

Road safety around Middle schools in Delhi

Contents

Introduction	1
What is star rating for schools?	1
Methodology	2
Results.....	2
Conclusion	5

Introduction

Road safety is a grave issue faced in India. It accounts for 11% of the global deaths in road accidents ^{one}. Even though these accidents primarily occur on highways and other busy road networks, safety around schools, in particular middle schools, is often overlooked. In this report we investigate the current ¹condition of the roads around middle schools and secondary government schools in Delhi.

To tackle any issue, we first need to assess the magnitude of the problem, in this case, the lack of road safety interventions near middle and secondary government schools.

What is star rating for schools?

“Star Rating for Schools (SR4S) is an evidence-based tool for measuring, managing and communicating the risk children are exposed to on a journey to school. It supports quick interventions that save lives and prevent serious injuries from day one”.

We know the road features that affect pedestrian safety on a journey to school. Using evidence-based research of their impact on safety, a Star Rating is calculated at spot locations, where 1-star is the least safe and 5-star is the safest. SR4S combines a central web application and a data collection Android app that harness the power of the iRAP Star Rating for Pedestrians.

Once the risk is measured, effective scenarios of road treatments and their impact on safety can be simulated to identify cost-effective solutions. The implementation of the treatments can ultimately be tracked so that the partner and funder can see the benefits of their investment and the school teaching staff can educate the pupils on the correct use of the treatments.

More information is available through this [link](#).

1 = <https://www.worldbank.org/en/country/india/publication/traffic-crash-injuries-and-disabilities-the-burden-on-indian-society#:~:text=in%20an%20infographic-,World%20Bank,medical%20and%20social%20safety%20net>.

Methodology

To set a benchmark for the requirement a road should meet in order to be deemed “safe”, the “star rating for schools” toolkit, provided by the International Road Assessment Programme (iRAP) was utilized. The “star rating for schools” provides a comprehensive measure of whether a road meets their safety requirements or otherwise as it encompasses a variety of factors such as Vehicle Parking, Sight distance, Shoulder Rumble, Grade, Signs, Street Lighting, Intersections, number of driveways etc.

Taking information from the 2018 census of data for government schools in Delhi conducted by the Public Works Department of Delhi (PWD Delhi), we filtered the government schools to those that only catered to middle school students or secondary students. As this study was undertaken during the pandemic, physically assessing each road near a middle school in the national capital would have a logistically strenuous endeavor. We first tried to assess the work that needs to be completed by capturing data through online means, this included websites and images that could be sourced for each individual school.

Therefore, in this report we first look at the data that can be captured online and then assess the degree of the work that will be necessary in order improve the safety of the roads as well as the Government schools in Delhi.

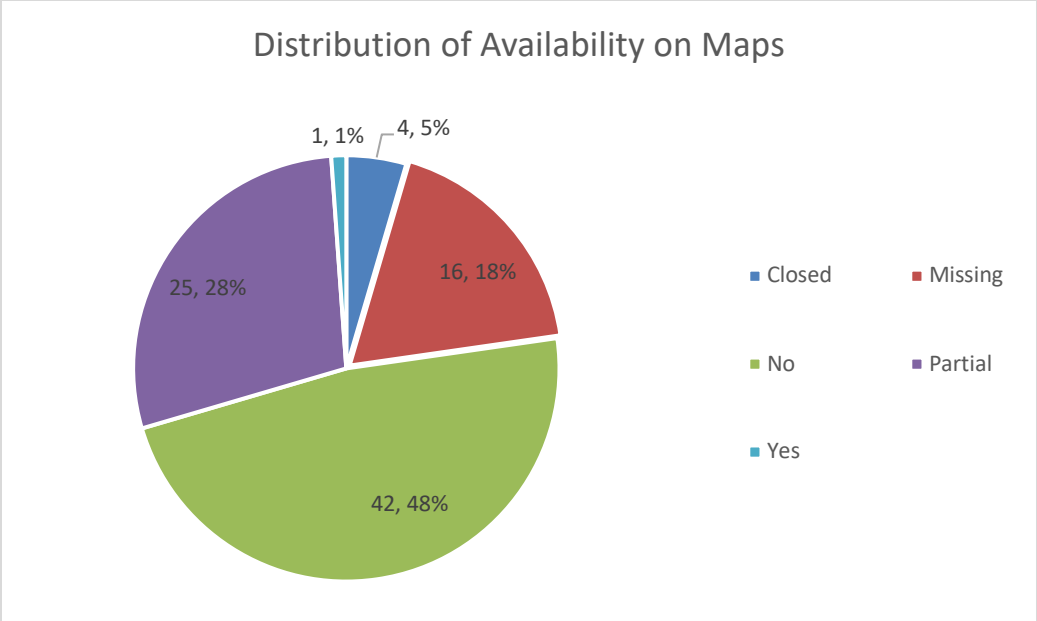
Using the information provided by the PWD, a database was created to which several other factors were added. The latitude and longitude of each school and their availability on Google Maps was considered along with the amount of data that was available online.

The information available online was then assessed and was categorized.

- If the entire “star rating for schools” toolkit could be filled by information and images available online. The availability of information was deemed to be “complete.”
- If the toolkit could not be filled entirely but to a certain extent, the availability of information was deemed to be “partial.”
- If the toolkit could not be filled at all, the availability of information was deemed to be “incomplete” or “insufficient”
- In some cases, the school listed was permanently shut down since data was collected in 2018 or was entirely missing from Google Maps, such cases were also accounted for by deeming them “closed” or “missing” respectively.

Results

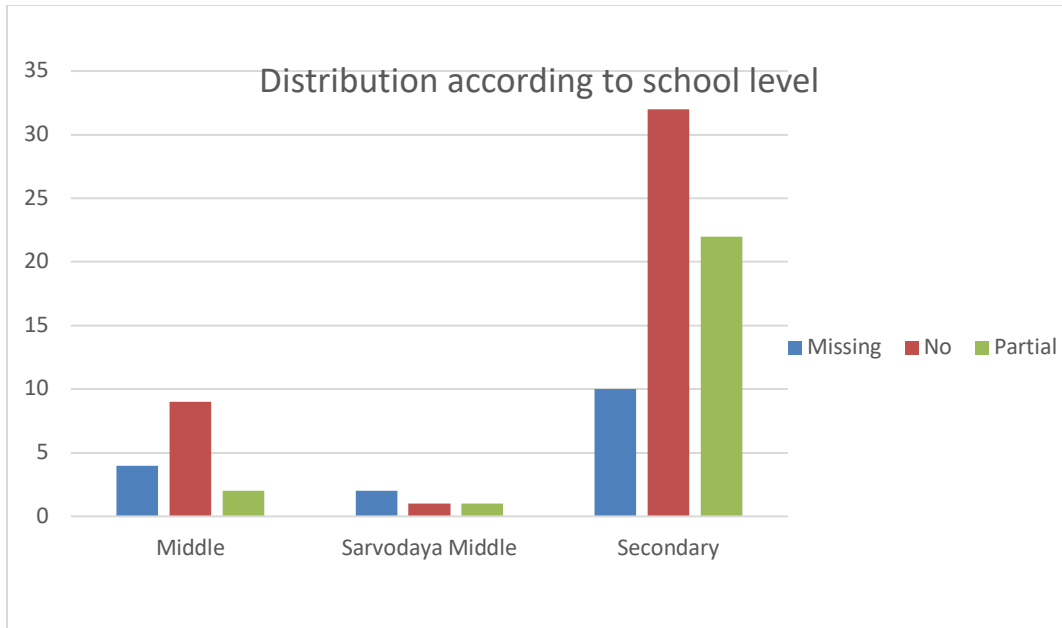
1) Categorization of the availability of information



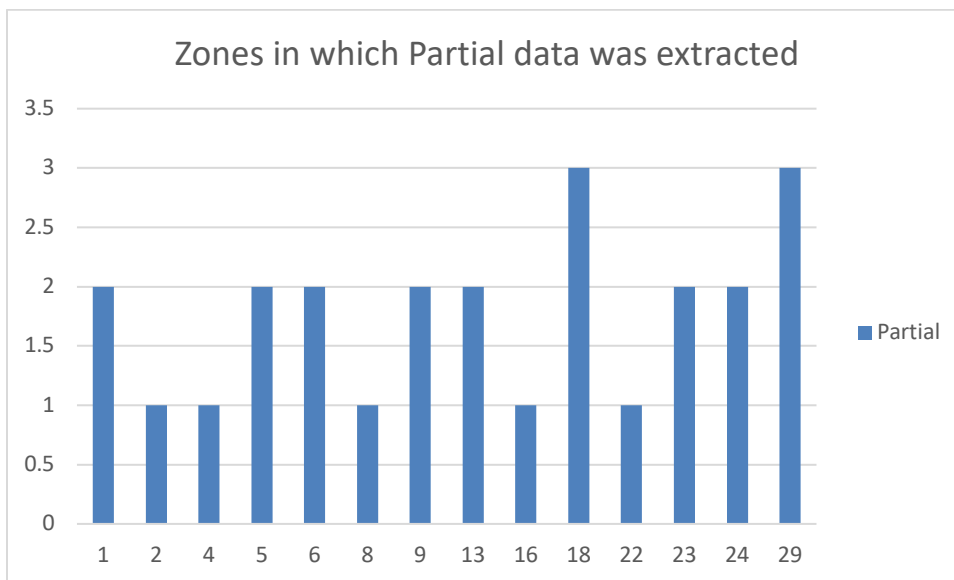
The information available was scarce to say the least considering the information was pertaining the national capital of India. The majority of schools fell under the incomplete or insufficient category. Disappointingly no school had enough information to be deemed “complete.” There was information for some schools which facilitated us to fill the toolkit at least partially.

Of the 93 Middle (15), Sarvodaya Middle (4), Secondary (74) and schools whose information was sourced only 25.28% of the schools had enough information and images to fill the “Star Rating for Schools” toolkit. That too just partially. 4.5% of the schools surveyed in 2018 have now shut down. 16.8% of the schools were entirely missing from google map and no other source of information. 42.8% schools were available on google maps but did not have enough information to fill up the “Star Rating for Schools” toolkit.

Only two schools of the nineteen middle schools in Delhi provided enough information to fill up the toolkit, “partially”. Each of their toolkits is shared below and mentioned specifically as well.



Two of the iRAP “star rating for schools” toolkits have been scanned and added as an annexure. They are an indication most of to the degree of the information that could be extracted. Both East Rohtash Nagar-G(Co-ed) MS (Located in East Rohtash Nagar) and Model Basti-GBMS (Located in Model Basti, Rani Jhansi Road) are both middle schools whose star ratings toolkit could be filled partially. Even though they are situated in different parts of Delhi, they both shared the same degree of information. Which was the case for the school for which information was available.



Other information provided by PWD was updated for the schools as well. Namely the phone number of the school as well as their HOS (name of the principal).

Conclusion

However, it is extremely clear to assess the condition of the roads and improve their conditions, a physical survey would be vital, requiring a great degree of capital, workforce, and time.

Each child has the right to study in a safe environment and not be endangered while attending school. Even though a large scale overhaul maybe infeasible at the moment but small-scale interventions such as road signs, speed limit signs, no parking zones around the entry gate of the school, speed bumps or other forms of road shouldering too would go a long way making schools a safer environment for young children to learn in.

-Mukund Kishore