**Briefing Note:** Organisation for Economic Co-operation and Development (OECD) thematic report, *Balancing School Choice and Equity: An international perspective based on PISA*

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<tr>
<th>To:</th>
<th>Hon. Chris Hipkins, Minister of Education</th>
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<tr>
<td>Date:</td>
<td>9 May 2019</td>
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<td>Priority:</td>
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<td>Drafter:</td>
<td>Emma Medina &amp; Steve May</td>
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<td>DDI:</td>
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<td>Messaging seen by Communications team:</td>
<td>Yes</td>
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<td>Round Robin:</td>
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**Purpose of Report**

**Note** the OECD will release a thematic report: *Balancing School Choice and Equity: An international perspective based on PISA* on **15 May 2019** (time to be confirmed) accompanied by a short PISA in Focus (PIF) insights paper.

**Note** that we have supplied an embargoed copy of this report to the Tomorrow's Schools Independent Taskforce.

**Agree** this briefing will be proactively released following the release of the final report.

**Agree / Disagree**

**Summary**

- This study seeks to understand the relationship between school choice, competition between schools and their relationship with equitable achievement outcomes.
- Some of the key findings that relate to the New Zealand education system are:
  - While school choice, as measured by use of enrolment zones, has increased across many countries since 2000, in New Zealand this has remained relatively stable.
  - On the other hand, competition for students between schools on the basis of academic performance has increased in New Zealand and internationally.
  - Despite evidence of increased competition, New Zealand has lower socio-economic and academic segregation than OECD averages.
  - The report concludes that school choice policies do not have a direct, meaningful impact on segregation in the short term, nor on equity in achievement.
- Socio-economic and academic segregation does not appear to be the key driver of New Zealand's equity challenge. New Zealand has relatively low segmentation but inequity is very high by international standards (as measured by a large spread in 15-year-olds' science scores). This is because most of New Zealand's inequity exists within schools, where students in the same schools come from different socio-economic backgrounds and
achieve at different levels. Differences in performance between schools is not as large in New Zealand as it is in other countries.

- These findings would suggest that, in order to improve equity, the focus should not be on policies to enable choice between schools. Rather, it would be more effective to consider policies that ensure equitable outcomes for students within the schools they are already in, as that is where most of the disparities in performance exist.

Craig Jones  
Deputy Secretary  
Evidence Data and Knowledge  
9/3/19

Hon Chris Hipkins  
Minister of Education  
29/5/19
Background

1. A new OECD thematic report – *Balancing School Choice and Equity: An international perspective based on PISA* – will be released on **15 May 2019** (Paris time, to be confirmed). The report looks at trends in school choice policies across countries and examines how those policies impact academic and social segregation across schools. The report also analyses the relationship between segregation and the equity and overall academic performance of education systems.

2. The report defines segregation as the degree to which students of similar ability (academic segregation) or socio-economic status (social segregation) are spread across schools or concentrated within specific schools. For example, in a fully academically segregated system the highest achieving students would all be in a few schools separate from the lowest achieving students. Racial segregation is not addressed in this report because that data is not collected internationally. The report measures segregation using multiple indices, all ranging from 0 (no segregation) to 1 (full segregation). Annex three has a summary of the index definitions.

3. The report measures school choice using two approaches:
   a. The first approach relates to the availability of options for parents. Measures are based on the proportion of 15-year-olds enrolled in private schools and the degree of competition between schools (as measured by a question asked of school principals).
   b. The second is related to how much choice parents are able to actually exercise when choosing a school. This is based on a question asking schools how often ‘residence in a particular area’ and ‘student’s record of academic performance’ are considered when students are admitted to their school (the response options being ‘never’, ‘sometimes’, and ‘always’). If residence and academic performance are ‘always’ considered, this is interpreted as students and families having less school choice.

4. This report draws on data from four cycles of the OECD’s Programme for International Student Assessment (PISA), years 2000, 2009, 2012 and 2015. PISA 2015 data comes from a large representative random sample of 15-year-olds across 72 countries, including all (at the time) 35 OECD countries.

5. A short PISA in Focus (PIF) insights paper (working title: *How are school choice policies related to social diversity in schools?*) will be released simultaneously to accompany this thematic report. In June a second PIF will be released (working title: *Does greater social diversity in schools have an impact on equity in learning outcomes?*)

Key Findings

School choice policies and segregation trends

6. In 2012, 93% of New Zealand 15-year-olds were enrolled in schools whose principal reported that the school competes with at least one other school for enrolment. This is higher than the OECD average of 77%.

7. There has been no increase in the uptake of private schooling as a school choice option in New Zealand or in most other countries since 2000.

8. Despite no change in private schooling, students and families on average across the OECD may still have had more school choice in 2015 than in 2000 as they were less

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1 Both use school questionnaire data from the principal or their delegate.
2 PISA defines private schools as those managed directly or indirectly by a non-governmental organisation, such as a church, trade union, business or other private institution, and the data is collected through the school questionnaire. In New Zealand private and independent schools are considered private; state and state-integrated schools are considered public.
frequently subject to residence-based enrolment criteria. However, this is not the case in New Zealand where almost half of 15-year-olds in 2015 were in schools where residence is always considered for admission, which was not significantly different from 2000 (43%).

9. In many countries, including New Zealand, more 15-year-olds in 2015 were attending schools where academic performance was 'always' a consideration when admitting students. In 2000, only 16% of NZ's 15-year-olds were in schools where academic performance was 'always' considered for admission; in 2015 that proportion increased to 38%.

10. The level of segregation of students varies across countries. New Zealand has lower academic and social segregation than the OECD averages across all segregation indices (see annex three). That is, while there is some segregation by ability and socio-economic status in New Zealand, our 15-year-olds are more likely to attend schools with a diverse student body than other OECD countries. New Zealand's level of academic segregation is similar to the United Kingdom, Australia, Canada and the United States. The level of social segregation is similar to the United Kingdom and Canada, and lower than Australia and the United States.

11. Academic segregation is more common than social segregation in almost all countries/economies, including New Zealand. This can result from system-level practices such as grade repetition or 'tracking' systems where students are placed into vocational or academic schools at a young age, as well as local school practices.

Impacts on academic performance and equity

12. The report examines the relationship between school choice policies, segregation and achievement outcomes in a number of different ways. While these relationships are clearly quite complex and not uniform across countries, it is quite clear from the report that increasing school choice (relaxing residence and academic enrolment criteria) is associated with only very minor increases in segregation.

13. The direct impact of school enrolment policies on performance and equity are also very small.

14. The authors of the report do conclude that increases in social segregation are associated with decreases in equity. They find that, if social segregation were nearly eliminated across all countries, this would potentially close a quarter of the gap in reading performance between advantaged and disadvantaged students.

Recommendations from the thematic report

15. The thematic report's recommendations are to:

a. Ensure school choice does not lead to greater segregation through checks and balances. The design of catchment areas (enrolment zones) should involve local actors but also should work to equitably distribute students. This might be by combining areas with different socio-economic characteristics. The report recommends implementing 'controlled choice' by reserving a given share of students from different backgrounds to maintain a balanced distribution of students. Implementing funding mechanisms to incentivise the enrolment of disadvantaged students is also recommended, where funding is on a per-student basis and depends on the socioeconomic status and educational need of the individual (i.e. decile funding and the proposed Equity Index).

b. Eliminate barriers so that all parents can exercise school choice. School choice policies were shown in the report to be used more frequently by advantaged students. The report recommends removing barriers that face low income students such as transportation and fees. The report also recommends
ensuring parents have relevant and accurate information on the quality and characteristics of the school.

Comments

16. This thematic report has implications for some of the key questions being considered through the Education System Transformation:

a. Do New Zealand families have more school choice than other countries? On some measures, New Zealand students have less school choice than might be commonly perceived, and less than other countries. PISA data show that in New Zealand, there is a greater proportion of 15-year-olds in schools where residence is always considered when enrolling students than in other OECD countries.

b. Has school choice amounted to increased competition and thus greater segregation between schools? There is some evidence of increased competition since 2000 in the form of more students being in schools where academic performance is always considered when enrolling students. While the analysis in the report suggests school choice (school enrolment criteria) does not meaningfully impact segregation levels in the short term, other research has shown that in New Zealand the long term effect of school choice has been a more segregated school system. This thematic report shows that New Zealand is still not as segregated as many other countries and the OECD average.

c. Has segregation increased inequity between advantaged and disadvantaged students in New Zealand? In New Zealand, academic and social segregation is relatively low when compared with other countries, but educational inequity is high. The findings shows that, at an international level, if social segregation were nearly eliminated, inequity would be reduced by about a quarter. Thus, segregation is important but it does not fully explain New Zealand’s equity challenge.

17. An explanation for New Zealand’s inequity other than segregation, is based on the fact that there is more within-school variation in performance than other countries, and less between-school variation. In other words, most of New Zealand’s inequity manifests within schools, where students in the same schools come from very socio-economic different backgrounds and are achieving at very different levels. Differences in performance between schools is not as large, and the segregation explored in this report exists between schools.

18. This implies that increasing equity is unlikely to be efficiently achieved by focusing only on structural policies relating to how students are sorted into schools (New Zealand is already relatively desegregated). In particular, these results suggest that changing policies relating to school choice are likely to have little meaningful effect on academic and social segregation, equity, or average student performance.

19. The findings of the report suggest that while there may be other reasons for achieving less school segregation, it may be more effective to consider policies that improve the equity of outcomes within each school since that is where most of the disparities exist.

Communications

20. The findings of this report may be of interest to media, particularly given the conclusions of the Tomorrow's Schools Independent Taskforce report. We will send a set of Q&A separately and can draft a media release, if requested.

21. We will work closely with your Office on these materials.

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22. We recommend that this briefing is not released until the final report is published, because the draft thematic report is permanently embargoed.
Annexes

Annex 1: Final draft of OECD thematic report: "Balancing School Choice and Equity: An international perspective based on PISA".

IMPORTANT NOTE: This draft is permanently embargoed.

This thematic report is copyrighted to the OECD. It may not be published or distributed to other persons.

The final published report will be available from:

www.oecd-ilibrary.org/education

The final content of this thematic report may change. Please do not cite this draft. Please check against final published report when available.

Annex 2: The final draft of the PISA in Focus 96: "How are school choice policies related to social diversity in schools?" will be provided to your office once available.

IMPORTANT NOTE: This draft is permanently embargoed.

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The final published report will be available from:

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Annex 3: Segregation indices for New Zealand and the OECD with definitions.
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<th>Academic Segregation</th>
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<th>OECD average</th>
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<td>Isolation index for low-performing students in reading</td>
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<tr>
<td>Isolation index for high-performing students in reading</td>
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<table>
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<tr>
<th>Social Segregation</th>
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<td>Isolation index for advantaged students</td>
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<tr>
<td>No-diversity index</td>
<td>0.12</td>
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All indices range from 0 (no segregation) to 1 (full segregation)

Definitions

**Dissimilarity index**

The dissimilarity index measures the extent to which students are evenly (or unevenly) distributed across schools. It is measured by considering two groups, for example, disadvantaged students and students with average or advantaged status.

It corresponds to the average proportions of students from both groups (e.g. disadvantaged and not-disadvantaged students) that would need to be reallocated in order to obtain an even distribution of students from these groups across all schools.

**Isolation index**

The isolation index measures the probability that a “typical” student from a certain group (for instance, a disadvantaged student) would be in contact at school with students who do not belong to his or her group (students with average or advantaged status).

This index allows for an analysis of whether school systems create “clusters” or “concentrations” of students.

**No-diversity Index**

The no-diversity index measures how social diversity, as observed at the country level, is or is not reproduced within schools.

Four groups are defined using the quartiles of the socio-economic index at the country level. Using this, the diversity of the country and each school are averaged, and then compared to each other.
Figures 3.1 and 3.2 are illustrations of the segregation indices from the thematic report (with adaptations).

Consider the hypothetical situation of a population of students who may be of type A (10% of the population) or B (90%). The students are distributed across six schools, each with a capacity of six students.

Full segregation is observed when all the type A students are in one and only one school. No segregation corresponds to a situation where all schools are equally composed of one type A student and five type B students. In both cases, the dissimilarity index, the isolation index and the diversity index coincide (Figure 3.1).

**Figure 3.1. Complete vs no segregation cases (illustrative example)**

However, these indicators may differ in intermediate situations. The left panel in Figure 3.2 is a slight departure from the complete segregation case (one type A student is mixed with five type B students) while all others are in the same school (with only one type B student). Both the dissimilarity and the isolation indices are very high. In the former, many type A students have to be displaced in order to achieve evenness. In the latter, most of the type A students are concentrated in only one school, and the probability of an average student A to interact with a student B is low (one student A has a very high probability of interacting with a student B, but for the remaining five students B the probability is much lower).

Now consider the case illustrated in the right panel of Figure 3.2. The dissimilarity index has the same value as the left: the same proportion of students has to be displaced to achieve unevenness. However, the isolation index is much lower because the average type A student is much more likely to interact with type B students (as they constitute two-thirds of the enrolment of any type A student’s school).

**Figure 3.2. High dissimilarity, high vs medium isolation (illustrative example)**