12th Class Result (2017-2021)

Year	2017	2018	2019	2020	2021
No of Students	1020762	1106772	1205484	1192961	1304561
Pass %	82.02	83.01	83.40	88.78	99.37
Fail	17.98	16.99	16.60	11.22	0.63
Drop Out	183533	188040	200110	133850	8218

5. Total number of students dropout in 12th class ICSE board result (2017 to 2021)

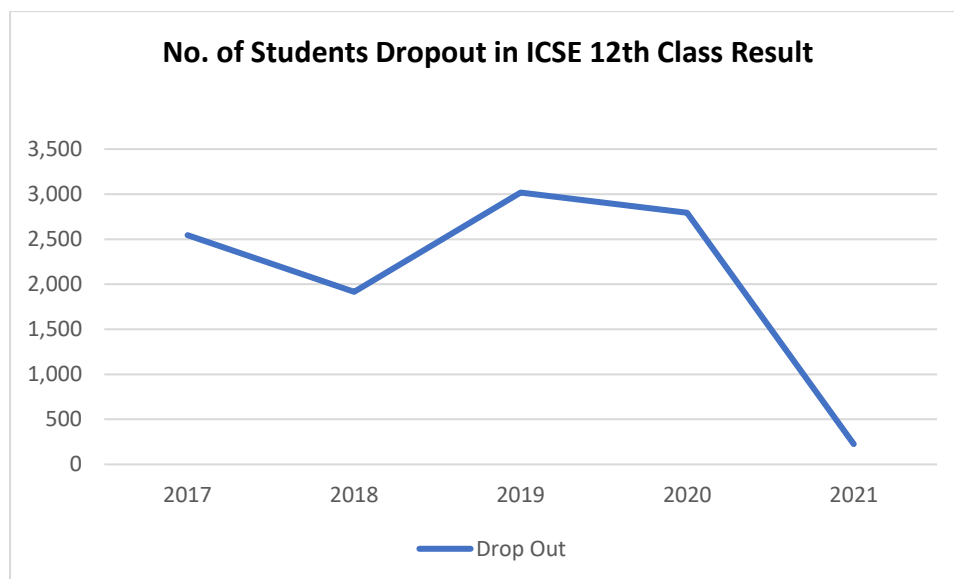


Figure 5: Showing Trends in 12th Class ICSE Board Result

Table D: Total Number of Students, Students Passing & Failing and Dropout in ICSE 12th Class Result (2017-2021)

Year	2017	2018	2019	2020	2021
No of Students	72096	80880	86713	88409	94011
Pass %	96.47	97.63	96.52	96.84	99.76
Fail	3.53	2.37	3.48	3.16	0.24
Drop Out	2544	1916	3017	2793	225

6. Total number of students dropout and average dropout per year in 10th and 12th class CBSE board result (2017 to 2021)

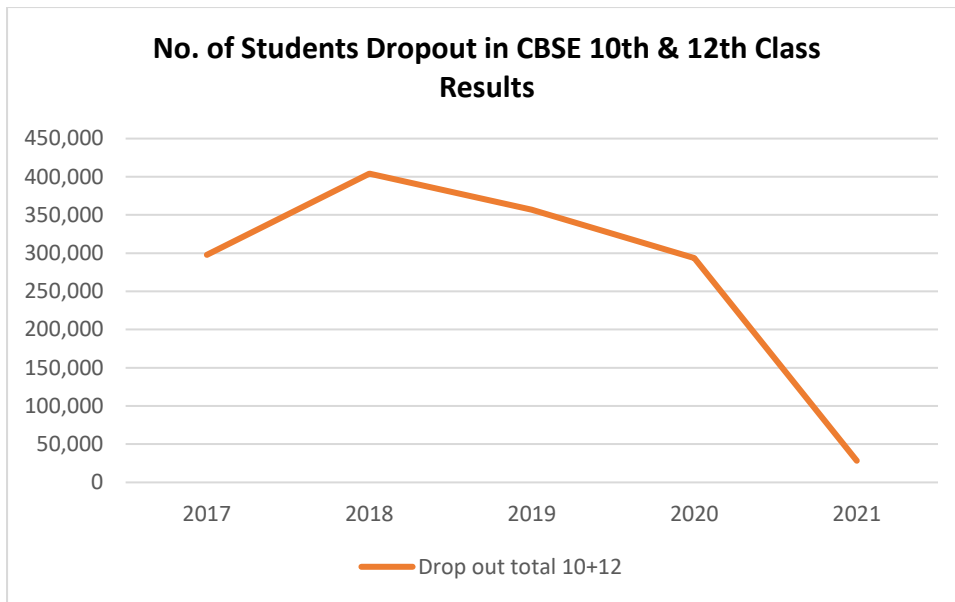


Figure 6: Showing Trends in 10th & 12th Class CBSE Board Result

Table E: Number of Students Dropout and Average Dropout per year in CBSE 10th & 12th Class Result (2017-2021)

Year	2017	2018	2019	2020	2021
Drop out total 10+12	297749	404123	356846	293805	28351
Average Drop out / year	27856	33674	29725	24481	2364

7. Total number of students who dropout and average dropouts per year in 10th and 12th class ICSE board result (2017 to 2021).

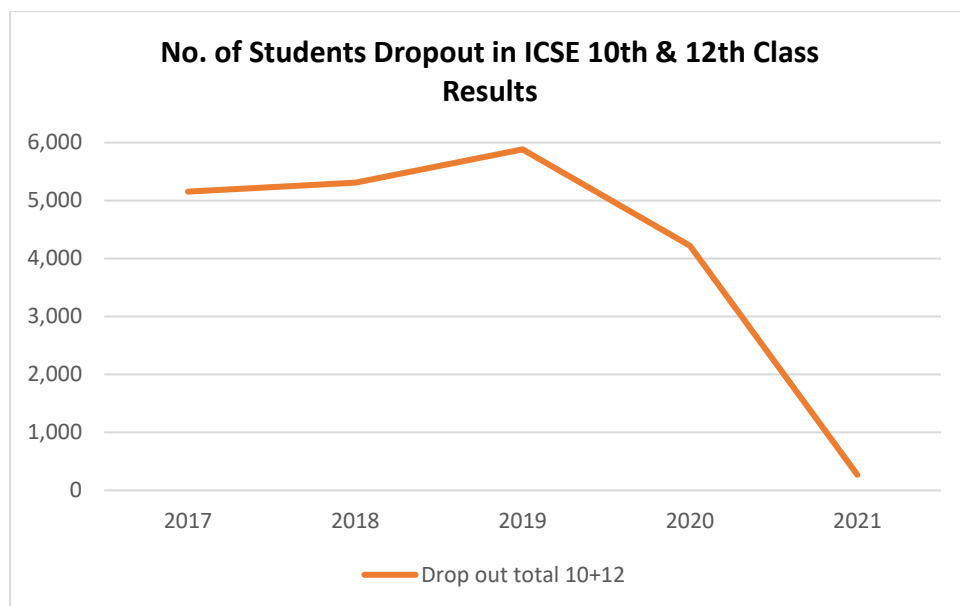


Figure 7: Showing Trends in 10th & 12th Class ICSE Board Result

Table F: Number of Students Dropout and Average Dropout per year in ICSE 10th & 12th Class Result (2017-2021)

Year	2017	2018	2019	2020	2021
Drop out total 10+12	5154	5309	5883	4221	269
Average Drop out / year	429	442	489	344	22

8. Total number of students dropout in 10th class state boards' result (2017 to 2021).

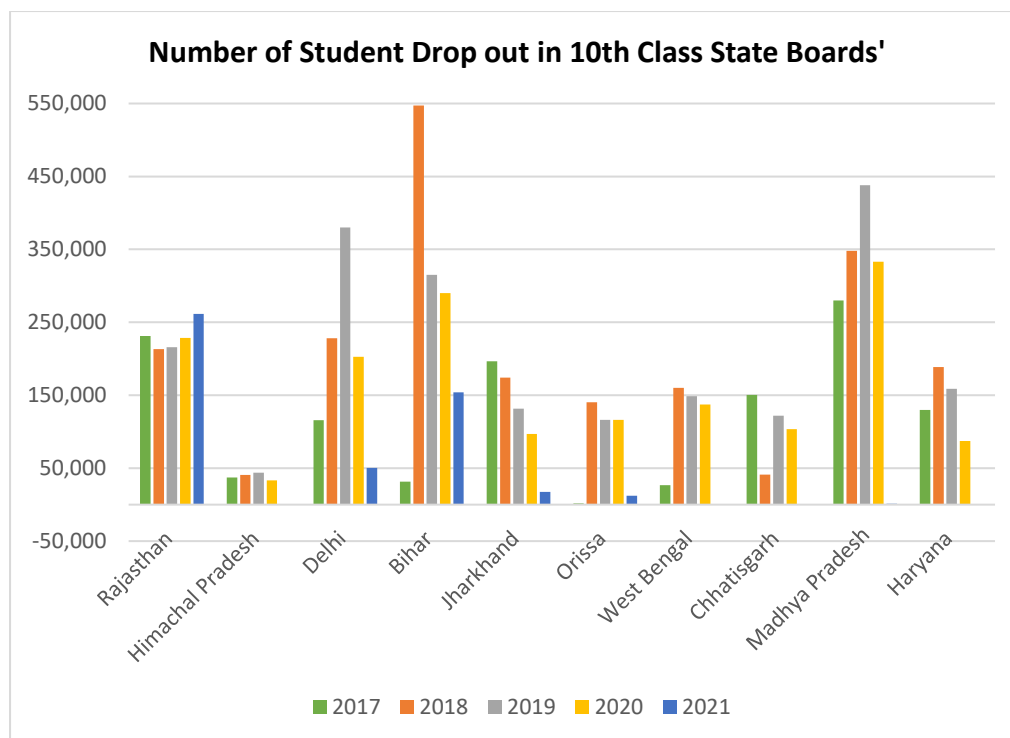


Figure 8: Showing Trends in 10th Class State Boards' Result

Table G: Total Number of Students Dropout in State Boards' 10th Class Result (2017-2021)

States	2017	2018	2019	2020	2021
Rajasthan	231230	213085	215783	228533	261621
Himachal Pradesh	37410	40800	43907	33269	347
Delhi	115789	228233	380114	202601	50340
Bihar	31514	547161	315078	290000	153762
Jharkhand	196454	174236	131535	97000	17647
Orissa	1870	140331	116039	116183	12115
West Bengal	26518	160034	148518	137101	453
Chhatisgarh	150522	41281	121780	103450	729
Madhya Pradesh	280107	348120	437981	332862	1026
Haryana	130048	188489	158704	87,070	0

9. The Total number of students and five years average dropout in 10th class states' board result (2017 to 2021).

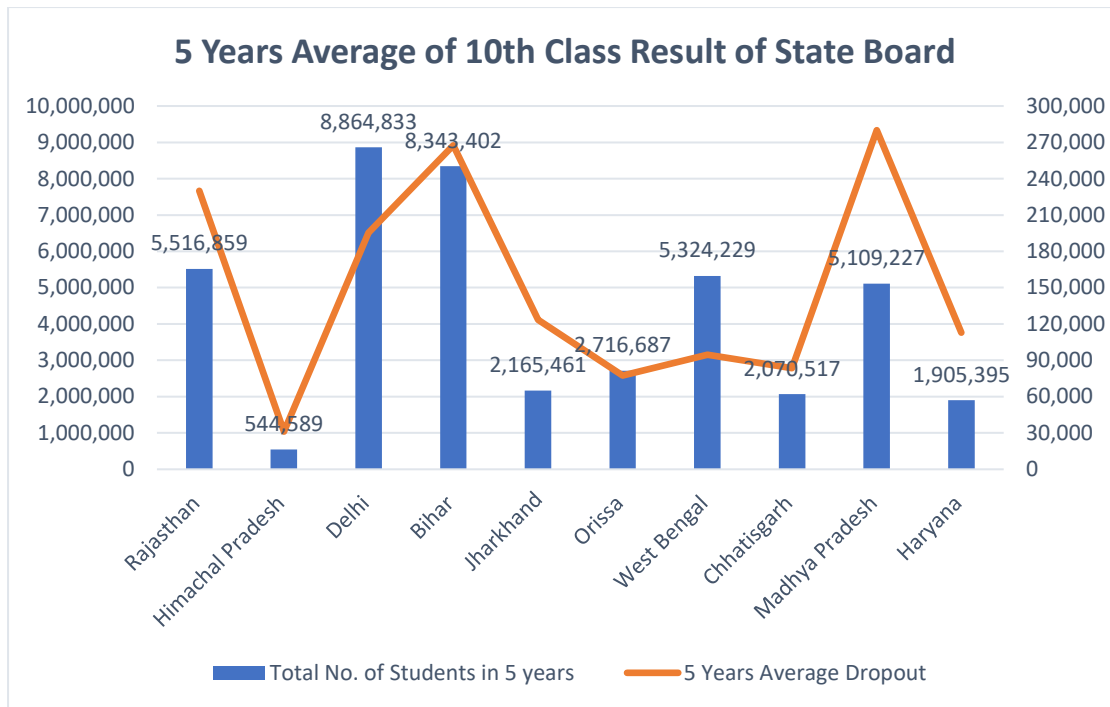


Figure 9: Showing Trends in 10th Class State Boards' Result

Table H: Total Number of Students Dropout and Five years Average Dropout in State Boards' 10th Class Result (2017-2021)

States	Total No. of Students in 5 years	5 Years Average Dropout
Rajasthan	5516859	230050
Himachal Pradesh	544589	31146
Delhi	8864833	195415
Bihar	8343402	267503
Jharkhand	2165461	123374
Orissa	2716687	77307
West Bengal	5324229	94524
Chhatisgarh	2070517	83552
Madhya Pradesh	5109227	280019
Haryana	1905395	112862

10. Total number of students' dropout and five years average dropout in 12th class states' board result (2017 to 2021).

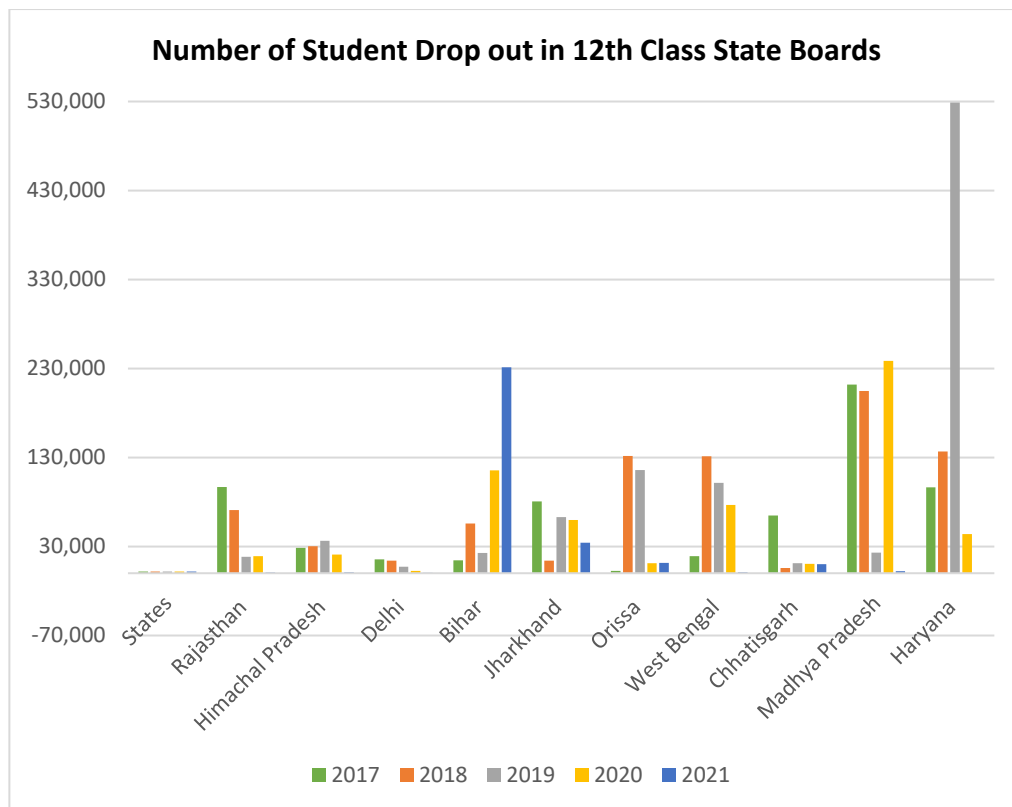


Figure 10: Showing Trends in 12th Class State Boards' Result

Table I: Total Number of Students Dropout in State Boards' 12th Class Result (2017-2021)

States	2017	2018	2019	2020	2021
Rajasthan	96671	70801	18305	19080	624
Himachal Pradesh	28508	30467	36248	20774	1039
Delhi	15705	14108	7424	2421	422
Bihar	14338	55802	22880	115666	231371
Jharkhand	80473	14118	62847	59653	34243
Orissa	2611	131767	116039	11136	11492
West Bengal	19035	131463	101612	76519	1084
Chhatisgarh	64861	5790	11187	10568	10033
Madhya Pradesh	211953	204680	23040	238663	2075
Haryana	96500	136740	528808	44000	0

11. The Total number of students and five years average dropout in 12th class states' board result (2017 to 2021).

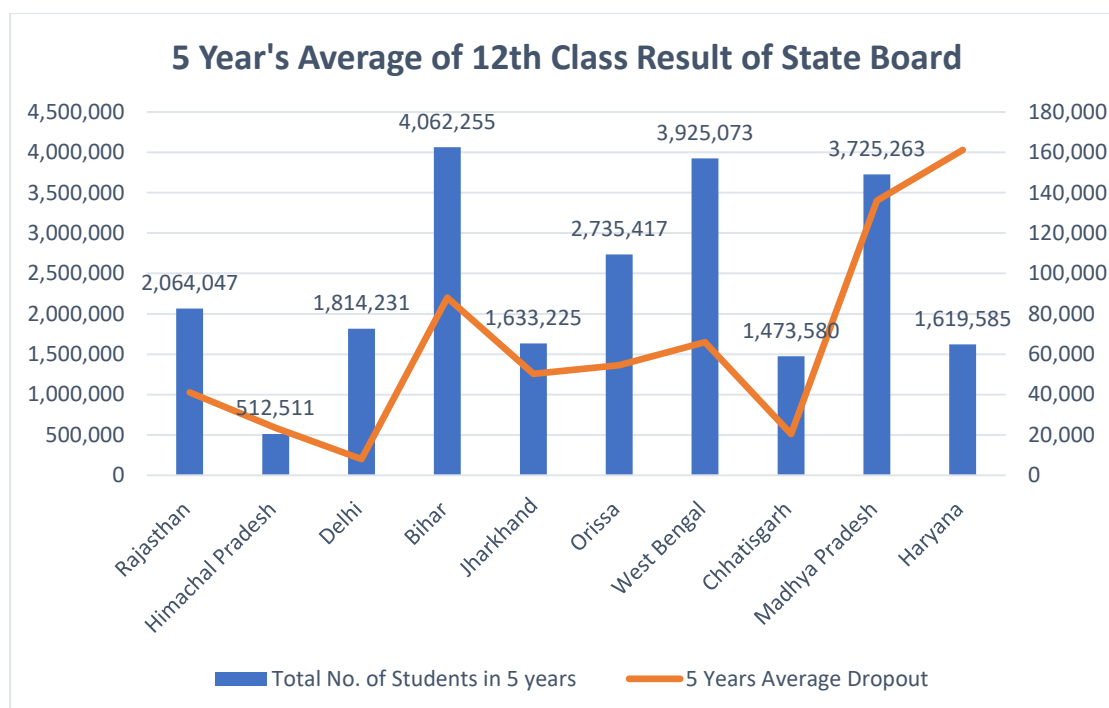


Figure 11: Showing Trends in 12th Class State Boards' Result

Table J: Total Number of Students Dropout and Five years Average Dropout in State Boards' 12th Class Result (2017-2021)

States	Total No. of Students in 5 years	5 Years Average Dropout
Rajasthan	2064047	41096
Himachal Pradesh	512511	23407
Delhi	1814231	8016
Bihar	4062255	88011
Jharkhand	1633225	50266
Orissa	2735417	54609
West Bengal	3925073	65942
Chhatisgarh	1473580	20487
Madhya Pradesh	3725263	136082
Haryana	1619585	161209

12. The total number of students' drop out in 10th and 12th class states' board results (2017 to 2021).

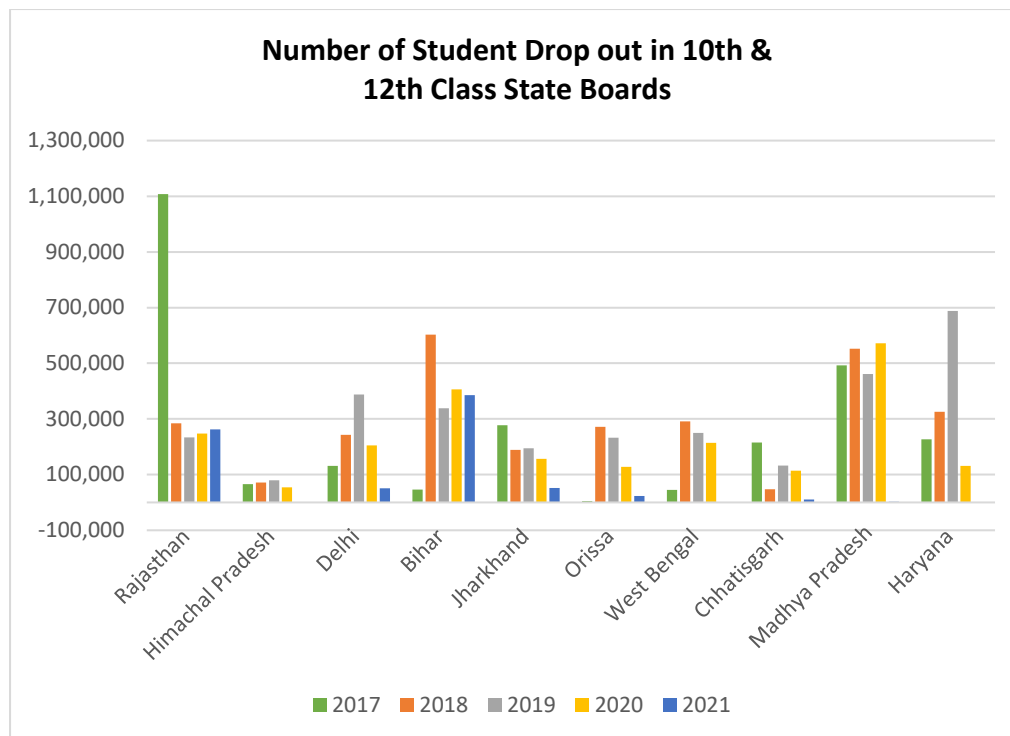


Figure 12: Showing Trends in 10th & 12th Class State Boards' Result

Table K: Total Number of Students Dropout in State Boards' 10th & 12th Class Result (2017-2021)

States	2017	2018	2019	2020	2021
Rajasthan	1107701	283886	234088	247613	262645
Himachal Pradesh	65918	71267	80155	54043	1386
Delhi	131494	242341	387538	205022	50762
Bihar	45842	602963	337958	405666	385133
Jharkhand	276927	188354	194382	156653	51890
Orissa	4481	272098	232078	127319	23607
West Bengal	45553	291497	250130	213620	1537
Chhatisgarh	215383	47071	132967	114018	10762
Madhya Pradesh	492060	552800	461021	571525	3101
Haryana	226548	325229	687512	1,31,070	0

13. The total number of students drop out and average dropout per year in 10th and 12th class states' board results (2017 to 2021)

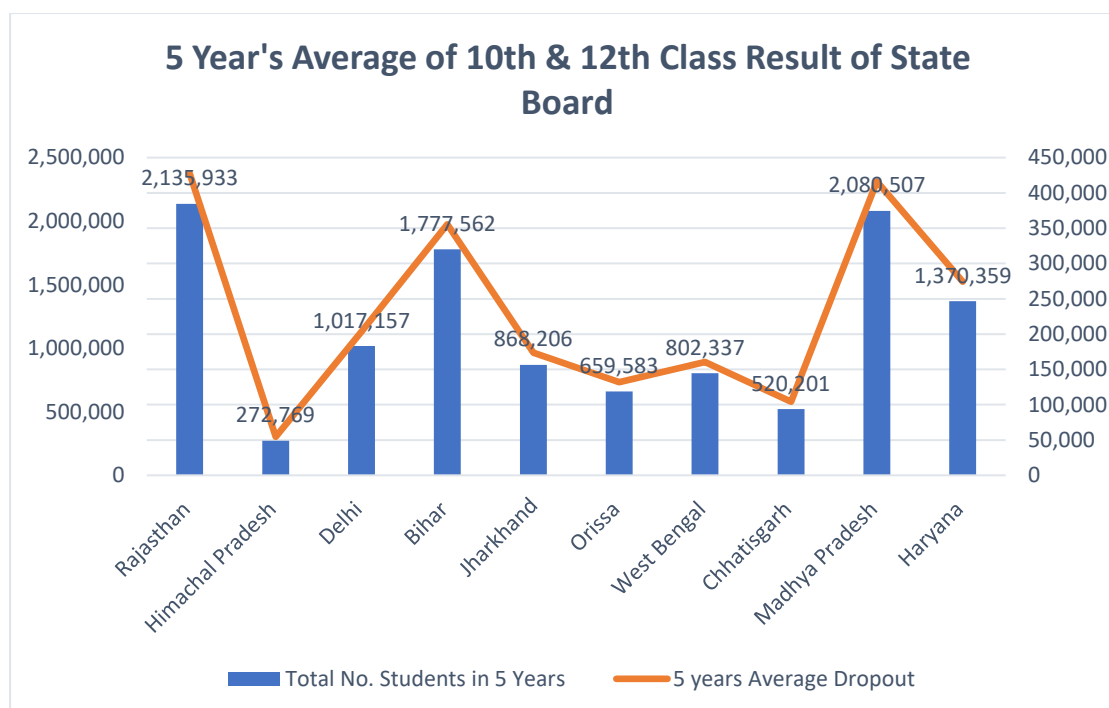


Figure 13: Showing Trends in 10th & 12th Class State Boards' Result

Table L: Total Number of Students Dropout and Five years Average Dropout in State Boards' 10th & 12th Class Result (2017-2021)

States	Total No. of Dropout Students in 5 years	5 Years Average Dropout
Rajasthan	2135933	427186
Himachal Pradesh	272769	54553
Delhi	1017157	203431
Bihar	1777562	355512
Jharkhand	868206	173641
Orissa	659583	131916
West Bengal	802337	160467
Chhatisgarh	520201	104040
Madhya Pradesh	2080507	416101
Haryana	1370359	274071

14. List of Key Programs of Lotus Petal Foundation

Key Programs:	Benefits & interventions:
Vidyananda School: A regular school program that runs classes at age appropriate levels from	- Language of medium is English

KG to Grade 12, presently from Nursery up to Grade VIII. Operational from 2013.	<ul style="list-style-type: none"> - Career counselling, self- grooming and confidence building counselling - 3020 students benefited so far
Pratishthan Learning Centre: The fast track schooling program from Grade VI to Grade XII along with vocational skill development. Operational from 2013.	<ul style="list-style-type: none"> - Platform for students who are lagging in education levels by age due to fractured education. - Career counselling for higher education - 1956 students benefited so far
Aarogya Wellness: A healthcare program that provides medical access to students, their parent and larger community in general. Operational from 2015	<ul style="list-style-type: none"> - Free consultation with the doctor - Periodic haemoglobin and BMI monitoring - Approx. 18289 benefitted so far - 10,000 covid vaccinations delivered so far
Zero Hunger Food Bank: A program that provides free meals to students, their parents and larger community in general. Operational from 2014	<ul style="list-style-type: none"> - Lunch & breakfast for students (550 Kcal and 18 grams of protein every day) - Distribution of ration kits to family of students - More than one million meals served so far - Total of 14,60,697 beneficiaries so far
Jeevika: Skill development program focuses on sectors like Banking & Financial Services, Electronics & IT hardware industry etc. Operational from 2016	<ul style="list-style-type: none"> - Training of students to enter job market and secure employment - 21 vocational courses offered in association with NIIT foundation. - Certificates by National Skill Development Corporation (NSDC). - 203 students benefitted
Vidya Sahyog: Outreach program that provides infrastructure development & academic support to government schools.	<ul style="list-style-type: none"> - Live interactive classes for government school students - Upgraded infrastructure for amenities like drinking water, toilets, labs, library etc. - 40 government schools and 4131 students benefited so far
Blue Khoj: Hyperlocal job portal launched in 2020 for parents of students studying in Vidyananda School and Pratishthan Learning Centre.	<ul style="list-style-type: none"> - To connect out-of-job parents to job providers. - Ensure students get uninterrupted education. - 16 people benefited so far.