

Guidance from the Data Ethics Advisory Group: The Equity Index

The Data Ethics Advisory Group is formed of independent experts to provide advice to government agencies on issues relating to data use and innovation. The Group was established in July 2019 with the aim of empowering agencies to use data effectively and innovatively whilst managing risks in order to maintain the trust and confidence of New Zealanders. You can find current details of the Group, its work and its members on the data.govt.nz website.

Thank you for bringing your item before the Data Ethics Advisory Group. It was great to have you with us and we hope you found the discussion valuable.

Feedback in summary

The Equity Index is an improvement on the decile system. The focus on equity, and the aim of more up-to-date and granular data is to be commended. These positive aspects must be offset against wider concerns. The Equity Index will require greater stakeholder and public engagement and refinement as it develops beyond the current design.

Members were reassured that:

- Equity is the conceptual underpinning of the move from the decile system to the Equity Index.
- The Equity Index should distribute resources more equitably than the existing system, using more regularly updated and granular data.
- The Equity Index is being developed and introduced through a staged and considered process.
- There has been stakeholder engagement with the education sector, and more comprehensive consultation planned.

Members had concerns about:

Consultation

- There has been limited engagement with the public, although we understand more comprehensive consultation is planned.
- Iwi, as the Treaty partner, have yet to be consulted on the Equity Index, which raises concerns about adherence of the Index to the principles of the Treaty of Waitangi.
- Māori Data Sovereignty remains unresolved and issues of social and cultural license remain, as the Equity Index does not take into consideration the rights of the collective.
- Although children have been consulted broadly on the Equity Index, they have not yet been consulted on the indicators used, despite the Equity Index having considerable implications for children's daily lives.

Equity

- Potential harms and benefits of moving away from deciles and to the Equity Index have not been effectively quantified or demonstrated.
- There is no clear line of governance around the Equity Index or ensuring that the purpose of addressing inequity is achieved.
- Two issues which remain (although we understand these are currently under consideration) are:
 - It is not clear how the evidence base on whether the Equity Index is fit for purpose will be created or monitored, revealing an apparent absence of proper evaluation.
 - The introduction of a regional multiplier to effectively target regions that experience greater poverty.

Indicators and Data Quality

- There is currently a lack of data, or usable data, around key indicators of socio-economic outcomes such as health – though we understand the inclusion of such data will be considered once it is of an adequate quality and prevalence.
- Groups who are not adequately represented in the Integrated Data Infrastructure will not have their socio-economic status as effectively represented by the Equity Index, such as:
 - children who are not living with their biological parents, when these are a community of concern; and
 - children of parents who were not born in New Zealand.
- As a result, the algorithm was trained on incomplete or misleading data and could embed existing inequities – although we note that the Equity Index is not an individual-based model and therefore variance on each student’s estimation will be averaged out at a school level.

Transparency

- There is an overall lack of transparency, with regards to both the development of the Equity Index and the algorithm that underpins it, which has the potential to:
 - Confuse the public – between poor communication and a drive to avoid the ease of extrapolation inherent in the decile system, the Equity Index could be seen to obfuscate the system for school funding.
 - Conceal algorithmic imperfections – thereby magnifying their impact by making them difficult to identify and address.
 - Promote risk resistance and cause upset in the education sector.
 - Have enduring issues for schools’ ability to query their funding, risking resort to adversarial complaint processes.
 - Feed fears around the limits and anonymity of data use as questions around social license are unresolved.
- If not designed and implemented effectively, the Equity Index could risk undermining trust in individualised data-based decision making and the wider data ecosystem of the country.

Members recommend that:

- Iwi are consulted on the Equity Index as a matter of priority, both on the indicators used and more broadly.
- Children be consulted on the indicators used.
- Ethnicity data be included in the variables used by the Equity Index.
- A clearer cost-benefit analysis of the Equity Index is carried out. This would include clarity on how the benefits of the Equity Index feed into wider ambitions around improving equity and exceed those of the decile system.
- The Ministry of Education continue to consult the public widely as the Equity Index continues to develop and refine.

Members noted that

- The Equity Index follows a risk model, based on the view that parents' characteristics and circumstances predict the life-course of a child.
- The omission of the sex of school pupils as an indicator is potentially inconsistent with the factors underpinning the choice of indicators used.
- A data ethics assessment must necessarily consider whether the purpose of the use of the data is likely to be achieved; but questions such as the below remained unresolved:
 - whether introducing the Equity Index risks significant disruption for little gain as its benefits are dependent on effective resourcing.
 - whether the Equity Index will influence cultural change or promote effective equity initiatives in schools.
 - how the funding allocated through the Equity Index would enable inequity to be addressed.
- Potential external impacts of the Equity Index should not impact on the design of, or communications about the Index.
- It will still be up to individual schools to make decisions on how to address equity with the allocation they are given through the Equity Index process.

We would welcome the opportunity to hear from you again

We know that projects change and evolve. We would welcome further discussions with the Group about any substantive changes, including to the methodology being used or after consultation with iwi, children, and the wider public.