



PPTA TE WEHENGARUA ANNUAL CONFERENCE 2022

A STEP TOWARDS NEEDS-BASED RESOURCING – THE EQUITY INDEX



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RECOMMENDATIONS

1. That the report be received.
2. That PPTA Te Wehengarua endorses the Equity Index as a replacement for decile, and its use to allocate higher levels of resourcing to schools with higher proportions of students who are at risk of educational underachievement.
3. That PPTA Te Wehengarua supports the use of the equity index applying to additional operational grant resourcing and to additional entitlement staffing resourcing.
4. That PPTA Te Wehengarua notes the potential to use the equity index for other resourcing.

1. OVERVIEW

- 1.1. This paper reviews PPTA Te Wehengarua’s policy on needs-based resourcing and considers our policy position on the Equity Index and its potential uses.

2. BACKGROUND

- 2.1. In 2014, a PPTA Te Wehengarua annual conference called for a national discussion with sector leaders about a needs-based funding system. The National Education Leaders’ Partnership formed as a result and developed a set of principles which it took to the Minister of Education to initiate discussion about school funding, and government began a review. This included an alternative method of providing equity funding, or ‘funding for students at risk of not achieving’, to the decile system.
- 2.2. The decile system provided for additional targeted funding for educational achievement but was based on the characteristics of the wider community from which students were drawn and did not reflect the actual additional needs of students attending the school. Two schools with the same decile could have very different needs profiles. It was the best that could be done with the tools available at the time, but it is no longer seen as fit for purpose.
- 2.3. In 2016 the PPTA Te Wehengarua Annual Conference¹ updated members on the progress that had been made at that stage towards an equity index that focused on the risks factors for underachievement of individual students, and delegates endorsed the recommendations that:
 - PPTA Te Wehengarua advocate for equity funding that recognises a range of objective and measurable characteristics of students at risk of not achieving, with higher levels of funding for students who exhibit multiple factors; and
 - PPTA Te Wehengarua advocate for equity funding which includes both staffing and operational resourcing; and
 - PPTA Te Wehengarua advocate for equity funding to increase from 2-3% of total school funding to at least 10%, by increasing the total school funding budget without any state or integrated schools losing public funding; and
 - PPTA Te Wehengarua advocate for a scale of equity funding that increases baseline resourcing levels by between 1.1 and 1.5 times for students with increasing numbers of risk factors; and
 - PPTA Te Wehengarua advocate for additional concentration factor equity funding for schools serving higher proportions of at-risk students.

¹ [Real equity funding: resourcing schools to support at risk learners \(ppta.org.nz\)](http://ppta.org.nz)

- 2.4. In 2017 a small student-centred, two factor equity funding mechanism was introduced as an additional operations grant component, the targeted at-risk funding. The amount of targeted at-risk funding received is based on a per student funding rate and the number of students whose parents:
- have been on benefits for 75% of the first five years of their life or
 - have been on benefits for 75% of the past five years.
- 2.5. Since then the Ministry of Education has further developed an equity funding index to replace decile funding. PPTA Te Wehengarua has been represented on the equity index reference group.
- 2.6. The equity funding index has developed in line with PPTA Te Wehengarua's broad principles and as it now stands incorporates a broad range of objective and measurable characteristics of students at risk of not achieving and will be capable of including more over time.

3. THE PRINCIPLES BEHIND THE EQUITY INDEX

- 3.1. As the 2016 conference paper noted, learners don't come to the starting line all equally ready to run, nor are the hurdles along it of equal height for each runner. Students from low socio-economic backgrounds have a greater risk of educational underachievement than their more privileged peers. On top of the baseline costs of educating a child, significant additional investment is needed to overcome the barriers to educational success for many children.
- 3.2. An equity index is intended to measure the size of those extra needs in a school population. It is then linked to equity resourcing, which is intended to provide the additional resources needed to address those extra needs across the school's students.
- 3.3. The equity index refined this basic principle by identifying from research a range of potential risk factors, general characteristics associated with an increased likelihood that a student will underachieve. Some of these risk factors have greater impact than others and so can be weighted for effect. The more risk factors a student is exposed to the more likely and the greater the risk of underachievement is.
- 3.4. Every school will have students who have been exposed to risk factors, but they are more concentrated in some schools than others. The problems of schools with high proportions of students exposed to several risk factors increase disproportionately with concentration.
- 3.5. Exposure to risk factors is not about predetermination but probability. Some students will achieve to their full potential despite being exposed to several risk factors and some who are exposed to none will underachieve. However, across a school population those who are exposed to risk factors will be more likely to underachieve than those who are not, and overall those exposed to many significant risk factors will do worse than those exposed to few. The index (and the associated resourcing) therefore should be linked to the school and not to individual students.

- 3.6. Currently the variables are aligned to outcomes at NCEA Level 1 and 2. The definition of educational achievement could be broadened beyond those two measures.
- 3.7. Like decile, a school's equity index is not a measure of the quality of teaching and learning in the school.

4. CALCULATING A SCHOOL'S EQUITY INDEX

- 4.1. The Integrated Data Infrastructure (IDI) is a large StatsNZ research database. It holds a range of variables on people and households associated with educational outcomes. It can cross link with data from government agencies, Stats NZ surveys, and non-government organisations including education, income, benefits, migration, justice, and health.
- 4.2. IDI undertakes the EI analysis in an anonymised process, which is subject to Statistics NZ privacy rules (which have been confirmed with Office of Privacy Commissioner).
- 4.3. Within IDI, every student on the school roll is individually matched against the range of the thirty-seven weighted variables², and combined at school level. The output is the school's Equity Index value. Individual variables are not extracted, nor is student-level data.
- 4.4. More variables can be added to over time if reliable and accessible data becomes available for factors which are shown to be relevant to educational achievement.
- 4.5. The Index gives the school's mean level of educational disadvantage across all its students.

5. DISTRIBUTION AND IMPACT OF DISADVANTAGE

- 5.1. Over the course of its development the equity index modelling has shown that:
 - All schools have some students with some level of disadvantage, but most students are in schools with low levels of disadvantage.
 - Most disadvantaged students are in schools with very high levels of disadvantage (above 45% students from disadvantaged circumstances), which are often small, and Māori medium schools.
 - There is an increasing polarisation with more schools having very high or very low levels of disadvantage and fewer having moderate levels (i.e. 10-45% students from disadvantaged circumstances).

² See Appendix 1 for the variables.

- High concentration of disadvantage impacts on all students in the school, not just those from disadvantaged circumstances and beyond 30% from disadvantaged circumstances schools struggle to achieve (as measured by achievement rates at NCEA Level 1 and 2).

6. INTRODUCING THE FUNDING

- 6.1. In the 2021 budget the Ministry was funded to develop the administrative framework to implement a broader equity index.
- 6.2. The 2022 budget included equity funding for 2023 onwards which is composed of the existing Targeted Funding for Educational Achievement (decile payments) and other small additional equity components and \$75million of new funding. The current equity components constitute 2.8% of school funding. This will increase to 3.8% with the new resourcing, but internationally equity funding is between 6-10% of resourcing.
- 6.3. The Equity Index is on a 226-point scale from 345 (least disadvantaged student population) to 568 (most disadvantaged), which does not easily divide back into a 10-point scale. For example, 545 to 568 does not equate to decile 1.
- 6.4. The new funding was introduced in the context of a general inflation adjustment increase to the operations grant of only 2.7%. A number of schools receive less funding than they were previously receiving, and others will have less funding in real terms than 2022 because of inflation. However, set against that:
 - 6.4.1. Some schools will have been receiving more under the decile system than would be justified by their level of student deprivation and some have been receiving less.
 - 6.4.2. There were always some schools that had gains and reductions in funding when the deciles were re-normed every five years, and these could be quite large changes.
 - 6.4.3. Future changes to funding through the EI will be smaller in part because the index, and therefore funding, will be revised annually (and therefore reflect smaller changes in the school population) and because the funding will be based on the average of the last three years' indices for the school, which will smooth over small annual shifts.
 - 6.4.4. Schools with losses in funding will be supported to adjust over a three-year period with supplementary funding.

7. NEXT STEPS

- 7.1. How the index is applied to funding and resourcing (both kind and amount) going forward is going to depend on Cabinet decisions.

- 7.2. It is likely that the equity index will be used to allocate other types of resources to schools, for example, social workers and school meals support, and PPTA Te Wehengarua and SPC are proposing a new needs-based staffing model which would incorporate the index.
- 7.3. In the above context it will be helpful for Annual Conference to reaffirm our policy that:
- i. Resourcing based on the equity index should recognise the impacts of concentration of risk factors
 - ii. Equity funding should be in addition to existing funding and should seek to avoid creating 'loser schools'
 - iii. The level of resourcing should be sufficient to enable schools to make a real difference to addressing the risk of educational underachievement within its student population.
 - iv. Additional resourcing targeted by the index should include entitlement staffing as well as operational funding.

More details of the Equity Index can be found in the following Ministry of Education resources:

[The Equity Index – Education in New Zealand](#)

[An-Introduction-to-the-new-Equity-Funding-system-for-schools-and-kura.pdf](#)
[education.govt.nz](#)

Table of EQI variables

A variable listed below which has both father and mother is two variables.

Parental socio-economic indicators

Father's/mother's wage and salary income	9/8 categories. All income variables are measured as average annual income over the child's lifetime.
Father's/mother's self-employment income	8/7 categories
Father's/mother's main benefit income	7/8 categories: Working-aged income-tested benefits such as Job-Seeker Support, Supported Living Payment, and Sole Parent Support
Father's/mother's second tier benefit income ⁵	6/7 categories: include accommodation supplement, disability allowance, and family tax credit.
Father's/mother's highest qualification level	No qualification, NQF level 1,2,3, ..., 9, 10, Missing qualification
Father's/mother's age at child's birth	Under 18, 18-19, 20-24, 25-29, 30+, Missing
Mother's age at birth of first child	
Mother's number of children at child's birth	0-1, 2-3, 4-5, 6+, Missing
Father/mother with a community sentence	Yes/No/Missing
Father/mother with a custodial sentence	Yes/No/Missing
Father/mother with a proven charge	Yes/No/Missing

Child socio-economic indicators

Care and protection family group conference	Yes/No
Youth justice family group conference	Yes/No
Care and protection investigation	Yes/No
Youth justice investigation	Yes/No
Care and protection notification	Yes/No
Youth justice notification	Yes/No
Care and protection placement	Yes/No
Youth justice placement	Yes/No
Proportion of lifetime supported by benefit	7 categories

National background

Ethnicity	Māori, Pacific, Asian, MELAA, ⁶ other, European, Missing
Age at visa approval	Less than 5, 5-11, 12-13, 14+, Missing
Region of birth	Europe excl. U.K.; Latin America and the Caribbean; Mainland South-East Asia; Maritime South-East Asia; Middle East and North Africa; New Zealand; North-East and Central Asia; Northern America; Polynesia (excl. Hawaii), Melanesia and Micronesia; Southern Asia; Sub-Saharan Africa; United Kingdom; Missing
Migrant status	NZ-born citizen, Skilled/Business, Family, Refugee, International Categories, Returning resident, ⁸ Temporary, Non-visa
Proportion of lifetime spent overseas	4 categories
Transience	
Number of home changes	0, 1, 2, 3, ...,19, 20+
Number of concurrent home & school changes	0, 1, 2, 3, ..., 9, 10+
Number of non-structural school changes	0, 1, 2, 3, ..., 9, 10+