

Introduction to the Dataset: Student Dropout Analysis for School Education

The dataset, titled “Predict Students' Dropout and Academic Success - Investigating the Impact of Social and Economic Factors” provides much information about students who enroll in several higher education courses. The dataset has the goal of understanding the factors which lead to student's dropout. On the website of Kaggle, a contributor provided the dataset, which focuses on students in the state of Gujarat, India. The dataset is set to be publicly accessible on the website of Kaggle. As for the researchers, the dataset serves a tool of assistance to analyze how social, economic, and academic factors affect student performance and academic success. The Dataset was created during as a part of the project on the timeline of December 12, 2021. The personal and academic information in this dataset, will be utilized to provide a comprehensive examination of students' dropout trends.

This dataset provides a comprehensive view of students enrolled in various undergraduate degrees offered at a higher education institution. It includes demographic data, social-economic factors and academic performance information that can be used to analyze the possible predictors of student dropout and academic success [1]. The dataset offers detailed information about students. The dataset offers detailed information about students enroll in undergraduate programs. The dataset covers their personal, social along with academic backgrounds, including variables such as demographic details, parental education and occupation, tuition status, scholarship eligibility, and academic performance. This information can help identify factors that contribute to student dropout. By analyzing the attributes, researchers along with educators can understand patterns of academic success, as they can develop strategies to support at risk students.

The data display a variety of attributes. The attributes provide data on the background or experience of individual students. On this scenario to understand further, the demographic variables identify the gender, age of the student at enrollment process, their marital status, students' nationality, and whether the student is an international student. The data also includes family and social factors, such as parent education and job, special education needs, displaced status, and whether students had financial debt. The data includes the range of economic attributes, including the tuition payment status, and the eligibility of students for a scholarship. Each of the variables describe personal, social, and financial situations, providing good assistance for understanding the likelihood of students dropping out.

Academic achievement is an important element of the data as it tracks the number of curricular units students received credit for, enrolled in, evaluated, and passed in a first semester. Other variables, such as course selection, application mode, and admissions qualification context for academic experience. There are regional economic attributes related to economic circumstances, such as unemployment, inflation, and GDP. Regional economic attributes can indirectly impact dropout rates, however regional economic attributes may influence family economic situations. The variables can be combined to analyze relationships between personal, social, academic, and economic factors to student success and dropping out.

From higher education institutions, data was collected at the time of student enrollment. The data was cleaned and preprocessed for accuracy and usability. In a CSV format, it is provided for easy access. A valuable dataset for researchers, policymakers along with educators, it helps to identify students who are at risk of dropping out on academics. With this, people develop targeted strategies to reduce dropout

rates. The data uncovers patterns that explain why some students leave studies early. The Academic Institution supports the students to enhance the educational performances and outcomes of each student.

Reference:

[1] thedevastator, *"Predict Students' Dropout and Academic Success - Investigating the Impact of Social and Economic Factors,"* Kaggle, 2025. [Online]. [Accessed: 18-Sep-2025].

https://www.kaggle.com/code/jeevabharathis/student-dropout-analysis-for-school-education?fbclid=IwY2xjawM5EtBleHRuA2FibQIxMQABHmPegN9LqDw0J-1zm_mBk5hJT3nbOsCODEsSpjPBHkU-7Cn1BY2KmO5QsFgX_aem_jbIMxfUR1P_VqDxPe596ZA