



## Briefing Note: Update on School Participation in PISA 2022

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<b>To:</b>	Hon Jan Tinetti, Associate Minister of Education		
<b>Cc:</b>	Hon Chris Hipkins, Minister of Education Sean Teddy, Hautū – Te Pae Aronui		
<b>Date:</b>	13 July 2022	<b>Priority:</b>	High
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<b>Drafter:</b>	Emma Medina, Senior Analyst, Educational Measurement & Assessment	<b>DDI:</b>	04 439 5013
<b>Key Contact:</b>	David Jagger, Group Manager, Evidence Synthesis & Dissemination	<b>DDI:</b>	04 463 7693
<b>Messaging seen by Communications team:</b>	No	<b>Round Robin:</b>	No

### Purpose of Report

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The purpose of this paper is to update you on PISA 2022 school response rates. In April, we informed you that this was critically low and outlined a 'back to green' action plan [see METIS 1284908]. This paper describes the actions we have taken, our current response rate, and the results of a preliminary bias analysis.

### Summary

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- We have increased PISA response rates through leveraging relationships between education advisors and schools, and via seeking public support from union leaders and Stats NZ.
- Since April, our school response rate has increased from 58 to 63% but is continuing to fluctuate around this mark, with schools both joining late and withdrawing. We will continue to ask schools to participate during Term 3.
- The inclusion of our data in international reports will be dependent on a non-response bias analysis in 2023. Our preliminary non-response bias analysis shows minimal bias is present in our sample and thus we are continuing with the Main Survey in Term 3 2022 as planned.

## Proactive Release

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We recommend that you agree that the Ministry of Education release this briefing in full once it has been considered by you. Much media attention has been paid to this situation and stakeholders will be expecting an update.

☒ Agree ☐ Disagree.



Sam Jolly  
**Acting National Director  
Evidence Data and Knowledge  
Te Pae Aronui**

13/07/22



Hon Jan Tinetti  
**Associate Minister of Education**

17/07/2022

## Background

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1. The PISA 2022 Main Survey in New Zealand will take place in Term 3 2022 (1 August to 30 September). 227 schools were randomly selected for participation with a goal of assessing 6,300 students.
2. In April 2022, we informed you that our school participation rate was critically low and we risked not having reliable and comparable data on the wellbeing and performance of our learners [see METIS 1284908].

## 'Back to Green' Actions Taken

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3. We have leveraged the new Te Mahau structure to work closely with regional staff. Regional directors were regularly updated on the progress within their regions. The PISA National Centre worked with education advisors to facilitate discussions with their schools and ask them to participate, with the advisors articulating the benefits of PISA and providing additional incentives to schools such as an increased direct payment and a reduced task list.
4. We sent requests for assistance to union leaders. This resulted in the Ministry's PISA team presenting at an NZSTA regional chair board meeting, where there was broad support for PISA and the present chairs welcomed opportunities to support the achievement of the required sample. NZPF endorsed PISA through its members communications.
5. As Tier 1 statistics, the Government Statistician has acted on a duty of care to protect PISA's integrity and sent a letter to school board of trustee chairs and principals of schools who declined to participate, encouraging them to reconsider.

## Current School Response Rate

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6. School response rates continue to fluctuate around the 65% mark, which represents the cut-off for the 'unacceptable zone' (according to PISA technical standards) for achievement of our original sample. This fluctuation is due both to schools joining late in response to the various actions taken to encourage participation, and schools deciding to withdraw from the study. In April, our response rate from the original sample of schools was 58% (132 out of 227). Whilst we peaked at 66% in June, as of 11 July participation has decreased to 63% (144 schools).
7. A subset of schools in the original sample have a 'replacement' designated, to be approached to participate if the original school cannot take part. We have been inviting replacement schools to participate as soon as an original school declines. Replacement schools are important to achieve required numbers of schools and students for analysis. This reduces the margin of error for statistics calculated from the PISA data and provides more precision for measures for sub-groups of the New Zealand population. When we include the replacement schools that have agreed to participate, our current total school response rate after replacement is 78%, with a total of 178 schools participating.
8. In Term 3, we will attempt to increase our school response rate through additional outreach. Amongst both original and replacement schools there are 16 schools that have been invited to the study but have not responded. There are also 13 schools who initially declined or withdrew recently, and we will ask them to reconsider their decision.
9. Our data can still be deemed comparable over time and in relation to other countries if we can prove there is no bias present in the school sample. This 'non-response' bias analysis (NRBA) will be conducted by the Ministry's PISA team in early 2023. For example, in PISA 2018 the Netherlands' original school response rate was 61% (87%

after replacement) and they successfully proved this was not an issue and thus their data was considered internationally comparable and included in OECD reporting.

10. Regardless of the implications of the NRBA, we will likely achieve a sample of at least 5,000 students across 178 schools, which will still provide a representative picture of ākonga achievement and wellbeing and justifies the study progressing. New Zealand will still have access to PISA data from other countries prior to the international release, and an indication of relative and trend performance taking into account the findings of the NRBA. For example, if New Zealand PISA 2022 scores are lower than in PISA 2018 and the NRBA finds that we are likely to be overestimating our 2022 performance, then we can be reasonably sure that overall our performance has declined since 2018.

## Preliminary Non-Response Bias Analysis (NRBA)

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11. A preliminary NRBA was conducted on 10 June 2022. This NRBA analysed the 148 original schools who had agreed to participate at the time of analysis to see if there were any differences in characteristics between these schools and the total original sample. These characteristics included a school-level proportion of NCEA qualifications gained by the 2021 15-year-old cohort. This provides an outcome measure external to PISA.
12. Our preliminary NRBA indicated that minimal bias was present in our sample. There was little difference in expected student sample proportions for characteristics such as whether a school was state or private, whether a school was in a major urban centre or not, or by decile groupings. At this stage, students from girls' schools are slightly over-represented in the sample. Analysis of expected mean proportions of overall NCEA achievement also showed minimal bias – in other words, there's no indication that our sample at the time of analysis was biased towards students who we would expect to perform better or worse in PISA achievement assessments.
13. Overall, these results indicate that our low original school response rate should have minimal effect on the results that we produce from the PISA 2022 cycle. The OECD's PISA sampling experts have indicated we are on the right track in terms of our analysis and interpretation of the bias analysis and suggested that we examine the effect that replacement schools have in potentially reducing any bias. This further analysis will be completed once the achieved PISA sample has been finalised at the end of September. However, we will not know definitively if our data can be considered comparable until the final NRBA is undertaken in early 2023 (using NCEA achievement measures for the 15-year-old cohort being assessed in PISA this year).

## Next Steps

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14. The PISA National Centre will administer the PISA study in the 178 participating schools, and in any schools who opt in during Term 3 after additional outreach.
15. Reaching the technical standard of a student assessment rate of 80% is our next challenge, which is dependent on students attending on the day and participating in the PISA assessment. We are proactively looking at means to boost student engagement with the study. For example, we have implemented new student incentives (such as a Prezzy card raffle) and continue to compensate schools who provide food on the day of the study.
16. We will provide you with regular updates on school and student response rates over the coming months and when we submit our data to the PISA contractors in November.
17. After our data is submitted to the OECD in November, we will hold an end of year debrief hui with stakeholders, including SPANZ, on the role PISA plays in New Zealand. We need to listen to stakeholder concerns (for example, around the relevance

and need for large studies such as PISA) and discuss how we can best achieve our information goals in partnership with the sector going forward. In particular, we are keen to engage over how we can make the study more beneficial to schools.

18. The Ministry would be happy to talk to your office if you wish to take any actions to encourage schools to take part in PISA 2022.

### Other Relevant Information

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19. You recently endorsed a decision that New Zealand recommend that the PISA cycle moves to four years instead of three. This was in part driven by the desire to decrease the burden on schools. The decision will be made by the OECD at the upcoming Governing Board Meeting in November this year [See METIS 280451].