Question: How can data collected with the New Zealand census help schools?

Schools often have the problem within New Zealand as statistically poorer regions of New Zealand will often need to make sacrifices to quality or resources within a school for it to remain open while ensuring moral and legal authenticity. In order to prevent the schools closing, the New Zealand government would have to invent a way in order to properly allocate resources to the schools within the lower socio-economic regions of the country. The government has done so with a system known as the decile system, which is a system that helps determine how much allocation of funding a school.

The decile system is a system which measures the average socio-economic status of the students and families enrolled within a specific school as measured using the results of the census survey – a survey that is done every 5 years to help determine the state of the economy within New Zealand and its regions. Data science could then be used to determine the school’s decile value about the financial status and number of people within a family, which in turn can be used to determine how much funding that specific school may require or need. Each decile value is determined by a threshold that will correlate to a specific decile value so that roughly 10% of schools fit within each threshold. This is important as it allows the government to use data science to allocate its school funding resources appropriately, giving higher focus to schools located within a lower socio-economic region or with a lower decile value, thus allowing the children within these regions or schools to have a better opportunity for higher quality education and a better schooling experience. This means that lower socio-economic status schools could gain access to things like computer systems, Wi-Fi access and classroom resources like books and quality paints to enhance the child’s schooling experience.

This information is important as it not only allows for the New Zealand Government to allocate its resources, but it also provides assurance for a parent that their child is not missing out on any learning opportunities that money within a school may affect.

As the data collected from the New Zealand Census is not only government monitored, but also contains private information, many considerations must be made to ensure the system is measured accurately and is used in a way that is morally correct. One of this key consideration is that one of the factors the data collects and considers is the financial status of a family. The census also collects data based upon the racial and cultural status of the same family, making it important to not bias a family’s wealth or income of race or culture. As the data collected to determine a school’s decile value is collected from every registered New Zealand citizen, as a legal obligation, massive amounts of security must be allocated to ensure the data’s privacy and integrity as a data leak or break could cause the release of sensitive information regarding a family and its members to the public and potentially expose people that could be classed as vulnerable within society. A breach of this magnitude could also result in a newfound lack of trust towards the government regarding a person’s private information, which in turn could lead to a general mistrust towards the government.

Using data to create a system that can allocate appropriate levels funding towards schools helps the government to ensure kids living in poorer regions gets the proper opportunity to get quality education. As well as this the government is also obligated legally to ensure the data’s privacy to avoid data leaks of sensitive information and a moral obligation to ensure that the data is not used in a discriminatory manner.