THE EXPRESSION, EXPERIENCE AND TRANSCENDENCE OF LOW SKILLS IN AOTEAROA NEW ZEALAND

NEW ZEALAND LITERACY PROJECTIONS 2018-2033

ABOUT THIS RESEARCH PROGRAMME

Over half a million adult New Zealanders live with low literacy and/or numeracy (L+N) skills, with a strong over-representation of Māori and Pacific peoples. This has significant economic and social costs, including increased risk of unemployment and poverty, detrimental effects on physical and mental well-being, and decreased social and political attachment.

This programme applies a mixed-method approach to the following research aims: to build a detailed population-wide picture of those with low L+N skills; analyse their life-course pathways and effectiveness of interventions with respect to a range of economic and social outcomes; forecast future changes in population skill level; and develop an understanding of the barriers and enablers that build resilience to risk, along with pathway to transcend low skills.

For further information about our programme and other outputs, see http://nzpri.aut.ac.nz/low-skills

RESEARCH PARTNERS

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DISCLAIMER

Access to the data used in this study was provided by Stats NZ under conditions designed to give effect to the security and confidentiality provisions of the Data and Statistics Act 2022. The results presented in this study are the work of the author, not Stats NZ or individual data suppliers. These results are not official statistics. They have been created for research purposes from the Integrated Data Infrastructure (IDI) which is carefully managed by Stats NZ. For more information about the IDI please visit https://www.stats.govt.nz/integrated-data/

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1. Introduction

The Survey of Adult Skills (SAS) measures the skills of adults in participating countries (32) across three key domains: literacy, numeracy, and problem-solving in technology-rich environments and is part of the OECD's Programme for the International Assessment of Adult Competencies (PIAAC)[1]

In New Zealand, the SAS was undertaken in 2014 using a representative sample of those aged 16 to 65, yielding 6,177 responses[2] (MED & MBIE, 2016, 4). This research utilises this SAS data and Stats New Zealand's (SNZ) sub-national ethnic population projections to provide projections of the population's average literacy score. This is done by gender and Māori /non-Māori for an aggregate set of New Zealand regions. This project falls under the overall umbrella of the research programme "Expression, Experience and Transcendence of Low Skills in Aotearoa New Zealand," aimed at providing insights to aid policy development towards improving life-course trajectories for adults living with low skills in New Zealand.

The PIAAC program is not the first large-scale assessment of adult skill levels by the OECD, with the International Adult Literacy Survey (IALS) being undertaken between 1994 and 1998 in 22 countries and regions. This was followed by the Adult Literacy and LIFEskills (ALL) survey conducted between 2003 and 2008 in 11 countries in two rounds[3]. Summaries of the results of these surveys for New Zealand are available on the Education Counts website[4]. PIAAC and SAS build on these previous attempts at measuring adult skill levels, though it should be noted that while there is some compatibility between IALS, ALL and PIAAC, the survey instruments used in each differ[5]. A fuller account of the measurement and conceptual issues entailed in the OECD's adult skills surveys in New Zealand is available in Cochrane et al. (2020)[6].

The key research aim of this paper is to derive projections of the average literacy score attained by the population, by gender and Māori /non-Māori for an aggregate set of New Zealand regions. This is not, however, the first attempt to provide subnational estimates of literacy scores based on the 2014 SAS. The Ministry of Education (MoE) developed a regional and local profile tool that provided results of the 2014 SAS at the regional council

[1] See https://www.oecd.org/skills/piaac/

[2] Skills in New Zealand and around the world. (2016). Wellington: Ministry of Education (MED) and Ministry of Business Innovation and Employment (MBIE) p.4

[3] Seven countries/territories participated in the first round: Bermuda, Canada, Italy, Norway, Nuevo Leon (Northern Mexico), Switzerland, and the United States. Four countries participated in the second round: Australia, Hungary, Netherlands, and New Zealand (see https://nces.ed.gov/surveys/all/).

[4] See https://www.educationcounts.govt.nz/publications/80898/27773/5495 for IALS and https://www.educationcounts.govt.nz/publications/80898/42260 for ALL

[5] The issue of compatibility between IALS, ALL and PIAAC is taken up in OECD (2019), The Survey of Adult Skills : Reader's Companion, Third Edition, OECD Skills Studies, OECD Publishing, Paris, https://doi.org/10.1787/f70238c7-en. p 79 -87

[6] See https://workresearch.aut.ac.nz/__data/assets/pdf_file/0011/439733/MBIE-low-LN-literature.pdf

(RC) and territorial authority level (TA), albeit with some aggregation of smaller areas. The methods used to provide these estimates differed between RC and TA levels, with the RC level results being based on unadjusted direct estimates from the SAS, while TA level results were developed using small area estimation (SAE). A discussion of this is on the MoE Education Counts website[7].

The projection results outlined in this report and those produced by the MoE differ in many respects. In the first instance, the most obvious difference is that the MoE figures are a cross-sectional estimate derived from the 2014 SAS, whereas the findings of this report are a longitudinal projection based on both the 2014 SAS and the SNZ Subnational ethnic population projections: 2018(base)–2043 update. Note that this is a deterministic projection; hence, unlike the MoE estimates, confidence or credible intervals cannot be calculated.

While the MoE estimates cover the continuous skill scales for literacy, numeracy or problem-solving (along with several other variables) at the regional level, the projections are limited to the average literacy score for various combinations of demographic variables.

Due to methodological differences between the MoE estimates and the projections, the age ranges considered, and the periods included in the analysis, the findings of the MoE estimates and our projections are not directly comparable. However, some qualitative comparison is possible; Appendix Table 1 shows the MoE estimated literacy score by region for these purposes.

2. Data

The data used in this paper comes from three sources. Firstly, data to model the relationship between various demographic characteristics (age, Māori /non-Māori and highest educational qualification) and the literacy score observed in the SAS is drawn from the cycle one SAS data available in the SNZ Integrated Data Infrastructure (IDI), along with a version made available to us outside the IDI by the Ministry of Education (MoE). The distinction between the SAS data available in the IDI and that available from MoE was that the IDI version contained locational data unavailable in the MoE version.

Given that the objective of this paper is the projection of literacy scores, some further comment is necessary on what precisely these represent. The literacy score is a value derived from the SAS. It is an operationalisation of the PIAAC literacy construct, which defines literacy as "understanding, evaluating, using and engaging with written texts to participate in society, to achieve one's goals, and to develop one's knowledge and

[7] https://www.educationcounts.govt.nz/publications/tertiary_education/education-literacy/piaac-regional-profiles

potential"[8]. The scores range from 0-500, representing a continuum of proficiency ranging from simple to complex information-processing tasks (higher scores indicating greater proficiency). The OECD[9] groups these scores into 6 proficiency levels and provides descriptors of the characteristics of tasks located at each of the levels of proficiency. This clarifies what is meant by the literacy scores. The proficiency levels, score ranges and descriptors are reported in Table 2.

Secondly, data from the 2018 Census of Population and Dwellings was used to obtain information on the highest qualification attained by the population by Māori /non-Māori, age and region of usual residence.

Lastly, the projected structure (age, sex and region of usual residence) of the New Zealand population was taken from the SNZ Subnational ethnic population projections: 2018(base)–2043 update[10].

Due to the relatively small populations of some New Zealand regions, there was some aggregation of the standard geography, with the Hawkes Bay and Gisborne regions amalgamated to form Gisborne/Hawkes Bay and Tasman, Nelson, Marlborough and West Coast merged into the Upper South Island.

With respect to the age range covered by the projections, the SAS survey covers the age range 16 to 65 (in keeping with OECD practice), whereas the publicly available SNZ Subnational ethnic population projections: 2018(base)–2043 update is by 5-year age groups from 0- 90 years and over. Hence, the SAS age range begins one year after the relevant projection age group (15-19 years) and ends one year after the 60-64 projection interval. For this report, the 15-64 projection interval was chosen, meaning that in modelling the literacy scores (see below), the regression was limited to the 16-64 age range, while those aged 15 were given the same literacy score as those aged 16. In our judgement, this may slightly bias upward the literacy score of those aged 15-19 years, while excluding those aged 65 is unlikely to have any significant effect.

3. Methodology

This section outlines the various steps taken to project the reading scores.

3.1 Modelling the Literacy Score

A straightforward approach was taken to the modelling of the literacy score. A simple OLS regression model (see Table 3) was developed using cycle one SAS data that predicted the literacy score based on demographic variables (age, gender, ethnicity, and highest

[8] http://www.oecd-ilibrary.org/education/piaac-literacy-a-conceptual-framework_220348414075
[9] OECD (2019)
[10] See https://www.stats.govt.nz/information-releases/subnational-ethnic-population-projections-2018base2043-update/

educational qualification), also available in the New Zealand Census of Population and Dwellings.

3.2 Average Literacy Score

Having generated predicted literacy scores for each case in the SAS data, an average literacy score was generated for each combination (80) of age, gender, ethnicity, and highest educational qualification (see Table 3 for variables). It should be noted that this approach means that the literacy scores themselves and the relationship between them and the independent variables in the model are invariant across time and space. It had been initially hoped that average literacy scores would vary between regions; however, the available data proved too sparse to support this, so aggregate national-level estimates were used. Table 4 shows the average literacy scores at the national level by ethnicity, gender, age group, and educational attainment.

3.3 Projecting Educational Qualification

Central to our projection methodology is the projection of the proportion of the population in each educational attainment level. Unfortunately, no official projection of educational attainment rates is available, forcing us to adopt an ad hoc methodology to address this. From the New Zealand Census of Population and Dwellings, we obtained educational attainment data for 2013 and 2018 for each combination of age, gender, ethnicity, highest educational qualification and region. Initially, we attempted to use a linear projection of educational attainment based on the trend from 2013 to 2018 to obtain values for the 2023, 2028 and 2033 years; however, this resulted in many negative estimates, i.e. the population at a particular level of educational attainment fell below zero. This would seem implausible, so several alternative functional forms were experimented with, with a non-linear decay model being settled on.

For example, let the proportion of people of a particular age, gender, ethnicity and educational attainment at the beginning of a period be t_0 and at the end of the period t_1 then the projected value of the proportion of people at that level in the next period (t_2) is $t_1 + \frac{1}{2}(t_1 - t_0)$. Taking this projected proportion (t_2) and multiplying by the number of people projected to be in that age, gender, ethnicity and region (from the SNZ Subnational ethnic population projections: 2018(base)–2043 update) gives us the projected number of persons at that level of education attainment for a particular combination of age, gender, ethnicity and region.

3.4 Projecting Aggregate Average Literacy Score

The aggregate average literacy score for a particular region is calculated as the population-weighted average of the average literacy scores of the component sub-populations. The average literacy scores are obtained per section 2 of the methodology

section, while the population weights are taken from the output as detailed in section 3. A similar approach is used for other aggregations (gender and ethnicity).

4. An Example

To provide a guide as to how the projections were conducted, consider the following examples:

a) To project the average literacy score in any projection year of 15-24-year-old Māori women in Northland, we have

$$ALS_{15-24} = \frac{NALSNQ_{15-24} \times NQPop_{15-24} + \cdots + NALSUNI_{15-24} \times UNIPop_{15-24}}{Pop_{15-24}}$$

Where;

ALS_{15-24} is the average literacy score for Māori women aged 15-24 years in Northland,

$NALSNQ_{15-24}$ is the average national literacy score for Māori women aged 15-24 years with no qualifications (from Table 4),

$NQPop_{15-24}$ is the number of Māori women aged 15-24 years with no qualifications (see step 3 above) in the projection year, $NALSUNI_{15-24}$ is the average national literacy score for Māori women aged 15-24 years with university qualifications (from Table 4),

$UNIPop_{15-24}$ is the number of Māori women aged 15-24 years with university qualifications (see step 3 above) in the projection year,

Pop_{15-24} is the number of Māori women in Northland aged 15-24 (from the SNZ Subnational ethnic population projections: 2018(base)–2043 update) in the projection year,

b) To project the average literacy score in any projection year for Māori women in Northland in aggregate, we have

$$ALS_{aggregate} = \frac{ALS_{15-24} \times POP_{15-24} + \cdots + ALS_{55-64} \times POP_{55-64}}{Pop}$$

Where;

$ALS_{aggregate}$ is the average literacy score for Māori women in Northland,

ALS_{15-24} is the average literacy score for Māori women aged 15-24 years in Northland (as per a) above),

POP_{15-24} is the number of Māori women aged 15-24 years (from the SNZ Subnational ethnic population projections: 2018(base)–2043 update) in the projection year in Northland,

ALS_{55-64} is the average literacy score for Māori women aged 55-64 years in Northland (as per a) above),

POP_{55-64} is the number of Māori women aged 55-64 years (from the SNZ Subnational ethnic population projections: 2018(base)–2043 update) in the projection year in Northland,

Pop is the number of Māori women in Northland in the projection year (from the SNZ Subnational ethnic population projections: 2018(base)–2043 update) in the projection year in Northland,

Overall, the projected average literacy scores may be seen as population-weighted averages of literacy scores with the population weights drawn from the SNZ Subnational ethnic population projections: 2018(base)–2043 update and the literacy scores being based on the SAS results.

5. Results

The results of the projections are given in Appendix Tables 5 to 17, which show the projected average literacy scores for each region by age, ethnicity and gender and the aggregate over the area covered by regional councils. Some further analysis of the results is provided in tables 18 to 22, which look at projected disparities in literacy scores by region, ethnicity (Māori/non-Māori), gender, and age.

Focusing on the overall population patterns and beginning with Appendix Table 20, Northland, Gisborne/Hawkes Bay, and Taranaki rank as the three regions with the lowest projected literacy scores for 2018-2033. This should not be interpreted as meaning that literacy scores did not change in this period for these regions but rather that the rate of change of these scores in these regions was lower than that of higher-ranked regions. Similarly, the Auckland, Wellington, Otago, and Canterbury regions are consistently ranked at the top of the distribution of literacy scores across 2018-2033. While the extremes of the distribution of literacy scores exhibit a high level of stability in rankings over the entire period, there is some variation in rankings in the middle of the distribution in the first half of the projection period before a stable rank order emerges in the second half of the projection period. The overall picture is a relatively stable ordering of regions by literacy scores, particularly in the latter half of the projection period. Appendix Table 20 provides evidence of increasing disparities between regions; however, the range between the top and bottom of the projected literacy scores increases across projection years from 10.9 in 2018 to 11.8 in 2033.

Appendix Table 21 examines the gap between the projected literacy scores of Māori and non-Māori. Across the projection period, the difference between the projected literacy score of the non-Māori and the Māori population was slightly more than 20, varying from 20 (2018) to 20.3 (2023 & 2033); hence, there is no evidence of convergence or divergence. The ranking of the regions is quite varied over time in the lower part of the projected Māori/non-Māori gap distribution; however, at the higher (greatest gap) end of the

distribution, there seems to be a relatively stable hierarchy of regions with Wellington and Auckland showing the greatest gaps with successively lesser gaps for Canterbury, Waikato, Bay of Plenty, Otago and Gisborne/Hawkes Bay.

Appendix Table 22 addresses the Female-Male gap in literacy scores by region. Comparing Appendix Tables 20, 21 and 22 shows that the disparities in literacy scores are more significant through regional and ethnicity lenses than those observed by gender. Across the projection period, the region with the lowest gap between Male and Female literacy scores was Auckland, varying between 1.2 and 1.5, while the largest projected difference was in the Otago region, varying between 2.6 and 3.1. There is some indication of an increase in the gap over time, though this would appear modest.

6. Conclusion and Limitations

The estimated projections in this research illustrate a slow, gradual change in literacy levels over time accompanied by a widening gap between regions' levels of literacy proficiency. The gap between Māori and non-Māori literacy scores (favouring non-Māori) is comparatively large and constant across the projection periods. In contrast, the gender gap (favouring women) shows some signs of growing with time but is modest compared to the regional and ethnic gaps.

These projections can be readily updated once the 2024 results from the latest iteration of the SAS become available[11]. Essentially, all that needs to occur is the modelling step in the methodology be repeated with the new data. The temporal coverage of the projection can also be readily extended by using an updated version of the subnational ethnic projections. These will no doubt be produced following the release of the 2023 census data. The projection model itself can also be refined after comparing the results of the latest SAS with the projected values from these projections.

All studies have limitations, and projections of this kind are particularly limited.

Firstly, using national-level averages of literacy scores removes one source of regional heterogeneity. It assumes that regions only differ structurally and that the relationship between educational attainment and literacy scores is stable across regions.

Secondly, the projection of educational attainment rates is arbitrary (though not implausible). This is unsatisfactory, though an inspection of the literature found no reasonable alternative to making this sort of assumption – often, researchers fell back on using a linear trend.

[11] Note that the last iteration of the SAS for New Zealand was disrupted by the onset of the global COVID-19 pandemic, and as such primary data collection occurred between September 2022 and early August 2023 – with final results not available until, at the earliest, late 2024.

Thirdly, we have only one iteration of the SAS to examine the relationship between the variables used in our literacy scores model; hence, we have no way of knowing whether this relationship is stable over time.

Lastly, the entire projection heavily relies on the SNZ Subnational ethnic population projections: 2018(base)–2043 update for the underlying population projection. While it would be possible to construct a bespoke population projection, there would seem to be little point in doing so, particularly given the time and resources required. Nevertheless, it compounds potential sources of error by basing a projection on another projection.

Appendix

Table 1 MoE Estimated Literacy Score by Region 2014

Region	Average Literacy Score
Wellington	293
Canterbury	285
North and Central Auckland	285
Rest of South Island	282
Bay of Plenty	282
Otago/Southland	281
Total	281
Taranaki/Whanganui/Manawatu	279
Gisborne/Hawkes Bay	278
Northland	275
West Auckland	274
Waikato	273
South and East Auckland	263

Source: See https://www.educationcounts.govt.nz/publications/tertiary_education/education-literacy/piaac-regional-profiles

Table 2 Proficiency levels: Literacy

Level	Score range	Literacy
Below Level 1	**Below 176 points**	The tasks at this level require the respondent to read brief texts on familiar topics to locate a single piece of specific information. There is seldom any competing information in the text and the requested information is identical in form to information in the question or directive. The respondent may be required to locate information in short continuous texts. However, in this case, the information can be located as if the text was non-continuous in format. Only basic vocabulary knowledge is required, and the reader is not required to understand the structure of sentences or paragraphs or make use of other text features. Tasks below Level 1 do not make use of any features specific to digital texts.
1	**176 to less than 226 points**	Most of the tasks at this level require the respondent to read relatively short digital or print continuous, noncontinuous, or mixed texts to locate a single piece of information that is identical to or synonymous with the information given in the question or directive. Some tasks, such as those involving non-continuous texts, may require the respondent to enter personal information onto a document. Little, if any, competing information is present. Some tasks may require simple cycling through more than one piece of information. Knowledge and skill in recognising basic vocabulary determining the meaning of sentences, and reading paragraphs of text is expected.
2	**226 to less than 276 points**	At this level, the medium of texts may be digital or printed, and texts may comprise continuous, non-continuous, or mixed types. Tasks at this level require respondents to make matches between the text and information, and may require paraphrasing or low-level inferences.

		Some competing pieces of information may be present. Some tasks require the respondent to • cycle through or integrate two or more pieces of information based on criteria; • compare or reason about information requested in the question; or • navigate within digital texts to access-and-identify information from various parts of a document.
3	**276 to less than 326 points**	Texts at this level are often dense or lengthy, and include continuous, non-continuous, mixed, or multiple pages of text. Understanding text and rhetorical structures become more central to successfully completing tasks, especially navigating complex digital texts. Tasks require the respondent to identify, interpret, or evaluate one or more pieces of information, and often require varying levels of inference. Many tasks require the respondent to construct meaning across larger chunks of text or perform multi-step operations in order to identify and formulate responses. Often tasks also demand that the respondent disregard irrelevant or inappropriate content to answer accurately. Competing information is often present, but it is not more prominent than the correct information.
4	**326 to less than 376 points**	Tasks at this level often require respondents to perform multiple-step operations to integrate, interpret, or synthesise information from complex or lengthy continuous, non-continuous, mixed, or multiple type texts. Complex inferences and application of background knowledge may be needed to perform the task successfully. Many tasks require identifying and understanding one or more specific, non-central idea(s) in the text in order to interpret or evaluate subtle evidence claim or persuasive discourse relationships. Conditional information is frequently present in tasks at this level and must be taken into consideration by the respondent. Competing information is present and sometimes seemingly as prominent as correct information.

5	**Equal to or higher than 376 points**	At this level, tasks may require the respondent to search for and integrate information across multiple, dense texts; construct syntheses of similar and contrasting ideas or points of view; or evaluate evidence-based arguments. Application and evaluation of logical and conceptual models of ideas may be required to accomplish tasks. Evaluating reliability of evidentiary sources and selecting key information is frequently a requirement. Tasks often require respondents to be aware of subtle, rhetorical cues and to make high-level inferences or use specialised background knowledge.

Source OECD (2019, p 73)

Table 3 Literacy Score Estimation Regression

Variable	Coef.	Std. Err.	z	P>z	[95% Conf.	Interval]
Aged 15-24	3.963	2.495	1.590	0.112	-0.928	8.854
Aged 25-34	-1.980	2.549	-0.780	0.437	-6.975	3.016
Aged 35-44	-4.438	2.368	-1.870	0.061	-9.080	0.204
Aged 55-64	-13.650	2.268	-6.020	0.000	-18.094	-9.205
No Qualification	-10.384	2.963	-3.500	0.000	-16.191	-4.577
School Qualification	4.918	2.859	1.720	0.085	-0.685	10.520
University Qualification	31.412	3.100	10.130	0.000	25.335	37.488
Māori	-13.196	2.053	-6.430	0.000	-17.219	-9.172
Gender	0.621	1.374	0.450	0.651	-2.073	3.315
Constant	277.707	2.901	95.740	0.000	272.022	283.393
r squared	0.143	0.011	13.490	0.000	0.122	0.163

Variables

Age	Dummies for age in 10-year bands, 15-24 yrs, 25-34 yrs, 35-44 yrs, 45-54 yrs and 55-64 yrs. The reference category is 45-54 yrs.
Qualifications	Dummies for aggregated census categories, no qualifications, level 1-4 certificates, level 5-6 diplomas, and University qualifications. The reference category is level 5-6 diplomas.
Ethnicity	A binary variable non-Māori (0) /Māori (1).
Gender	A binary variable Male (0)/Female (1).

Table 4 National Average Literacy Scores by Ethnicity, Gender, Age and Qualification

Māori				Non-Māori			
Gender	**Age**	**Qualification**	**Mean**	**Gender**	**Age**	**Qualification**	**Mean**
Female	15-24	No-qual	257.5961	Female	15-24	No-qual	271.0329
Female	15-24	school	268.3880	Female	15-24	school	281.5748
Female	15-24	post-school	271.8314	Female	15-24	post-school	285.8887
Female	15-24	uni	296.4718	Female	15-24	uni	311.3142
Female	25-34	No-qual	252.2578	Female	25-34	No-qual	265.9142
Female	25-34	school	262.5844	Female	25-34	school	276.3604
Female	25-34	post-school	267.5879	Female	25-34	post-school	281.1244
Female	25-34	uni	293.9746	Female	25-34	uni	307.3528
Female	35-44	No-qual	254.5669	Female	35-44	No-qual	267.9899
Female	35-44	school	263.4719	Female	35-44	school	278.1529
Female	35-44	post-school	269.9450	Female	35-44	post-school	283.2040
Female	35-44	uni	296.4423	Female	35-44	uni	309.5933
Female	45-54	No-qual	248.5108	Female	45-54	No-qual	262.3876
Female	45-54	school	260.0692	Female	45-54	school	273.0655
Female	45-54	post-school	264.0661	Female	45-54	post-school	277.1156
Female	45-54	uni	289.9697	Female	45-54	uni	303.9230
Female	55-64	No-qual	239.0823	Female	55-64	No-qual	252.4826
Female	55-64	school	250.8459	Female	55-64	school	263.3940
Female	55-64	post-school	254.3167	Female	55-64	post-school	268.3840
Female	55-64	uni	281.8315	Female	55-64	uni	294.7694
Male	15-24	No-qual	257.9573	Male	15-24	No-qual	271.7765
Male	15-24	school	268.5421	Male	15-24	school	282.3003
Male	15-24	post-school	272.5852	Male	15-24	post-school	286.8327
Male	15-24	uni	297.8349	Male	15-24	uni	312.1261
Male	25-34	No-qual	253.0891	Male	25-34	No-qual	266.5537
Male	25-34	school	263.2222	Male	25-34	school	276.6475
Male	25-34	post-school	268.3632	Male	25-34	post-school	281.6441
Male	25-34	uni	294.7337	Male	25-34	uni	307.9729
Male	35-44	No-qual	255.6743	Male	35-44	No-qual	268.8137
Male	35-44	school	266.3780	Male	35-44	school	278.9079
Male	35-44	post-school	270.4108	Male	35-44	post-school	283.8563
Male	35-44	uni	297.3636	Male	35-44	uni	310.4881
Male	45-54	No-qual	248.6592	Male	45-54	No-qual	262.8677
Male	45-54	school	260.7070	Male	45-54	school	272.5950
Male	45-54	post-school	264.4731	Male	45-54	post-school	278.0562
Male	45-54	uni	291.6925	Male	45-54	uni	304.1955
Male	55-64	No-qual	240.5003	Male	55-64	No-qual	253.7705
Male	55-64	school	251.4837	Male	55-64	school	263.8095
Male	55-64	post-school	256.2039	Male	55-64	post-school	268.7129
Male	55-64	uni	282.4692	Male	55-64	uni	295.1712

Table 5 Projected Average Literacy Scores 2018-2033: Northland

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	262.1	263.2	264.0	264.4
	Male	261.2	262.2	263.1	263.5
	Total	261.7	262.7	263.5	263.9
Non-Māori	Female	280.4	281.5	282.2	282.5
	Male	276.8	277.6	277.9	278.0
	Total	278.6	279.5	280.0	280.2
Total Population	Female	273.6	274.4	274.6	274.4
	Male	271.1	271.7	271.8	271.6
	Total	272.4	273.1	273.2	273.0
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.3	266.9	267.2	267.4
Female	25-34	263.4	264.2	264.6	264.8
Female	35-44	266.1	266.9	267.4	267.6
Female	45-54	260.7	261.9	262.5	262.8
Female	55-64	252.8	254.3	255.1	255.5
Male	15-24	266.2	266.9	267.3	267.4
Male	25-34	262.1	263.1	263.6	263.9
Male	35-44	266.2	267.4	267.9	268.2
Male	45-54	258.1	259.2	259.7	260.0
Male	55-64	249.8	251.0	251.6	251.9
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	282.7	283.2	283.5	283.6
Female	25-34	287.1	287.8	288.2	288.4
Female	35-44	290.0	291.7	292.6	293.0
Female	45-54	280.6	282.0	282.7	283.0
Female	55-64	269.2	270.5	271.2	271.5
Male	15-24	281.6	282.0	282.2	282.4
Male	25-34	281.6	282.1	282.4	282.6
Male	35-44	284.7	285.7	286.2	286.4
Male	45-54	276.4	276.9	277.1	277.3
Male	55-64	266.8	267.3	267.5	267.6

Table 6 Projected Average Literacy Scores 2018-2033: Auckland

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	263.8	264.6	265.1	265.4
	Male	263.9	264.7	265.4	265.8
	Total	263.8	264.6	265.2	265.6
Non-Māori	Female	286.3	287.6	288.2	288.6
	Male	285.0	285.9	286.4	286.7
	Total	285.7	286.7	287.3	287.7
Total Population	Female	283.9	284.8	285.2	285.5
	Male	282.7	283.4	283.7	284.0
	Total	283.3	284.1	284.5	284.8

Māori

Gender	Age	2018	2023	2028	2033
Female	15-24	266.6	267.0	267.2	267.3
Female	25-34	265.6	266.3	266.6	266.8
Female	35-44	267.1	267.8	268.1	268.3
Female	45-54	261.3	262.4	263.0	263.3
Female	55-64	252.9	254.2	254.9	255.2
Male	15-24	267.7	268.2	268.5	268.7
Male	25-34	264.4	265.3	265.8	266.0
Male	35-44	269.1	269.8	270.1	270.3
Male	45-54	259.8	260.8	261.3	261.5
Male	55-64	251.5	252.5	253.1	253.3

Non-Māori

Gender	Age	2018	2023	2028	2033
Female	15-24	286.2	286.8	287.1	287.2
Female	25-34	293.2	294.6	295.3	295.6
Female	35-44	293.3	295.1	296.0	296.5
Female	45-54	283.7	285.1	285.8	286.2
Female	55-64	271.1	272.5	273.2	273.6
Male	15-24	285.1	285.7	286.0	286.2
Male	25-34	290.2	291.6	292.2	292.6
Male	35-44	291.4	292.8	293.5	293.8
Male	45-54	282.3	283.3	283.8	284.0
Male	55-64	271.7	272.6	273.0	273.2

Table 7 Projected Average Literacy Scores 2018-2033: Waikato

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	262.9	263.8	264.3	264.6
	Male	262.6	263.4	264.0	264.3
	Total	262.7	263.6	264.2	264.5
Non-Māori	Female	282.5	283.9	284.5	284.8
	Male	279.9	280.8	281.2	281.4
	Total	281.2	282.3	282.8	283.1
Total Population	Female	277.8	278.8	279.1	279.1
	Male	275.8	276.4	276.6	276.6
	Total	276.8	277.6	277.9	277.8
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.6	267.1	267.4	267.5
Female	25-34	264.0	264.7	265.1	265.3
Female	35-44	266.4	267.3	267.7	268.0
Female	45-54	260.6	261.8	262.4	262.7
Female	55-64	252.3	253.6	254.2	254.6
Male	15-24	266.9	267.5	267.8	268.0
Male	25-34	262.9	263.9	264.3	264.6
Male	35-44	267.6	268.3	268.7	268.9
Male	45-54	258.7	259.8	260.3	260.6
Male	55-64	250.3	251.3	251.9	252.2
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	284.5	284.9	285.2	285.3
Female	25-34	289.7	290.7	291.2	291.5
Female	35-44	290.5	292.3	293.2	293.7
Female	45-54	280.8	281.9	282.5	282.8
Female	55-64	268.7	269.9	270.5	270.8
Male	15-24	283.3	283.8	284.0	284.1
Male	25-34	284.8	285.5	285.9	286.1
Male	35-44	286.8	288.0	288.6	288.9
Male	45-54	277.8	278.6	279.1	279.3
Male	55-64	267.4	267.9	268.2	268.3

Table 8 Projected Average Literacy Scores 2018-2033: Bay of Plenty

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	263.2	264.1	264.8	265.1
	Male	262.7	263.7	264.3	264.5
	Total	263.0	263.9	264.5	264.8
Non-Māori	Female	282.2	283.8	284.5	284.7
	Male	279.5	280.8	281.3	281.5
	Total	280.9	282.3	282.9	283.1
Total Population	Female	276.6	277.7	278.1	278.1
	Male	274.6	275.6	276.0	276.0
	Total	275.6	276.7	277.1	277.1
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.6	267.1	267.4	267.6
Female	25-34	264.0	264.8	265.3	265.5
Female	35-44	267.3	268.4	268.9	269.2
Female	45-54	261.7	262.9	263.5	263.8
Female	55-64	253.5	254.8	255.5	255.8
Male	15-24	267.0	267.7	268.1	268.3
Male	25-34	263.1	264.1	264.6	264.8
Male	35-44	268.2	269.1	269.6	269.8
Male	45-54	259.1	260.2	260.7	261.0
Male	55-64	251.3	252.7	253.4	253.7
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	283.9	284.4	284.7	284.8
Female	25-34	289.3	290.7	291.3	291.6
Female	35-44	291.0	292.9	293.9	294.4
Female	45-54	281.0	282.2	282.8	283.1
Female	55-64	269.3	270.9	271.7	272.1
Male	15-24	283.0	283.5	283.7	283.9
Male	25-34	284.5	285.6	286.1	286.4
Male	35-44	286.7	287.9	288.5	288.8
Male	45-54	278.1	279.0	279.4	279.6
Male	55-64	268.0	268.7	269.0	269.2

Table 9 Projected Average Literacy Scores 2018-2033: Gisborne/Hawkes Bay

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	262.7	263.6	264.3	264.6
	Male	261.9	263.0	263.7	264.0
	Total	262.3	263.3	264.0	264.3
Non-Māori	Female	281.2	282.4	283.1	283.4
	Male	278.5	279.4	279.8	279.9
	Total	279.9	280.9	281.4	281.6
Total Population	Female	274.9	275.5	275.8	275.6
	Male	273.1	273.9	274.0	273.9
	Total	274.0	274.7	274.9	274.7
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.5	267.0	267.3	267.5
Female	25-34	263.6	264.5	264.9	265.1
Female	35-44	266.7	267.7	268.2	268.5
Female	45-54	261.0	262.2	262.9	263.2
Female	55-64	252.6	254.0	254.8	255.2
Male	15-24	266.8	267.5	267.8	268.0
Male	25-34	262.4	263.5	264.0	264.3
Male	35-44	267.4	268.4	268.9	269.1
Male	45-54	258.7	260.2	260.9	261.3
Male	55-64	249.8	250.7	251.2	251.4
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	283.0	283.3	283.4	283.5
Female	25-34	288.0	289.1	289.6	289.8
Female	35-44	290.2	292.0	292.9	293.4
Female	45-54	281.0	282.4	283.1	283.5
Female	55-64	268.5	269.8	270.4	270.8
Male	15-24	282.4	282.9	283.1	283.2
Male	25-34	282.7	283.4	283.7	283.9
Male	35-44	285.4	286.2	286.6	286.7
Male	45-54	277.7	278.5	278.9	279.1
Male	55-64	267.4	268.1	268.4	268.6

Table 10 Projected Average Literacy Scores 2018-2033: Taranaki

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	262.1	262.9	263.4	263.5
	Male	262.1	263.1	263.8	264.0
	Total	262.1	263.0	263.6	263.8
Non-Māori	Female	280.0	281.1	281.7	281.8
	Male	277.6	278.3	278.7	278.8
	Total	278.8	279.7	280.2	280.3
Total Population	Female	276.5	277.2	277.2	276.9
	Male	274.5	275.0	275.1	274.9
	Total	275.5	276.1	276.1	275.9
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.4	266.9	267.2	267.3
Female	25-34	263.0	263.4	263.7	263.8
Female	35-44	265.1	265.7	265.9	266.1
Female	45-54	260.7	262.1	262.7	263.1
Female	55-64	250.4	251.5	252.1	252.4
Male	15-24	266.7	267.4	267.7	267.9
Male	25-34	262.1	262.8	263.2	263.3
Male	35-44	267.6	268.9	269.6	269.9
Male	45-54	257.9	258.8	259.2	259.4
Male	55-64	249.9	251.2	251.9	252.2
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	282.9	283.0	283.1	283.2
Female	25-34	286.4	287.3	287.7	288.0
Female	35-44	288.4	290.0	290.8	291.2
Female	45-54	278.7	279.9	280.5	280.8
Female	55-64	267.1	268.5	269.2	269.5
Male	15-24	281.9	282.1	282.2	282.3
Male	25-34	282.2	282.8	283.1	283.2
Male	35-44	284.6	285.8	286.3	286.6
Male	45-54	275.9	276.7	277.1	277.3
Male	55-64	265.8	266.4	266.7	266.8

Table 11 Projected Average Literacy Scores 2018-2033: Manawatu-Whanganui

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	262.6	263.5	264.1	264.3
	Male	262.1	263.0	263.7	263.9
	Total	262.3	263.2	263.9	264.1
Non-Māori	Female	280.9	281.8	282.3	282.3
	Male	278.3	278.9	279.2	279.2
	Total	279.6	280.4	280.7	280.8
Total Population	Female	277.3	277.9	277.9	277.5
	Male	275.1	275.4	275.4	275.1
	Total	276.2	276.6	276.6	276.3
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.7	267.3	267.5	267.7
Female	25-34	263.6	264.3	264.7	264.8
Female	35-44	265.9	266.6	267.0	267.2
Female	45-54	260.0	261.1	261.7	262.0
Female	55-64	252.0	253.6	254.5	254.9
Male	15-24	266.8	267.3	267.6	267.7
Male	25-34	262.6	263.7	264.2	264.4
Male	35-44	266.9	267.5	267.9	268.0
Male	45-54	258.3	259.2	259.7	259.9
Male	55-64	249.8	251.0	251.6	251.8
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	283.5	283.8	283.9	284.0
Female	25-34	287.4	288.0	288.3	288.5
Female	35-44	289.1	290.4	291.1	291.4
Female	45-54	279.8	280.9	281.5	281.8
Female	55-64	267.9	269.1	269.7	270.0
Male	15-24	282.6	282.8	283.0	283.1
Male	25-34	282.8	283.3	283.6	283.7
Male	35-44	285.0	285.8	286.2	286.5
Male	45-54	276.7	277.1	277.4	277.5
Male	55-64	266.9	267.3	267.5	267.7

Table 12 Projected Average Literacy Scores 2018-2033: Wellington

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	264.7	265.3	265.7	265.9
	Male	265.0	265.6	266.1	266.4
	Total	264.8	265.4	265.9	266.1
Non-Māori	Female	287.0	288.1	288.8	289.4
	Male	285.3	286.1	286.6	287.0
	Total	286.1	287.1	287.7	288.2
Total Population	Female	283.9	284.8	285.2	285.5
	Male	282.5	283.0	283.3	283.5
	Total	283.2	283.9	284.3	284.5

			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	267.2	267.6	267.8	267.9
Female	25-34	266.5	267.3	267.7	268.0
Female	35-44	268.1	268.5	268.8	268.9
Female	45-54	262.5	263.5	264.0	264.2
Female	55-64	254.1	255.4	256.1	256.4
Male	15-24	268.6	269.3	269.7	269.8
Male	25-34	265.3	266.2	266.6	266.9
Male	35-44	270.5	271.0	271.2	271.4
Male	45-54	261.2	262.0	262.4	262.6
Male	55-64	252.7	253.4	253.8	254.0

			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	286.5	287.0	287.2	287.3
Female	25-34	293.7	294.5	294.8	295.0
Female	35-44	295.1	296.7	297.5	297.9
Female	45-54	285.2	286.7	287.4	287.8
Female	55-64	272.7	274.1	274.7	275.1
Male	15-24	285.4	285.9	286.2	286.3
Male	25-34	290.2	290.8	291.1	291.2
Male	35-44	292.6	293.6	294.2	294.4
Male	45-54	283.6	284.5	285.0	285.2
Male	55-64	272.7	273.5	273.9	274.1

Table 13 Projected Average Literacy Scores 2018-2033: Upper South Island

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	262.2	262.8	263.4	263.8
	Male	262.1	262.5	263.1	263.4
	Total	262.1	262.7	263.3	263.6
Non-Māori	Female	280.2	281.1	281.7	282.1
	Male	277.5	278.3	278.7	278.8
	Total	278.8	279.7	280.2	280.4
Total Population	Female	278.2	278.9	279.3	279.5
	Male	275.8	276.4	276.6	276.6
	Total	277.0	277.6	277.9	278.0
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.1	266.6	266.9	267.1
Female	25-34	263.0	263.6	263.9	264.0
Female	35-44	265.7	266.3	266.5	266.6
Female	45-54	261.1	262.4	263.1	263.5
Female	55-64	252.0	253.1	253.6	253.9
Male	15-24	266.4	266.6	266.7	266.8
Male	25-34	262.3	263.1	263.5	263.7
Male	35-44	268.1	269.0	269.5	269.8
Male	45-54	259.2	260.0	260.4	260.5
Male	55-64	250.2	250.3	250.4	250.4
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	282.3	282.7	282.9	283.0
Female	25-34	285.8	286.6	287.0	287.2
Female	35-44	288.9	290.3	291.1	291.4
Female	45-54	280.1	281.3	281.8	282.1
Female	55-64	268.8	270.1	270.7	271.0
Male	15-24	281.6	281.9	282.1	282.1
Male	25-34	281.5	282.0	282.3	282.4
Male	35-44	284.8	285.6	286.0	286.3
Male	45-54	277.0	277.7	278.0	278.2
Male	55-64	267.2	267.7	267.9	268.1

Table 14 Projected Average Literacy Scores 2018-2033: Canterbury

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	263.5	264.1	264.4	264.6
	Male	263.4	263.9	264.3	264.7
	Total	263.5	264.0	264.3	264.6
Non-Māori	Female	282.9	284.1	284.8	285.2
	Male	280.8	281.7	282.2	282.4
	Total	281.9	282.9	283.5	283.7
Total Population	Female	281.2	282.2	282.6	282.8
	Male	279.2	279.9	280.3	280.4
	Total	280.2	281.0	281.4	281.6
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.5	266.8	267.0	267.0
Female	25-34	265.1	265.8	266.2	266.4
Female	35-44	266.4	267.0	267.2	267.3
Female	45-54	261.4	262.6	263.1	263.4
Female	55-64	251.8	252.4	252.7	252.9
Male	15-24	267.4	268.0	268.3	268.4
Male	25-34	263.3	264.0	264.4	264.6
Male	35-44	268.0	268.5	268.7	268.8
Male	45-54	259.7	260.6	261.0	261.2
Male	55-64	251.1	251.5	251.7	251.8
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	284.6	285.1	285.4	285.5
Female	25-34	289.7	290.8	291.3	291.6
Female	35-44	290.6	292.2	293.1	293.5
Female	45-54	281.0	282.3	282.9	283.3
Female	55-64	268.8	270.0	270.6	270.9
Male	15-24	283.7	284.2	284.5	284.6
Male	25-34	285.5	286.5	287.0	287.2
Male	35-44	287.2	288.1	288.6	288.9
Male	45-54	278.7	279.3	279.7	279.8
Male	55-64	268.2	268.8	269.1	269.2

Table 15 Projected Average Literacy Scores 2018-2033: Otago

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	265.1	265.6	265.9	266.1
	Male	265.0	265.5	265.8	266.0
	Total	265.1	265.5	265.9	266.0
Non-Māori	Female	284.1	285.2	285.8	286.0
	Male	281.3	282.1	282.5	282.5
	Total	282.7	283.7	284.1	284.2
Total Population	Female	282.5	283.4	283.8	283.8
	Male	279.9	280.5	280.7	280.7
	Total	281.2	282.0	282.3	282.2
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	267.4	267.7	267.9	267.9
Female	25-34	266.7	267.4	267.8	268.0
Female	35-44	268.1	268.6	268.8	268.9
Female	45-54	263.2	264.4	265.0	265.3
Female	55-64	253.6	254.3	254.6	254.8
Male	15-24	268.4	268.6	268.8	268.8
Male	25-34	265.0	265.7	266.0	266.1
Male	35-44	270.1	270.4	270.6	270.7
Male	45-54	260.7	261.4	261.7	261.9
Male	55-64	252.4	253.5	254.1	254.4
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	284.9	285.1	285.2	285.3
Female	25-34	291.0	291.8	292.3	292.5
Female	35-44	292.3	294.2	295.1	295.6
Female	45-54	282.1	283.5	284.2	284.5
Female	55-64	270.2	271.6	272.2	272.6
Male	15-24	284.1	284.2	284.3	284.4
Male	25-34	285.9	286.6	287.0	287.1
Male	35-44	287.8	288.8	289.3	289.6
Male	45-54	279.1	279.9	280.3	280.5
Male	55-64	268.6	269.2	269.5	269.6

Table 16 Projected Average Literacy Scores 2018-2033: Southland

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	262.3	263.0	263.5	263.7
	Male	262.0	262.9	263.3	263.5
	Total	262.1	262.9	263.4	263.6
Non-Māori	Female	279.8	281.0	281.8	282.2
	Male	276.8	277.7	278.3	278.5
	Total	278.3	279.3	280.0	280.3
Total Population	Female	277.3	278.0	278.4	278.4
	Male	274.7	275.2	275.5	275.3
	Total	276.0	276.6	276.9	276.8
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.1	266.9	267.3	267.5
Female	25-34	263.4	264.1	264.4	264.6
Female	35-44	266.0	266.4	266.6	266.7
Female	45-54	260.8	262.2	262.9	263.3
Female	55-64	249.7	250.7	251.2	251.5
Male	15-24	267.0	267.8	268.2	268.4
Male	25-34	262.1	262.9	263.3	263.5
Male	35-44	266.5	267.0	267.3	267.4
Male	45-54	258.2	259.2	259.6	259.8
Male	55-64	248.6	249.4	249.8	250.0
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	283.2	283.7	283.9	284.1
Female	25-34	286.7	287.4	287.7	287.9
Female	35-44	288.2	290.1	291.0	291.4
Female	45-54	277.8	278.9	279.5	279.7
Female	55-64	265.9	267.1	267.7	268.0
Male	15-24	282.2	282.7	282.9	283.0
Male	25-34	281.8	282.7	283.2	283.5
Male	35-44	283.2	284.3	284.8	285.1
Male	45-54	274.8	275.4	275.8	275.9
Male	55-64	264.5	265.1	265.5	265.6

Table 17 Projected Average Literacy Scores 2018-2033: New Zealand Regional Council Area

Ethnicity	Gender	2018	2023	2028	2033
Māori	Female	263.3	264.1	264.6	264.9
	Male	263.0	263.8	264.5	264.8
	Total	263.1	263.9	264.5	264.8
Non-Māori	Female	284.2	285.4	286.1	286.5
	Male	282.1	283.0	283.5	283.8
	Total	283.2	284.2	284.8	285.1
Total Population	Female	280.8	281.7	282.1	282.2
	Male	279.1	279.7	280.0	280.1
	Total	280.0	280.7	281.0	281.2
			Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	266.6	267.1	267.3	267.5
Female	25-34	264.6	265.3	265.7	265.9
Female	35-44	266.8	267.5	267.9	268.0
Female	45-54	261.2	262.4	262.9	263.2
Female	55-64	252.7	254.0	254.6	255.0
Male	15-24	267.3	267.9	268.2	268.3
Male	25-34	263.4	264.3	264.8	265.0
Male	35-44	268.2	269.0	269.3	269.5
Male	45-54	259.3	260.3	260.8	261.0
Male	55-64	250.8	251.8	252.3	252.6
			Non-Māori		
Gender	**Age**	**2018**	**2023**	**2028**	**2033**
Female	15-24	285.2	285.7	285.9	286.0
Female	25-34	291.2	292.3	292.8	293.1
Female	35-44	292.0	293.8	294.6	295.1
Female	45-54	282.2	283.6	284.2	284.6
Female	55-64	269.9	271.2	271.9	272.2
Male	15-24	284.2	284.6	284.9	285.0
Male	25-34	287.3	288.3	288.8	289.0
Male	35-44	288.9	290.1	290.7	291.0
Male	45-54	280.0	280.8	281.2	281.5
Male	55-64	269.3	270.0	270.3	270.5

Table 18 Regional Disparity (Range) and Ranking, Female Projected Literacy Scores

Rank	2018	2023	2028	2033
Lowest	Northland	Northland	Northland	Northland
11	Gisb/Hawkes Bay	Gisb/Hawkes Bay	Gisb/Hawkes Bay	Gisb/Hawkes Bay
10	Taranaki	Taranaki	Taranaki	Taranaki
9	Bay of Plenty	Bay of Plenty	Manawatu-Whanganui	Manawatu-Whanganui
8	Manawatu-Whanganui	Manawatu-Whanganui	Bay of Plenty	Bay of Plenty
7	Southland	Southland	Southland	Southland
6	Waikato	Waikato	Waikato	Waikato
5	Upper SI	Upper SI	Upper SI	Upper SI
4	Canterbury	Canterbury	Canterbury	Canterbury
3	Otago	Otago	Otago	Otago
2	Auckland	Auckland	Wellington	Wellington
Highest	Wellington	Wellington	Auckland	Auckland
Range	10.3	10.4	10.6	11.1

Interpretation: For 2018, the lowest level of projected literacy was Northland, while the highest was Wellington. The range between Northland and Wellington was projected to be 10.3

Table 19 Regional Disparity (Range) and Ranking, Male Projected Literacy Scores

Rank	2018	2023	2028	2033
Lowest	Northland	Northland	Northland	Northland
11	Gisb/Hawkes Bay	Gisb/Hawkes Bay	Gisb/Hawkes Bay	Gisb/Hawkes Bay
10	Taranaki	Taranaki	Taranaki	Taranaki
9	Bay of Plenty	Southland	Manawatu-Whanganui	Manawatu-Whanganui
8	Southland	Manawatu-Whanganui	Southland	Southland
7	Manawatu-Whanganui	Bay of Plenty	Bay of Plenty	Bay of Plenty
6	Upper SI	Upper SI	Upper SI	Waikato
5	Waikato	Waikato	Waikato	Upper SI
4	Canterbury	Canterbury	Canterbury	Canterbury
3	Otago	Otago	Otago	Otago
2	Wellington	Wellington	Wellington	Wellington
Highest	Auckland	Auckland	Auckland	Auckland
Range	11.6	11.6	11.9	12.4

Interpretation: For 2018, the lowest level of projected literacy was Northland, while the highest was Auckland. The range between Northland and Auckland was projected to be 11.6

Table 20 Regional Disparity (Range) and Ranking, Overall Projected Literacy Scores

Rank	2018	2023	2028	2033
Lowest	Northland	Northland	Northland	Northland
11	Gisb/Hawkes Bay	Gisb/Hawkes Bay	Gisb/Hawkes Bay	Gisb/Hawkes Bay
10	Taranaki	Taranaki	Taranaki	Taranaki
9	Bay of Plenty	Southland	Manawatu-Whanganui	Manawatu-Whanganui
8	Southland	Manawatu-Whanganui	Southland	Southland
7	Manawatu-Whanganui	Bay of Plenty	Bay of Plenty	Bay of Plenty
6	Waikato	Upper SI	Waikato	Waikato
5	Upper SI	Waikato	Upper SI	Upper SI
4	Canterbury	Canterbury	Canterbury	Canterbury
3	Otago	Otago	Otago	Otago
2	Wellington	Wellington	Wellington	Wellington
Highest	Auckland	Auckland	Auckland	Auckland
Range	10.9	11.0	11.3	11.8

Interpretation: For 2018, the lowest level of projected literacy was Northland, while the highest was Auckland. The range between Northland and Auckland was projected to be 10.9

Table 21 Projected Difference in Literacy Scores (non-Māori – Māori) by Region and Year

Region	2018	2023	2028	2033
Northland	16.9	16.8	16.5	16.3
Auckland	21.8	22.1	22.0	22.0
Waikato	18.5	18.7	18.6	18.6
Bay of Plenty	18.0	18.4	18.4	18.3
Gisb/Hawkes Bay	17.5	17.5	17.4	17.3
Taranaki	16.7	16.8	16.6	16.5
Manawatu-Wanganui	17.2	17.1	16.8	16.7
Wellington	21.3	21.7	21.8	22.0
Upper SI	16.7	17.0	16.9	16.8
Canterbury	18.4	18.9	19.1	19.1
Otago	17.6	18.1	18.3	18.2
Southland	16.2	16.4	16.6	16.7
Total	20.0	20.3	20.2	20.3
Minimum	Southland	Southland	Northland	Northland
Maximum	Auckland	Auckland	Auckland	Wellington

Interpretation: In 2018, in Northland, the projected difference between non-Māori and Māori average literacy scores is 16.9. Non-Māori and Māori differ between a low of 16.2 in Southland and a high of 21.8 in Auckland.

Table 22 Projected Difference in Literacy Scores (Female – Male) by Region and Year

Region	2018	2023	2028	2033
Northland	2.5	2.7	2.8	2.8
Auckland	1.2	1.4	1.5	1.5
Waikato	2.0	2.4	2.5	2.5
Bay of Plenty	2.0	2.2	2.2	2.2
Gisb/Hawkes Bay	1.8	1.7	1.8	1.7
Taranaki	1.9	2.2	2.2	2.0
Manawatu-Wanganui	2.2	2.4	2.5	2.4
Wellington	1.4	1.8	1.9	2.0
Upper SI	2.4	2.5	2.7	2.8
Canterbury	2.0	2.3	2.4	2.5
Otago	2.6	2.9	3.1	3.1
Southland	2.6	2.8	3.0	3.0
Total	1.7	2.0	2.1	2.1
Minimum	Auckland	Auckland	Auckland	Auckland
Maximum	Otago	Otago	Otago	Otago

Interpretation: In 2018, in Northland, the projected difference between Female and Male average literacy scores is 2.5. Female and Male literacy differences (Female-Male) range between a low of 1.2 in Auckland and a high of 2.6 in Otago.

THE EXPRESSION, EXPERIENCE AND TRANSCENDENCE OF LOW SKILLS IN AOTEAROA NEW ZEALAND

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