

# **Funds Investment by ed-tech Company**

**School Analysis of Punjab,  
Pakistan**

## 1. Documentation of any cleaning or manipulation of data.

Data shared with us is related to schools of Punjab, Pakistan. This data was shared with us by atomcamp team for further analysis and drawing results.

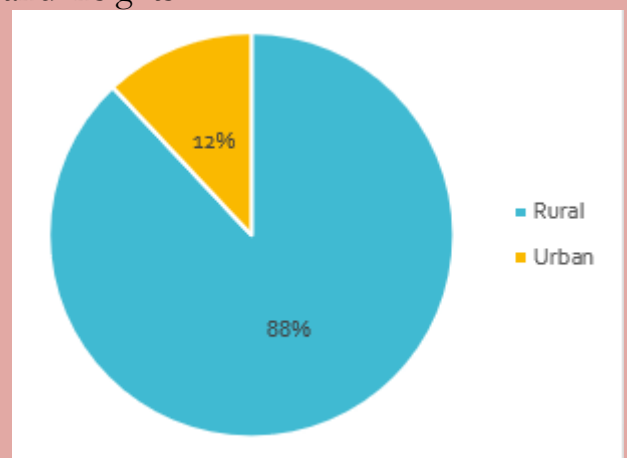
Updating alphabetical mistakes, blanks changed to 0 (zero) where required.

Keeping most data in its original state and tried to perform analysis on the same.

Used google and multiple websites to further research about school levels in Pakistan, number of rural and urban schools, ratio of male and female students in Pakistan with a sub division of Urdu an English medium schools.

## 2. Dataset analysis, highlighting key trends and insights.

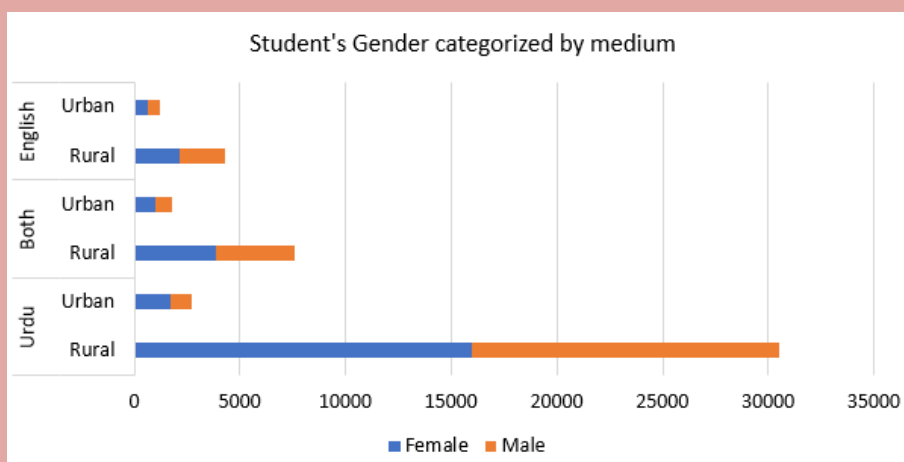
Through research and in the dataset provided to us we can clearly see that most of the population of Pakistan lives in rural areas, which is why almost 88% schools fall under rural areas and only 12% schools are in Urban areas. Whereas in contrast the ratio of teachers in rural and urban is 22% to 78%



Pakistan's urban population is only 38.82% whereas rural has 61.18% of the population.

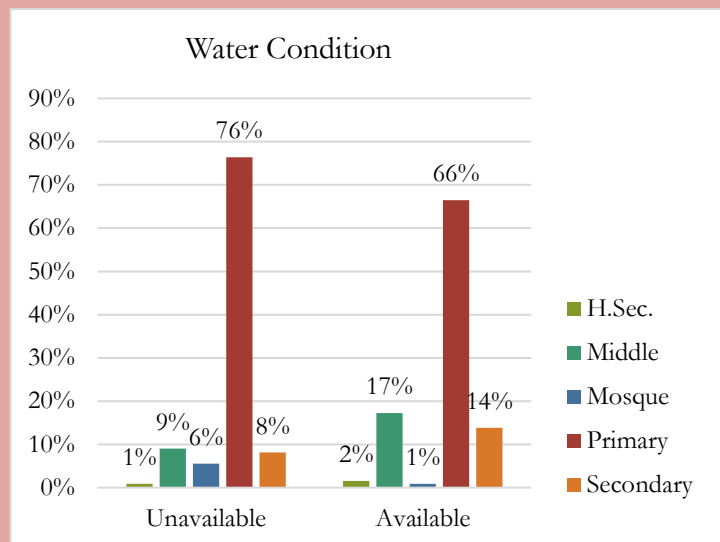
On Average in Punjab 52% female and 48% male students' study in schools with a total of 5775 schools running in Urban and 42416 schools in running in Rural areas.

The highest percent of teachers that teaches in Primary section (36%) whereas for higher classes like Higher secondary level only have 7% teachers.

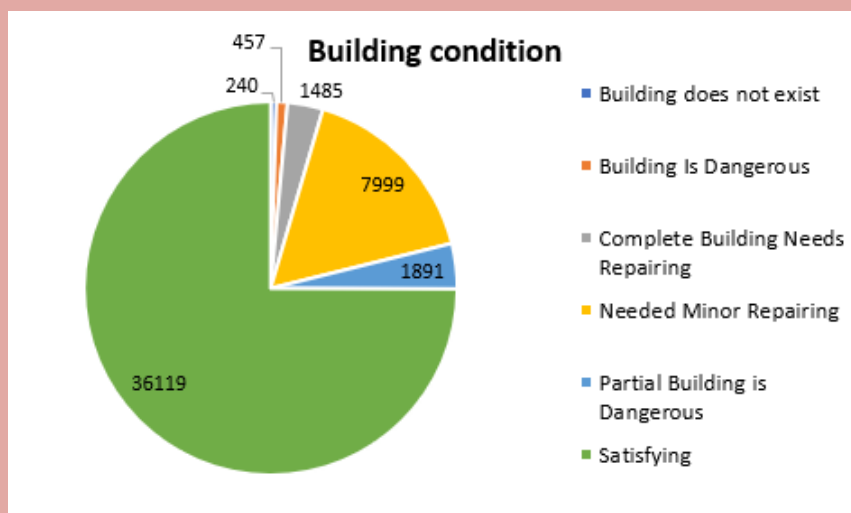


Ratio of students in rural and urban areas is quite self-explanatory with this chart where we can rural areas have the greatest number of schools in Urdu medium.

Drinking water is one of the key assets of a school, 233 schools do not have drinking water available whereas, the schools with drinkable water total of 1211 in urban and 4255 in rural.



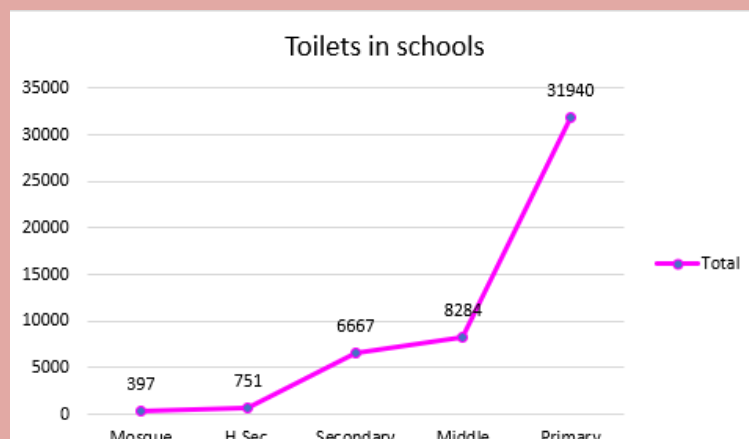
This dataset contains almost 5775 (12%) urban schools and 42416 (8%) Rural schools. Most schools in Rural areas use water from hand pump or water pump.



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75% schools have a satisfying building condition whereas 16% schools need repair.

Toilets are not available in 152 schools, however the lowest availability of toilets in districts include Chiniot, Hafizabad, Nankana Sahib, Lodhran and Mandi Baha-ud-din.



### 3. Justification for the allocation of funds to specific educational initiatives.

As an ed-tech company the most important investment will be related to technology, however Pakistan being a 3<sup>rd</sup> world country needs to first make sure the basics are completed or not.

Which include a better infrastructure, covered and secured area, facilities like electricity, water (drinking and for other usage), gas (for cold weathers to turn the heaters on), Playgrounds, labs, proper classrooms and toilets. Of course with which we also need an upgraded curriculum too.

According to our detailed analysis we can identify the most investment is needed to:

1. Upgrade schools in rural areas, designate teachers for these schools so they have ample number of teachers to teach them.
2. Drinking water is more consumed from hand pumps and water pumps which is a good source but not every time. Installing filter plants in rural areas for students so they can drink clean water resulting greater strength of students coming to school regularly.
3. Toilets in schools are relatively available however, we have less information about their condition which includes cleanliness, water availability and facilities. Investing in toilets is also an important point. – Investment of Rs. 7 million on improving toilet conditions, and drinking water for students
4. Building conditions are mostly satisfactory however, most schools do not have enough security as well as proper boundary walls with gates and guard - Investment of Rs. 7 million on infrastructure including boundary walls, building conditions
5. An average of 36% schools are of primary level in contrast with Higher secondary which is only 6.34%. As an ed-tech company we should be investing in adding more higher levels of schools in order to get most of children to study in higher levels t. Which in return will be beneficial for the progress - Investment of Rs. 25 million should be done in establishing more middle and higher secondary level schools in rural areas.
6. The most important investment on technology upgrade computers, laptops and buying software packages to teach students latest technology is our ultimate goal which should include an investment of atleast Rs. 7 million in order to improve education quality and to bridge the gaps

	Percentage		
	Rural	Urban	Grand Total
Primary	40.6%	20.2%	36.19%
Secondary	29.3%	51.2%	34.06%
Middle	24.8%	17.1%	23.15%
H.Sec.	4.9%	11.4%	6.34%
Mosque	0.3%	0.1%	0.26%

4. Data-driven marketing strategies to promote the initiatives effectively.

In order to achieve the right path towards data driven marketing our ed-tech company will need to follow some steps to enhance the marketing in order to improve the initiatives. They include finding the right market, then finding out our competitors and their strengths/weaknesses, get customer data through social media marketing (impressions, clicks, conversions etc.)

Refining the data and combining the results with marketing campaigns can help ed-tech company achieve the initiatives effectively.

The vital part is to increase efficiency, improve performance and reach customers more effectively.

#### **Websites used for research:**

- \* <https://gmsarnjournal.com/home/wp-content/uploads/2015/08/vol6no3-5.pdf>
- \* <https://www.nation.com.pk/19-Oct-2023/28m-children-out-of-schools-in-pakistan-report>
- \* <https://files.eric.ed.gov/fulltext/EJ1243638.pdf>

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