

International Survey of Adult Skills

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The Survey of Adult Skills

The Survey of Adult Skills

The OECD's Survey of Adult Skills (PIAAC) is an internationally agreed assessment of skills in:

- literacy
- numeracy
- problem solving in technology rich environments

It includes background data on education, employment, use of skills in work and at home, skills and qualifications required for work.

It enables us to explore relationships between skills, education and employment, controlling for linguistic and socio-demographic factors.

Involved 33 countries including New Zealand. Almost all the OECD and includes some developing countries.

Third international survey of skills that New Zealand has participated in:

- IALS: International Adult Literacy Survey, 1996
- ALL: Adult Life Skills Survey, 2006
- PIAAC: Survey of Adult Skills, 2014

What is assessed?

Literacy:

“ability to understand, evaluate, use and engage with written texts to participate in society, to achieve one’s goals, and to develop one’s knowledge and potential.”

Numeracy:

“the ability to access, use, interpret and communicate mathematical information and ideas, in order to engage in and manage the mathematical demands of a range of situations in adult life.”

Problem-solving in technology rich environments:

“ability to use digital technology, communication tools and networks to acquire and evaluate information, communicate with others and perform practical tasks”

Literacy was measured comparably in 1996, 2006 and 2014.

Numeracy was measured comparably in 2006 and 2014.

Problem solving in technology rich environments is a new skill domain.

How are skill levels assessed and reported?

Respondents complete tasks across a spread of difficulty.

A scale score is calculated based on how many tasks were successfully achieved at different difficulty levels.

Scale scores are grouped into proficiency levels:

- Literacy and numeracy: below Level 1; Levels 1-5
- Problem solving: below Level 1; Levels 1-3

Proficiency is a continuum: there is no threshold for “having” vs “not having” the skills.

Levels provide a way of grouping proficiency: do not set benchmarks related to education, employment or participation in society.

New Zealand's participation

Data collected in 2014 by the National Research Bureau:

- Nationally representative sample of 16-65 year olds
- 6,177 people interviewed – face-to-face interviews where most did the assessment on a laptop
- Oversamples of Māori and young people aged 16-25

Results were released by OECD on 28 June:

- International report covering 33 countries
- Online analysis tool
- File with anonymised data

The Ministries of Business Innovation & Employment, and Education released three national reports simultaneously:

- Skills in New Zealand and around the world
- Skills and education
- Skills and work

Skills in New Zealand and around the world

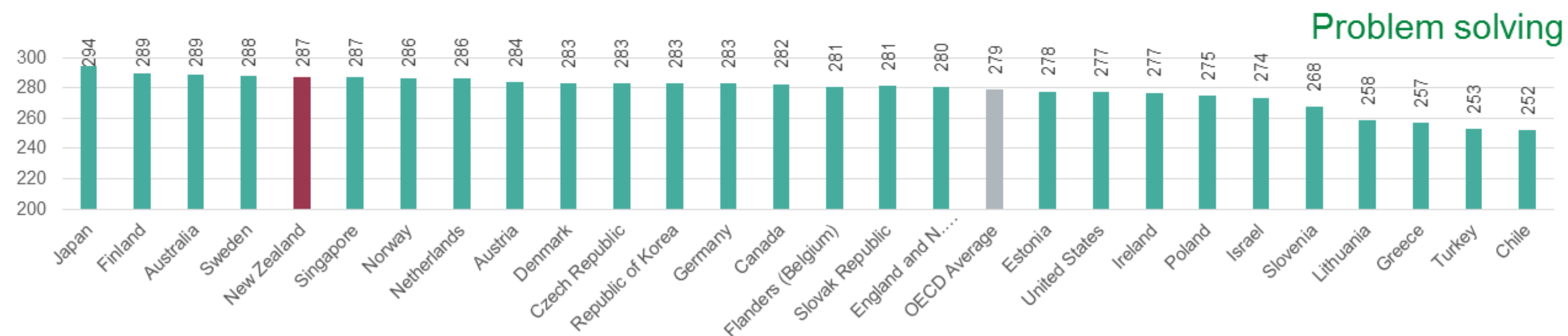
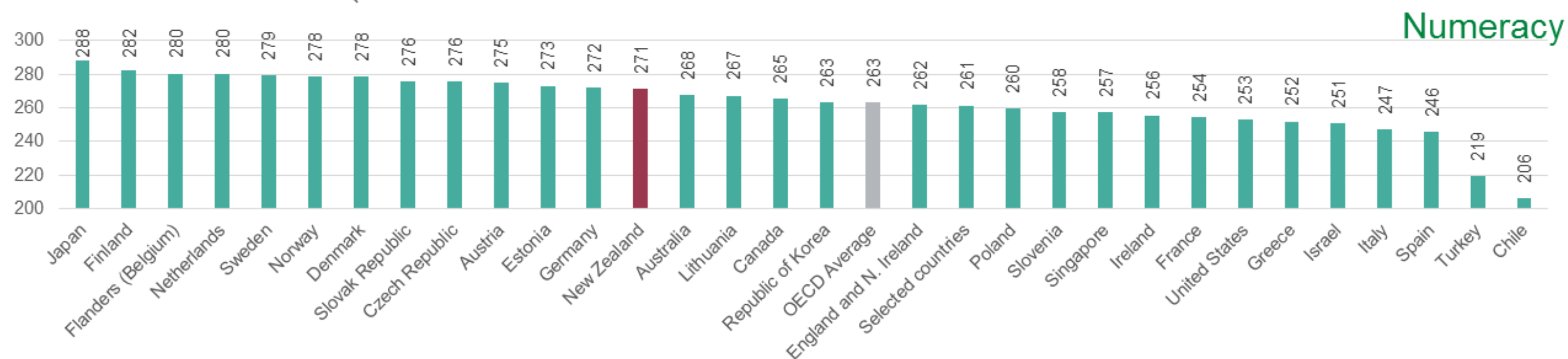
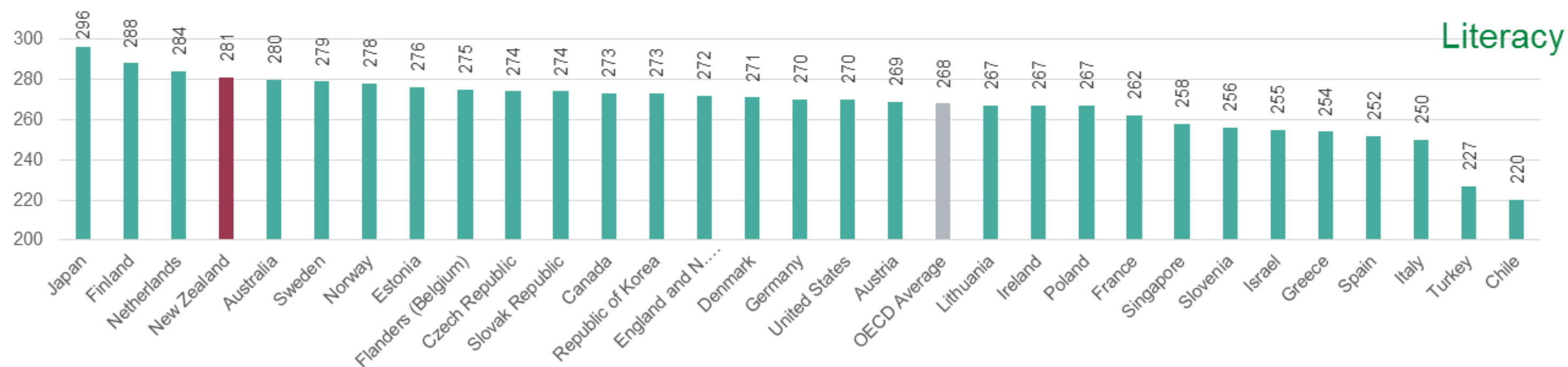
Our results compared to other countries

Among OECD countries, New Zealand adults score on average above the OECD average and are ranked:

- 4th highest in **literacy**
- 13th highest in **numeracy**
- 5th highest in **problem solving** - while having the highest proportion of adults with moderate to high problem-solving skills.

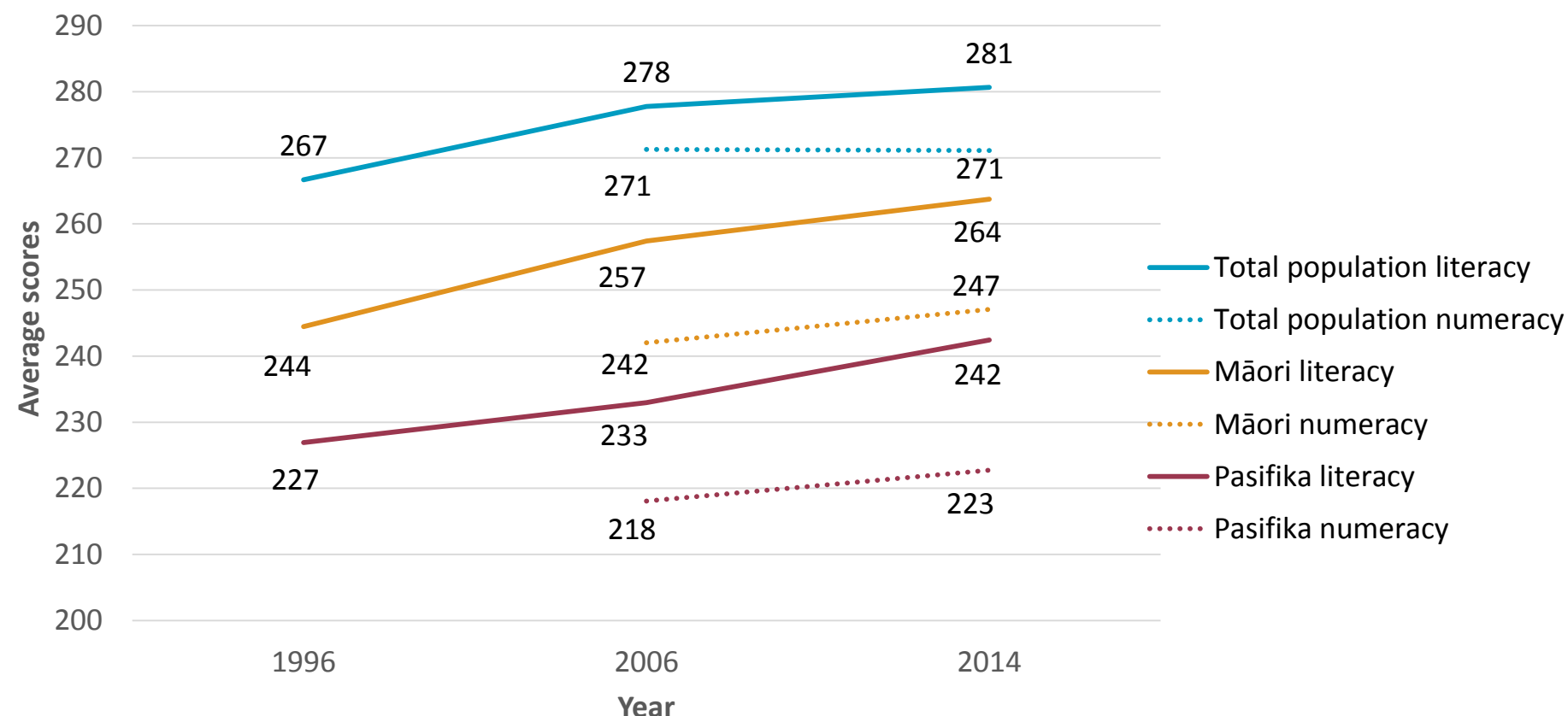
New Zealand adults' average skills in:

- **literacy** and **problem solving** are similar to those of Australia, and higher than those in Canada, England/Northern Ireland and the United States
- **numeracy** are higher than those of Australia, Canada, England/Northern Ireland and the United States



Our results compared to previous surveys

Changes in literacy and numeracy scores over time



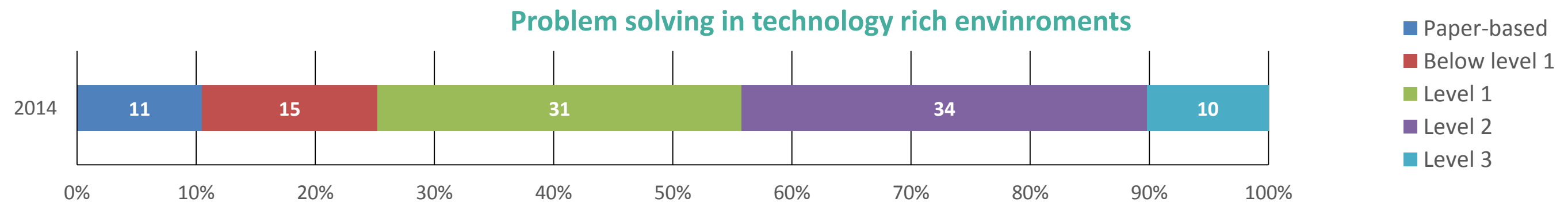
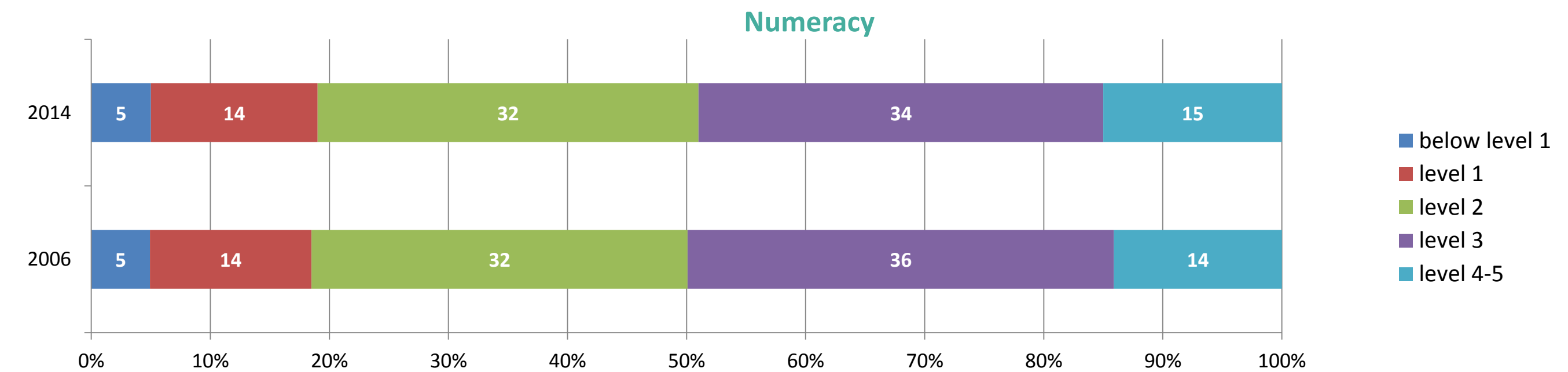
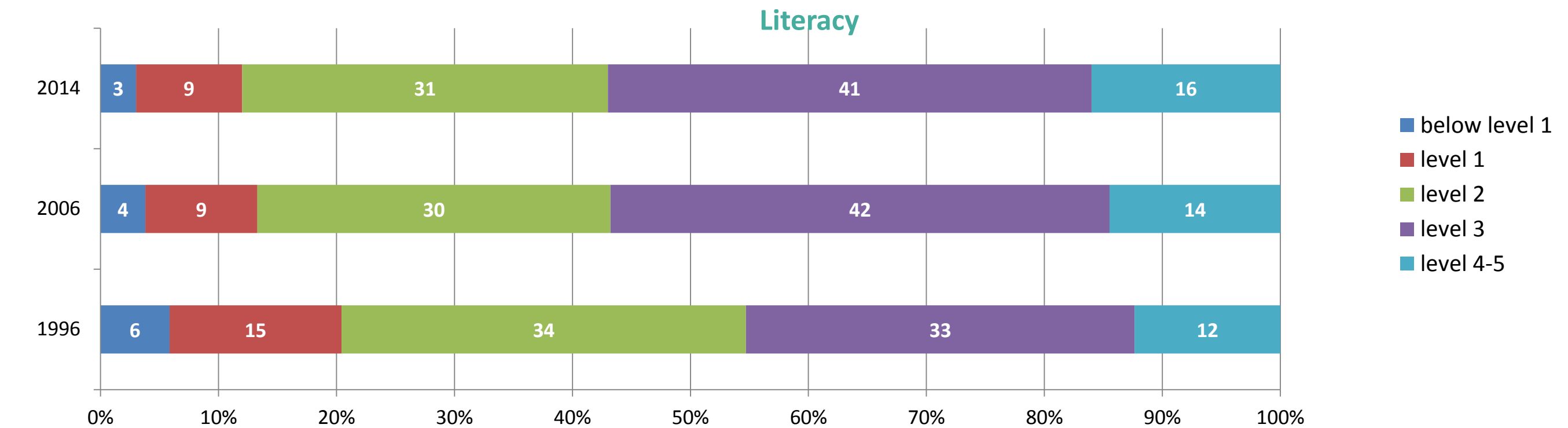
Literacy skills:

- increased for the total population since 1996
- increased at a faster rate for Māori and Pasifika since 2006

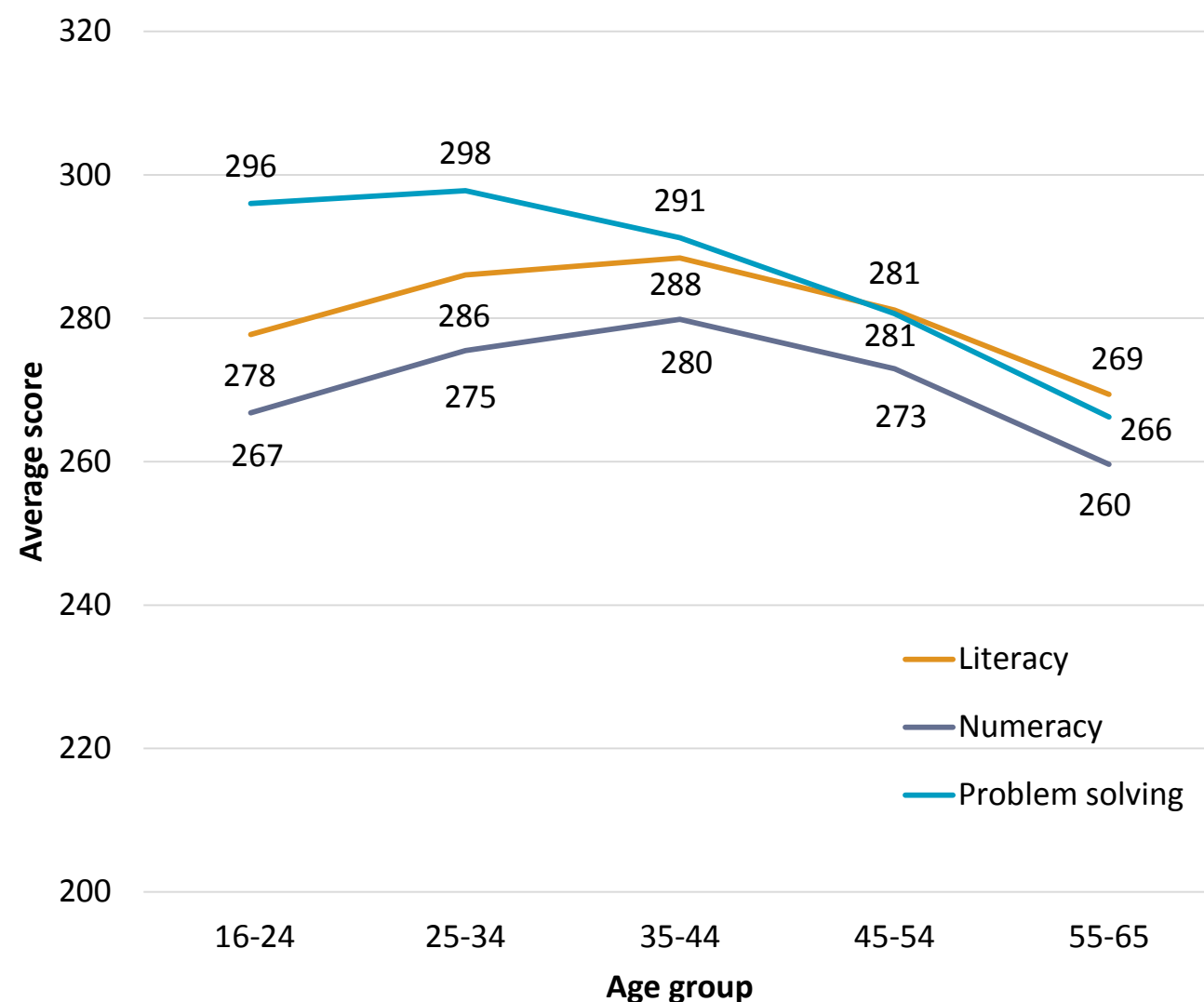
Numeracy skills:

- have remained static for the total population since 2006
- increased for Māori and Pasifika since 2006.

Distribution of skills



Skills and age group



Literacy and numeracy skills highest in 35-44 year olds – and improve from 16 to 44 through education and employment

Problem solving skills highest in 16-34 year olds

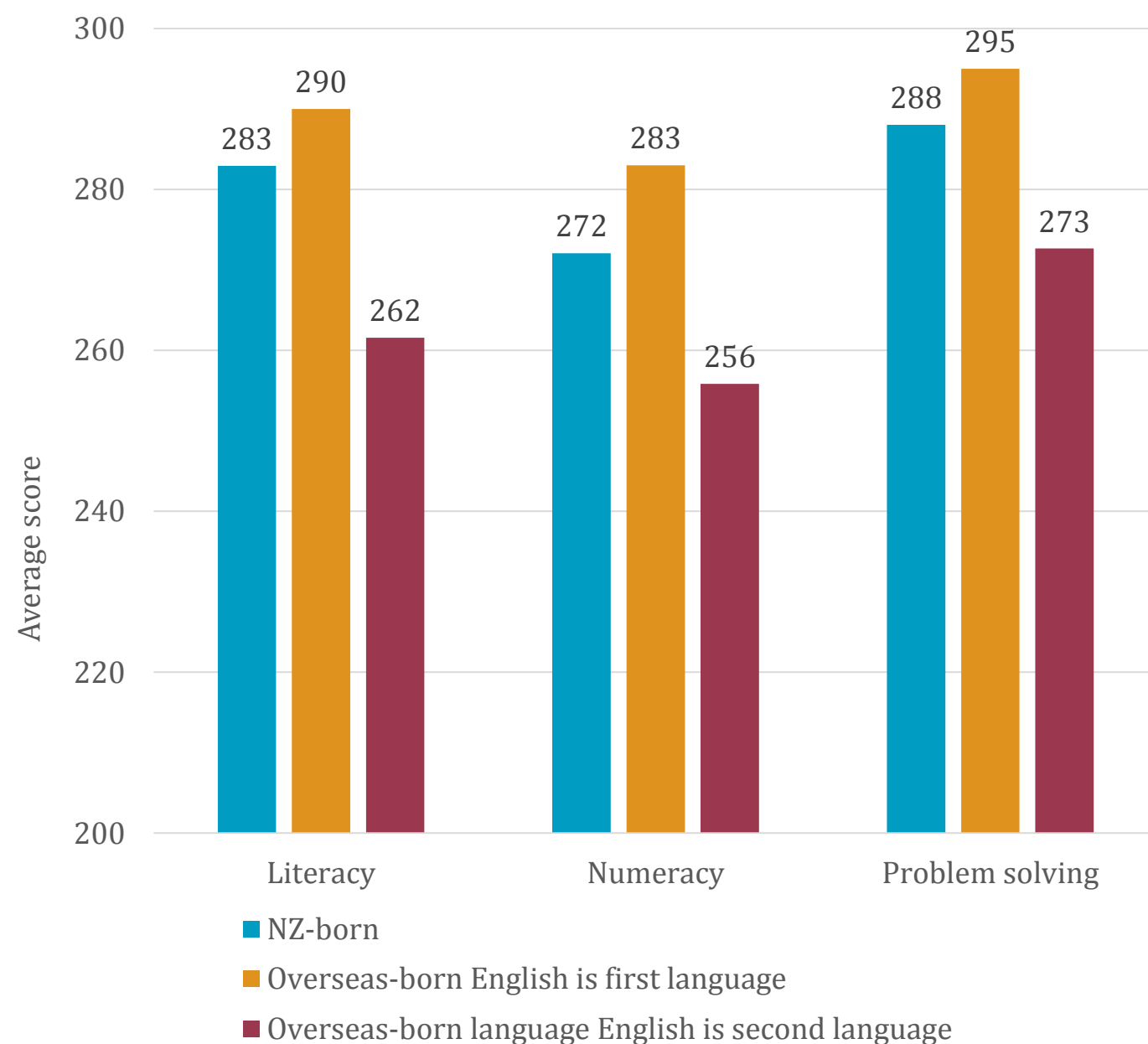
New Zealand youth (aged 16 to 24) when compared to youth in other OECD countries are ranked:

- 14th highest in literacy (above the OECD average)
- 20th highest in numeracy (at the OECD average)
- 9th highest in problem solving (above the OECD average).

The average skills of New Zealand youth have improved in literacy since 1996 and 2006 and stayed the same in numeracy since 2006.

Older New Zealanders (aged 55-65) ranked 2nd highest for literacy in their age group in OECD

Skills and migration



25% of NZ population born overseas – second highest rate of any country in survey

Average skills of NZ overseas born population are higher than other countries in the survey

Overseas-born with English as first language have higher skills than NZ born

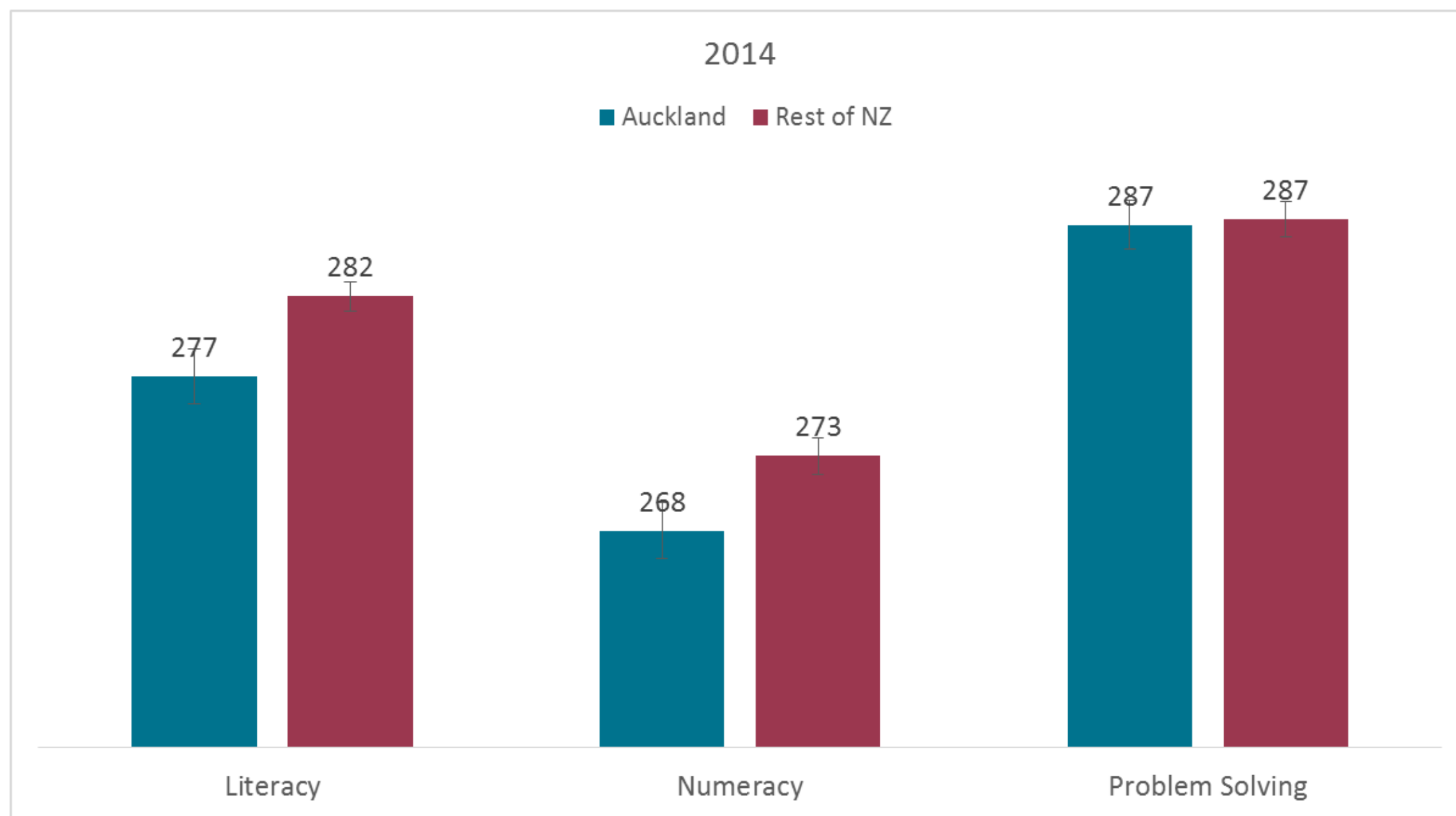
Overseas-born with English as second language have lower skills than NZ born

Skills in Auckland and the rest of New Zealand

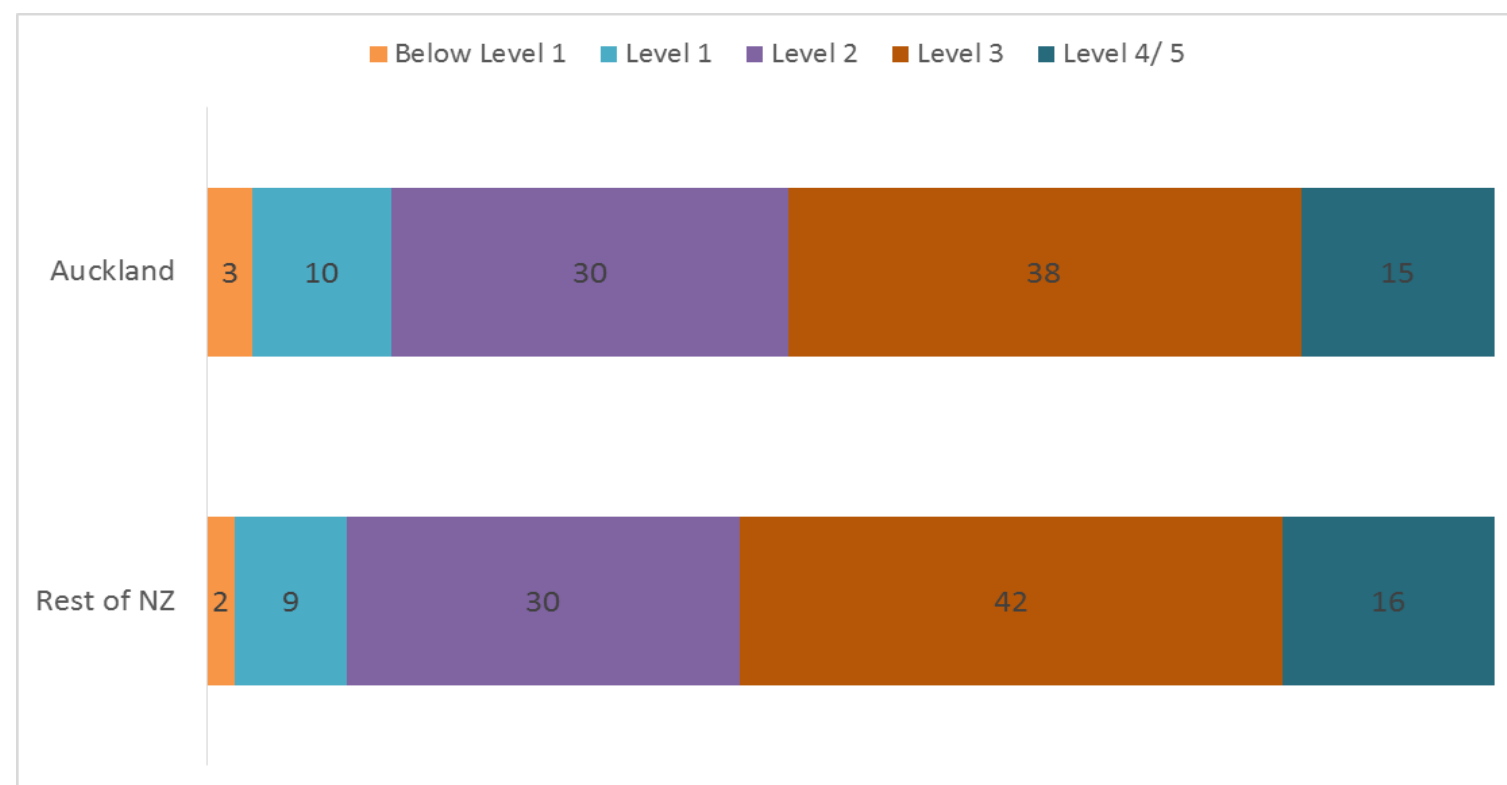
Auckland compared with the rest of NZ

Auckland has lower literacy and numeracy average scores than the rest of NZ, but similar problem solving scores

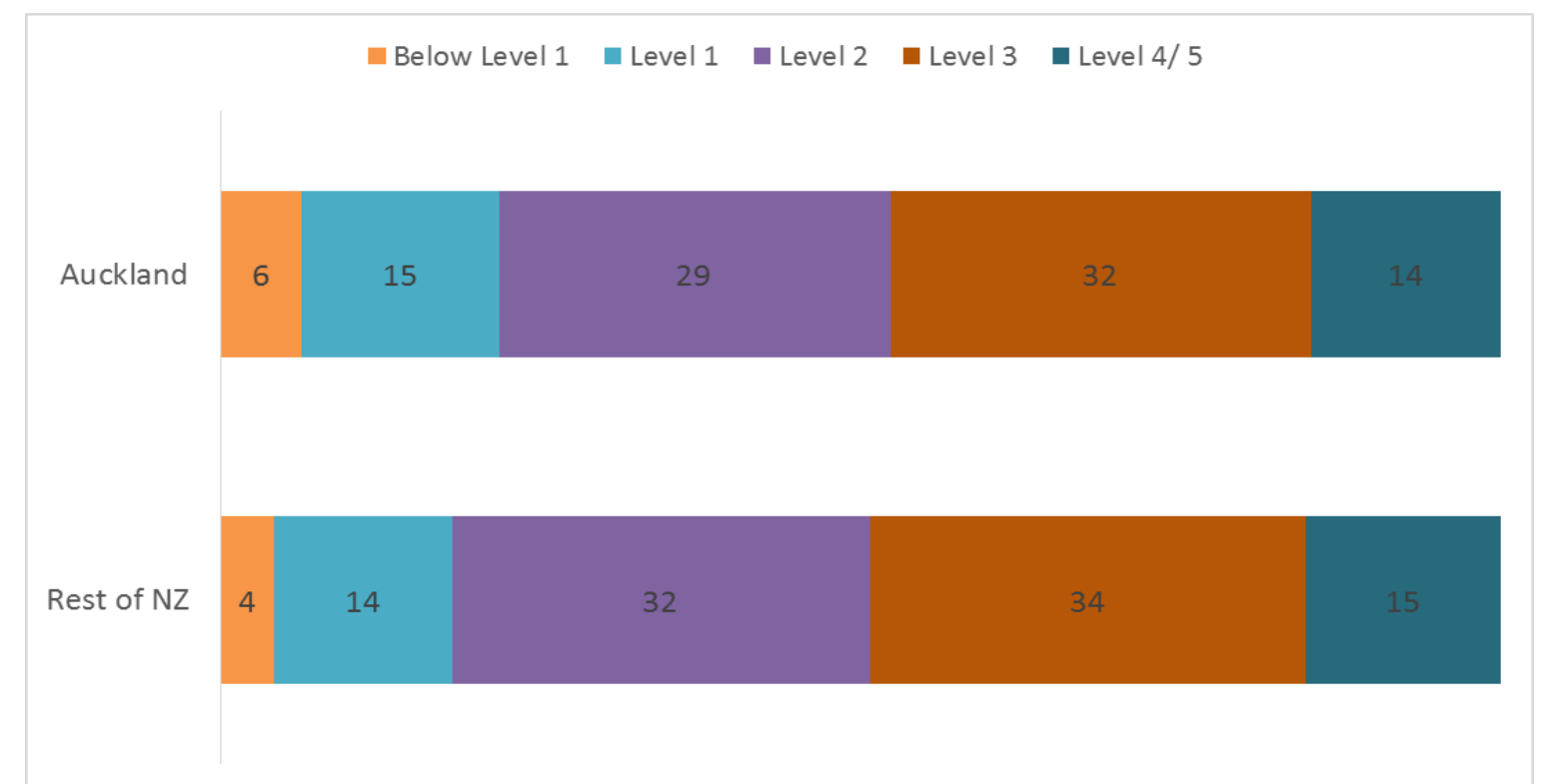
Average Literacy, Numeracy and Problem Solving Scores



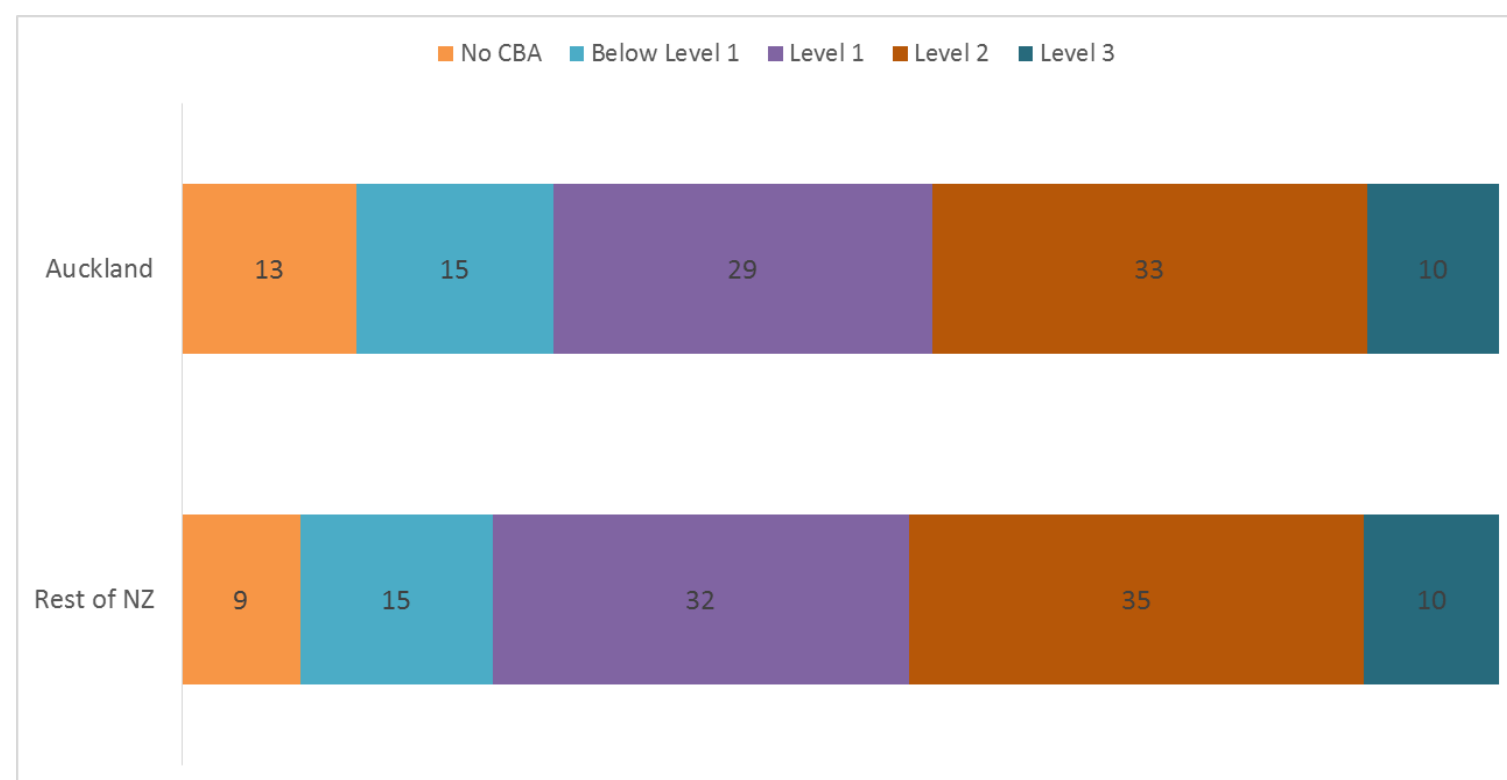
Literacy skills (2014)



Numeracy skills (2014)



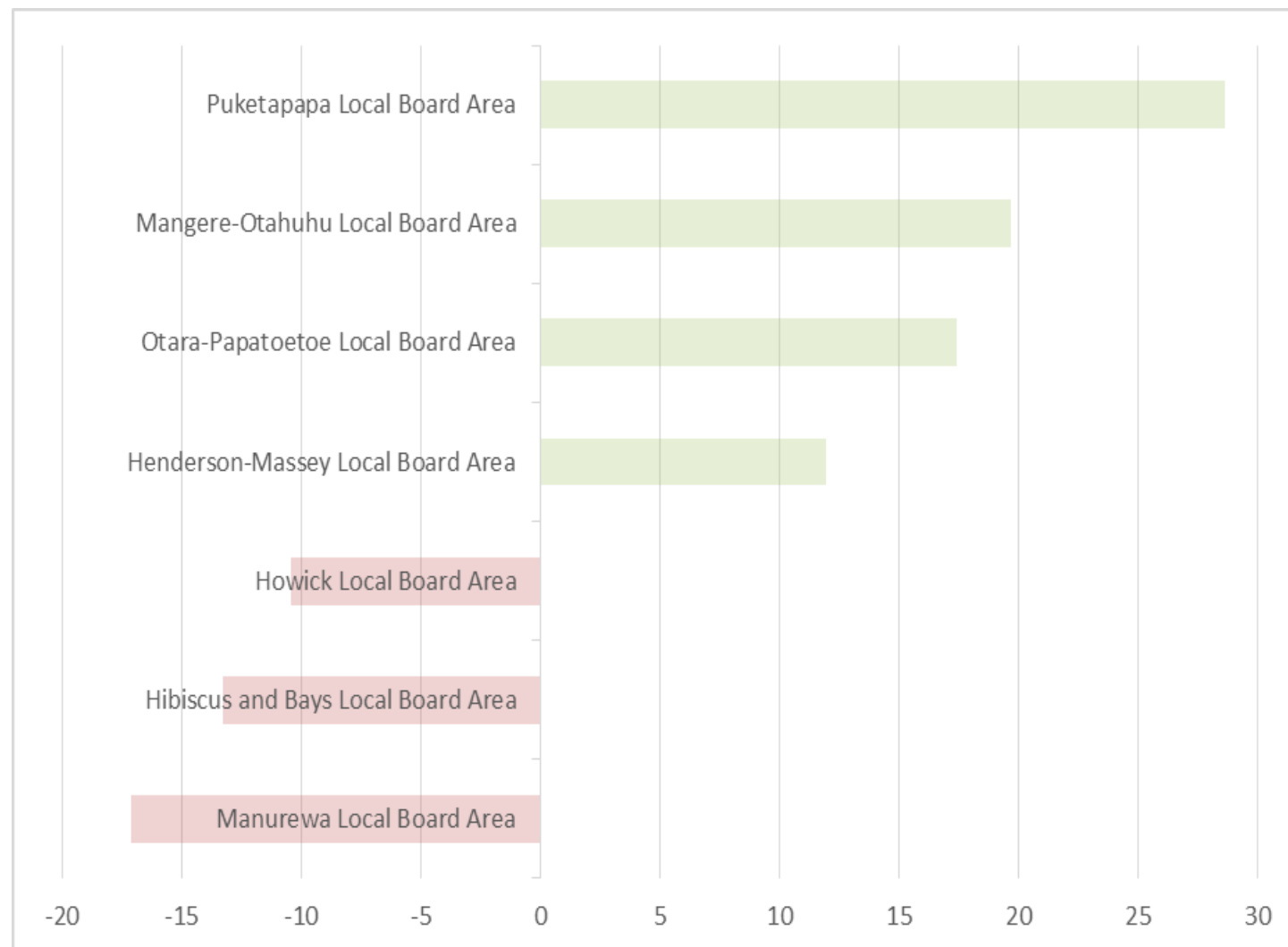
Problem Solving Skills (2014)



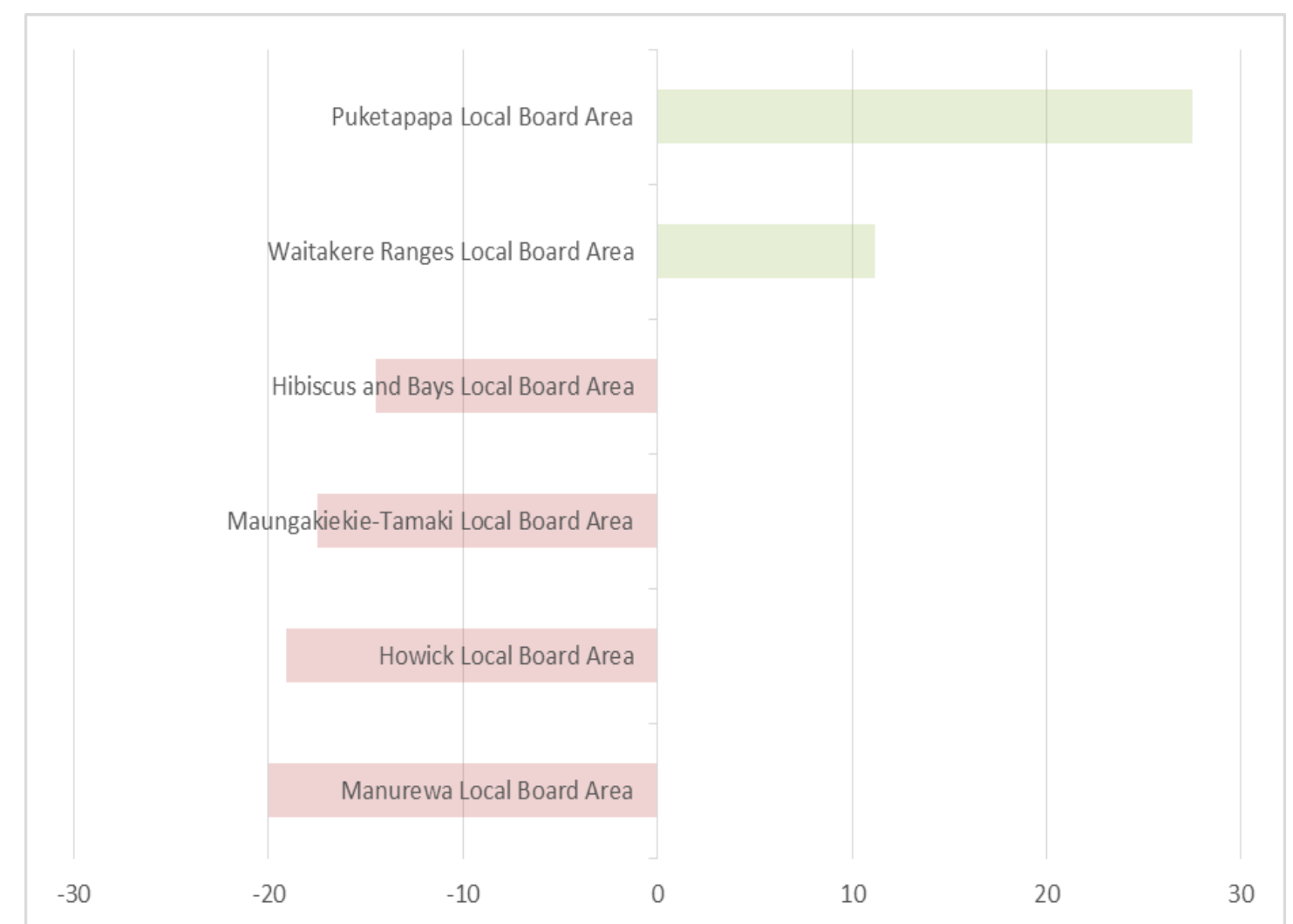
Differences in skill levels between Auckland and the rest of New Zealand are greatest in numeracy and problem solving

Changes at Local Board Level

Literacy scores (change 2006 - 2014)



Numeracy scores (change 2006 - 2014)

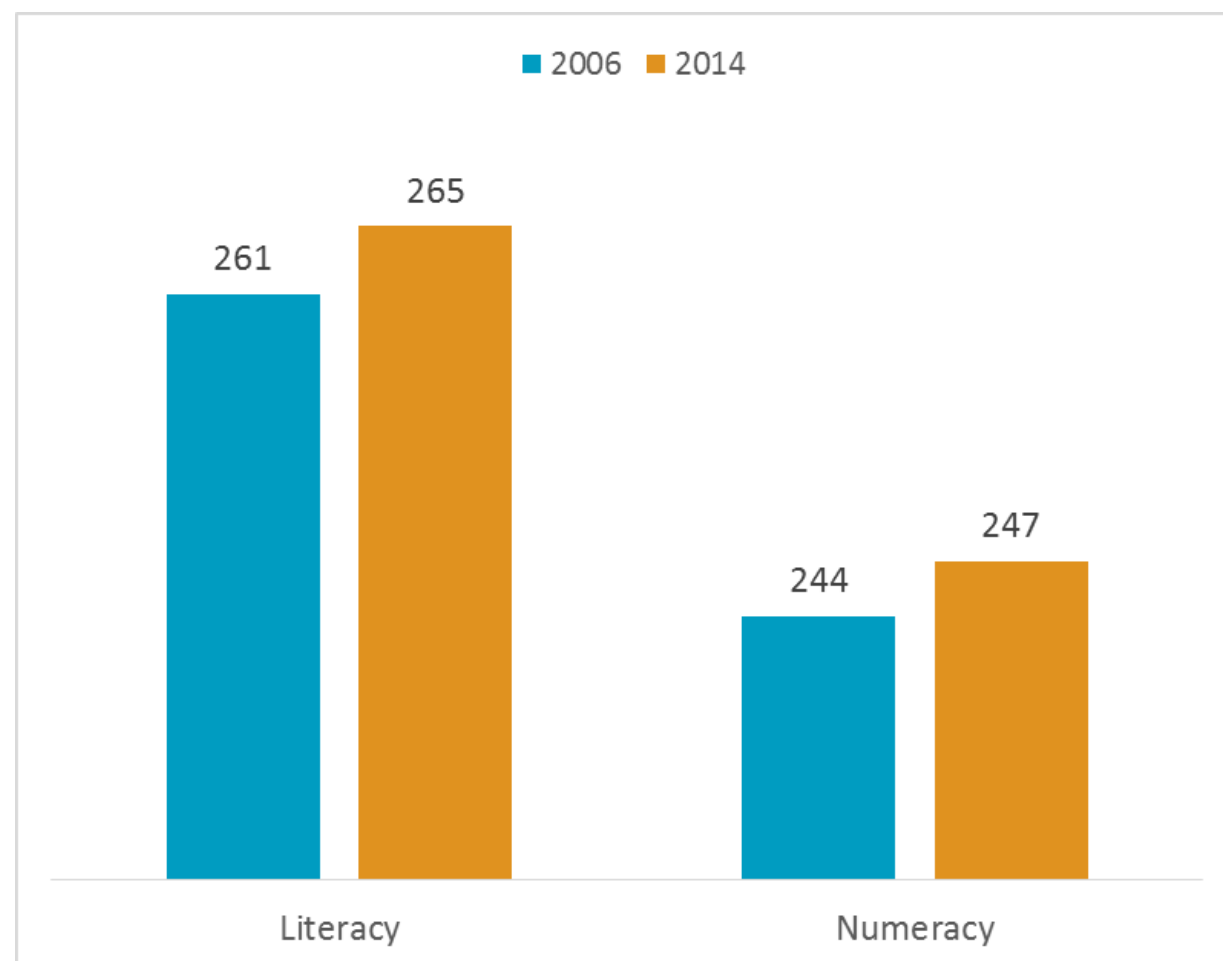


- Puketepapa Local Board Area had statistically significant increases in literacy and numeracy scores between 2006 and 2014
- Hibiscus and Bays, Howick, and Manurewa Local Board Areas all had statistically significant decreases in literacy and numeracy scores between 2006 and 2014

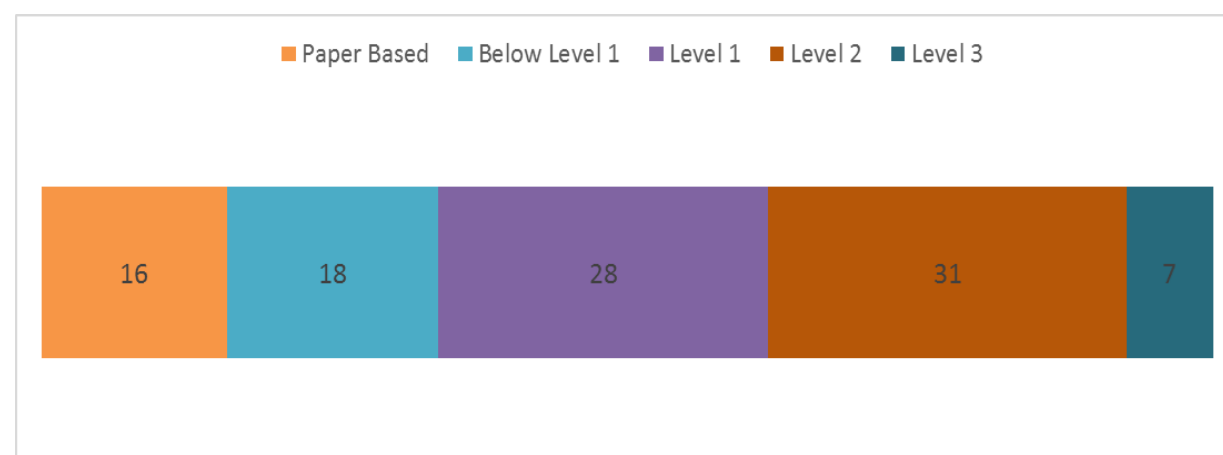
Skills and Ethnicity

Changes in skills for Māori in Auckland

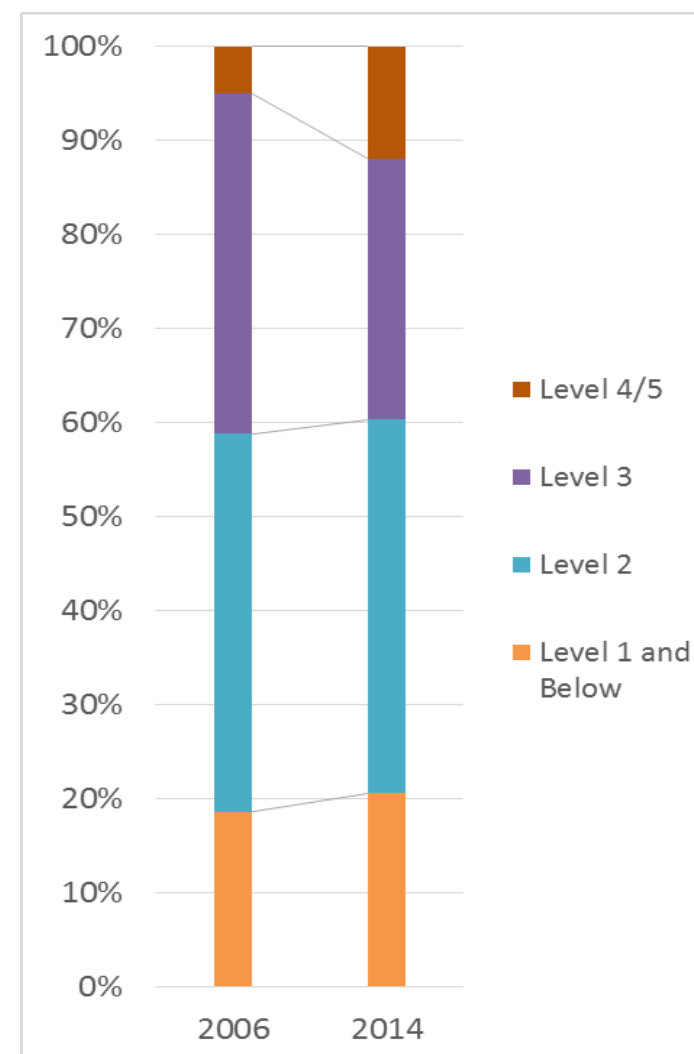
Average Scores



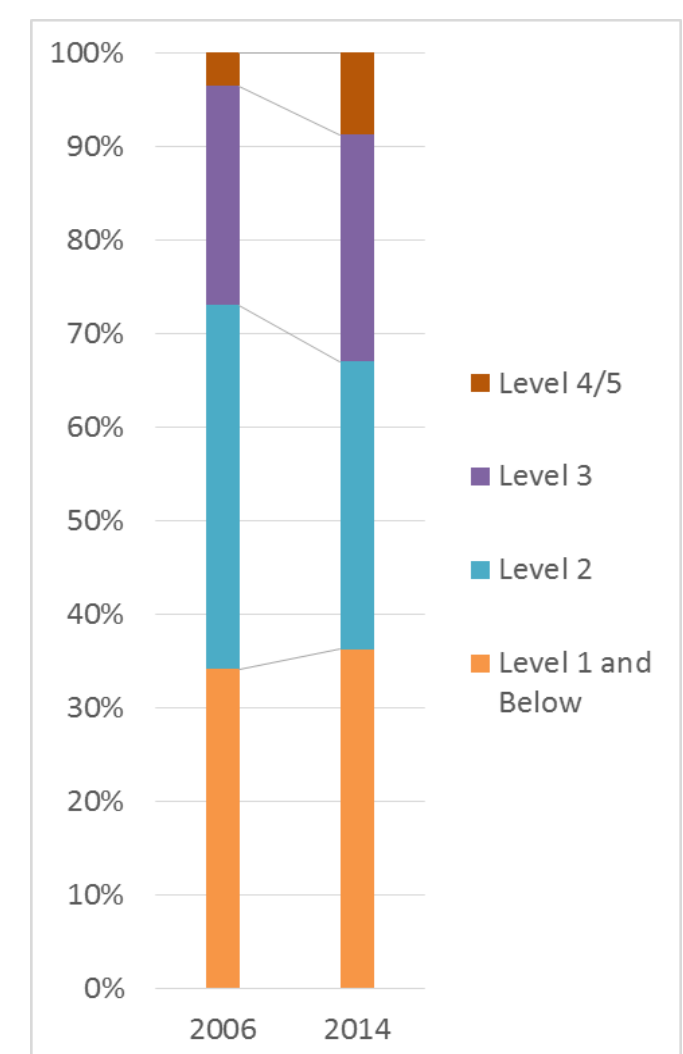
Problem solving skills



Literacy skills



Numeracy skills



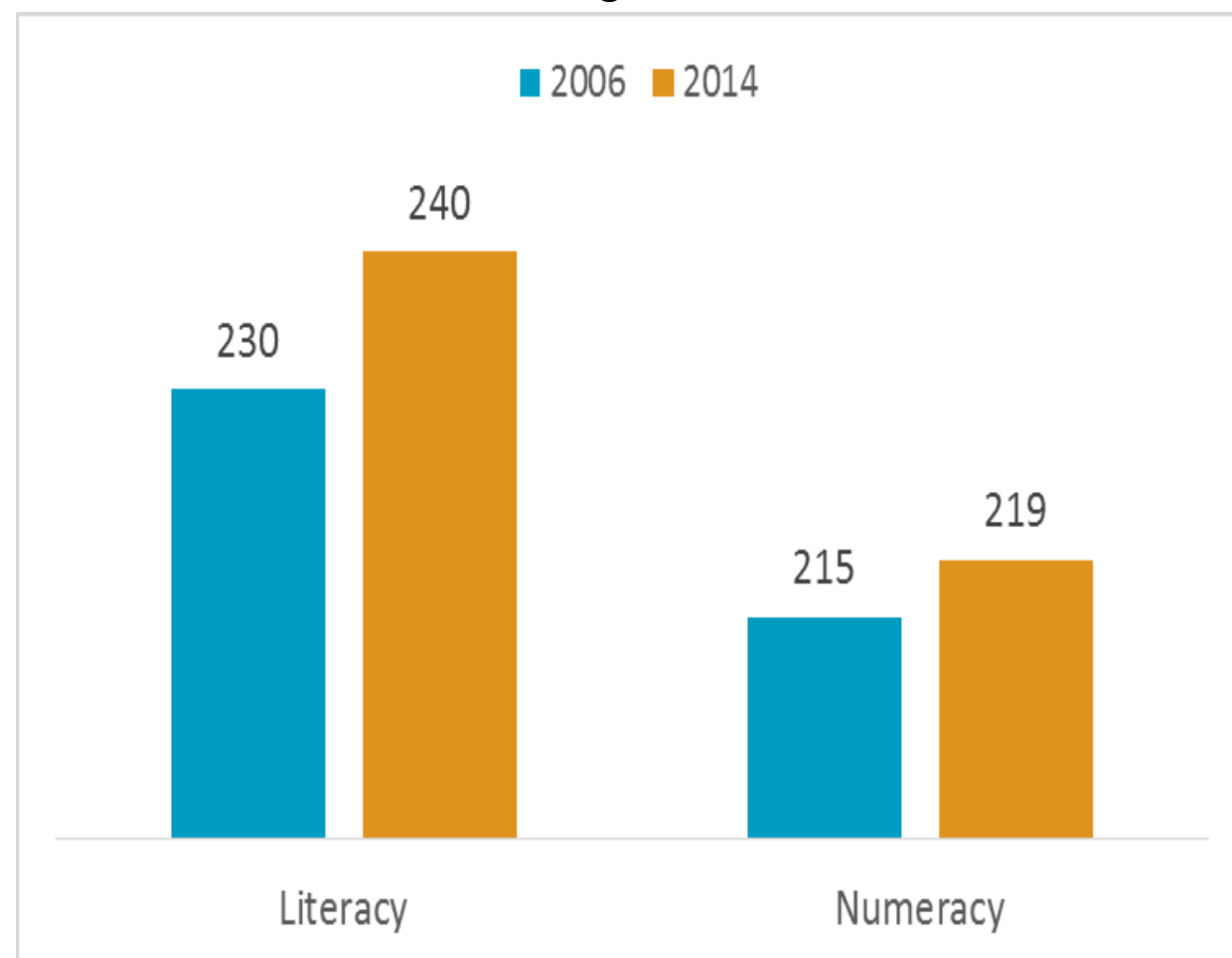
Literacy and numeracy scores for Maori in Auckland have remained similar from 2006 to 2014

A higher proportion of the Maori population are at or below level 1 in literacy and numeracy than in 2006

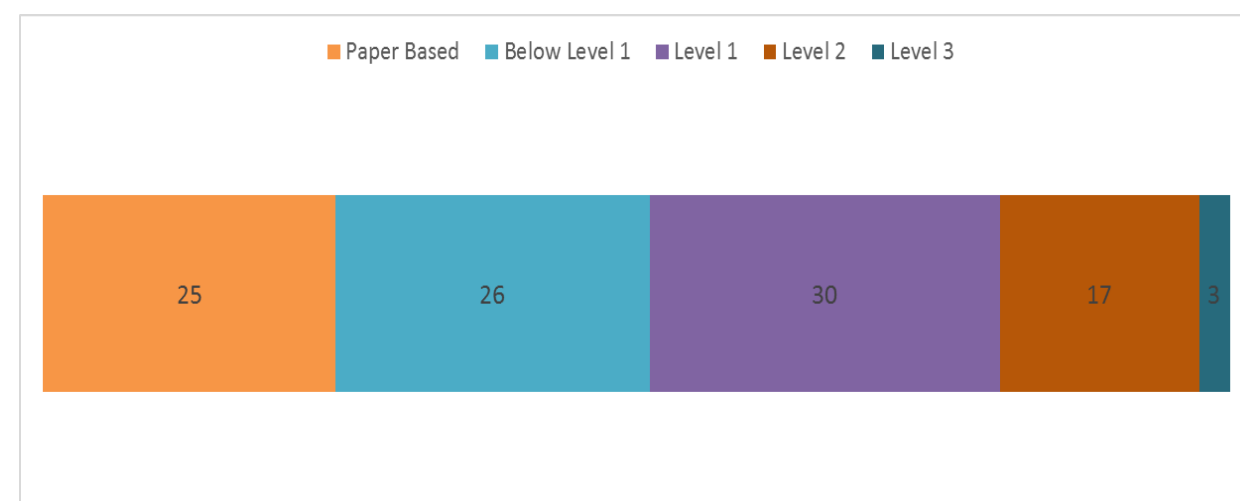
A higher proportion are also at level 4 and 5 than in 2006

Changes in skills for Pasifika in Auckland

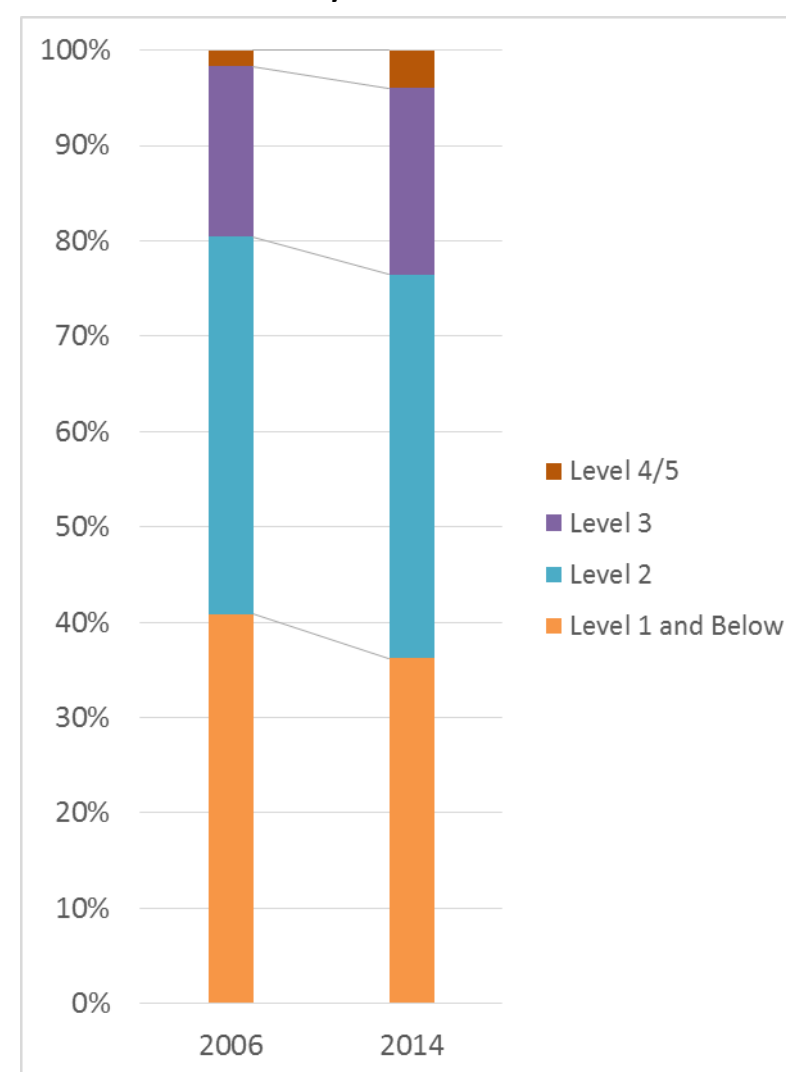
Average Scores



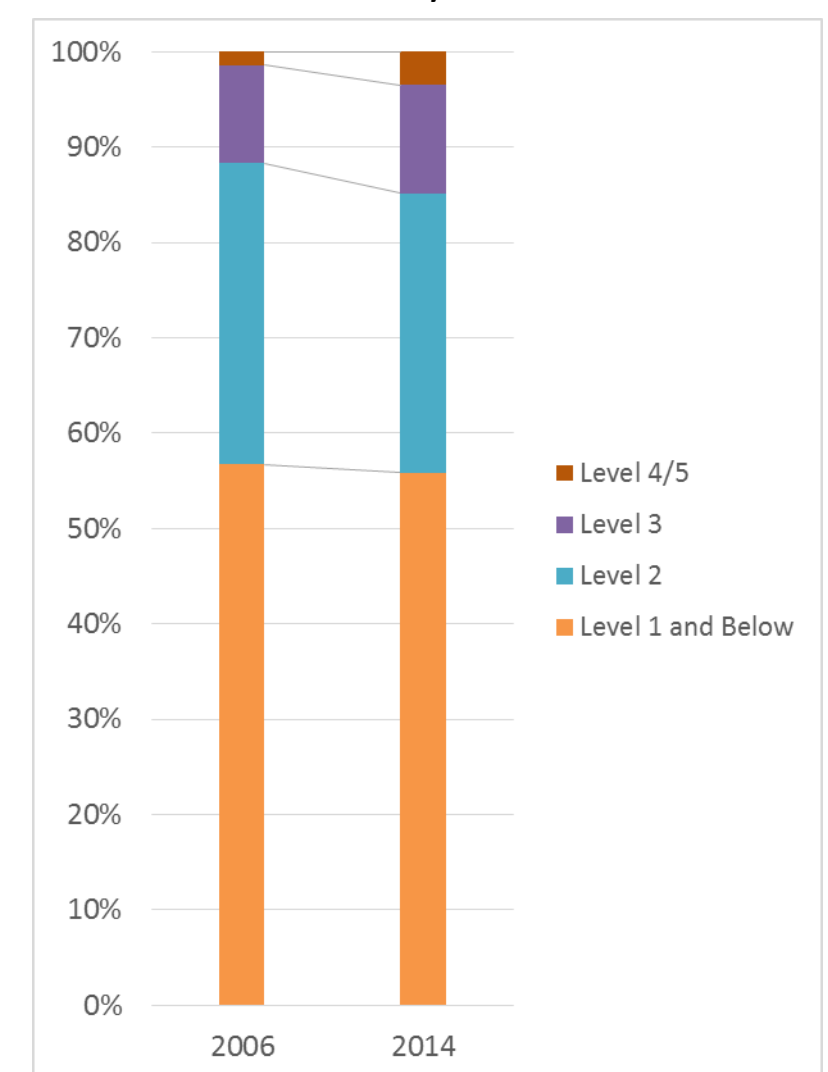
Problem solving skills



Literacy skills



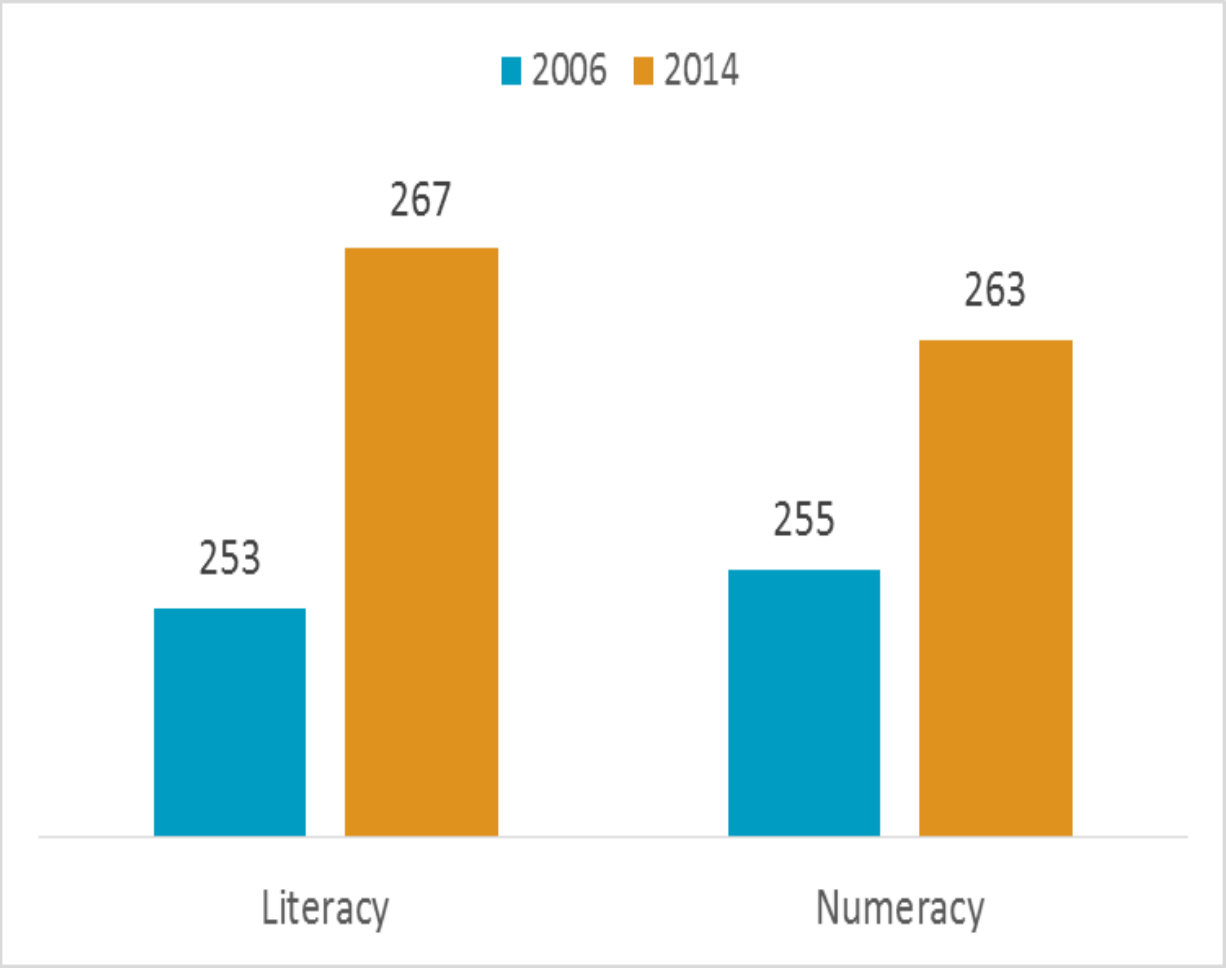
Numeracy skills



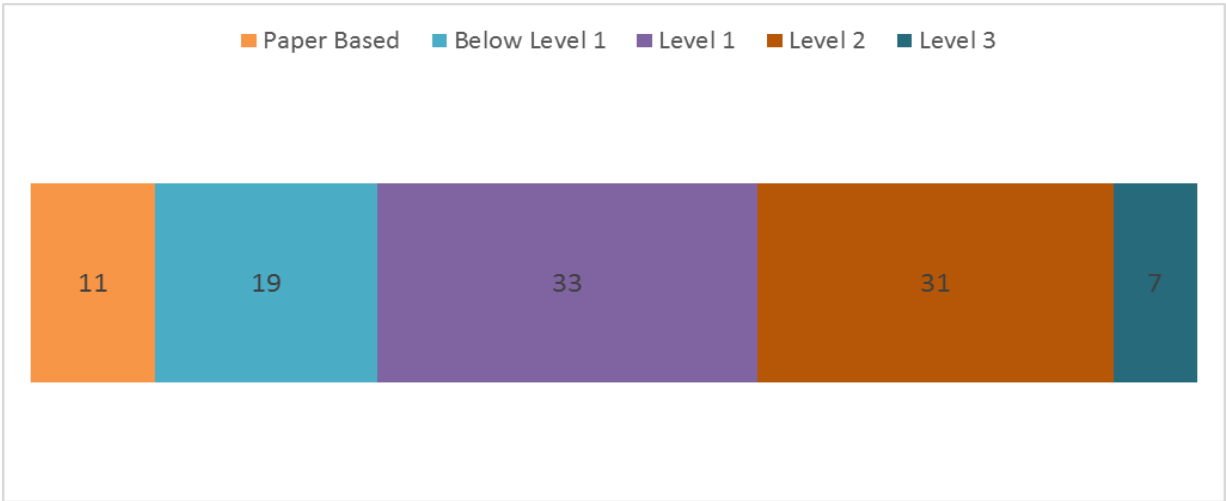
- Literacy skills in the Auckland Pasifika population have increased from 2006 to 2014
- Numeracy scores have remained steady
- 25% of the Pasifika population undertook the paper based assessment

Changes in skills for Asians in Auckland

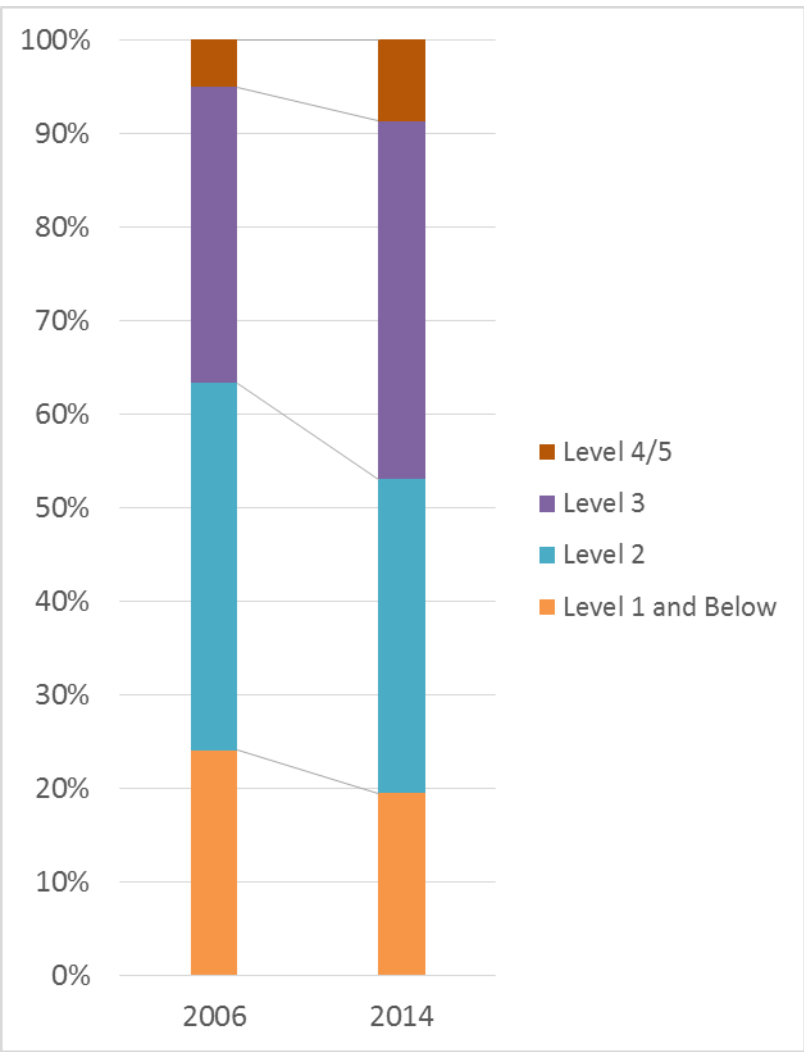
Average Scores



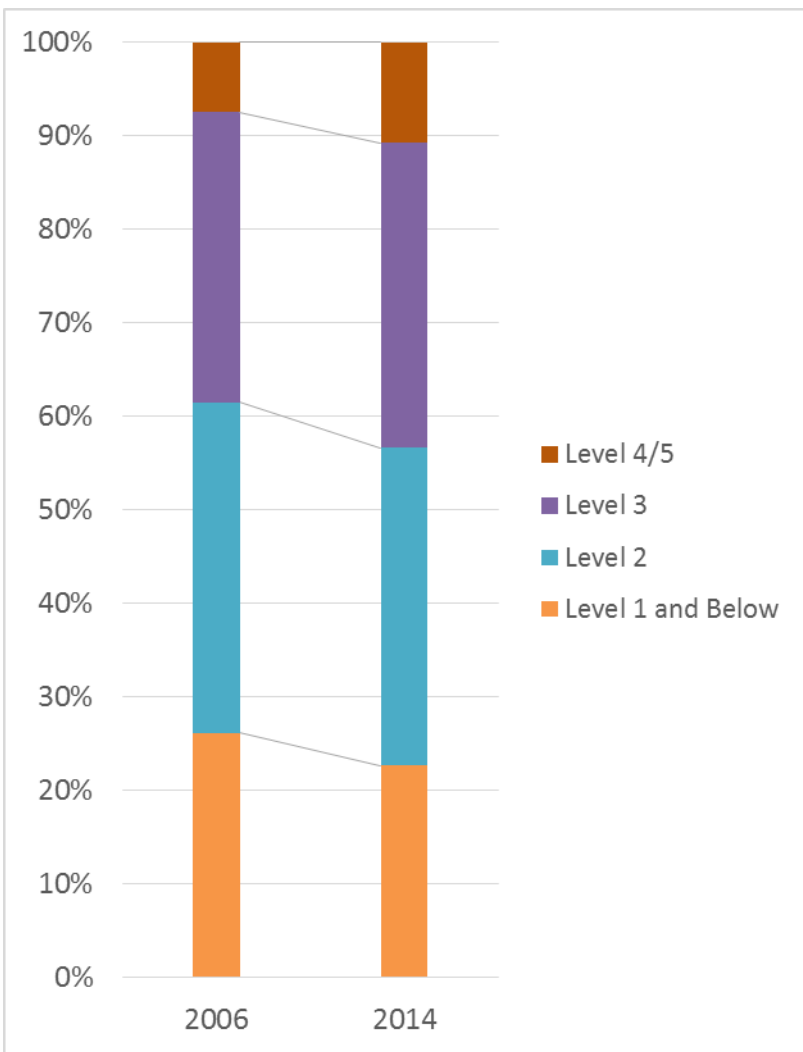
Problem solving skills



Literacy skills



Numeracy skills



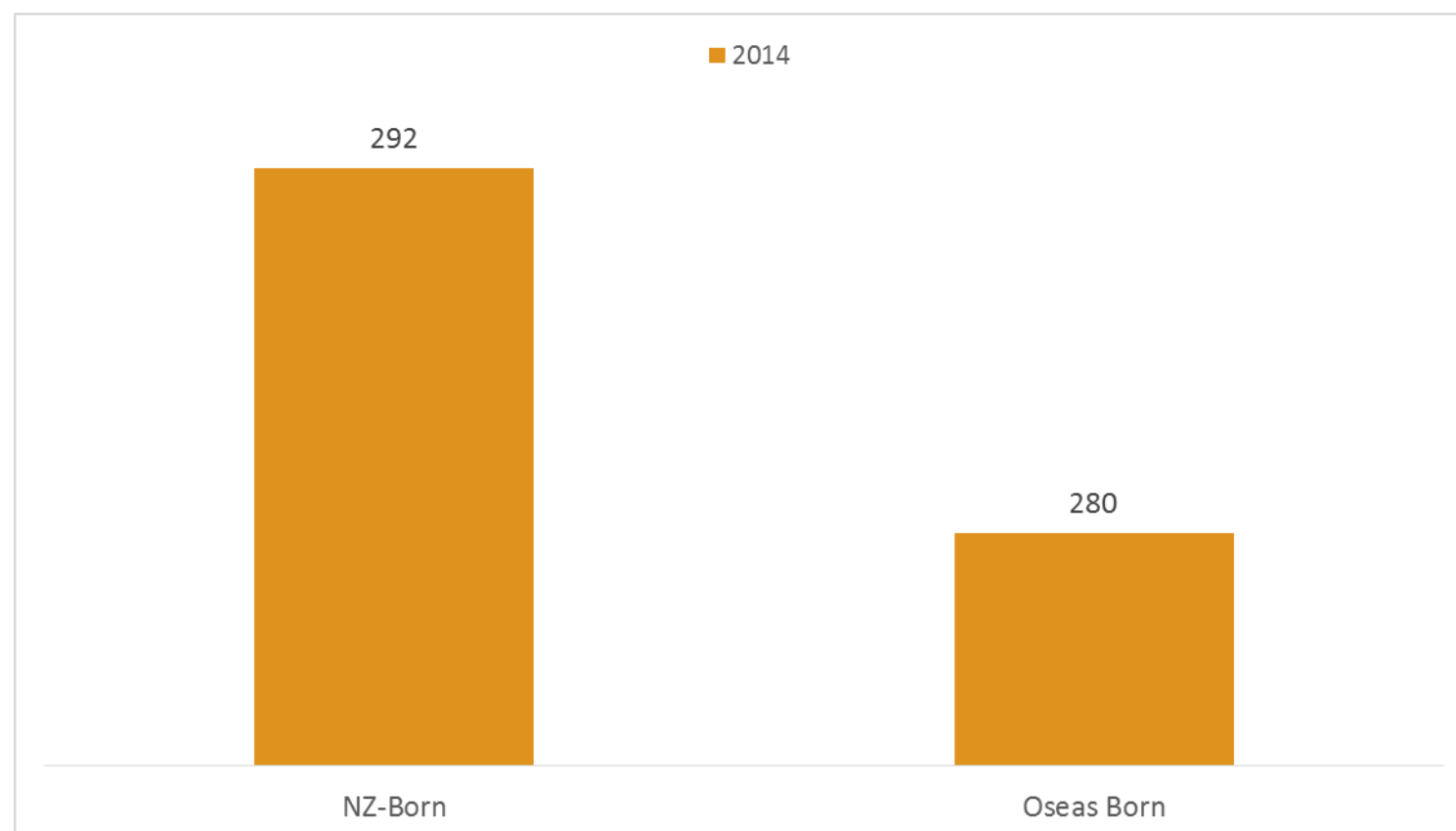
Skills in literacy and numeracy have increased significantly for Asians in Auckland from 2006 to 2014

Skills and Migration

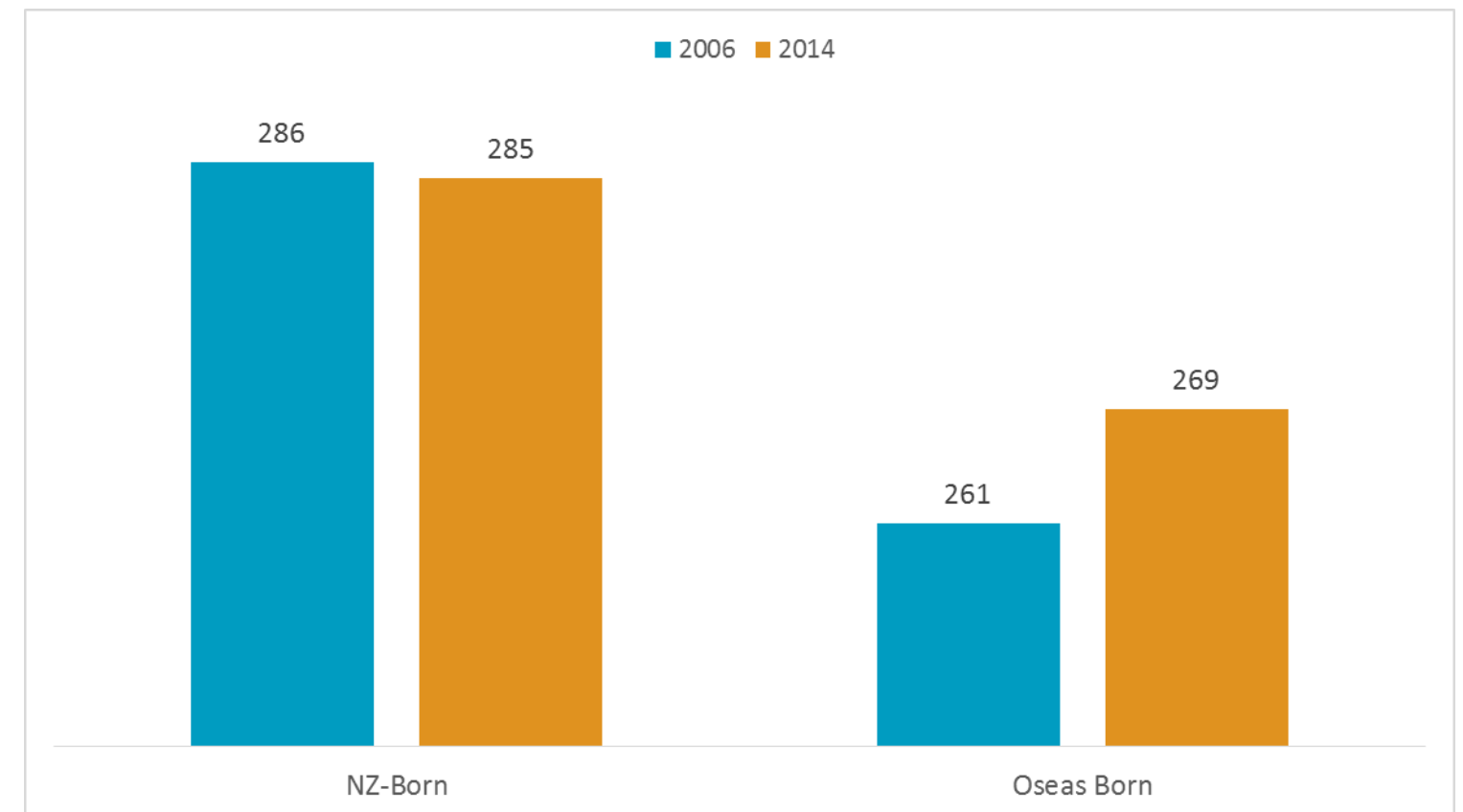
Literacy and Numeracy Scores for Overseas-born Aucklanders

- Literacy and numeracy skill have improved from 2006 for Aucklanders born overseas
- Literacy, numeracy and problem solving skills are lower for overseas born Aucklanders than people born in New Zealand – however, the gap is narrowing in both literacy and numeracy

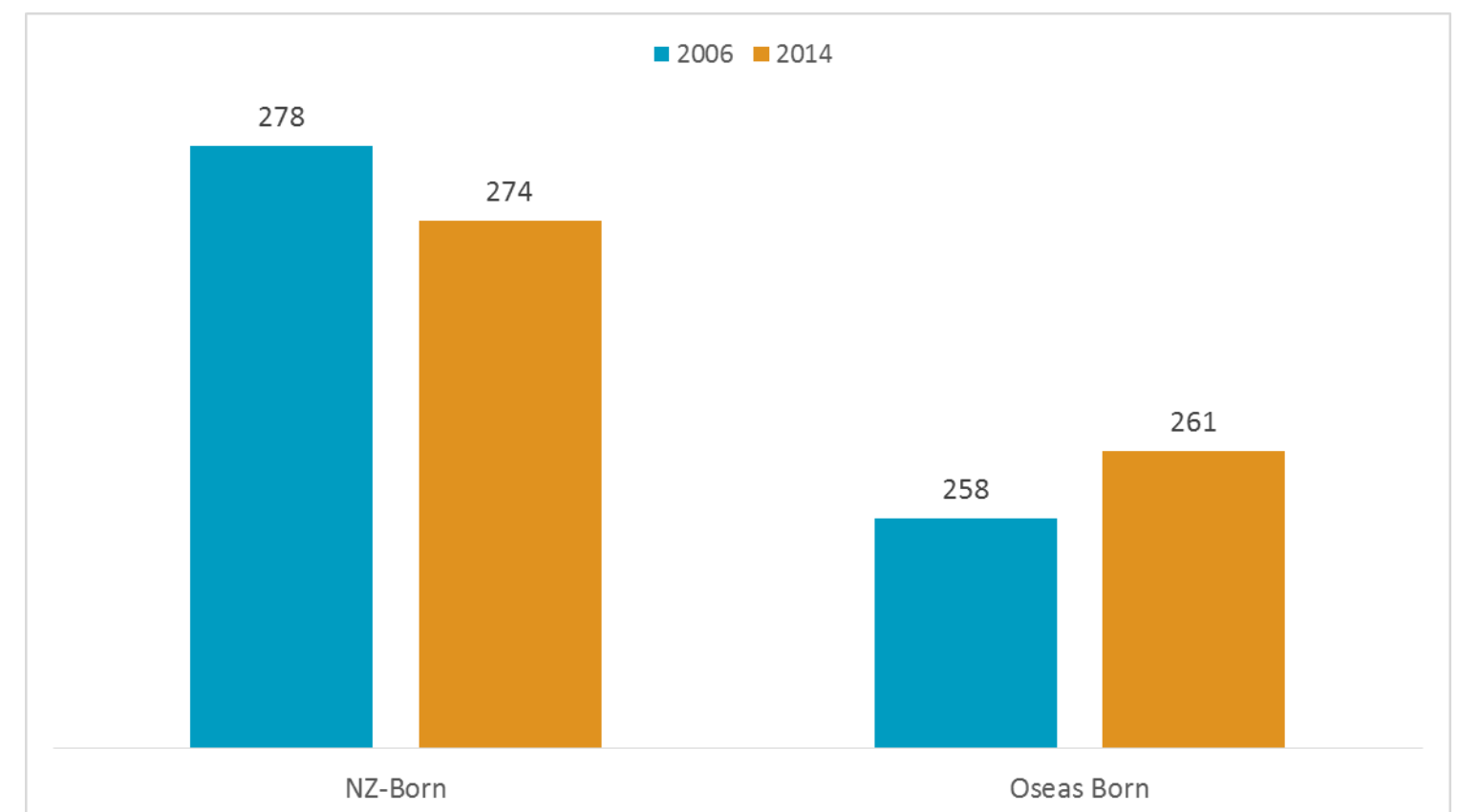
Problem solving skills



Literacy skills



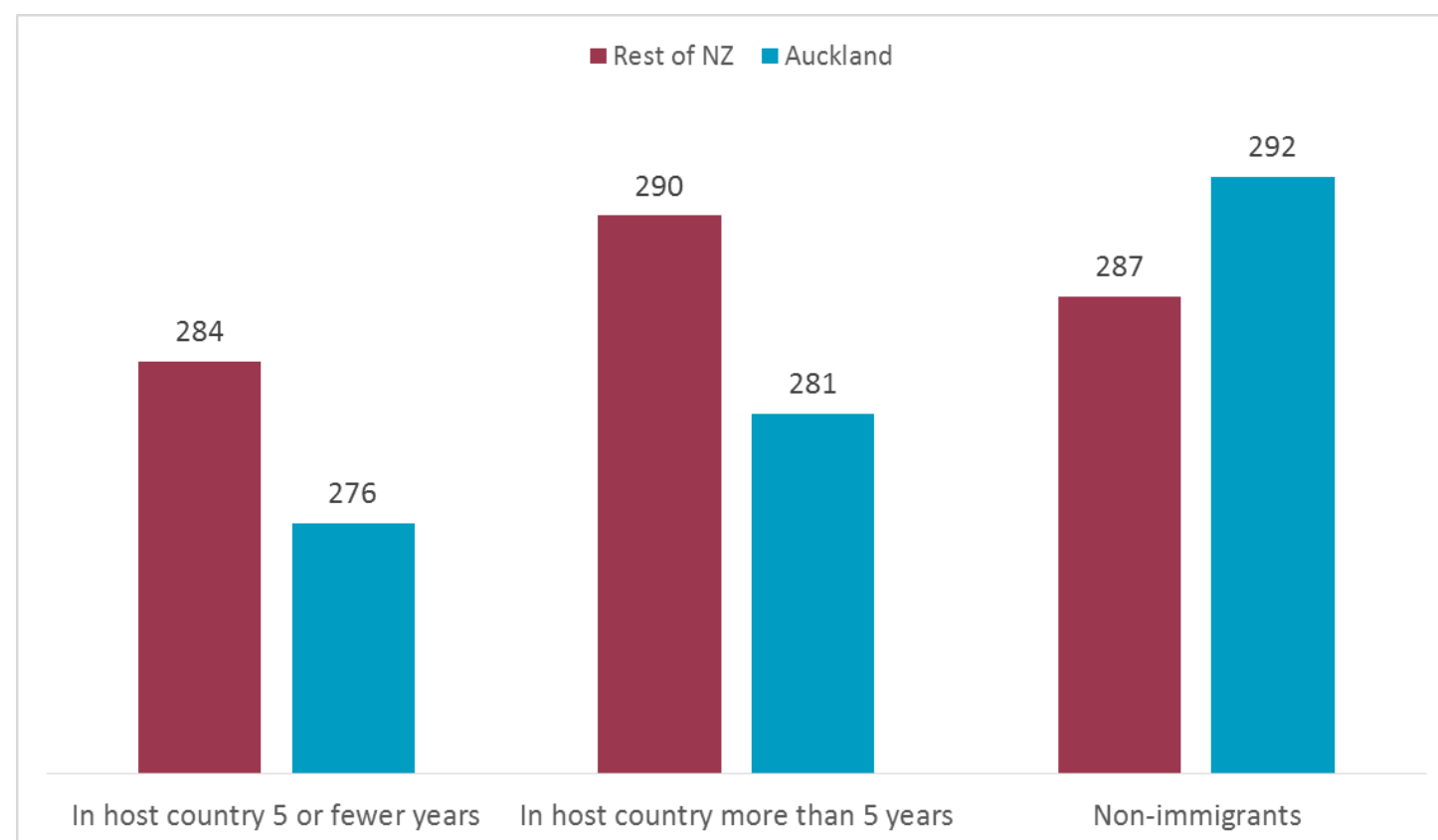
Numeracy skills



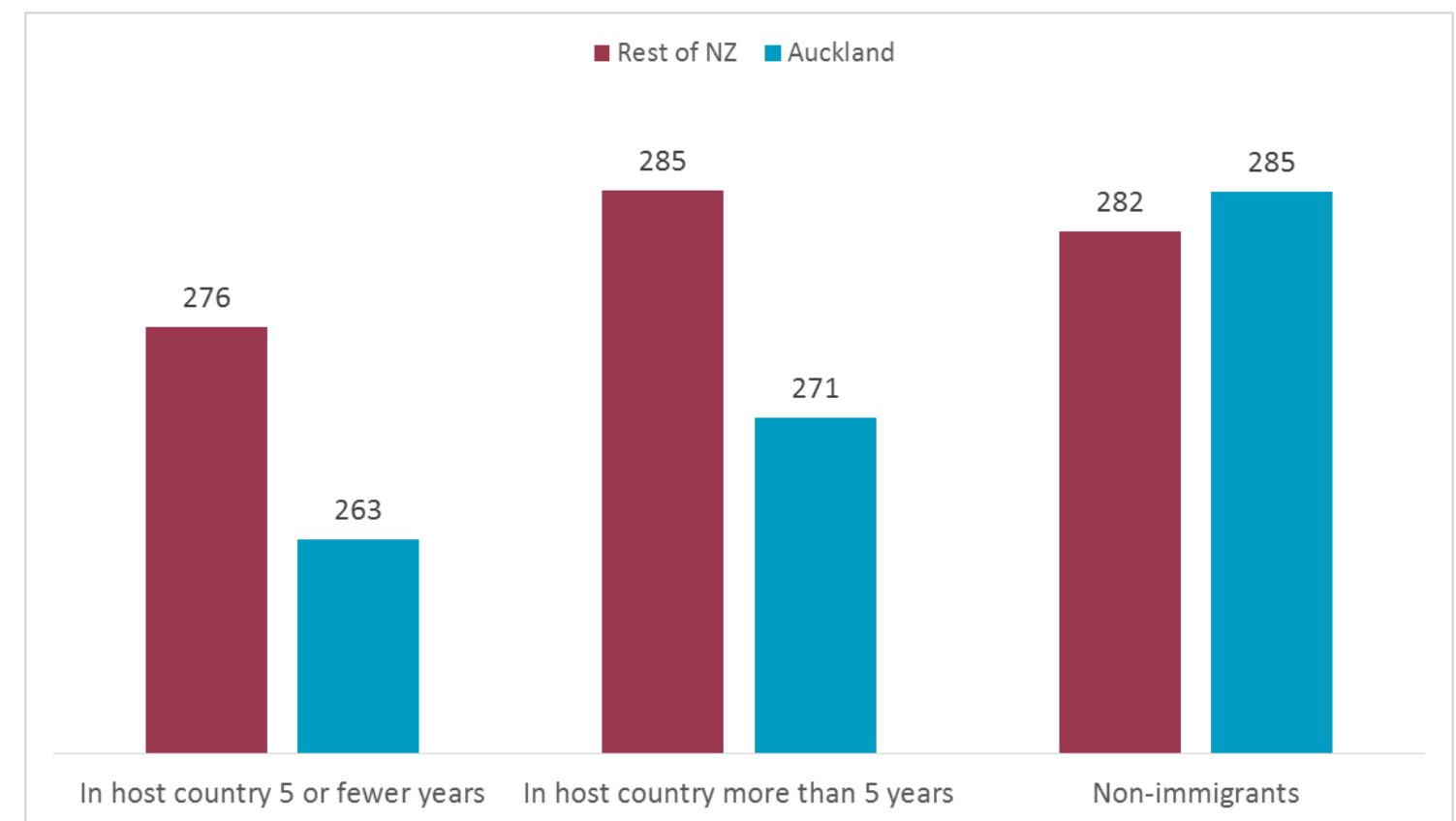
Auckland migrants have lower skill levels than migrants in the rest of NZ

Skill levels of migrants in Auckland are lower than they are for migrants in the rest of New Zealand, particularly those who have been in the country for five years or less

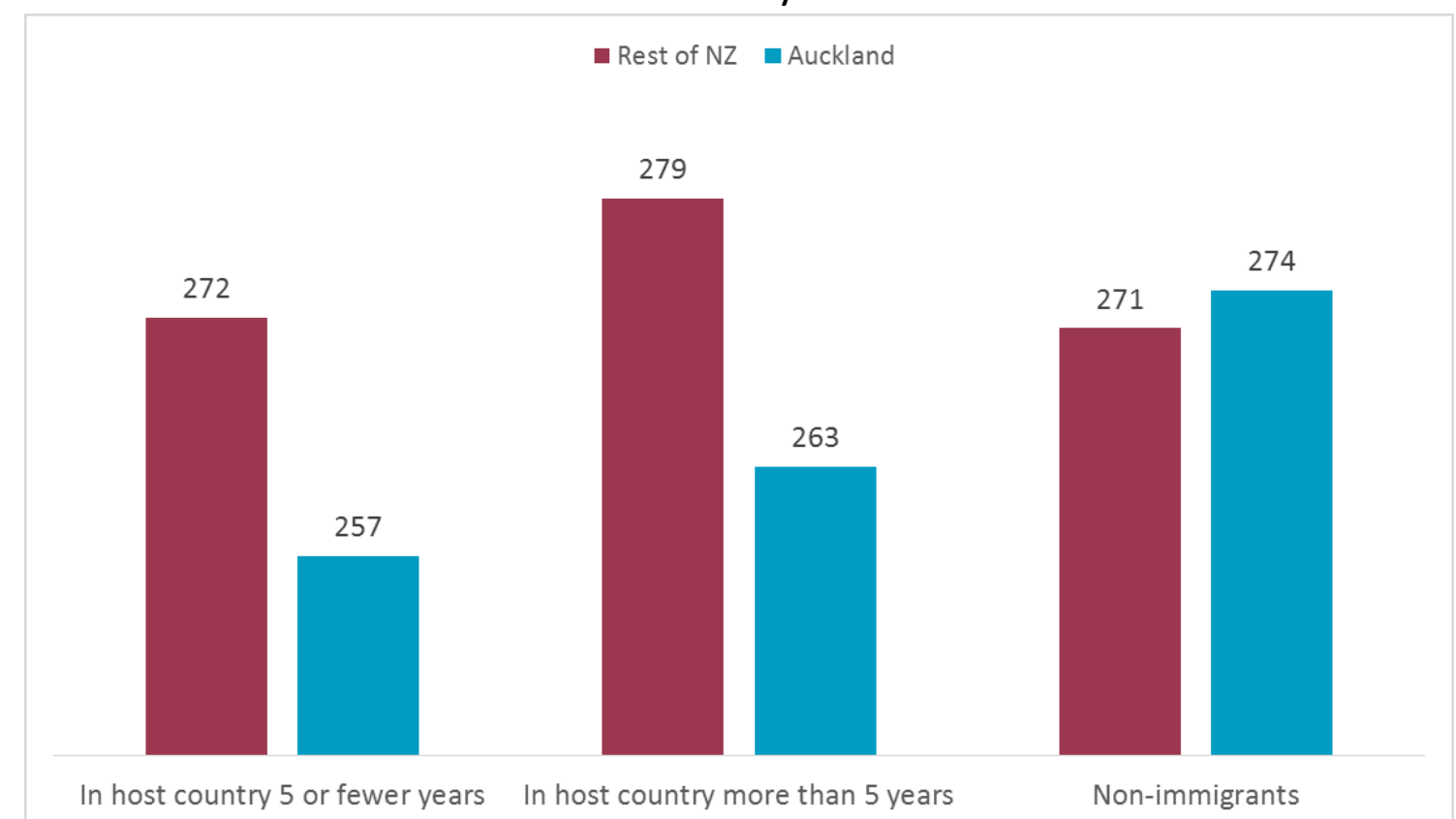
Problem solving skills



Literacy skills

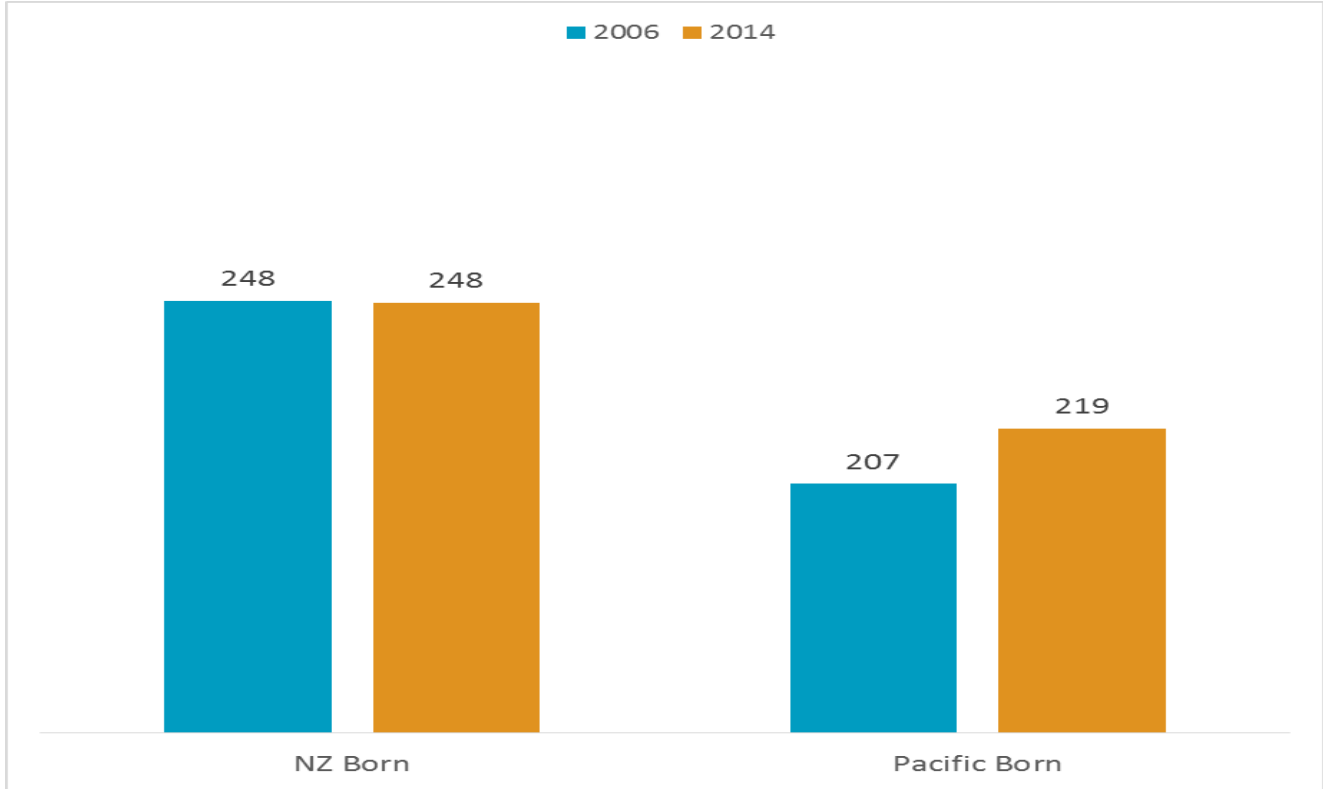


Numeracy skills

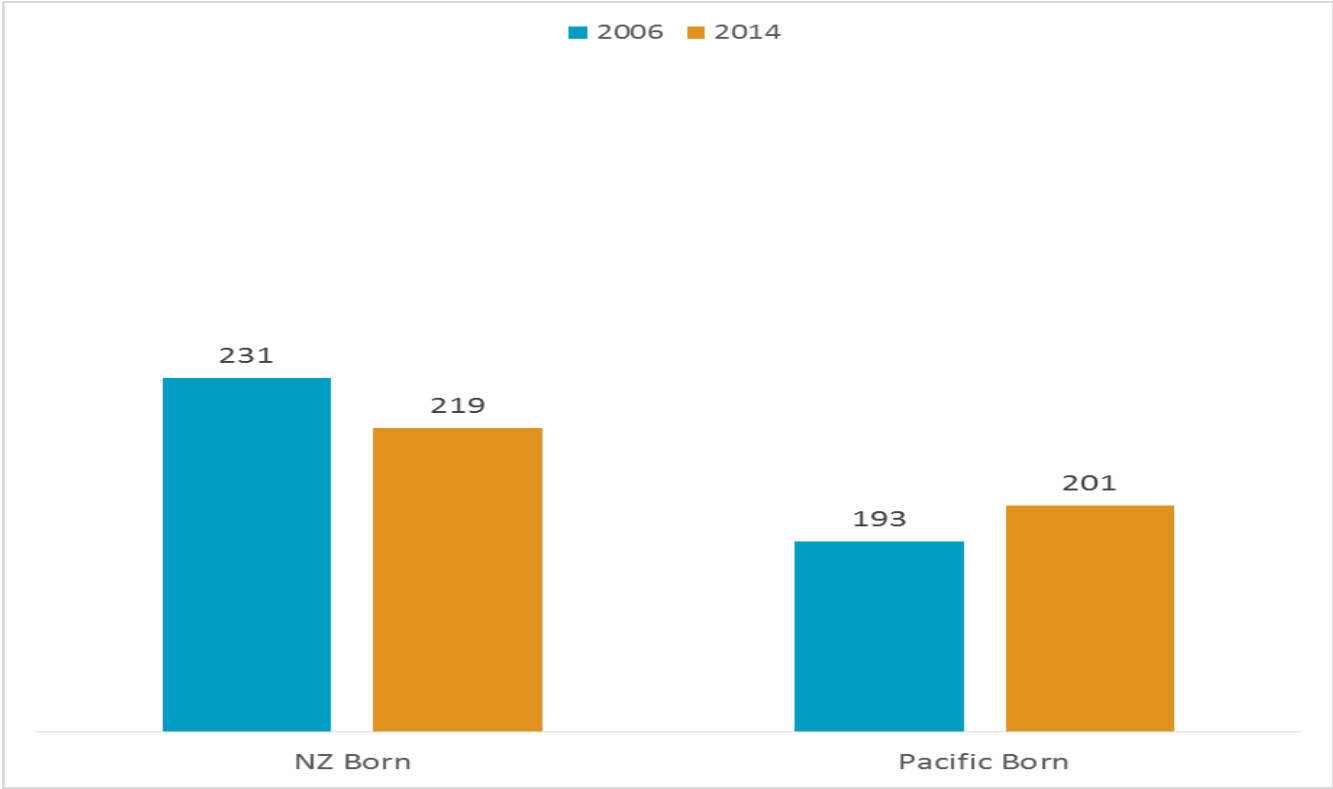


Skill levels of overseas-born non-English speakers in Auckland have improved over time

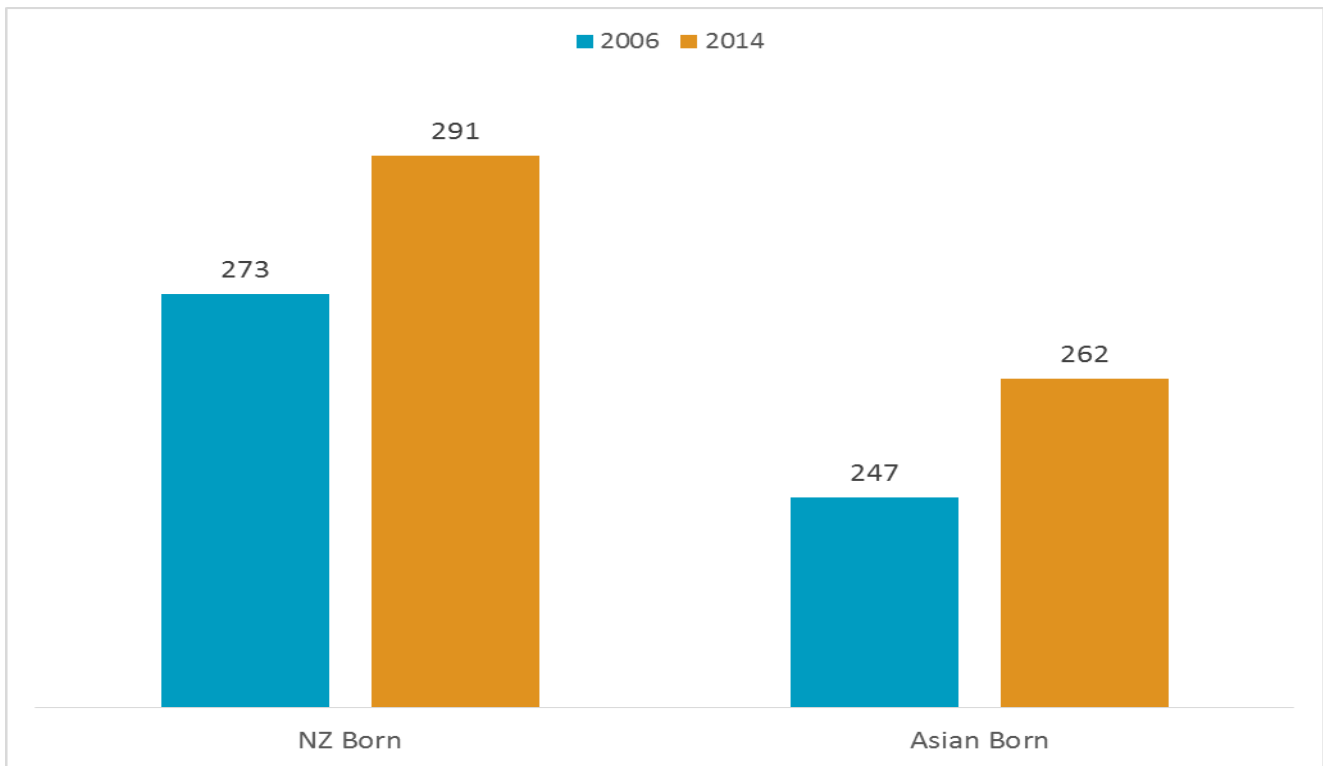
Literacy skills of Pasifika people with first language other than english



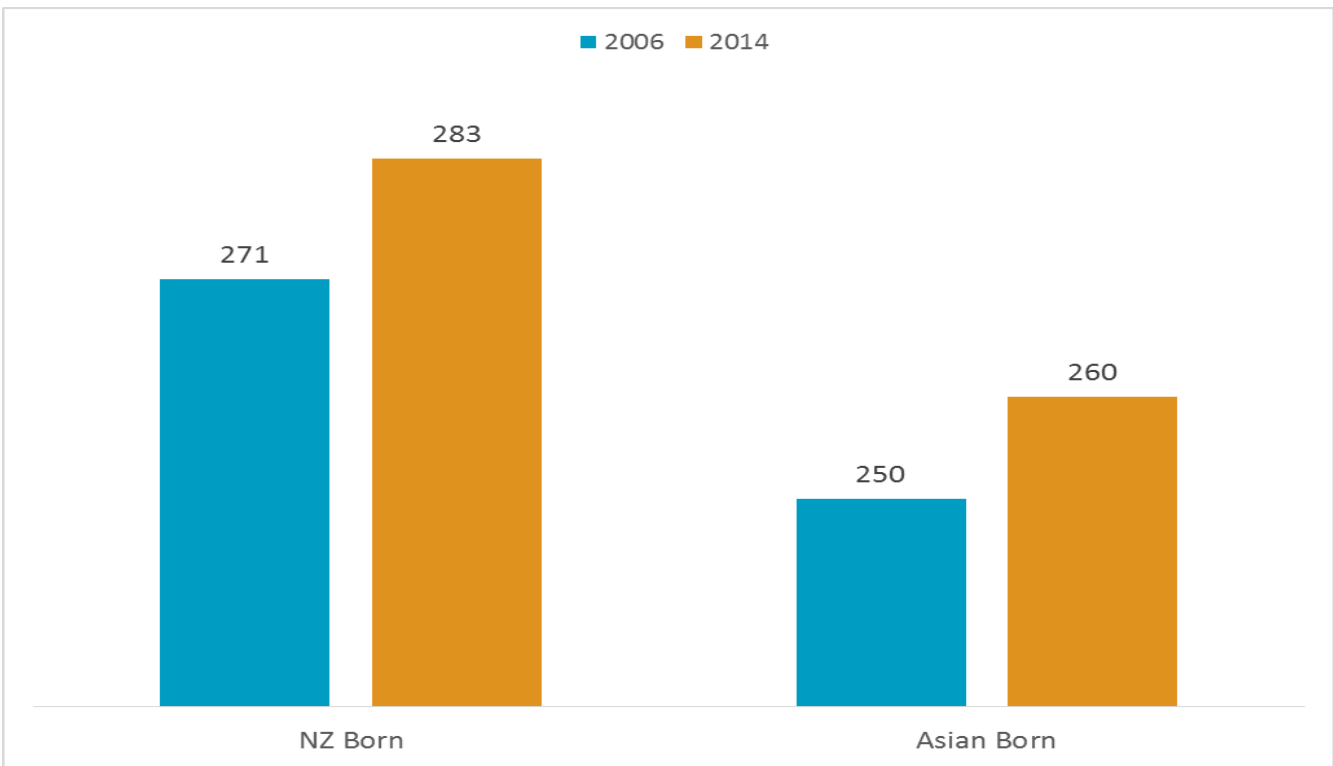
Numeracy skills of Pasifika people with first language other than english



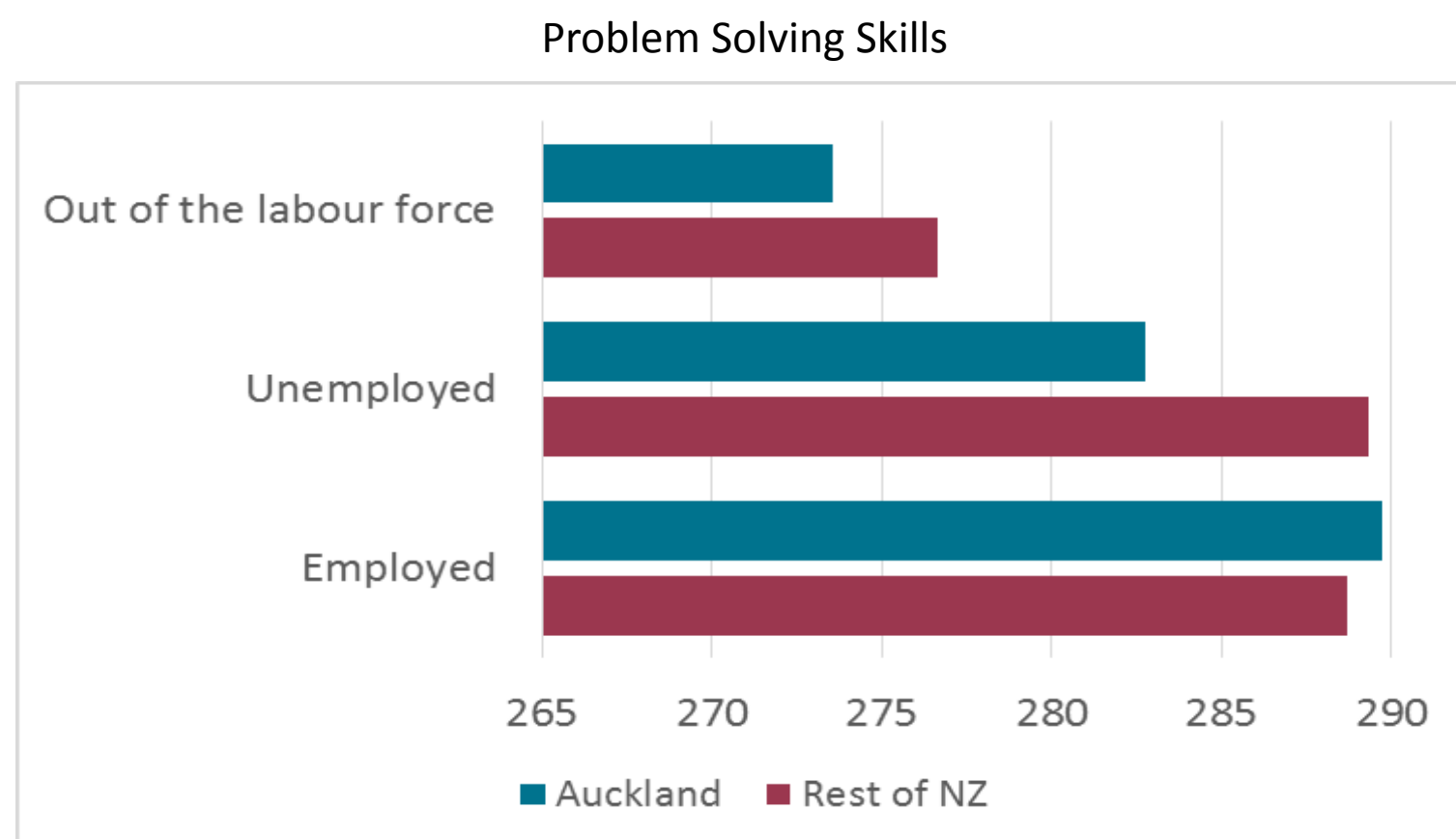
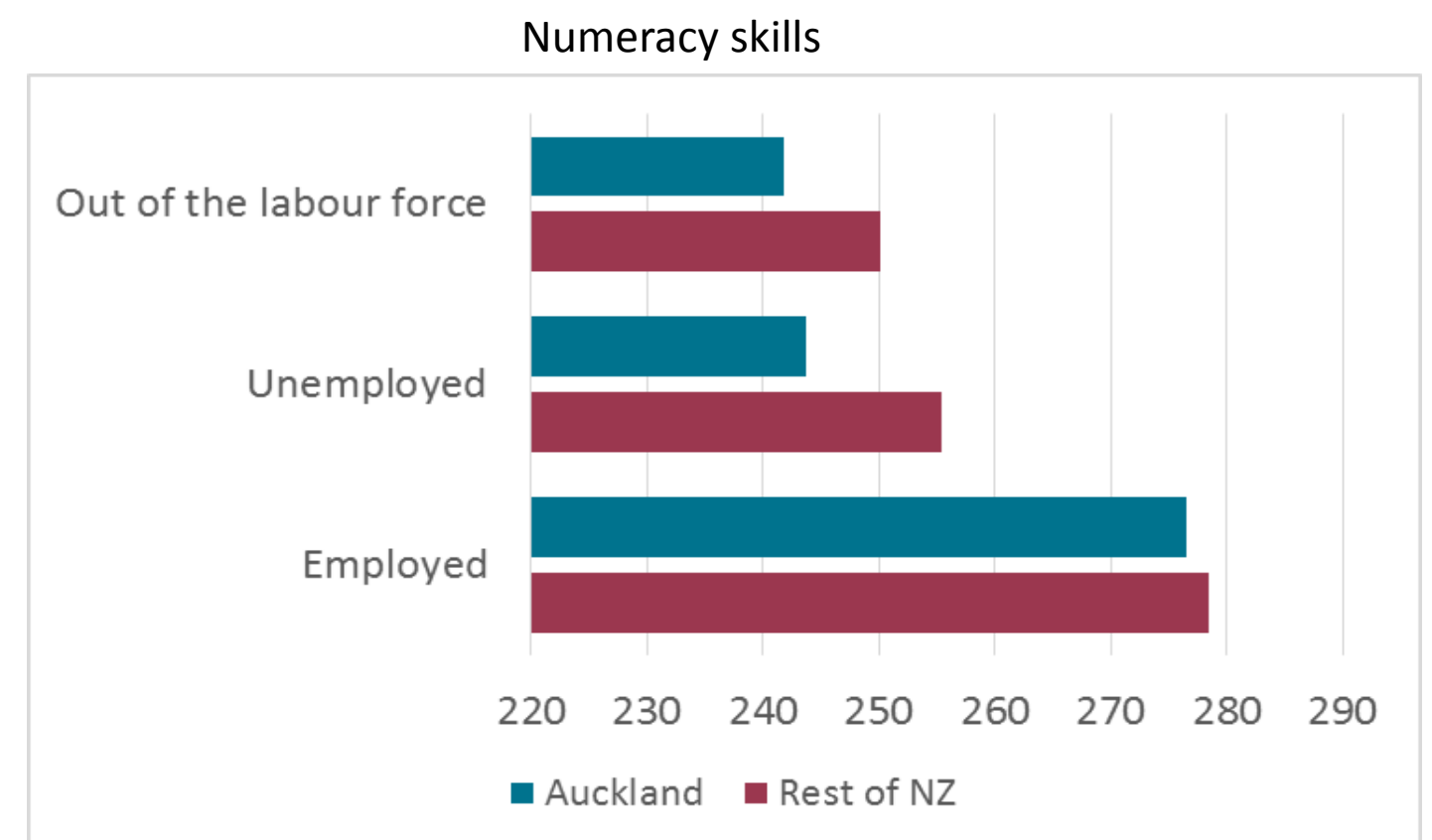
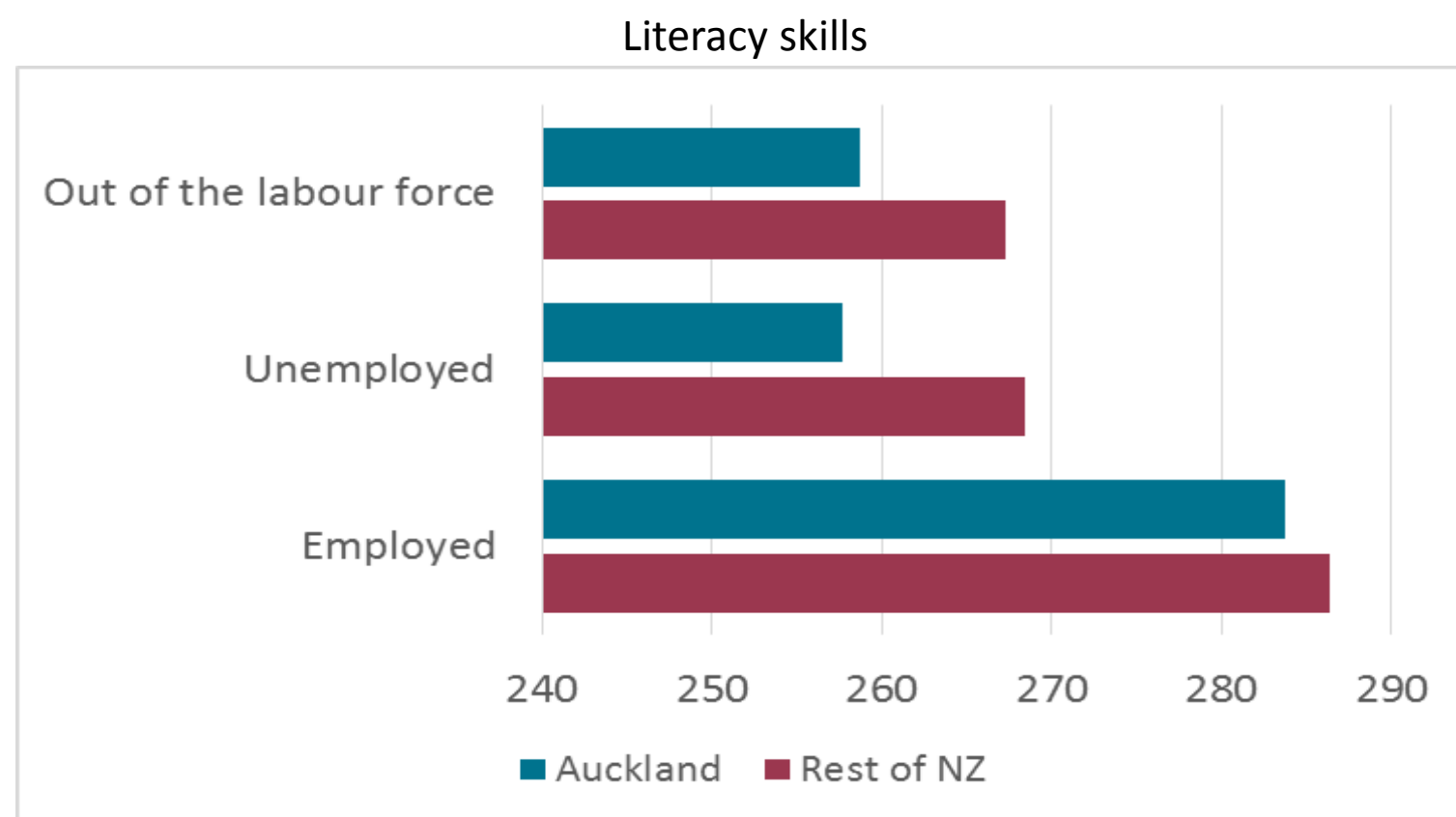
Literacy skills of Asian people with first language other than english



Numeracy skills of Asian people with first language other than english



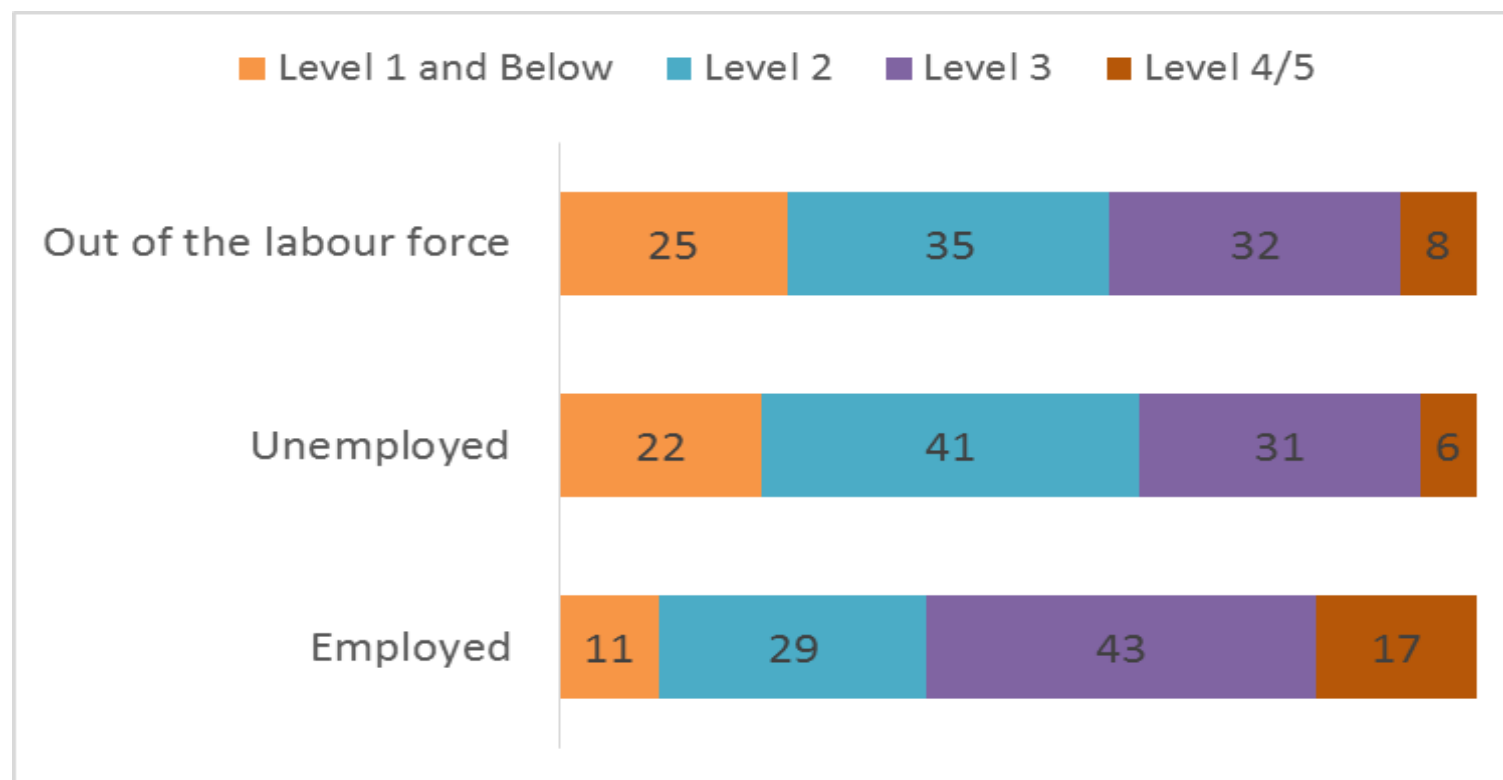
Skills and Work in Auckland



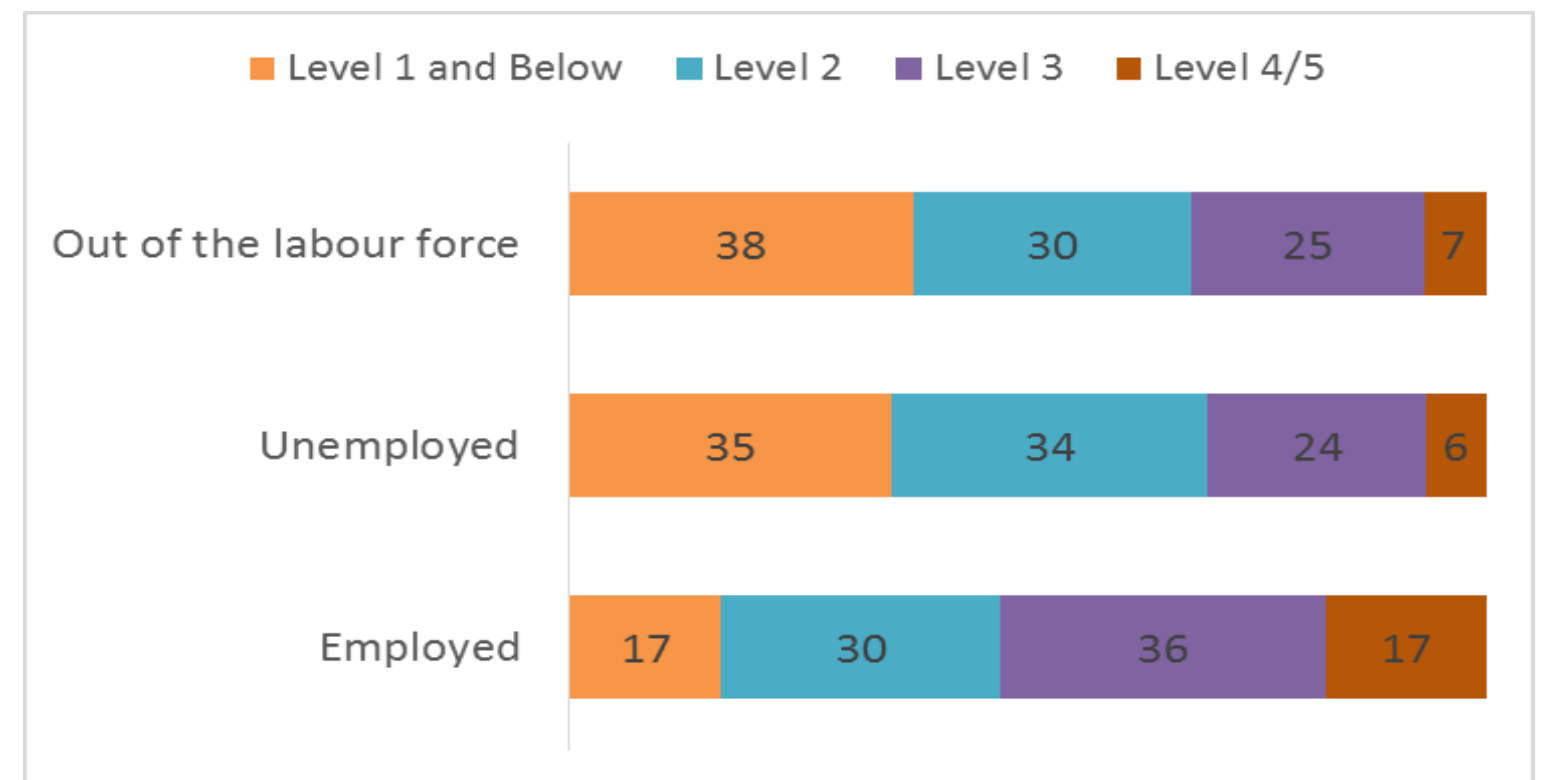
- Differences in skill levels between Auckland and the rest of New Zealand are greatest for people who are unemployed or not in the labour force
- The skill levels for employed Aucklanders are similar to the employed population in the rest of New Zealand

Labour Force Status and skill levels in Auckland

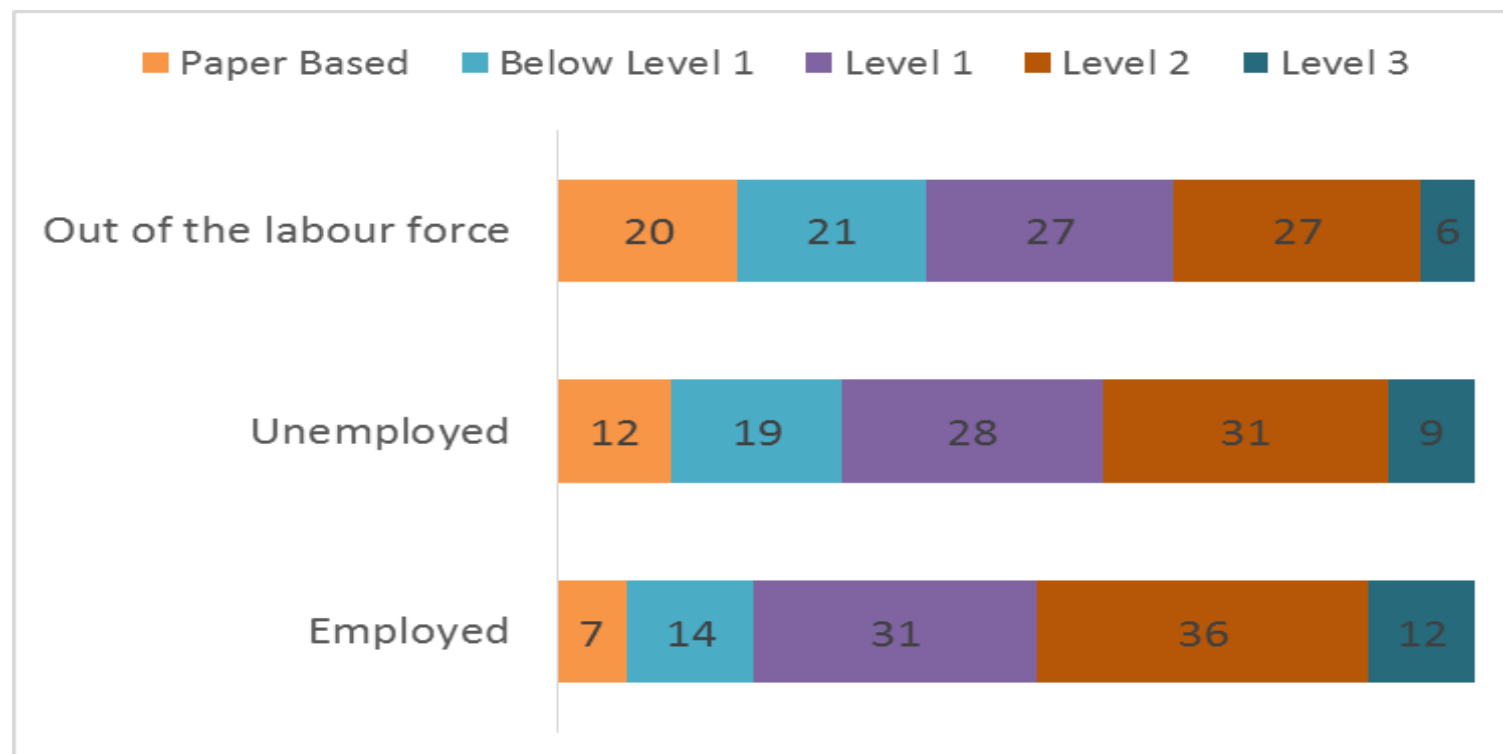
Literacy skills



Numeracy skills

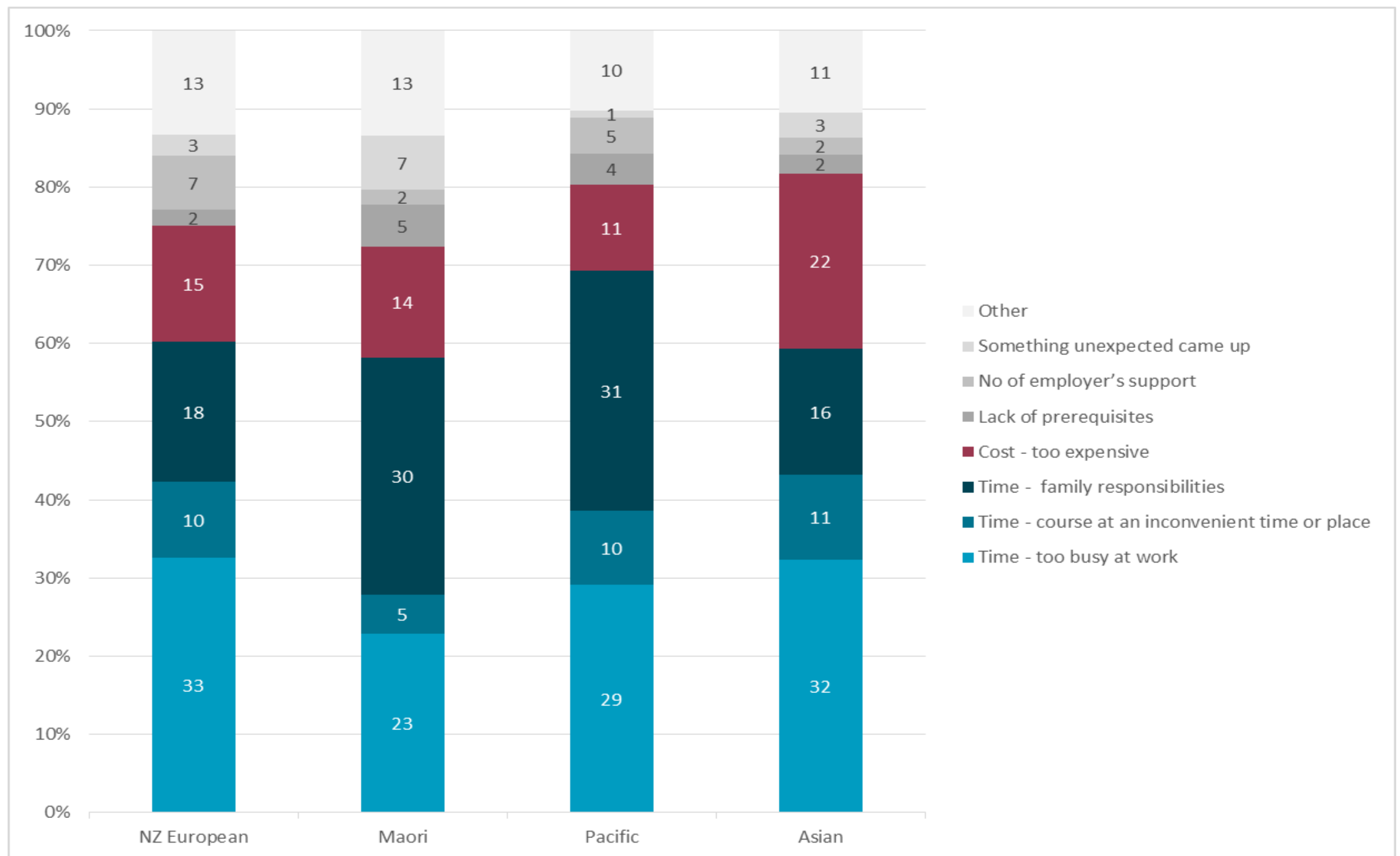


Problem Solving Skills



- Employed Aucklanders are much more likely to have higher levels of literacy, numeracy and problem solving skills than those who are unemployed or out of the labour force
- 20% of Aucklanders who are not in the labour force did not undertake the computer based assessment

Differences between ethnic groups in Auckland for barriers to further training



Questions