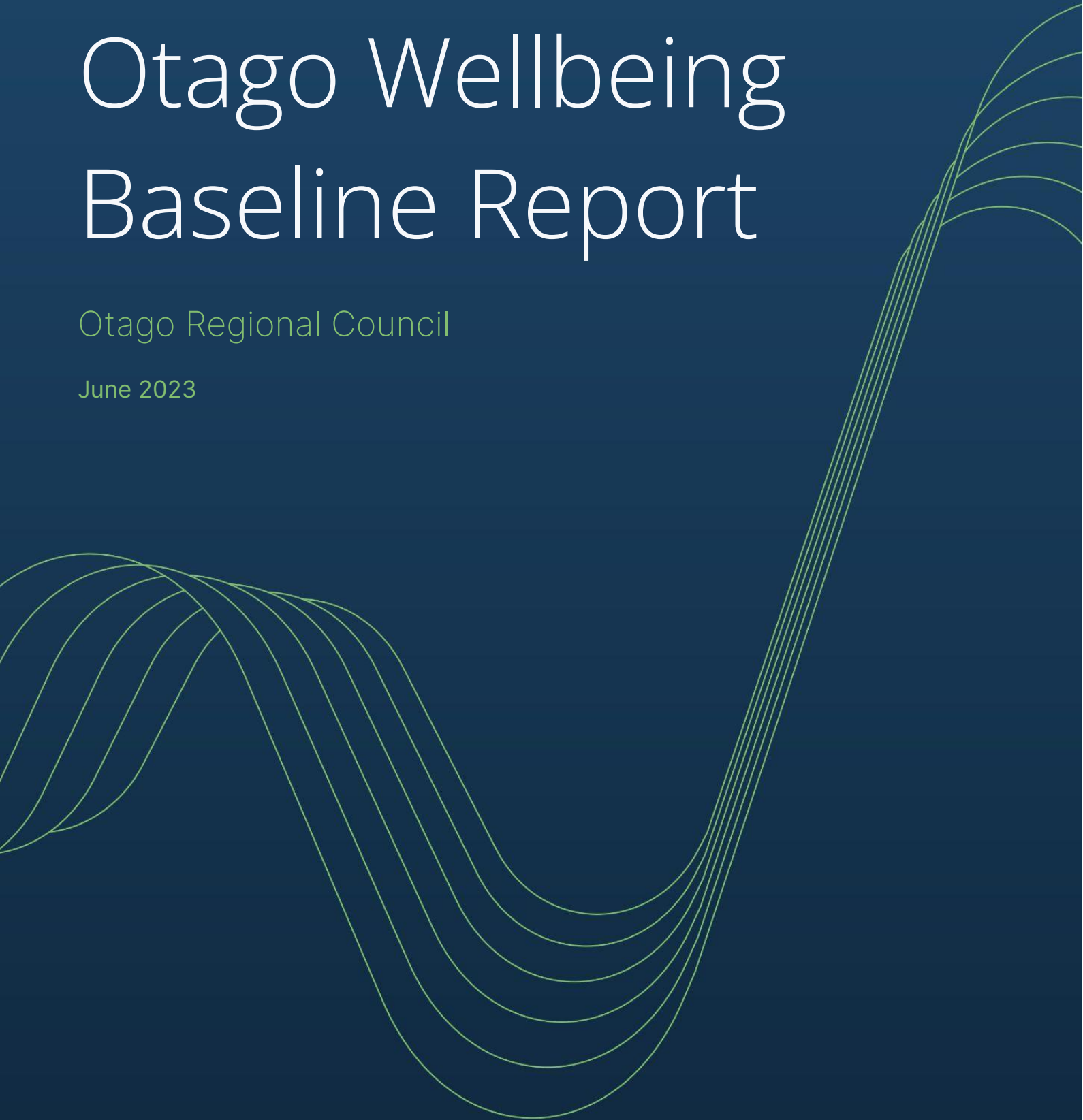




# Otago Wellbeing Baseline Report

Otago Regional Council

June 2023





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# 1. Executive Summary

The Otago Regional Council is working towards better understanding the environmental, cultural, social, and economic wellbeing of the Otago community. It has developed a Wellbeing Framework for Otago to help gain a comprehensive understanding of wellbeing in the region and also a regional programme to monitor it. Otago's Wellbeing Framework centres around seven dimensions of wellbeing and includes 33 indicators as a way to measure outcomes in the region.

This initiative reflects a growing expectation, from communities and central government, for councils to actively promote community wellbeing and consider a wellbeing perspective within everything they do. Getting an overview of community wellbeing in the region is essential to meeting these expectations and reflects a legislative responsibility under the Local Government Act. It is a fundamental duty imposed on local governments to prioritise and promote the overall wellbeing of their communities.

Dot Loves Data was engaged to collect data, at the local, regional and national level, from a range of identified sources to complete a baseline wellbeing report for the Otago Region and its constituent territorial authorities. The report includes data for:

- New Zealand
- Otago Region
- Clutha District Council
- Central Otago District Council
- Dunedin City Council
- Queenstown Lakes District Council
- Waitaki District.

This report presents data with simple and accessible analysis for each of the 33 indicators, for all available areas and provides an overall summary of wellbeing in the region compared to the national score. We have developed Dimension Scores, which are a combination of normalised indicators within each dimension, and are designed to provide aggregate scores for Otago compared with the optimal wellbeing of any region or district.



As the report outlines, the Otago Region has a strong current baseline from which future performance can be monitored. Otago communities are filled with healthy and fulfilled people, with a good standard of living. The Otago Region has a strong sense of belonging and identity and strong levels of participation and governance. There are areas that could benefit from monitoring and additional support which include Otago's natural environment, strengthening the connectedness of communities and enabling the built environment.

By publicly monitoring wellbeing outcomes, the Otago Regional Council and its supporting organisations ensure transparency and accountability in their efforts to strengthen their commitment to the Otago community by accelerating progress towards sustainable and inclusive wellbeing for all.

This Baseline report is an initial iteration of the development of a Wellbeing Framework for the Otago Region. We anticipate the Otago Regional Council can work with organisations and communities within Otago to refine and enhance the report over time to incorporate additional insights and feedback from stakeholders, ensuring its continuous improvement and relevance.



## 2. Introduction

At a regional level, the Otago Regional Council and organisations within Otago work together to advance the environmental, cultural, social, and economic wellbeing of the Otago community. To gain a more complete understanding of wellbeing in the region, the Council has launched a regional programme to monitor it. By tracking wellbeing, the Council can measure the outcomes that truly impact people, rather than just the means of achieving them. This will allow them to better understand the full range of outcomes in the region and avoid situations where gains in one area mask losses in another. The wellbeing framework will help Councils prioritise actions that have the greatest impact on the wellbeing of both current and future generations. By understanding what works for wellbeing, the programme will serve as a foundation for accelerating progress.

Promoting the environmental, cultural, social and economic wellbeing of the Otago Region is at the heart of the work by the Otago Regional Council. To be able to draw a more comprehensive picture of wellbeing in Otago, the Council has initiated a regional wellbeing monitoring programme. The wellbeing monitoring programme aligns with the Council's 2021 Strategic Direction and its Long Term Plan for 2021-2031, in which the Council commits to engaging with Otago's communities to collect relevant wellbeing information that can identify any significant issues that affect wellbeing in the region and to take appropriate actions to address these.



### A Wellbeing Framework For Otago

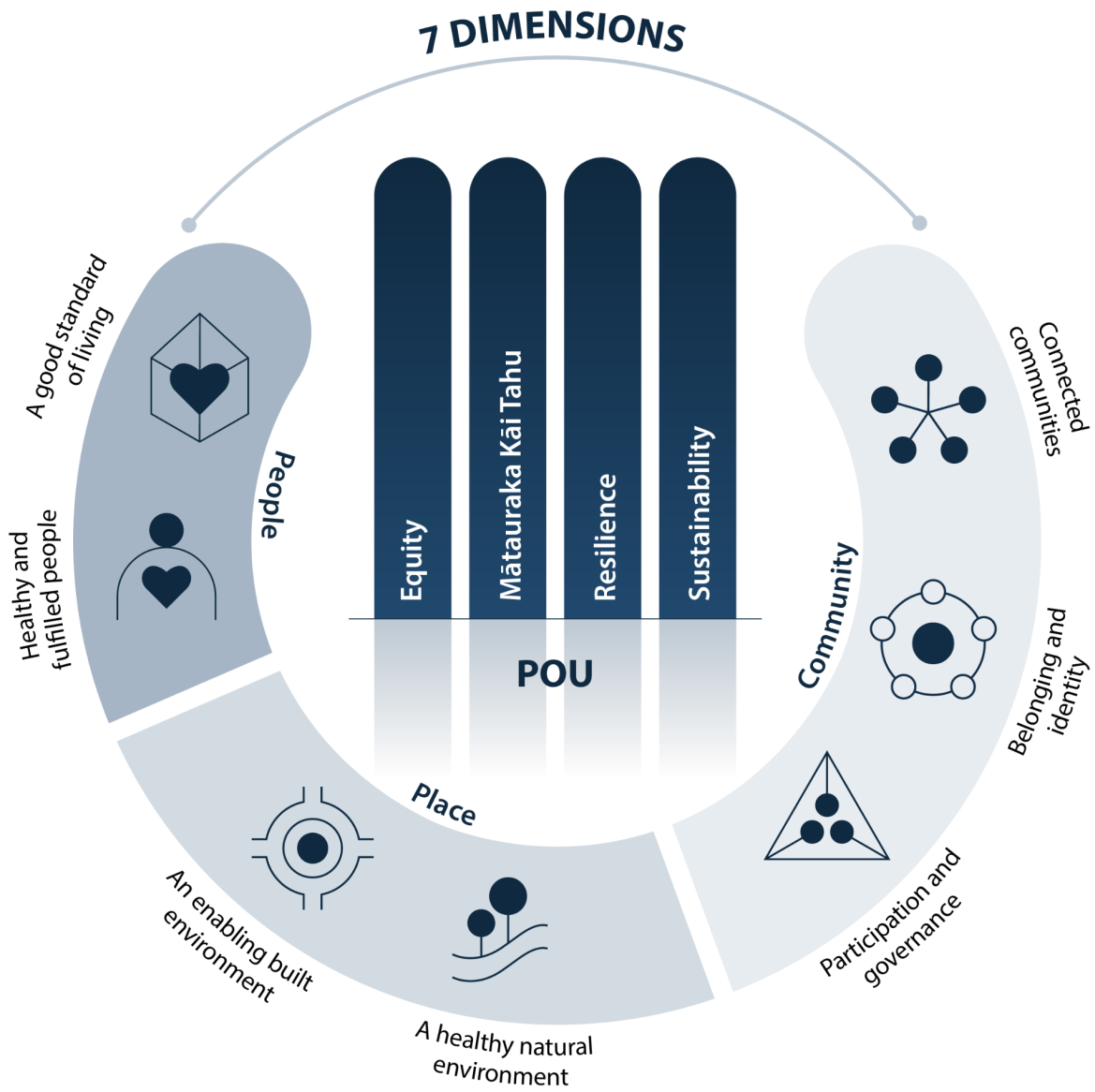


Figure 1: The Otago Wellbeing Framework



# POU

**Equity**

**Mātauraka Kāi Tahu**

**Resilience**

**Sustainability**

The four pou capture principles vital to people’s wellbeing in Otago that need to be considered across all seven dimensions of wellbeing. They address whether the distribution of outcomes is equitable, Otago’s resilience to shocks that might affect people’s wellbeing and whether levels of wellbeing can be sustained for future generations. Mātauraka Kāi Tahu informs and is reflected in all aspects of wellbeing.

## DIMENSIONS

### People

Otago people’s wellbeing matters. This is grounded both in people’s livelihoods and in other aspects of life.



**Healthy and fulfilled people**

People in Otago live safe, meaningful lives with good physical and mental health.



**A good standard of living**

People have good livelihoods, with access to quality employment and education. Individuals, families and whānau are able to prosper and support themselves.

### Community

Thriving communities are essential to people’s wellbeing both in the connections that people make and in terms of engagement and civic participation.



**Connected communities**

Communities and networks in Otago are cohesive and provide opportunities for positive social interaction and support.



**Belonging and identity**

People of all backgrounds feel a sense of belonging in Otago. People are able to practice and share culture and traditions.



**Participation and governance**

Formal and informal governing bodies function effectively through active and diverse engagement.

### Place

The places people live, work, and explore - both natural and built - set the parameters for how people are able to live their lives.



**A healthy natural environment**

The Māori of Otago’s taiao is respected and preserved. Otago’s air, water, land, and biodiversity is healthy and its natural beauty endures.



**An enabling built environment**

Spaces, connections, and infrastructure empower people to live well.

Figure 2: The Four Pou and 7 Dimensions of the Wellbeing Framework



## Seven Dimensions of Wellbeing

For the purposes of monitoring wellbeing in Otago, seven outcome areas (wellbeing domains) have been identified along with four pou that cut across all aspects of wellbeing. These are referred to as the seven dimensions, which are:

1. **Healthy and fulfilled people:** People in Otago live safe, meaningful lives with good physical and mental health;
2. **A good standard of living:** People have good livelihoods, with access to quality employment and education. Individuals, families and Whānau are able to prosper and support themselves;
3. **Connected communities:** Communities and networks in Otago are cohesive and provide opportunities for positive social interaction and support;
4. **Belonging and identity:** People of all backgrounds feel and sense of belonging in Otago. People are able to practise and share culture and tradition;
5. **Participation and governance:** Formal and informal governing bodies function effectively through active and diverse engagement;
6. **A healthy natural environment:** The mauri of Otago's taiao is respected and preserved. Otago's air, water, land, and biodiversity is healthy and its natural beauty endures;
7. **An enabling built environment:** Spaces, connections, and infrastructure empower people to live well.

## Four Cross Cutting Pou

Four cross-cutting pou underpin the seven dimensions of wellbeing in the Otago Wellbeing Framework. The four pou are not distinct dimensions of wellbeing but are principles or ways of looking at wellbeing that cut across the seven dimensions. The four Pou are:

### **1. Equity**

The equity pou reminds us that it is not just the overall level of wellbeing in the Otago population that matters, but also its distribution among groups in the population. Equity means that people and communities have access to the support appropriate to their needs and that this is reflected in the distribution of wellbeing outcomes in Otago.

### **2. Mātauraka Kāi Tahu**

The Mātauraka Kāi Tahu pou recognises the importance of the knowledge, values and worldviews of Kāi Tahu, as mana whenua for the Otago Region, across all aspects of wellbeing. It means that the traditional knowledge and values of Kāi Tahu inform and are reflected in all aspects of wellbeing. At a practical level it means thinking about outcomes from the perspective of Kāi Tahu





across all of the seven wellbeing domains and ensuring that outcome measures are available for those aspects of wellbeing that are important to Kāi Tahu.

### **3. Resilience**

The resilience pou looks at the degree to which levels of wellbeing are resilient to potential shocks and whether the wellbeing of people in Otago is unduly vulnerable to natural or manmade hazards. In addition, it captures whether resources are available to respond to and to support recovery from crises when they occur. This means thinking, not just about current outcomes, but about how those outcomes could change in the event of a negative shock and considering what is available to communities to help them cope in times of crisis. There may be a tension between resilience and efficiency in that the former prioritises having more resources than are needed in ordinary circumstances in order to improve the collective ability to cope with a crisis.

### **4. Sustainability**

The sustainability pou reflects the need to balance the wellbeing needs of current generations by developing a Wellbeing Framework for Otago to safeguard the wellbeing of future generations to come. It is about being good ancestors, respecting planetary boundaries and ensuring that resources are passed onto future generations in a better state than they were received. While looking after the environment is a fundamental part of sustainability, the concept goes beyond this. Sustainability is fundamentally concerned with intergenerational equity and whether future generations have been left with sufficient resources of all types to support their wellbeing.



## 3. Methodology

### Indicator Methodology

This report comprises 33 indicators of wellbeing. From the data collected on these indicators it is important to note:

- Data availability varied for national, regional and territorial authority level. Where available DOT collected data at national, Otago Region and TA level, however in some cases only national and Regional level was available and not down to a TA level.
- Date range varies across the datasets and therefore comparison dates vary throughout the report.
- Where regions or territorial authorities shared the same ranking, the minimum ranking was applied therefore two or more regions may show as first out of the regions if they are first equal.
- The total number of territorial authorities and regions included in the analysis may differ from the expected figures of 67 territorial authorities and 16 regions as the data collected from different sources might result in variations in the count of territorial authorities and regions considered in the analysis.

### Scoring Methodology

The scoring methodology used in section 4 combines the indicators within each dimension to calculate overall dimension scores. To ensure comparability across regions and time, the indicators are first normalised. Here a value of 1 represents the best wellbeing result achieved by any region or territorial authority (TA) since 2013, while a value of 0 represents the worst result in that time period. For instance, a score of 0.6 means that the dimension is 60% towards reaching the best possible result.

### Colour Scales

To showcase key areas the Otago Region and its communities are doing well in and not so well in, we have used a green, orange and red colour-coded system.

- Green: Where the Otago Region fares better than the national average. This reflects where the Otago region should continue its already outstanding efforts.



- Orange: When the Otago Region is performing at or approximate to the national average, but some other regions are performing more strongly. Here the Otago region is performing adequately, but should evaluate what the other regions are doing better at to assess whether any initiatives can be implemented to accelerate wellbeing.
- Red: This is where Otago performs below the national average and below most other regions. Otago Regional Council and its supporting organisations will need to focus on these dimensions and indicators within that to evaluate what changes can be made to increase community wellbeing.

## Time Scales

This report is a benchmark on the wellbeing of the Otago region, and serves as a foundational reference point from which further analysis and progress can be made. It brings together a comprehensive set of 33 indicators sourced from various datasets, covering a wide range of aspects and dimensions of wellbeing. It is important to note that the data for several indicators included in this report only extends up to 2018 or 2019, thus not fully capturing the potential impact of the recent tumultuous times caused by the COVID-19 pandemic. However, despite these limitations, the aggregated indicators from different time periods still provide meaningful measures of wellbeing.

More information on the approach to this report, methodology and the steps taken to calculate the scores are described in the appendix.



# 4. Overview of the Otago Region in May 2023

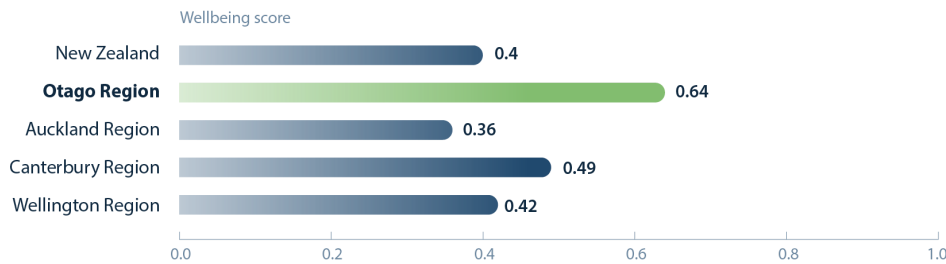


Dimension 1

## Healthy and Fulfilled People



The Otago Region performs strongly for the healthy and fulfilled people dimension. In May 2023 it is at 64% of optimal performance, which outperforms New Zealand and other regions.

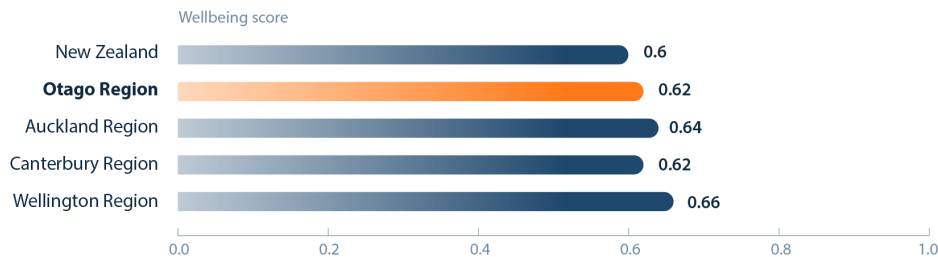


Dimension 2

## A good standard of living



Otago has a good standard of living relative to other regions and the national benchmark. However, this dimension requires monitoring because the regional GDP, median hourly earnings indicators and male NCEA level 2 attainment are underperforming.

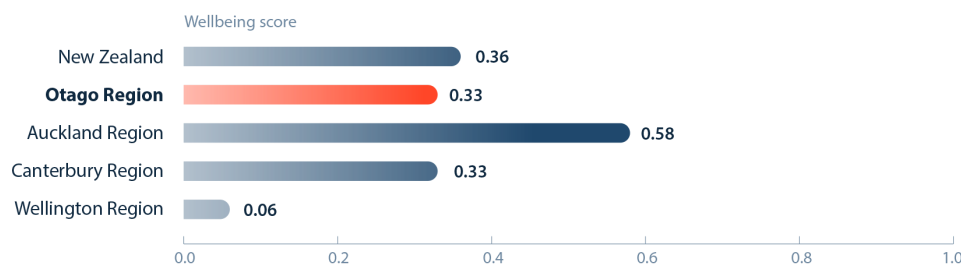


Dimension 3

## Connected communities



The Otago Region performs much lower than the national benchmark for Connected Communities. This should be a key focus area for the Otago Region to improve connection within communities.

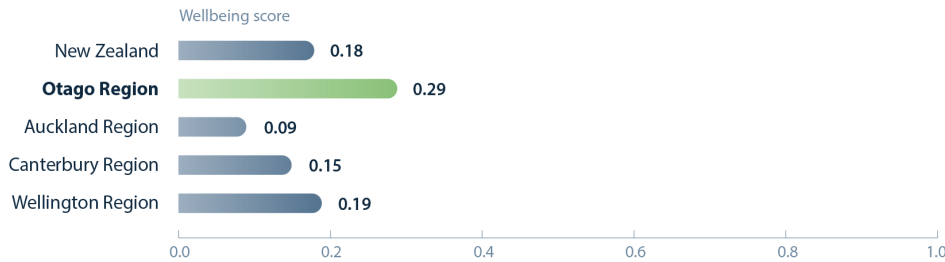




### Dimension 4 **Belonging and identity**



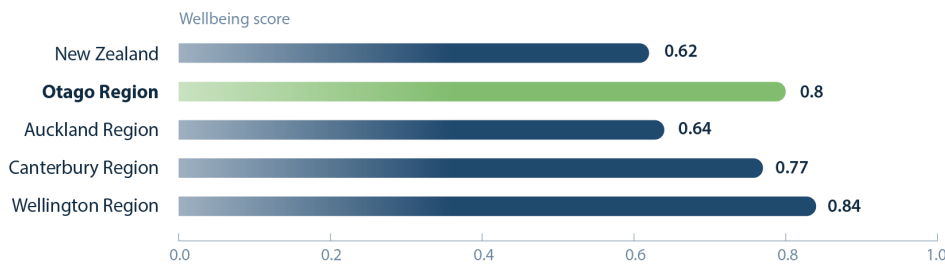
Otago has a strong sense of belonging and identity relative to National and Regional scores.



### Dimension 5 **Participation and governance**



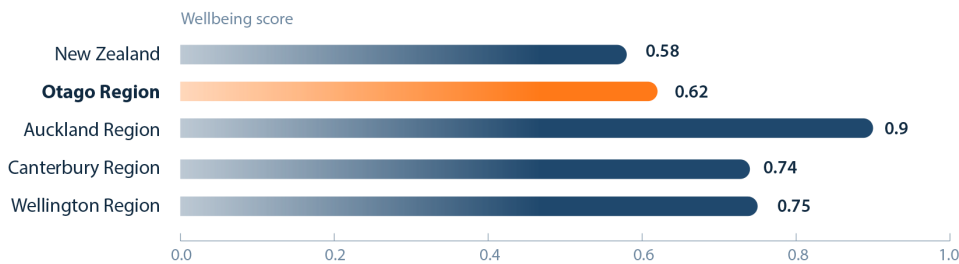
Otago Region has strong levels of participation and governance and performs at 80% of the optimal level in 2023.



### Dimension 6 **A healthy natural environment**



Otago's natural environment performs below the other main regions, but above the national average. New initiatives should be considered within this dimension.



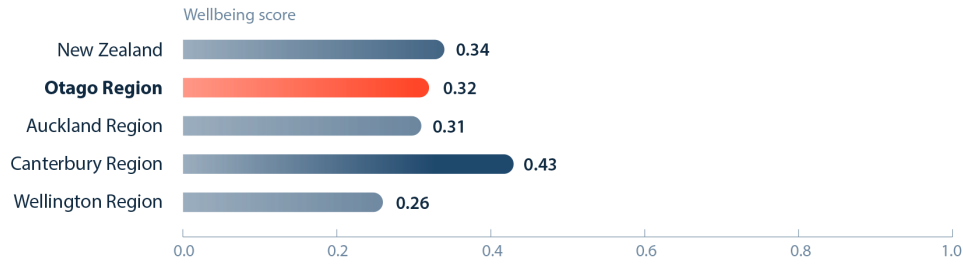


Dimension 7

## An enabling built environment



Otago's built environment performs below the National benchmark and initiatives should be considered to improve the current baseline, particularly in relation to housing.





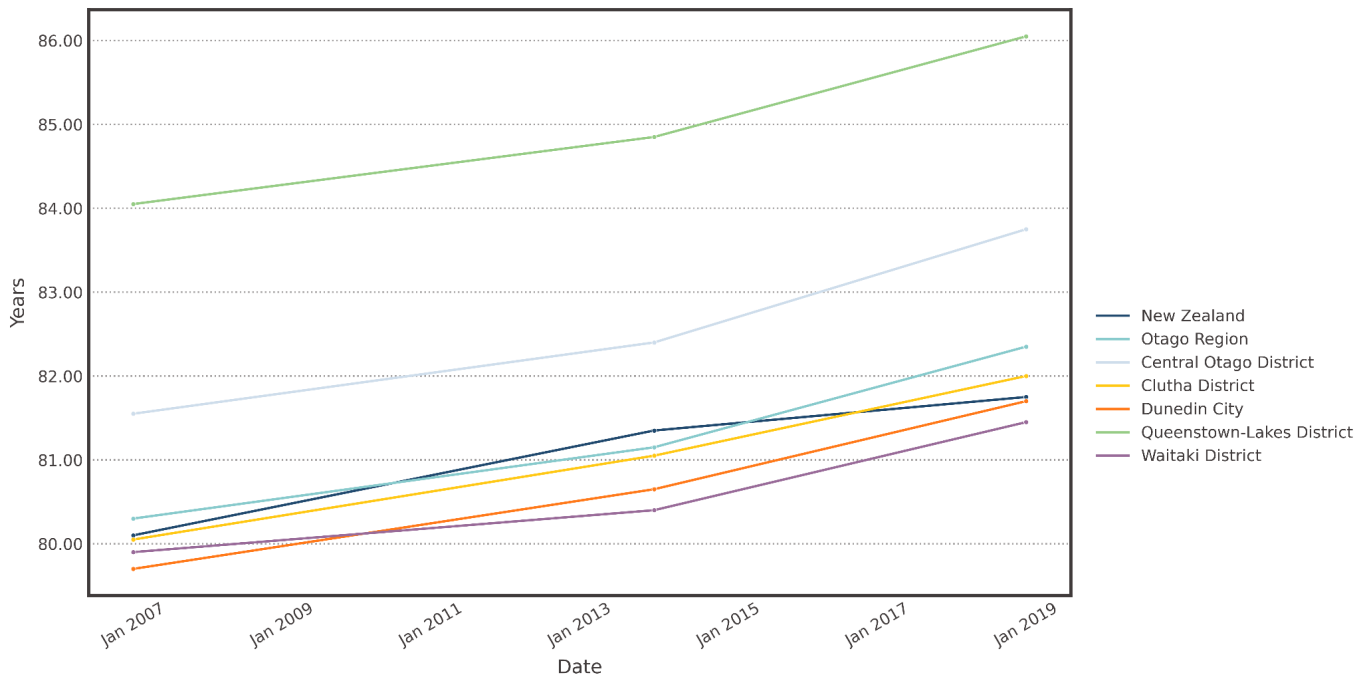
# 5. Dimension Analysis

## Dimension 1: Healthy and Fulfilled People

### Indicator summary for the Otago Region

Indicator 1: Life expectancy	✓
Indicator 2: Victimisations per 10,000 people	🔍
Indicator 3: Mean life satisfaction score	✓
Indicator 4: Mean sense of life being worthwhile	✓
Indicator 5: Māori/non-Māori gap in life expectancy	✓
Indicator 6: Gender gap in life expectancy	🔍

#### Indicator 1: Life expectancy



This indicator analyses the life expectancy within the Otago Region between 2014 and 2019.



In 2019, life expectancy in the Otago Region has generally increased, sitting at 82.35 years which is slightly above the New Zealand average of 81.75 years. Central Otago, Clutha, Dunedin City, and Waitaki all saw improvements in their rankings and life expectancy values during this period. Notably, Queenstown-Lakes District's life expectancy of 86.05 years in 2019 ranked it first in New Zealand, a rank it has consistently maintained over successive years.

These findings indicate positive trends in life expectancy, reflecting improvements in healthcare, quality of life, and other relevant factors within the Otago Region. It is important for the Otago Regional Council and its supporting agencies to continue monitoring and supporting initiatives that contribute to the overall wellbeing and longevity of its residents.

#### 1. Central Otago District:

- Ranking Change: The Central Otago District improved its ranking from 8th out of 67 districts in 2014 to 5th in 2019.
- Life Expectancy: The life expectancy in the Central Otago District increased from 82.4 years in 2014 to 83.75 years in 2019.

#### 2. Clutha District:

- Ranking Change: The Clutha District improved its ranking from 34th out of 67 districts in 2014 to 20th in 2019.
- Life Expectancy: The life expectancy in the Clutha District increased from 81.05 years in 2014 to 82.0 years in 2019.

#### 3. Dunedin City:

- Ranking Change: Dunedin City improved its ranking from 41st out of 67 districts in 2014 to 26th in 2019.
- Life Expectancy: The life expectancy in Dunedin City increased from 80.65 years in 2014 to 81.7 years in 2019.

#### 4. Queenstown-Lakes District:

- Ranking Change: The Queenstown-Lakes District maintained its ranking as 1st out of 67 districts in both 2014 and 2019.



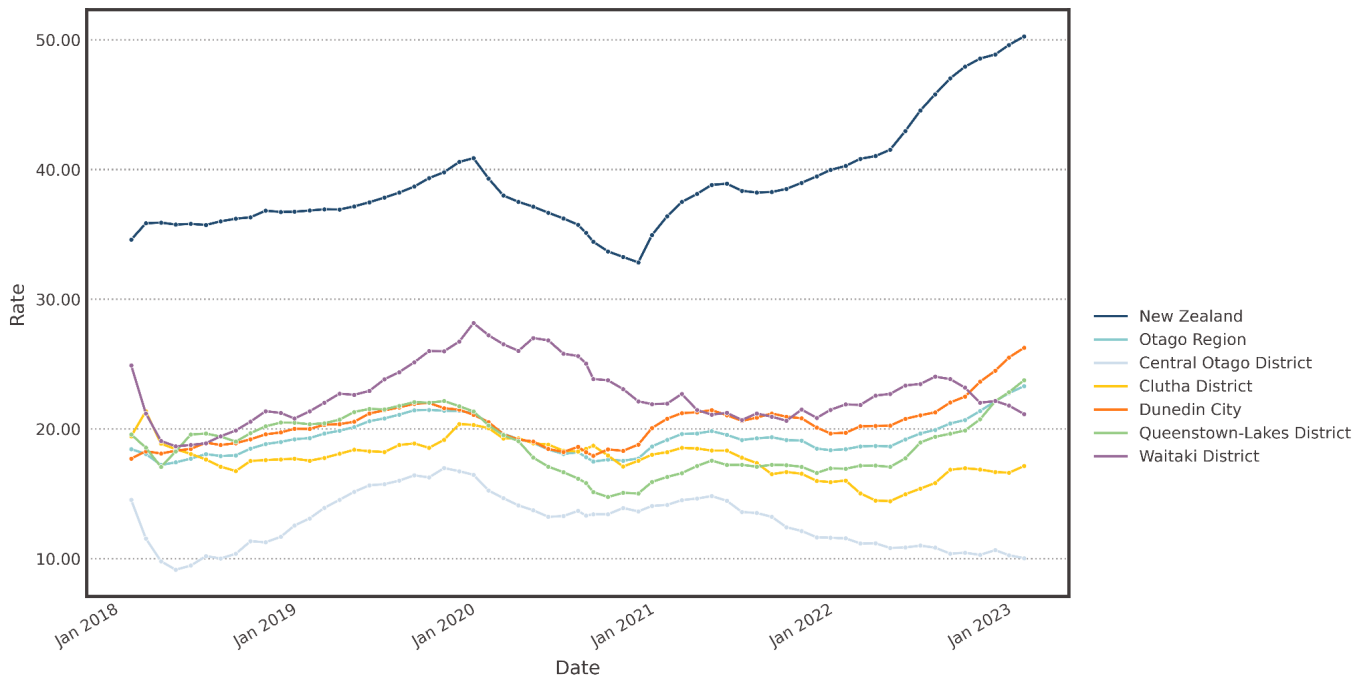


- Life Expectancy: The life expectancy in the Queenstown-Lakes District increased from 84.85 years in 2014 to 86.05 years in 2019.

5. Waitaki District:

- Ranking Change: The Waitaki District improved its ranking from 46th out of 67 districts in 2014 to 34th in 2019.
- Life Expectancy: The life expectancy in the Waitaki District increased from 80.4 years in 2014 to 81.45 years in 2019.

**Indicator 2: Victimisations per 10,000 people**



Indicator 2 measures the victimisation rates per 10,000 people in the regions that are benchmarked against New Zealand for the years 2018 and 2023.

In 2018, the New Zealand victimisation rate was 34.59, which then rose in 2023 to 50.27 per 10,000 people. For the Otago Region in 2018, it had a victimisation rate of 18.44 per 10,000 people however by 2023, victimisation rate increased to 23.3. The data suggests that while the Otago Region experienced an increase in victimisation rates, it remained comparatively lower than the national average for New Zealand. However, further analysis is needed to gain a comprehensive understanding of the factors contributing to these rates and to develop effective strategies for addressing victimisation.

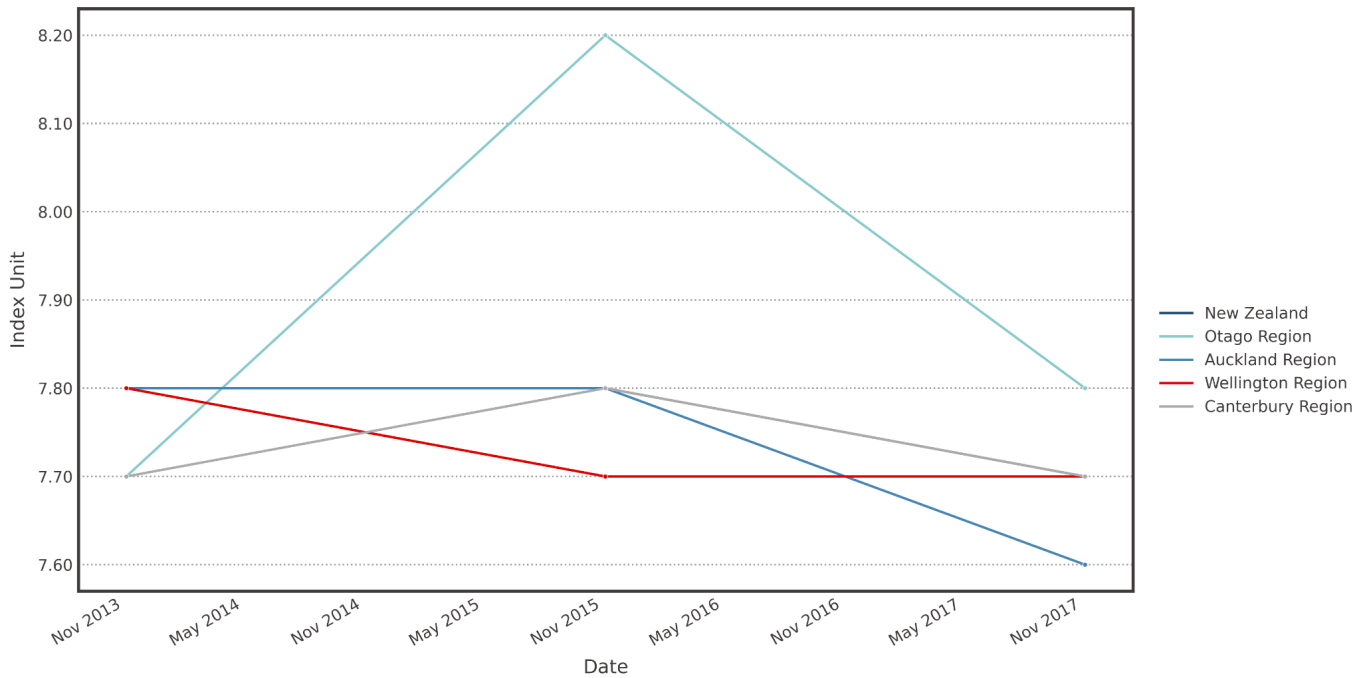


1. Central Otago District:
  - Value 2018: 14.53 Rate
  - Value 2023: 10.03 Rate
  
2. Clutha District:
  - Value 2018: 19.43 Rate
  - Value 2023: 17.14 Rate
  
3. Dunedin City:
  - Value 2018: 17.71 Rate
  - Value 2023: 26.26 Rate
  
4. Queenstown-Lakes District:
  - Value 2018: 19.57 Rate
  - Value 2023: 23.76 Rate
  
5. Waitaki District:
  - Value 2018: 24.91 Rate
  - Value 2023: 21.14 Rate

Among the regions, Dunedin City experienced the highest increase in victimisation rate, while Central Otago District had the lowest. Queenstown-Lakes District and Waitaki District maintained their rankings but had slight changes in their victimisation rates.



### Indicator 3: Mean life satisfaction score



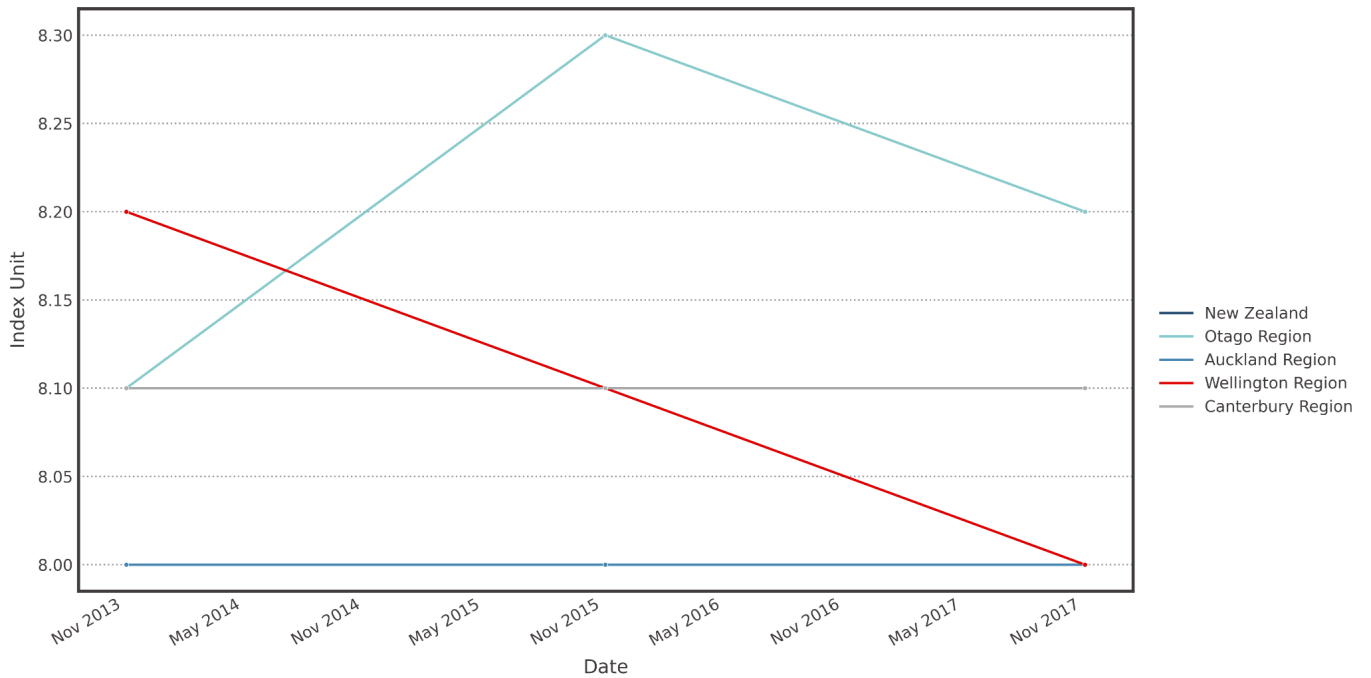
Please note on the graph above that New Zealand values follow the same trend as Canterbury so these are overlapping.

The mean life satisfaction score is the headline indicator of subjective wellbeing for New Zealand. Here we have displayed ranking changes between 2016 and 2018 for Otago against the national benchmark and the main metropolitan regions of New Zealand: Canterbury, Wellington and Auckland. The data is available at a national and regional level only, rather than territorial authority.

The values across the two compared years of 2014 to 2018 do not vary significantly, and range between 7.6 and 7.8. The national average life satisfaction score in 2018 in New Zealand is 7.7 index, equal to Wellington and Canterbury. The Otago Region has a slightly higher life satisfaction score of 7.8 and after experiencing a peak in 2015, whilst the Auckland region had a slightly lower value of 7.6.



### Indicator 4: Mean sense of life being worthwhile



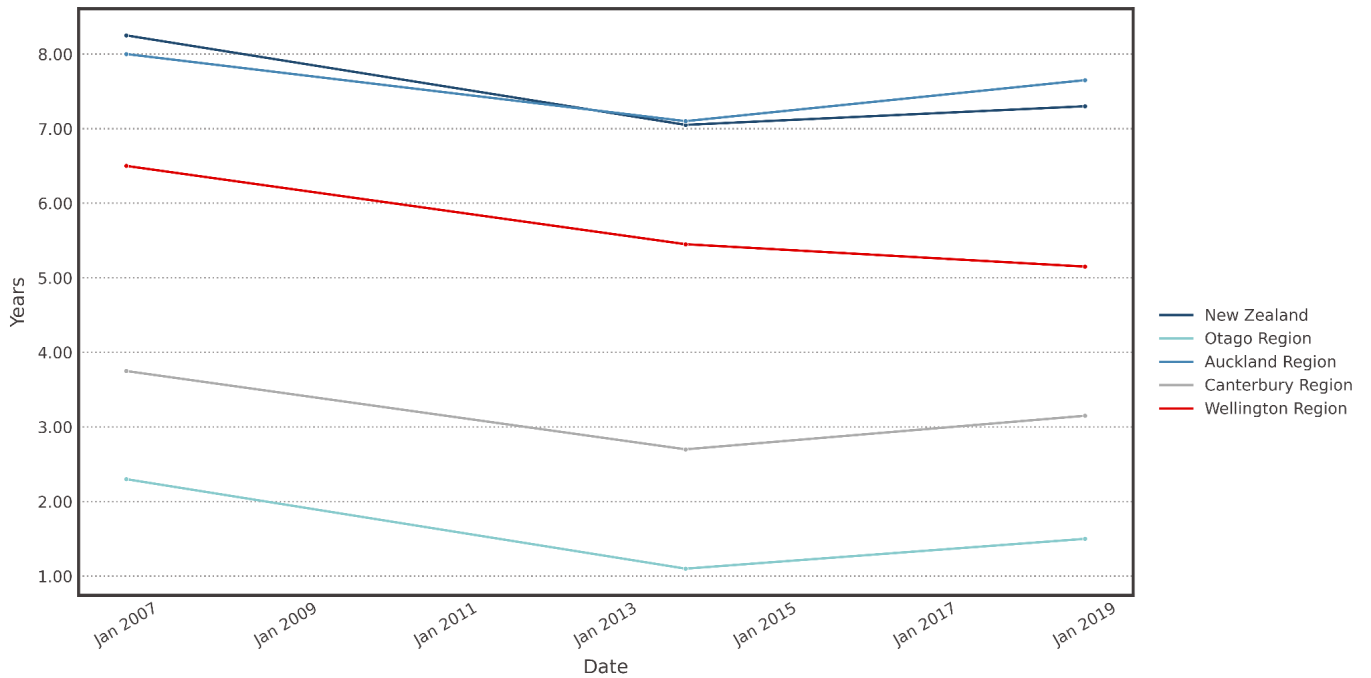
Please note on the graph above that New Zealand values follow the same trend as Canterbury so these are overlapping.

The mean sense of life being worthwhile is a complementary indicator of overall wellbeing. Here we can analyse Otago Region’s performance relative to New Zealand’s general population and other metropolitan regions. The data is available at a national and regional level only, rather than territorial authority.

The Otago Region had the highest sense of life being worthwhile in 2018 with an index unit of 8.2, after peaking at 8.3 in 2016. This was the highest ranked out of all regions in 2018. The New Zealand index value of 8.1 ranks slightly higher than the Auckland and Wellington values of 8.0. These findings emphasise the significance of fostering a sense of life being worthwhile among individuals, as it contributes to their overall wellbeing and life satisfaction. The Otago Regional Council and supporting agencies should consider initiatives and programs that promote a sense of life being worthwhile, such as educational and career development opportunities, community engagement, and mental health support.



### Indicator 5: Māori/non-Māori gap in life expectancy

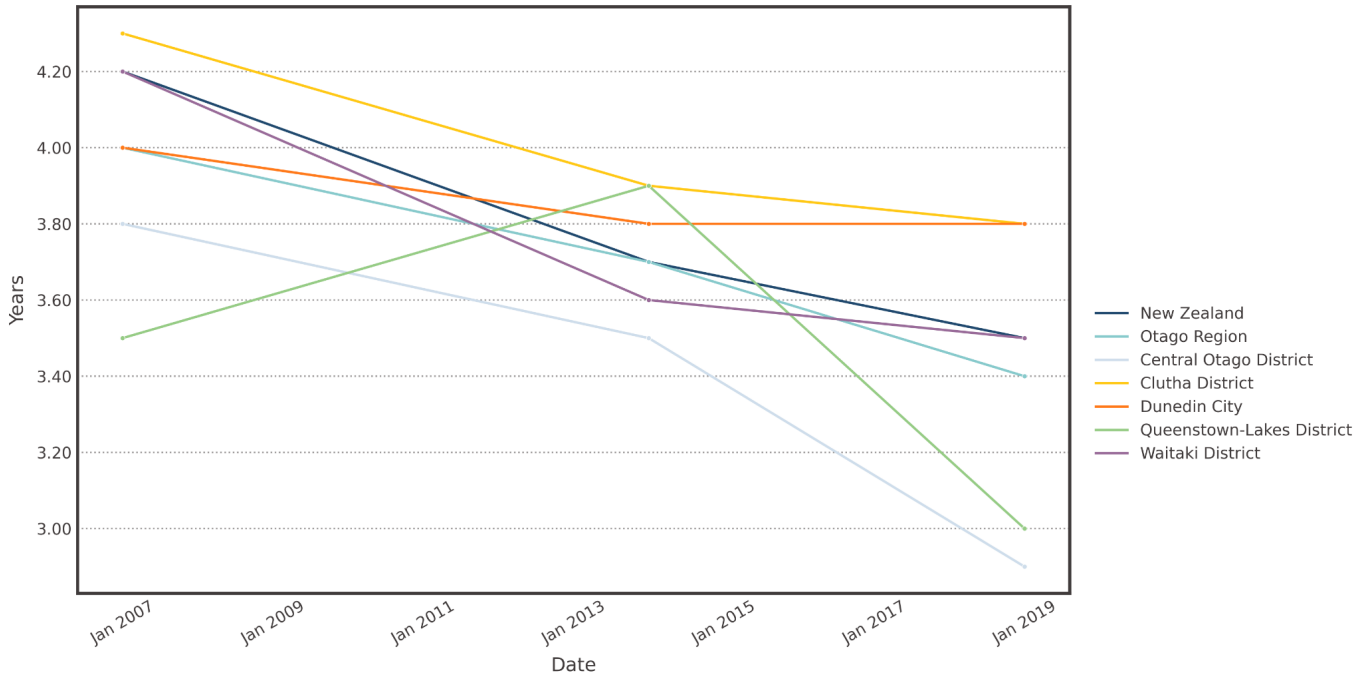


Indicator 5 focuses on the gap in life expectancy between the total population and Māori in different regions of New Zealand. Measuring change helps us to better understand the distribution of health outcomes between Māori and non-Māori. The data is available at a national and regional level only, rather than territorial authority.

At a national level, the life expectancy gap between the total population and Māori in New Zealand increased slightly between 2014 and 2019. In 2014, the life expectancy gap was 7.05 years, which grew to 7.3 years by 2019. At the regional level, focusing on the Otago Region, it experienced a relatively smaller life expectancy gap compared to other regions. In 2014, Otago had a 1.1 year gap in life expectancy, compared to 2019 where it grew slightly to 1.5 years. This suggests that efforts may have been made to narrow the life expectancy disparity between Māori and the rest of the population in the region.



### Indicator 6: Gender gap in life expectancy



The following analysis focuses on the gap in life expectancy between New Zealand, the Otago Region and Otago’s territorial authorities. We analysed the performance of the region as well as Otago’s territorial authorities between 2014 and 2019 to better understand the distribution of health outcomes by gender.

In 2019, the national average gender gap in life expectancy is 3.5 years, which decreased from 3.7 years in 2014. Of all the regions, our analysis shows Central Otago District and Queenstown-Lakes District had some of the lowest gender gaps in 2019, at 2.9 years and 3 years in life expectancy compared to the national average of 3.5 years. These regions demonstrate a more balanced life expectancy between genders. However, Clutha District and Dunedin City have slightly higher gender gaps than the national average, indicating slight disparities in health outcomes between genders. The Waitaki District has a gender gap that is consistent with the national average.

#### 1. Central Otago District:

- In 2014, the life expectancy gender gap in Central Otago District was 3.5 years, which was slightly lower than the national average of 3.7 years. By 2019, there was a noticeable improvement as the gender gap decreased to 2.9 years compared to the national average of 3.5 years.



- The district ranked 7th in 2014 and moved to 2nd in 2019, indicating significant progress in reducing the gender gap and improving life expectancy.

## 2. Clutha District:

- Clutha District had a higher gender gap in life expectancy compared to the national average of 3.7 years in 2014, with a value of 3.9 years. This trend remained stable in 2019, with a value of 3.8 years.
- Unfortunately, the district experienced a decline in ranking, moving from 35th in 2014 to the 50th (equal with Dunedin city) in 2019.

## 3. Dunedin City:

- In 2014, Dunedin City also had a higher gender gap in life expectancy compared to the national average, with a value of 3.8 years. This gender gap remained the same in 2019.
- The city experienced a significant decline in ranking, moving from 25th in 2014 to 50th (equal with Clutha District) in 2019.

## 4. Queenstown-Lakes District:

- The Queenstown-Lakes District had a slightly lower gender gap in life expectancy compared to the national average in 2014, with a value of 3.9 years. By 2019, there was significant improvement as the gender gap decreased to 3.0 years.
- The district also experienced a remarkable improvement in ranking, moving from 35th in 2014 to 3rd in 2019.

## 5. Waitaki District:

- Waitaki District had the same gender gap in life expectancy as the national average in 2014, with a value of 3.6 years. In 2019, the gender gap remained stable, with a value of 3.5 years.
- However, the district experienced a decline in ranking, moving from 12th out of 67 districts in 2014 to 19th in 2019.

**Indicator 7: Māori/non-Māori gap in mean life satisfaction**

Indicator 7 contains data at a national level only, with no breakdown by region or territorial authority. For this reason we have not analysed this indicator.. We expect to include it in the framework reporting when sub-national data becomes available in future.

**Indicator 8: Gender gap in mean life satisfaction**

Indicator 8 contains data at a national level only, with no breakdown by region or territorial authority. For this reason we have currently left this indicator blank. We expect to include it in the framework reporting when sub-national data becomes available in future.





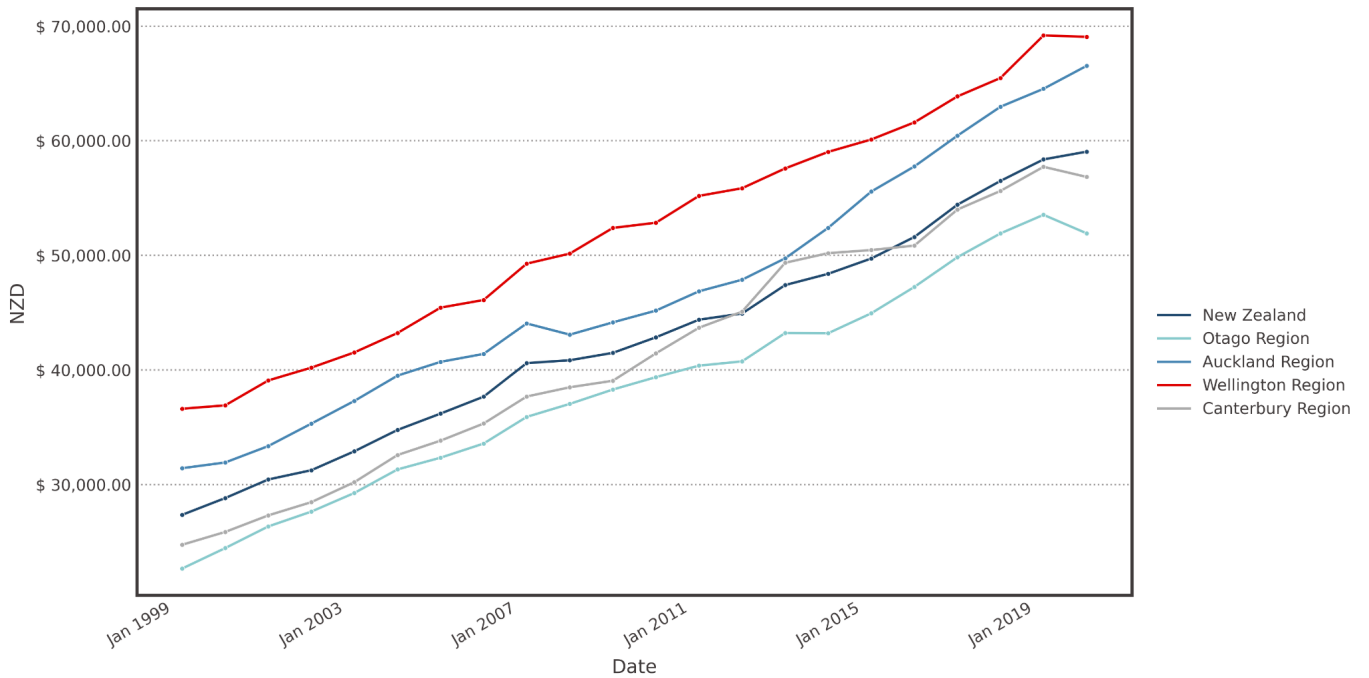
## Dimension 2: A good standard of living

### Indicator summary for the Otago Region

Indicator 9: Regional real GDP per capita	!
Indicator 10: Real median hourly earnings	🔍
Indicator 11: Employment rate	🔍
Indicator 12: Job Seeker Support rate	🔍
Indicator 13: Proportion of 15 to 24 year-olds Not in Education, Employment, or Training (NEET)	🔍
Indicator 14: School leavers with NCEA level 2 and above	✓
Indicator 15: School entrants with prior ECE	✓
Indicator 16: Percentage of schools leavers enrolled in tertiary education as a proportion of the population	✓
Indicator 17: Median hourly earnings as a percentage of mean hourly earnings	!
Indicator 18: Māori median hourly earnings as a percentage of non-Māori median hourly earnings	🔍
Indicator 19: Female median hourly earnings as a percentage of male median hourly earnings	🔍
Indicator 20: Ratio of the proportion of males leaving with NCEA level 2 as their highest qualification, compared to the proportion of females	!
Indicator 21: Ratio of the proportion of Māori leaving with NCEA level 2 as their highest qualification, compared to the proportion of the total population	✓



### Indicator 9: Regional real GDP per capita



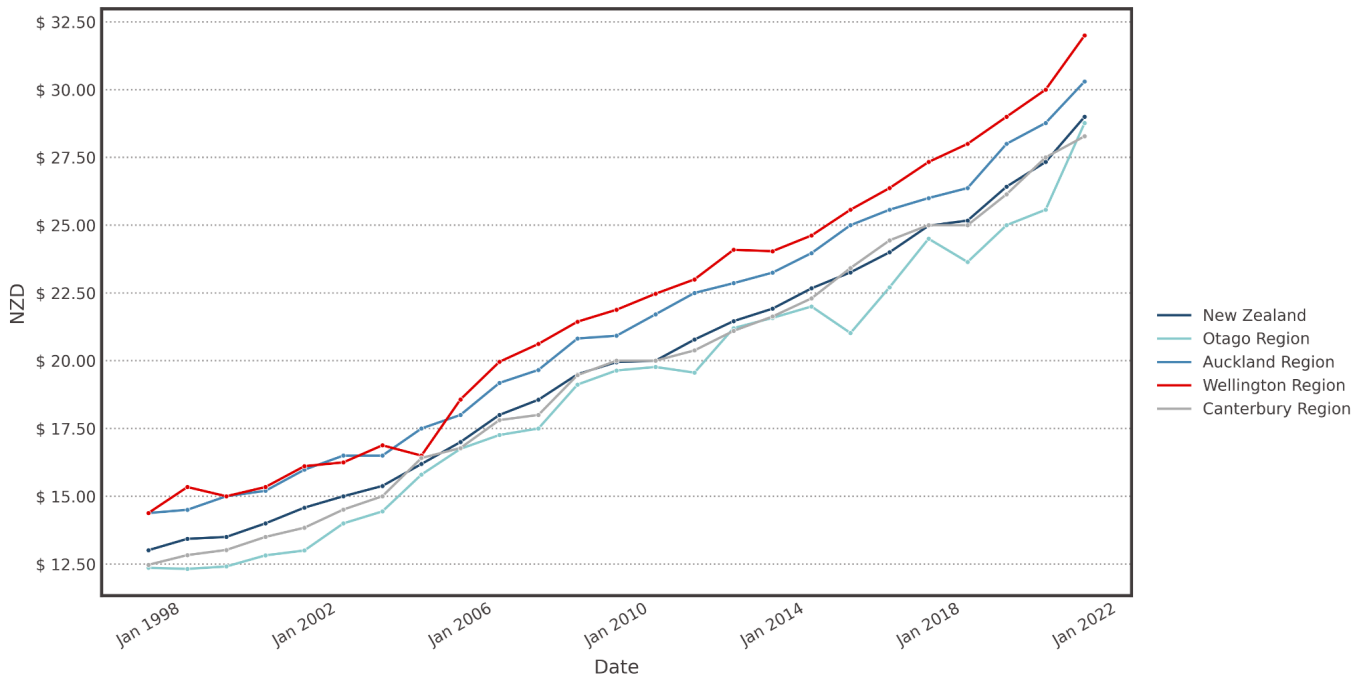
This indicator focuses on the regional real GDP per capita in different regions of New Zealand and serves as a headline indicator of regional incomes. We have measured performance changes and regional rankings between 2014 and 2021. The data is available at a national and regional level only, rather than territorial authority.

The national average for regional real GDP per capita in New Zealand in 2021 was \$59,049 NZD compared to \$47,409 in 2014, which was a 24% increase.

The Otago Region has a lower regional real GDP per capita compared to the national average, with a value of \$51,922, increasing 20% since 2014. This indicates a relatively lower economic output per person. The Otago Region dropped from 9th to 10th out of 13 regions between 2014 and 2021, and remains lower than the main metropolitan regions. Auckland ranks first, Wellington second and Christchurch third.



### Indicator 10: Real median hourly earnings

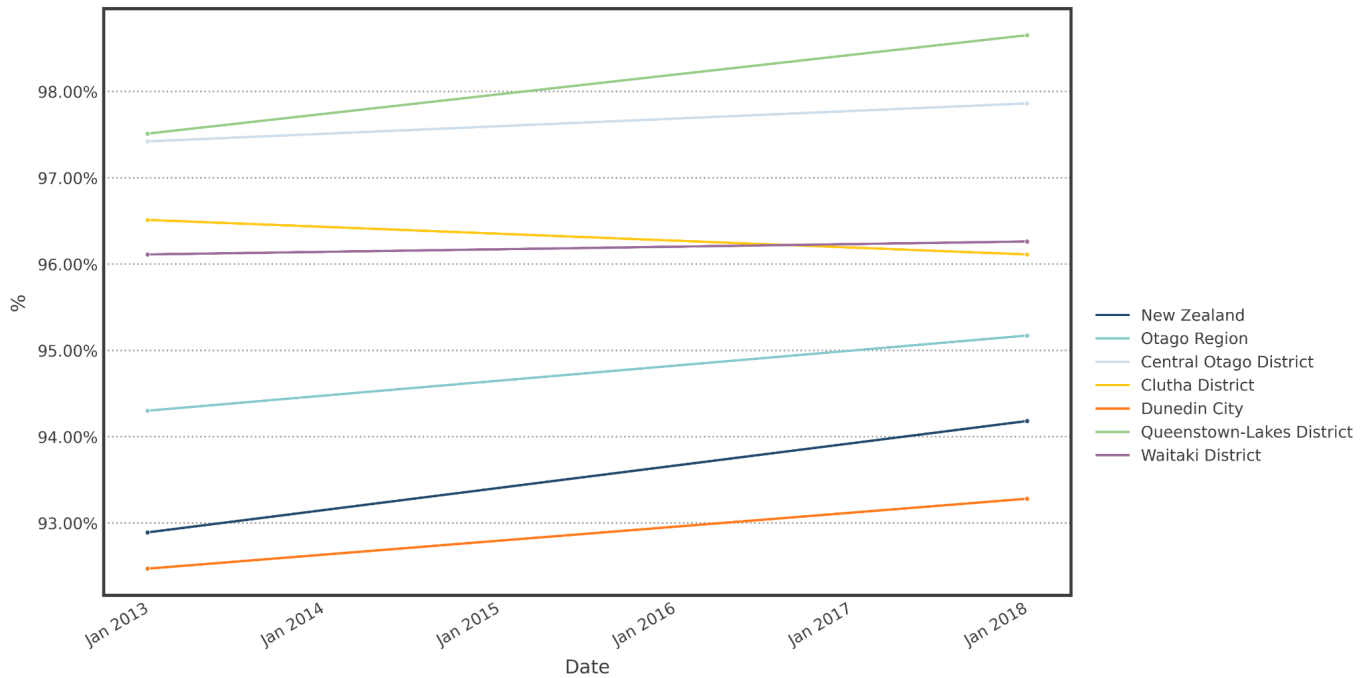


This analysis focuses on the median hourly earnings in New Zealand and by region. We've measured performance between 2014 and 2022 as a headline indicator of workplace earnings. The data is available at a national and regional level only, rather than territorial authority.

The national average for median hourly earnings in New Zealand in 2022 is \$29, which increased by 32% since 2014. The Otago Region has a slightly lower median hourly earnings compared to the national average, with a value of \$28.77, which increased 33% since 2014. Whilst the Auckland and Wellington Regions have slightly higher median hourly earnings. Like Otago, the Canterbury region also has slightly lower median hourly earnings compared to the national average.



### Indicator 11: Employment rate



Indicator 11 focuses on the employment rate in New Zealand and Otago territorial authorities between the Censuses of 2013 and 2018. This serves as a headline indicator of access to employment.

The most recent data available in 2018 shows that the national employment rate in New Zealand is 94.18%. Based on the given data, the Queenstown-Lakes District ranks the best in terms of employment rate among the analysed regions in this report. It has consistently high employment rates, with a value of 98.65% and an improved ranking from 3rd to 2nd out of 67 districts. The region's strong economy, driven by tourism and hospitality industries, largely contributes to the availability of a large number of job opportunities, resulting in a high employment rate.

In contrast, Dunedin City ranks the lowest among the analysed regions, with a lower employment rate of 93.28% and a decline in ranking from 46th to 51st out of 67 districts. In large part this can be attributed to its high student population, relative to the general population.

#### 1. Central Otago District:

- The Central Otago District stood out as one of the top-performing districts in 2013, recording a high employment rate of 97.42%. The district improved its standing, with the rate rising to 97.86% by 2018.



## 2. Clutha District:

- In 2013, the Clutha District achieved a strong employment rate of 96.51% however, by 2018, there was a slight decline in the district's standing, as the rate decreased to 96.11%.

## 3. Dunedin City:

- In 2013 Dunedin City had an employment rate of 92.47%. There was a slight improvement by 2018, as the rate increased to 93.28%.
- Dunedin city came in under the national average in both years.

## 4. Queenstown-Lakes District:

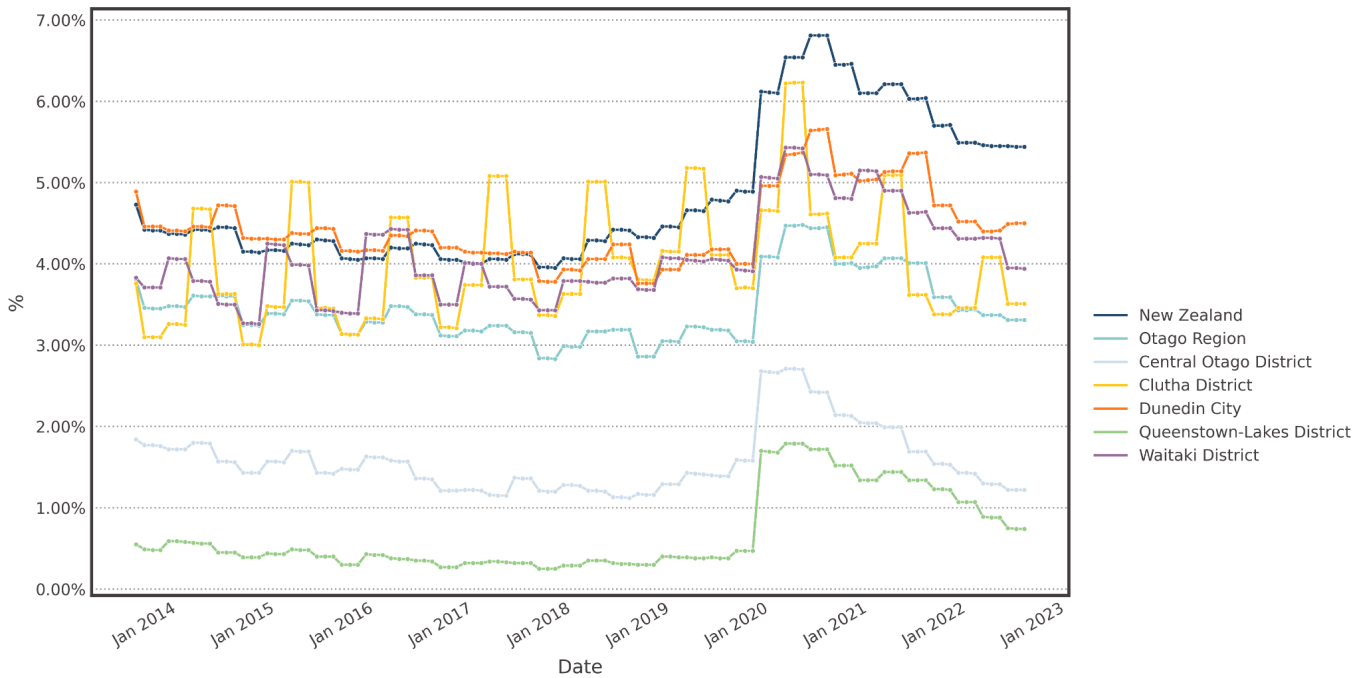
- The Queenstown-Lakes District had an employment rate of 97.51% in 2013 and increased to 98.65% by 2018.
- Queenstown ranked second out of all districts in 2018, notably higher than the national average and other districts.

## 5. Waitaki District:

- Waitaki had an employment rate of 96.11% in 2013, and by 2018 this increased slightly to 96.26%, coming in higher than the national average in both years.



### Indicator 12: Job Seeker Support rate



Indicator 12 focuses on the Job Seeker Support rate in the Otago Region benchmarked against the New Zealand average and all other regions. This is a supplementary indicator of access to employment.

The Job Seeker Support rate for the total New Zealand population decreased from 6.04% to 5.44% between 2021 and 2022. The Otago Region's Job Seeker Support rate is the lowest of any region in the country at 3.31% and considerably under the national average. The region demonstrates relatively lower unemployment and higher employment rates compared to other regions, indicating a healthy job market and economic conditions.

In terms of Otago's territorial authorities, Queenstown Lakes District and Central Otago District perform exceptionally well, consistently ranking first and second respectively during both periods, reflecting positive employment opportunities and economic activity in the areas.

#### 1. Central Otago District:

- Ranking 2021: The Central Otago District ranks 2nd out of 66 districts in terms of the Job Seeker Support rate.
- Value 2021: The Job Seeker Support rate for the Central Otago District was 1.69%.



- Ranking 2022: The Central Otago District maintains its ranking of 2nd out of 66 districts in 2022.
- Value 2022: The Job Seeker Support rate for the Central Otago District decreases to 1.22%.

## 2. Clutha District:

- Ranking 2021: The Clutha District ranks 9th out of 66 districts.
- Value 2021: The Job Seeker Support rate for the Clutha District is 3.62%.
- Ranking 2022: The Clutha District drops slightly to 10th out of 66 districts in 2022.
- Value 2022: The Job Seeker Support rate for the Clutha District decreases to 3.51%.

## 3. Dunedin City:

- Ranking 2021: Dunedin City ranks 26th out of 66 districts.
- Value 2021: The Job Seeker Support rate for Dunedin City is 5.37%.
- Ranking 2022: Dunedin City improves to the 23rd ranking out of 66 districts in 2022.
- Value: The Job Seeker Support rate for Dunedin City decreases to 4.5%.

## 4. Queenstown-Lakes District:

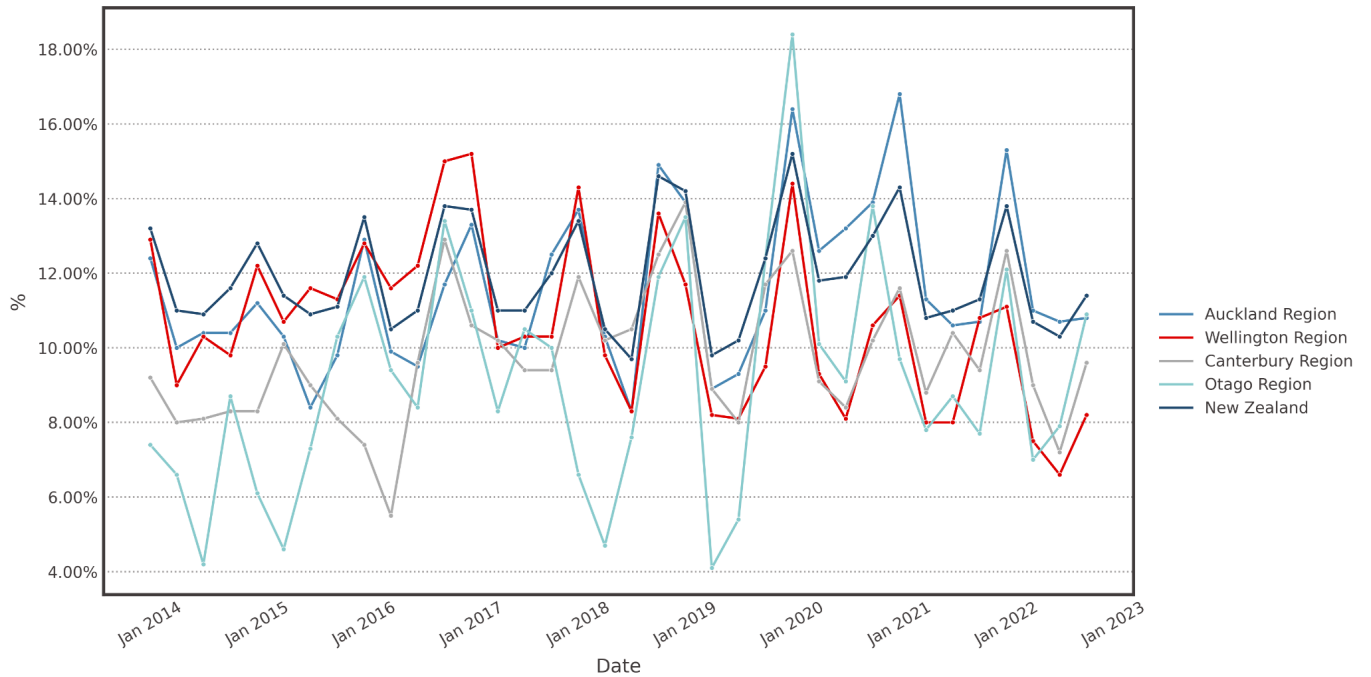
- Ranking 2021: The Queenstown-Lakes District ranks 1st out of 66 districts.
- Value 2021: The Job Seeker Support rate for the Queenstown-Lakes District is 1.34%.
- Ranking 2022: The Queenstown-Lakes District maintains its top ranking of 1st out of 66 districts in 2022.
- Value 2022: The Job Seeker Support rate for the Queenstown-Lakes District further decreases to 0.74%.

## 5. Waitaki District:

- Ranking 2021: The Waitaki District ranks 20th out of 66 districts in terms of the Job Seeker Support rate.
- Value 2021: The Job Seeker Support rate for the Waitaki District is 4.64%.
- Ranking 2022: The Waitaki District maintains its ranking of 20th out of 66 districts in 2022.
- Value 2022: The Job Seeker Support rate for the Waitaki District decreases to 3.94%.



### Indicator 13: Proportion of 15 to 24 year-olds Not in Education, Employment, or Training (NEET)

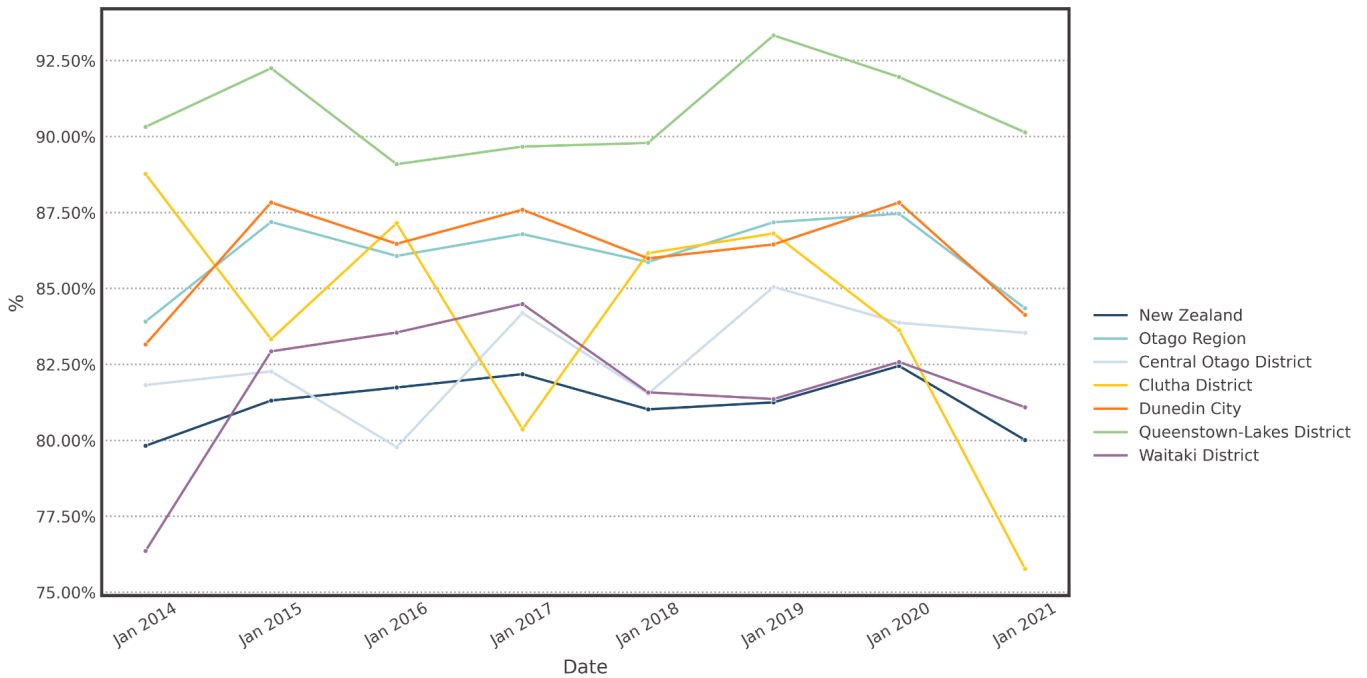


Indicator 13 focuses on the NEET rate, which represents the percentage of 15 to 24 year-olds not in education, employment, or training, in Otago benchmarked against the national average and largest regions of New Zealand. This is a supplementary measure of young people not developing or using human capital. The data is available at a national and regional level only, rather than territorial authority.

The New Zealand national average NEET rate decreased to 11.4% in 2022 from 13.2% in 2014. The Otago Region ranks 1st out of 12 regions in terms of the NEET rate in 2014 with a value of 7.4%, however by 2022 Otago drops to the 8th ranking out of 13 regions with an increased NEET rate of 10.9%.

Among the analysed regions, the Otago Region has consistently maintained a relatively lower NEET rate compared to the national average. However, over time, the Otago Region has experienced an increase in the NEET rate relative to Auckland, Canterbury and Wellington, which may indicate challenges in education, employment, and training opportunities for young individuals in Otago.



**Indicator 14: School leavers with NCEA level 2 and above**

This indicator focuses on the percentage of Otago school leavers who have achieved NCEA Level 2 or above between 2014 and 2021. This indicator is a headline measure of the flow of formal educational attainment.

In 2021, the national average of school leavers with NCEA Level 2 or above is 80.01%. The Otago Region has a higher percentage of school leavers with NCEA Level 2 or above compared to the national average, with a value of 84.35%. In 2014, the Otago Region ranked 3rd out of 16 regions and had the same ranking in 2021.

**1. Central Otago District:**

- The Central Otago District has a percentage of 83.54% of school leavers with NCEA Level 2 or above in 2021, which increased from 81.82% in 2014.
- In 2021, Central Otago ranked 10th out of 66 district's.

**2. Clutha District:**

- The Clutha District has a lower percentage of school leavers with NCEA Level 2 or above compared to the national average, with a value of 75.77% in 2021. This was a significant decrease from 2014 where the percentage was 88.77%
- In 2021 Clutha District ranked 47th out of 66 district's.



3. Dunedin City:

- Dunedin City has a higher percentage of school leavers with NCEA Level 2 or above compared with the national average, with a value of 84.13%. Which was a minor increase from 83.16% in 2014.
- In 2021, it improved its ranking to 8th out of 66 district's.

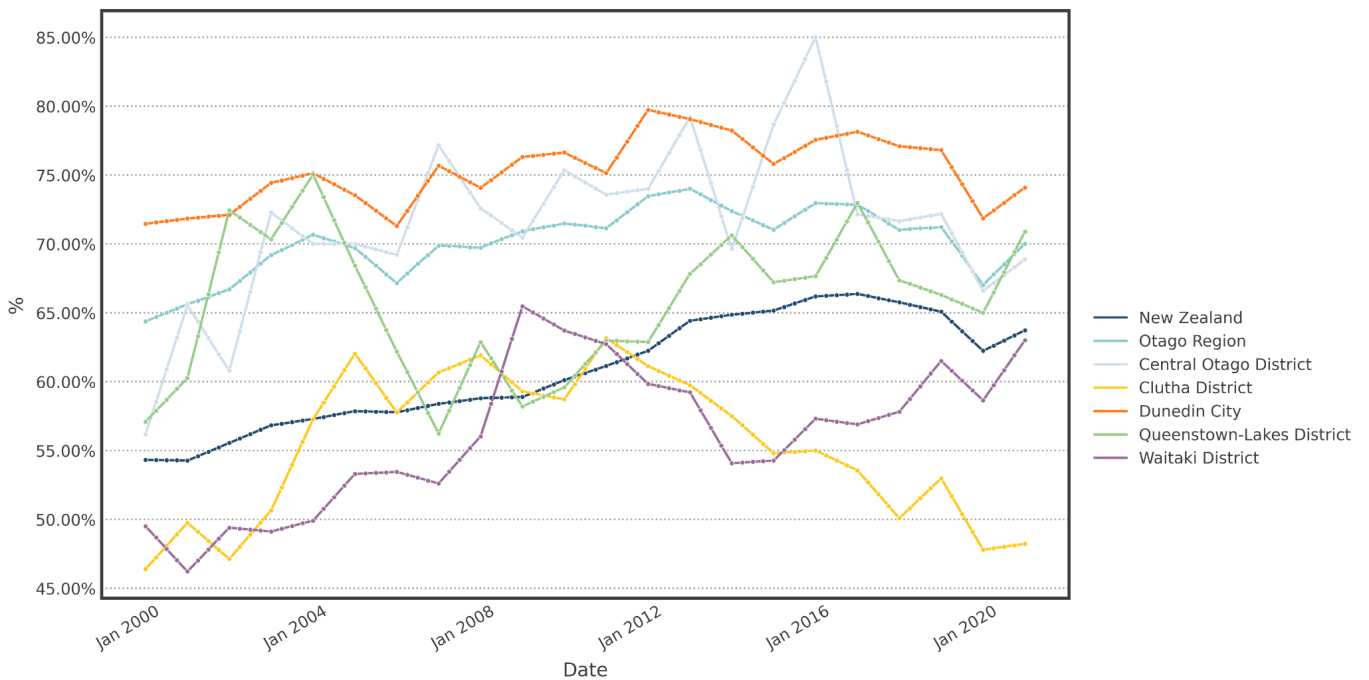
4. Queenstown-Lakes District:

- The Queenstown-Lakes District has the highest performance within Otago, with 90.14% of school leavers achieving NCEA Level 2 or above. This was a small decrease compared to 90.32% in 2014.
- In 2021 Queenstown-Lakes ranked 4th out of 66 districts.

5. Waitaki District:

- The Waitaki District has a percentage of 81.09% of school leavers with NCEA Level 2 or above. This was an improvement from 76.36% in 2014.
- The Waitaki District ranked 22nd out of 66 districts in 2021.

**Indicator 15: School entrants with prior ECE**





Indicator 15 reflects the rankings and values of the percentage of children in Early Childhood Education (ECE) in Otago benchmarked against the New Zealand population. We tracked the national, regional and territorial authority trend between 2014 and 2021. This indicator serves as a headline measure of school readiness.

The New Zealand benchmark shows that 63.73% of children were enrolled in Early Childhood Education in 2021. The Otago Region ranks third among the listed regions, with 70.02% of children enrolled in ECE. This indicates a relatively high enrollment rate in early childhood education compared to the New Zealand benchmark.

Dunedin City ranks the highest among all the listed regions and districts, with 74.09% of children enrolled in ECE. This indicates a strong emphasis on early childhood education and a high enrollment rate in the city. Dunedin's commitment to providing access to quality ECE programs and raising awareness about the importance of early education might contribute to its high ranking.

1. Central Otago District:

- Central Otago District ranks thirteenth among the districts, with 68.88% of children enrolled in ECE. This suggests a successful enrolment rate in early childhood education in the district.

2. Clutha District:

- Clutha District ranks lower compared to other territorial authorities at 61st out of 67 territorial authorities, with 48.23% of children enrolled in ECE.

3. Dunedin City:

- Dunedin City ranks sixth among all of the listed districts, with 74.09% of children enrolled in ECE. This suggests a high enrollment rate in early childhood education in the city.

4. Queenstown-Lakes District:

- Queenstown-Lakes District ranks ninth amongst all territorial authorities, with 70.89% of children enrolled in ECE. This indicates a relatively high enrollment rate in early childhood education in the district.



## 5. Waitaki District:

- Waitaki District has 63.01% of children enrolled in ECE. While the enrollment rate is lower compared to higher-ranking regions, a considerable proportion of children are still enrolled in early childhood education in the district.

**Indicator 16: Percentage of schools leavers enrolled in tertiary education as a proportion of the population**

Area	Ranking 2021	% of Students in tertiary education 2021
<b>New Zealand</b>	N/A	64.79 %
<b>Otago Region</b>	1/16	72.78 %
<b>Central Otago District</b>	5/65	70.78 %
<b>Clutha District</b>	36/65	58.96 %
<b>Dunedin City</b>	1/65	76.13 %
<b>Queenstown-Lakes District</b>	2/65	75.88 %
<b>Waitaki District</b>	24/65	62.5 %

*The data is displayed in a table as it only exists for the year 2021 down to a TA level.*

Indicator 16 measures the rankings and the percentage of school leavers enrolled in tertiary education in the Otago Region in 2021, as well as each constituent territorial authority, benchmarked against the general New Zealand population. This is a headline measure of the flow of formal educational attainment.

The New Zealand benchmark shows that 64.79% of school leavers were enrolled in tertiary education in 2021. The Otago Region ranks the highest amongst all New Zealand regions, with 72.78% of school leavers enrolled in tertiary education. This indicates a very high participation rate in pursuing higher education in the region. Dunedin City, Queenstown-Lakes and Central Otago District rank particularly strongly at first, second and fifth relative to all other territorial authorities.

Clutha and Waitaki rank lower, indicating more support is required in these regions in order for young people to attain formal tertiary qualifications. Dunedin City's strong result, ranking first among all the listed regions and districts, indicates a strong emphasis on higher education and a



higher proportion of school leavers continuing their studies in tertiary institutions. This can be attributed to the presence of the University of Otago. The university's local presence, strong reputation and tertiary offerings likely contribute to the higher enrollment rates in the region.

1. Central Otago District:

- The Central Otago District ranks fifth among all territorial authorities, with 70.78% of school leavers enrolled in tertiary education. This suggests a significant proportion of school leavers in the district continue their education in tertiary institutions.

2. Clutha District:

- The Clutha District ranks lower compared to other regions, with 58.96% of school leavers enrolled in tertiary education.

3. Dunedin City:

- Dunedin City ranks the highest among all territorial authorities, with 76.13% of school leavers enrolled in tertiary education.

4. Queenstown-Lakes District:

- The Queenstown-Lakes District ranks second among all territorial authorities, with 75.88% of school leavers enrolled in tertiary education.

5. Waitaki District:

- The Waitaki District ranks lower among the listed areas, with 62.5% of school leavers enrolled in tertiary education. While the participation rate is lower compared to higher-ranking regions, there is still a considerable proportion of school leavers pursuing higher education in the district.



### Indicator 17: Median hourly earnings as a percentage of mean hourly earnings



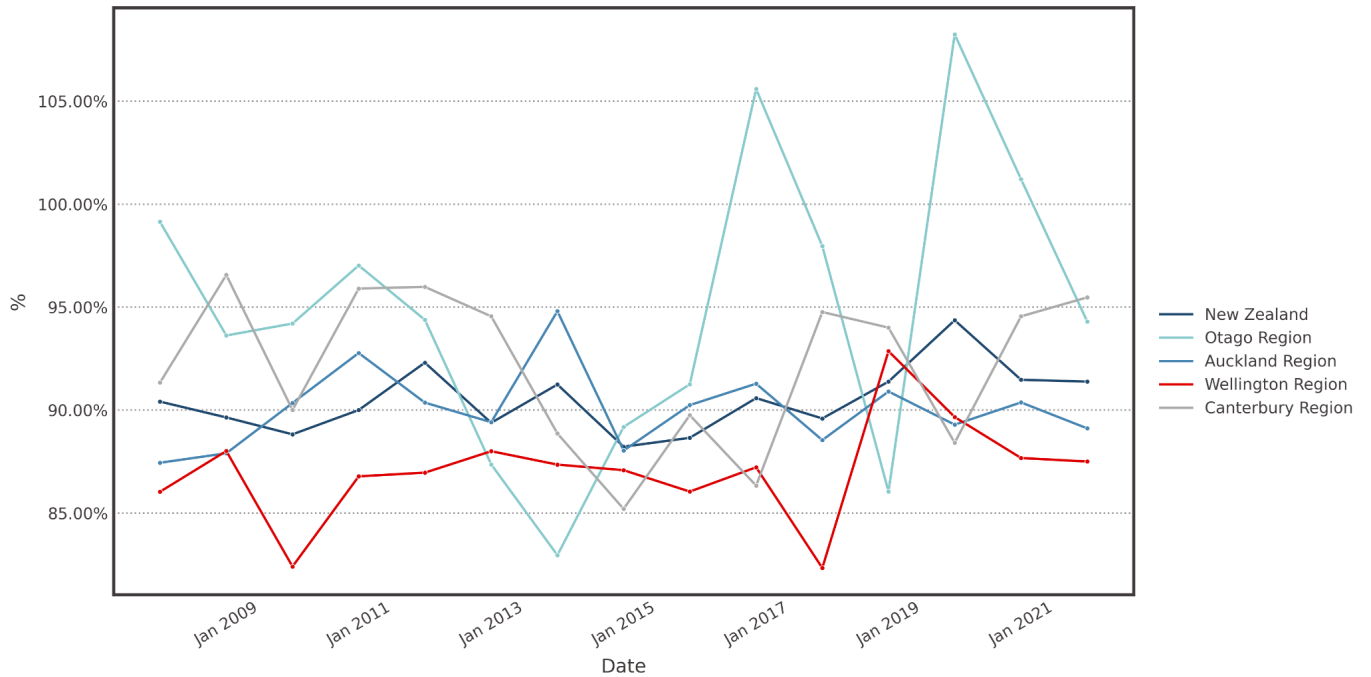
This indicator presents the rankings and values of median hourly earnings as a percentage of mean hourly earnings in Otago benchmarked against New Zealand and other regions. The indicator serves as a headline indicator of the distribution in incomes.

There is a high amount of variation over time of this indicator and it is recommended to revise this indicator in future iterations of this report.

The New Zealand average median hourly earnings was at 79.91% of mean hourly earnings in 2022.



### Indicator 18: Māori median hourly earnings as a percentage of non-Māori median hourly earnings



This indicator presents the rankings and values of Māori median hourly earnings as a percentage of non-Māori median hourly earnings in different regions of New Zealand, and serves as a supplementary indicator regarding the distribution of income. A score of 100% reflects pay parity between Māori and non-Māori median hourly earnings.

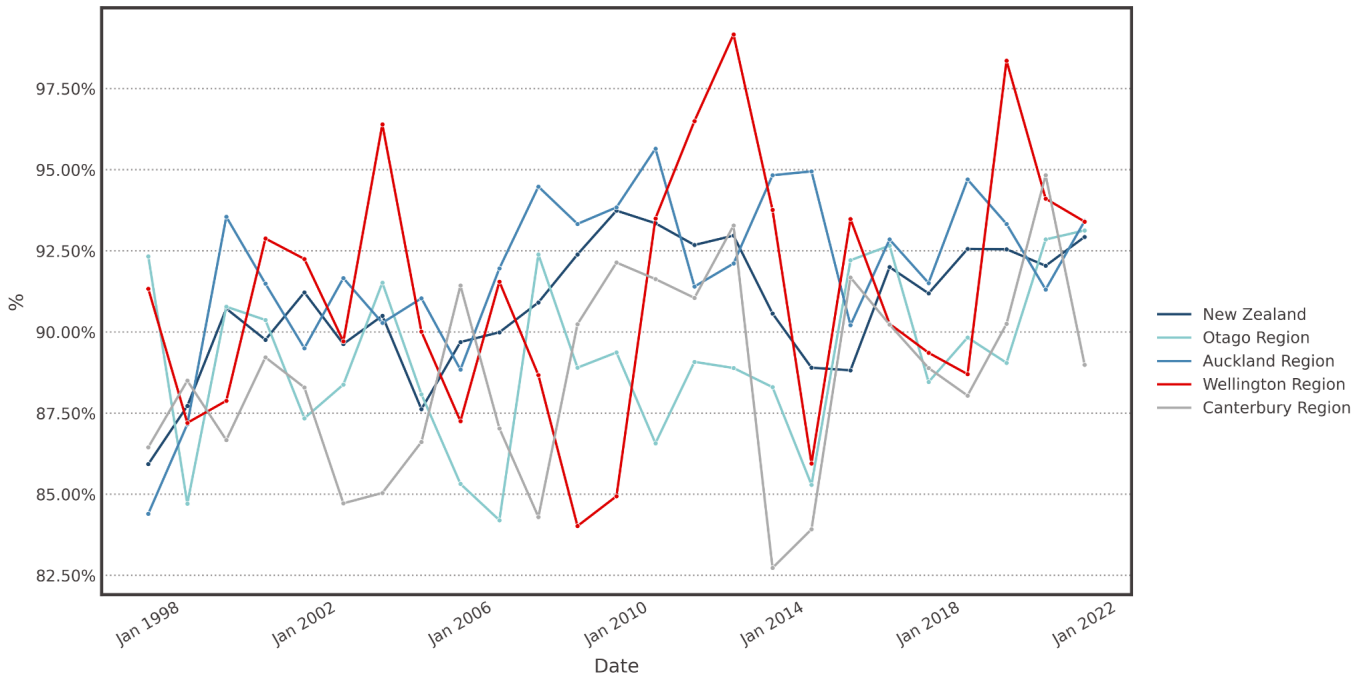
The New Zealand benchmark demonstrates a relatively high level of Māori economic parity, with the percentage of Māori median hourly earnings compared to non-Māori median hourly earnings at 91.24% in 2014, increasing to 91.38% in 2022. This trend is heading in the right direction however New Zealand still requires some work to narrow the gap.

The Otago Region was initially ranked the lowest in 2014, indicating a significant gap in Māori economic parity with a percentage of 82.95%. However, by 2022 it improved its ranking to 6th with a considerable increase to 94.3%. This improvement suggests efforts towards narrowing the economic disparity between Māori and non-Māori communities in the region and should continue their efforts.



Otago sits above Auckland and Wellington, but sits below Canterbury, with Canterbury having the highest Māori median hourly earnings compared to non-Māori median hourly earnings (95.47%) by 2022.

**Indicator 19: Female median hourly earnings as a percentage of male median hourly earnings**



This indicator uses analysis of female median hourly earnings as a percentage of male median hourly earnings to determine how Otago ranks in terms of gender pay equity relative to New Zealand and other regions. A value of 100% reflects pay parity between female and male median hourly earnings.

The New Zealand benchmark shows a relatively high level of gender pay equity, with the percentage of female median hourly earnings compared to male median hourly earnings increasing from 90.57% in 2014 to 92.93% in 2022.

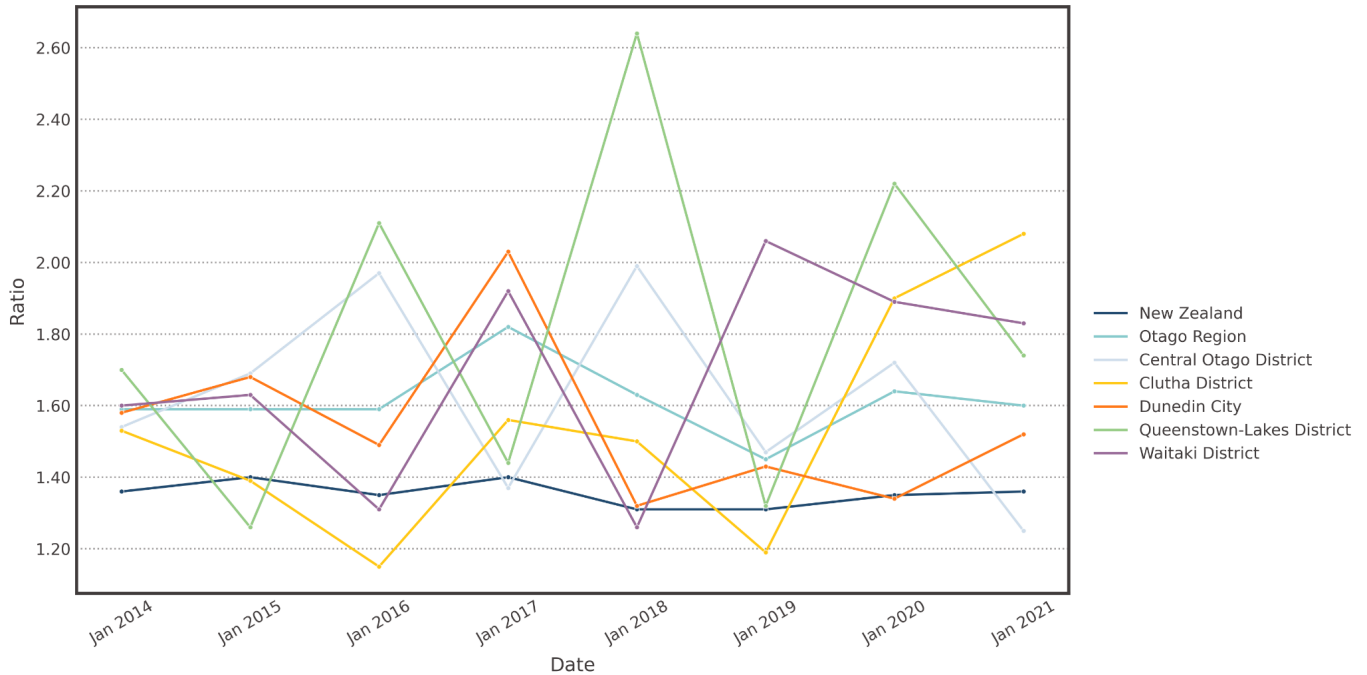
The Otago Region ranks relatively well in eighth place in terms of gender pay equity compared to other regions and has shown consistent improvement over time. Otago demonstrated an improvement in the percentage of female median hourly earnings compared to male median hourly earnings from 88.3% in 2014 to 93.13% in 2022. Otago sits behind the regional leader Auckland and





slightly behind Wellington, but Otago's female median earnings as a percentage of male earnings is higher than Canterbury's.

**Indicator 20: Ratio of the proportion of males leaving with NCEA level 2 as their highest qualification, compared to the proportion of females**



This indicator focuses on the percentage of Otago males leaving school with NCEA Level 2 compared to females, compared with different regions of New Zealand. This serves as an indicator of the distribution of knowledge outcomes.

The national average ratio of males leaving school with NCEA Level 2 compared to females is 1.36. The Otago Region has a higher percentage of males leaving school with NCEA Level 2 compared to females, with a value of 1.6.

1. Central Otago District:

- The Central Otago District has a ratio of 1.25 of males leaving with NCEA Level 2 compared to females.
- In 2021, the Central Otago District ranked 17th out of 66 districts.



## 2. Clutha District:

- The Clutha District has a significantly higher percentage of males leaving with NCEA Level 2 compared to females, with a ratio of 2.08.
- Clutha District ranked 61st out of 66 districts in 2021.

## 3. Dunedin City:

- Dunedin City has a ratio of 1.52 of males leaving with NCEA Level 2 compared to females.
- Dunedin City ranked 39th out of 66 districts in 2021.

## 4. Queenstown-Lakes District:

- The Queenstown-Lakes District also has a higher percentage of males leaving with NCEA Level 2 compared to females, with a ratio of 1.74.
- Queenstown-Lakes District ranked 51st out of 66 districts in 2021.

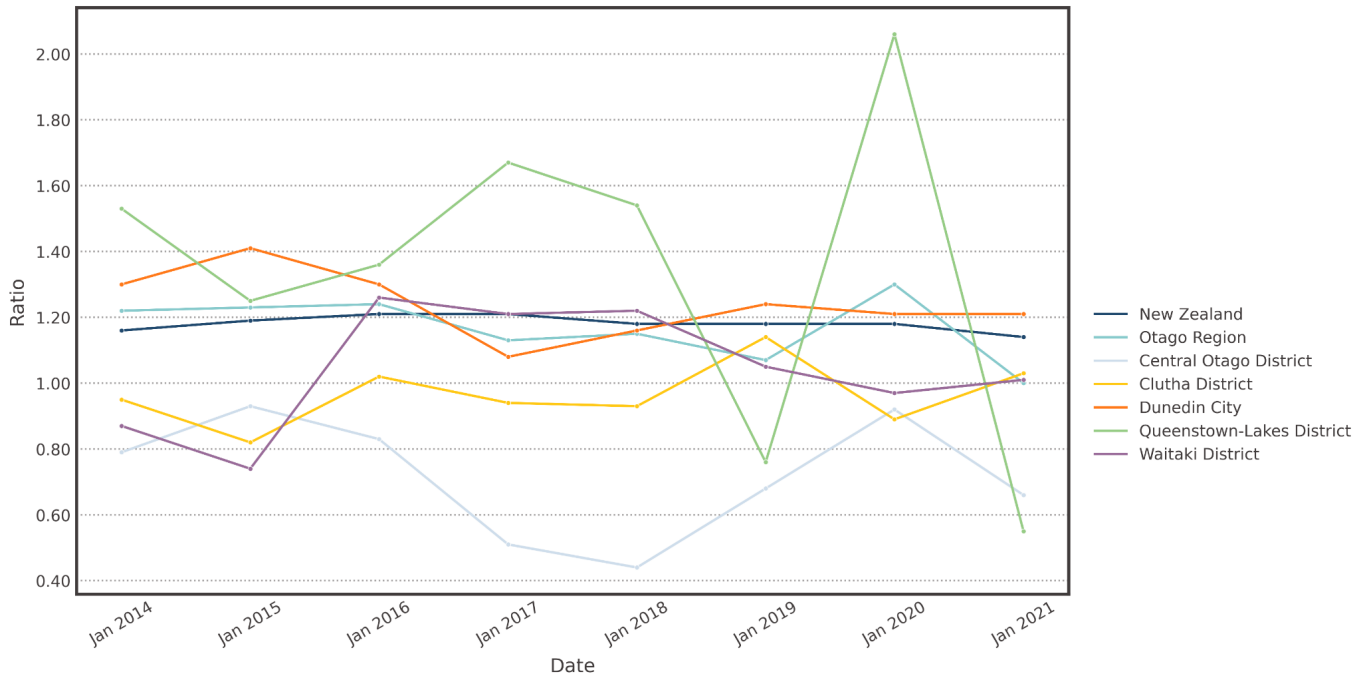
## 5. Waitaki District:

- The Waitaki District has a ratio of 1.83 of males leaving with NCEA Level 2 compared to females.
- Waitaki District ranked 56th out of 66 districts in 2021.

Overall, among the analysed regions, the Clutha District has the highest percentage of males leaving with NCEA Level 2 compared to females, indicating a significant gender gap in educational attainment.



### Indicator 21: Ratio of the proportion of Māori leaving with NCEA level 2 as their highest qualification, compared to the proportion of the total population



Education plays a crucial role in shaping individuals' future prospects and opportunities. A key indicator of educational achievement is the ratio of Māori students who achieve a NCEA Level 2 qualification compared to the total population. NCEA Level 2 is an important milestone that signifies a certain level of educational attainment. This section analyses the data from 2014 and 2021 across different regions and territorial authorities. A ratio of 1.0 reflects an even proportion of Maori versus the total population leaving with NCEA level 2 as their highest qualification.

#### 1. New Zealand:

- In 2014, the ratio of Māori students leaving with NCEA Level 2 was 1.16 compared to the total population.
- By 2021, this percentage decreased slightly to 1.14.

#### 2. Otago Region:

- In 2014, Otago Region ranked 11th out of 16 regions, with Māori students achieving a ratio of 1.22 for NCEA Level 2.
- By 2021, Otago Region improved its ranking to 4th place, with a ratio of 1.0.



### 3. Central Otago District:

- In 2014, Central Otago District ranked 11th out of 66 territorial authorities, with Māori students achieving a ratio of 0.79 for NCEA Level 2.
- By 2021, the district improved its ranking to 5th ranked, with a ratio of 0.66.

### 4. Clutha District:

- In 2014, Clutha District ranked 24th out of the 66 territorial authorities, with Māori students achieving a ratio of 0.95 for NCEA Level 2.
- By 2021, the district's ranking slightly declined to 33rd place, with a ratio of 1.03.

### 5. Dunedin City:

- In 2014, Dunedin City ranked 58th out of 66 territorial authorities, with Māori students achieving a ratio of 1.3 for NCEA Level 2.
- By 2021, the city's ranking remained similar at 60th place, with a ratio of 1.21.

### 6. Queenstown-Lakes District:

- In 2014, Queenstown-Lakes District ranked 64th out of 66 territorial authorities, with Māori students achieving a ratio of 1.53 for NCEA Level 2.
- However, by 2021, the district significantly improved its ranking to 2nd place, with a ratio of 0.55.

### 7. Waitaki District:

- In 2014, Waitaki District ranked 15th out of 66 territorial authorities, with Māori students achieving a ratio of 0.87 for NCEA Level 2.
- By 2021, the district's ranking declined to 27th place, with a ratio of 1.01.



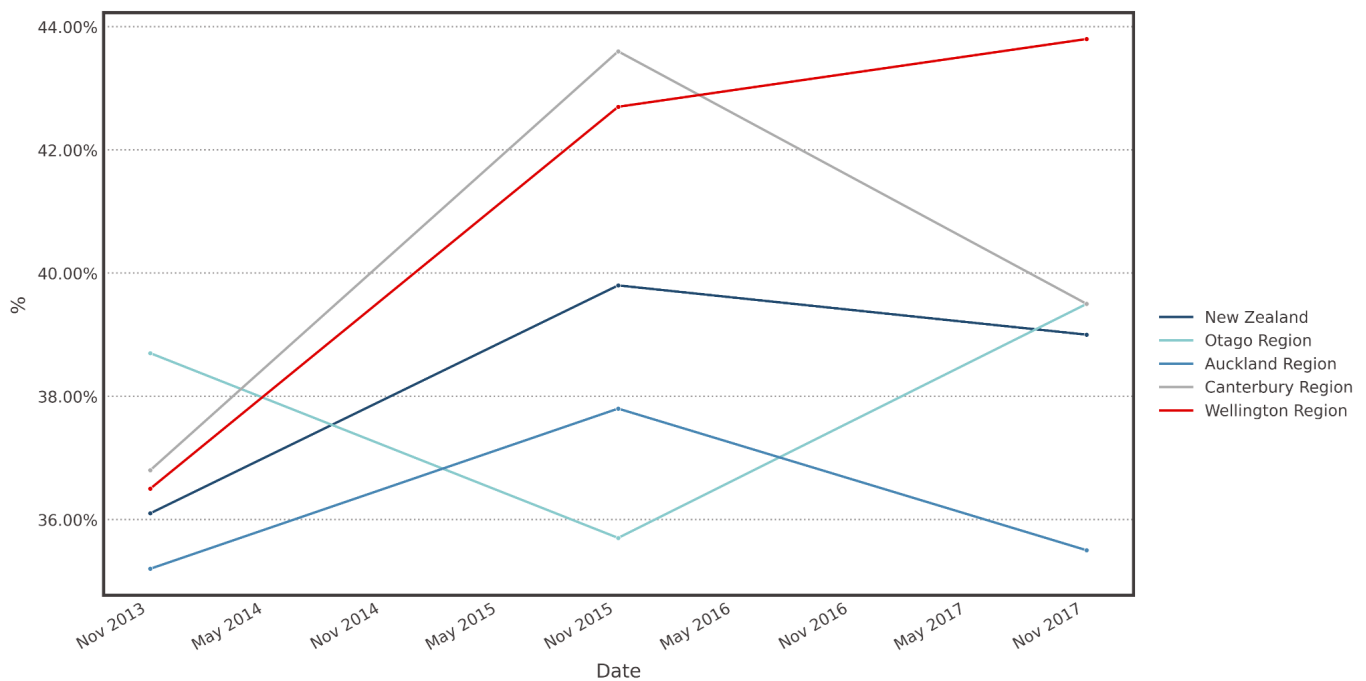
## Dimension 3: Connected communities

### Indicator summary for the Otago Region

Indicator 22: Proportion of the population who reported feeling lonely some/most/all of the time



#### Indicator 22: Proportion of the population who reported feeling lonely some/most/all of the time



Indicator 22 focuses on the proportion of the population reporting feeling lonely some/most/all of the time and serves as a headline measure of connectedness. By examining the trends in feelings of loneliness over time and comparing different regions, policymakers can gain a better understanding of the factors that contribute to loneliness and the effectiveness of existing social support systems.

#### 1. New Zealand:

- The overall proportion of the population reporting loneliness increased from 36.1% in 2014 to 39.0% in 2018. This suggests a growing prevalence of loneliness at the national level.



## 2. Otago Region:

- In 2014, Otago ranked 12th out of 12 regions, with 38.7% of the population reporting loneliness.
- In 2018, its ranking moved to 4th, with an increase in the percentage to 39.5%.

## 3. Auckland Region:

- In 2014, Auckland had 35.2% of the population reporting loneliness.
- In 2018, Auckland saw a slight increase to 35.5% reporting loneliness.

## 4. Canterbury Region:

- In 2014, Canterbury had 36.8% reporting loneliness.
- This ranking remained consistent across the observed years, while the actual proportion of loneliness increased to 39.5%.

## 5. Wellington Region:

- Wellington experienced a significant increase in feelings of loneliness, with 36.5% reporting loneliness in 2014.
- However, by 2018, it had a notable rise to 43.8%.
- These results suggest a concerning trend of increasing loneliness levels in Wellington.

Overall, the data reflects varying levels of loneliness across different regions of New Zealand, with Otago and Canterbury demonstrating similar levels to the New Zealand proportion in 2018. Auckland had relatively lower levels and Wellington experienced a notable increase of loneliness. These findings can help inform policymakers and community stakeholders in developing strategies and interventions to promote connectedness and combat loneliness in specific regions.

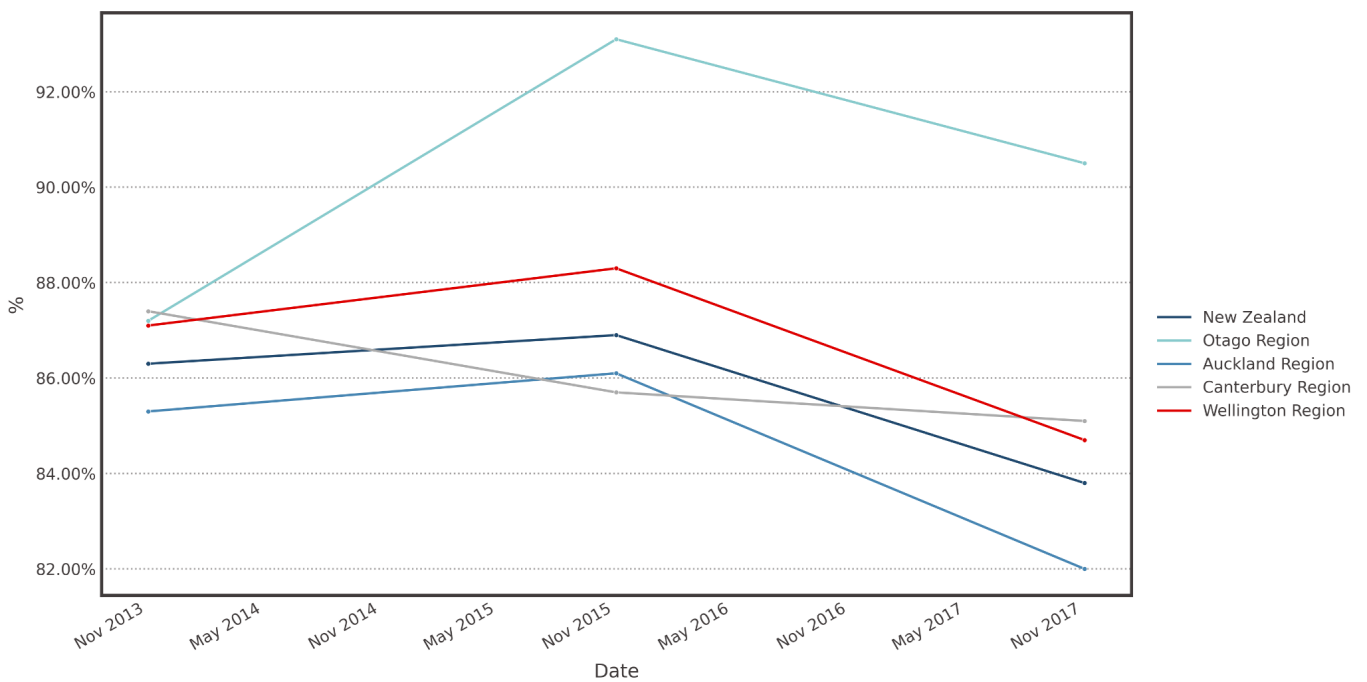


## Dimension 4: Belonging and identity

### Indicator summary for the Otago Region

Indicator 23: Proportion of the population reporting it easy or very easy to express their identity	✔
Indicator 24: Proportion of the population speaking Te Reo Māori	!
Indicator 25: Proportion of Otago Māori population speaking Te Reo Māori	!

#### Indicator 23: Proportion of the population reporting it easy or very easy to express their identity



This section reports on the proportion of the population reporting it is easy or very easy to express their identity, which serves as the best available indicator for individual and shared identity. Here we compare the data covering two time periods, 2014 and 2018.

New Zealand demonstrates a high level of ease in expressing identity, with 86.3% of the population reporting it easy or very easy in 2014. However, there was a slight decline to 83.8% in 2018. Among the regions examined, Otago stands out with consistently high percentages, ranking 6th in 2014 at

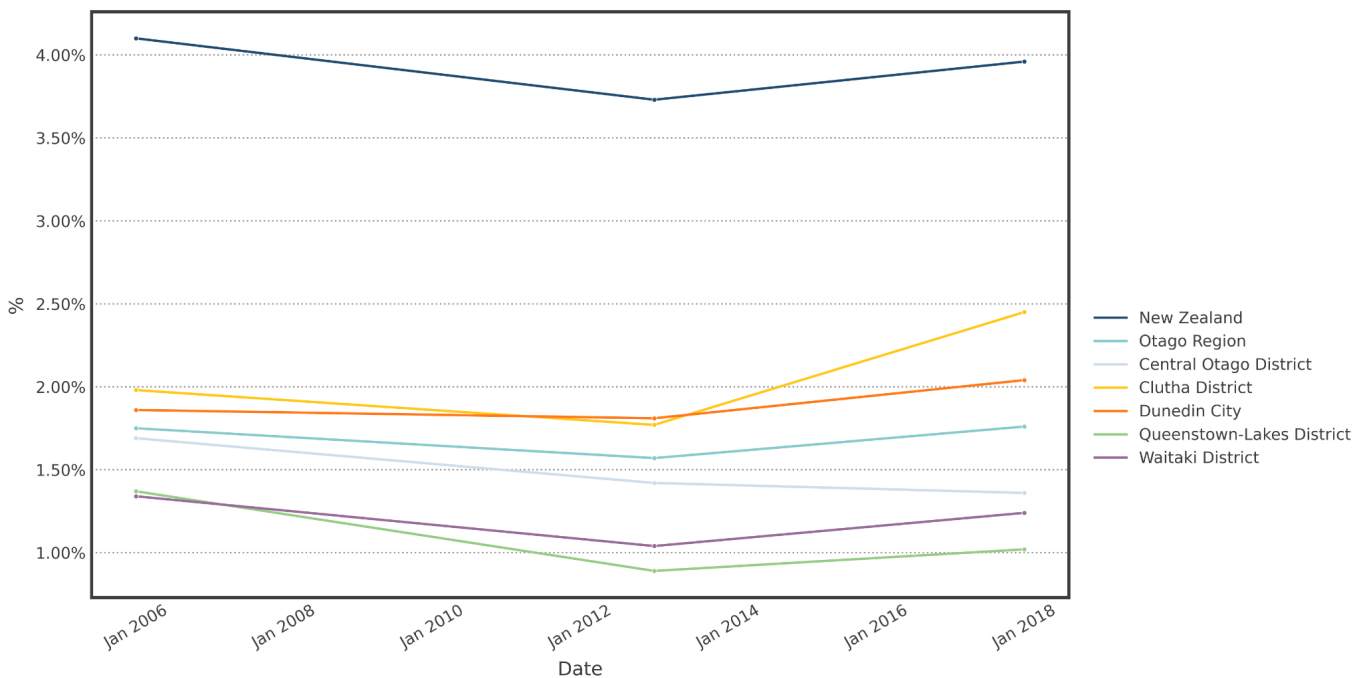


87.2% and improving again to 2nd place in 2018 at 90.5%. This indicates a positive environment where individuals feel comfortable expressing their identity.

Auckland, Canterbury, and Wellington also exhibit favourable results, with ease of expressing identity percentages of 85.3%, 87.4%, and 87.1% in 2014, respectively. However, there were slight declines in Auckland (-3.3%) and Wellington (-2.4%) in 2018, suggesting the need for continued efforts to support individuals in expressing their identity in these regions.

The data reflects a generally positive environment in New Zealand for expressing identity, with Otago showcasing consistently high percentages and notable improvement over time. While Auckland, Canterbury, and Wellington also exhibit favourable results, the slight declines in Auckland and Wellington emphasise the importance of ongoing support to foster an inclusive and supportive atmosphere for individuals to express their identity.

**Indicator 24: Proportion of the population speaking Te Reo Māori**



Te Reo Māori, the indigenous language of Aotearoa New Zealand, holds profound cultural significance, representing the identity, traditions, and values of the Māori people. By integrating Te Reo Māori into education, community engagement, and public discourse, we contribute to its preservation and empower Māori communities, fostering a society that embraces cultural diversity





and intercultural understanding. The data provided here focuses on the proportion of the Otago population who speak Te Reo, serving as an indicator of shared identity and belonging. Analysing the rankings and values from 2013 to 2018 offers insights into the prevalence of Te Reo usage within different areas of Otago.

1. New Zealand:

- Across New Zealand, the proportion of the population speaking Te Reo increased from 3.73% in 2013 to 3.96% in 2018, reflecting modest growth.

2. Otago Region:

- The Otago Region consistently ranked lower in terms of Te Reo usage compared to other regions, placing 16th out of 16 regions in 2013 with a percentage of 1.57% and maintaining the last rank in 2018 with a slight increase to 1.76%.

3. Central Otago District:

- Within the Central Otago District, the proportion of Te Reo speakers was relatively low, ranking 61st out of 67 territorial authorities in 2013 with 1.42% and experiencing a slight drop to 62nd in 2018 with 1.36%.

4. Clutha District:

- The Clutha District displayed a higher proportion of Te Reo speakers compared to other TAs within the Otago Region, ranking 54th out of 67 territorial authorities in 2013 with 1.77% and improving to 44th in 2018 with 2.45%.

5. Dunedin City:

- In the Dunedin City area, the percentage of Te Reo speakers was moderate, ranking 53rd in 2013 with 1.81% and maintaining that ranking in 2018, with a slight increase to 2.04%.

6. Queenstown-Lakes District:

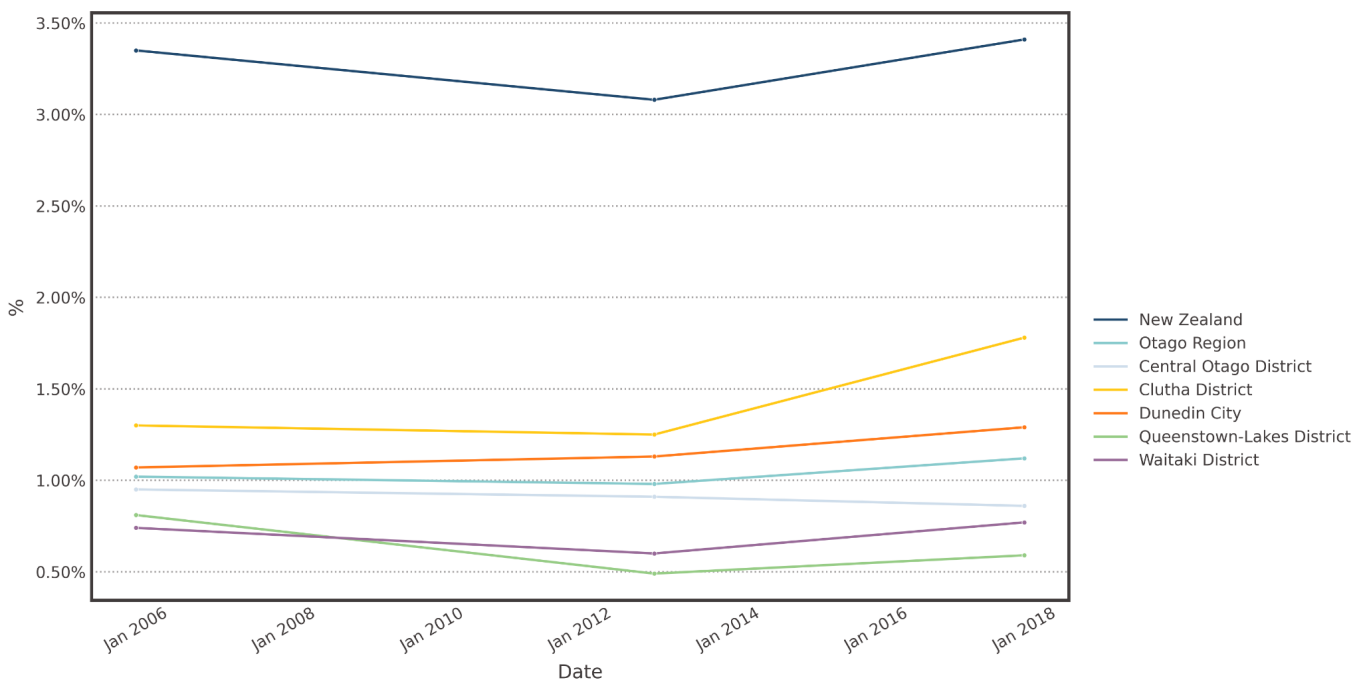
- The Queenstown-Lakes District had the lowest proportion of Te Reo speakers of all districts, consistently ranking last among the districts in both 2013 and 2018, with 0.89% and a slight increase to 1.02%, respectively.



7. Waitaki District:

- The Waitaki District, while still presenting a relatively low proportion, experienced a slight growth in Te Reo usage, ranking 66th in 2013 with 1.04% and improving to 65th in 2018 with 1.24%.

**Indicator 25: Proportion of Otago Māori population speaking Te Reo Māori**



Indicator 25 shows the proportion of the Otago Māori population who speak Te Reo, serving as an indicator of Māori identity and the intergenerational sustainability of Te Reo Māori. The contrasting rankings and values from 2013 to 2018 have been used to analyse the prevalence of Te Reo usage within specific areas of Otago. The data highlights the challenges faced in sustaining Te Reo Māori within the Māori population of New Zealand. Efforts to revitalise and promote the use of Te Reo should be a priority, particularly in areas where the proportion of speakers is lower.

1. New Zealand:

- In New Zealand as a whole, the proportion of Māori individuals speaking Te Reo increased from 3.08% in 2013 to 3.41% in 2018, reflecting a modest growth in the preservation of the language.



## 2. Otago Region:

- Among the regions, the Otago Region consistently ranked lower in terms of Te Reo usage. In 2013, it had a proportion of 0.98%, placing it 15th out of 16 regions. By 2018, the proportion slightly increased to 1.12%, resulting in the last rank among the regions. This highlights the challenges faced in sustaining Te Reo Māori within the Otago Māori population.

## 3. Central Otago District:

- Within the Central Otago District, the proportion of Te Reo speakers was relatively low. In 2013, it ranked 58th out of 67 territorial authorities with a proportion of 0.91%. By 2018, the proportion further decreased to 0.86%, resulting in a rank of 62nd.

## 4. Clutha District:

- The Clutha District in 2013 ranked 52nd with a proportion of 1.25%. By 2018, the proportion improved slightly to 1.78%, resulting in a rank of 48th.

## 5. Dunedin City:

- In Dunedin City, the proportion of Te Reo speakers in 2013 was 1.13%, where it ranked 54th. In 2018, the proportion increased slightly at 1.29%, resulting in a rank of 53rd.

## 6. Queenstown-Lakes District:

- The Queenstown-Lakes District had the lowest proportion of Te Reo speakers, consistently ranking last among the districts. In 2013, it had a proportion of 0.49%, which slightly increased to 0.59% in 2018, resulting in a rank of 66th.

## 7. Waitaki District:

- The Waitaki District, while still presenting a relatively low proportion, experienced a slight growth in Te Reo usage. In 2013, it ranked 66th with a proportion of 0.6%, and by 2018, the proportion improved to 0.77%, resulting in a rank of 65th.

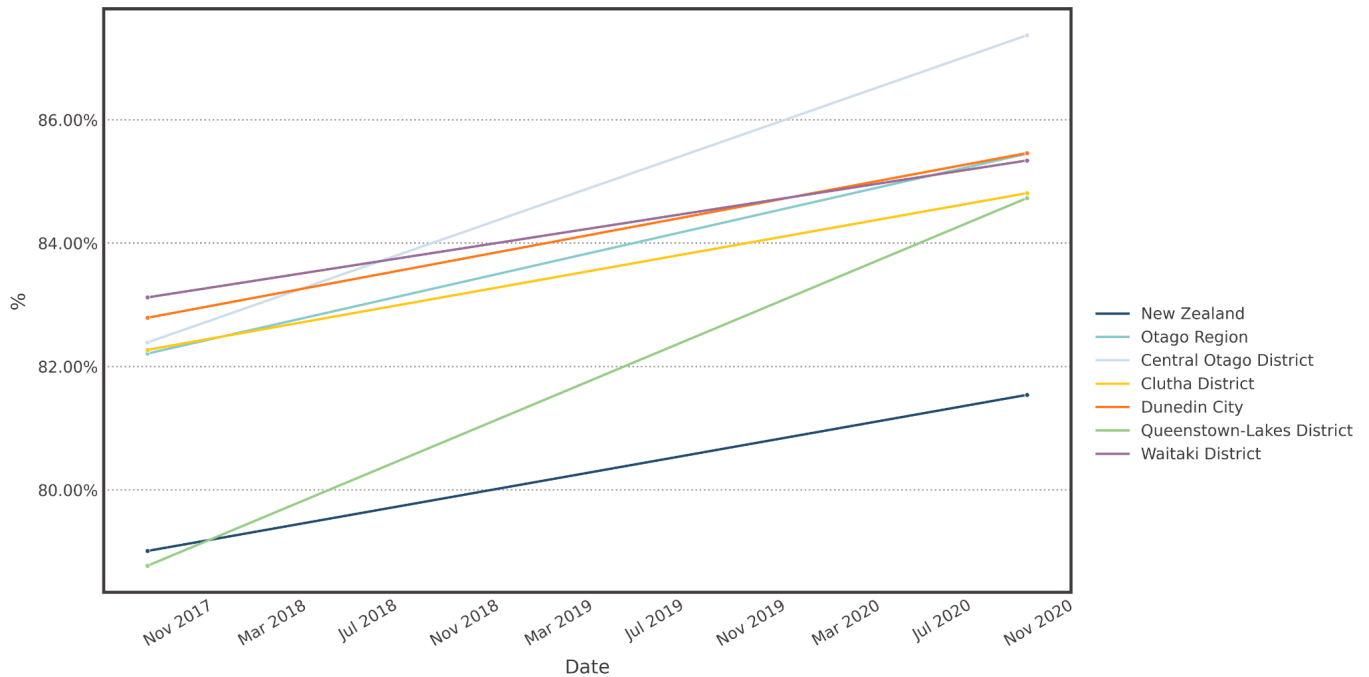


## Dimension 5: Participation and governance

### Indicator summary for the Otago Region

Indicator 26: Voter turnout rate in general elections	✓
Indicator 27: Mean trust in health, education, and policy institutions	✓
Indicator 28: Mean generalised trust	✓

#### Indicator 26: Voter turnout rate in general elections



The voter turnout rate in general elections data provides insight to the level of participation and engagement of citizens in the democratic process, reflecting their trust and belief in the electoral system. Analysing the data from 2017 and 2020, we can summarise the findings as follows:

1. New Zealand:

- New Zealand, as a whole, demonstrates a positive trend in voter turnout rates.
- In 2017, the country had a turnout rate of 79.01%, which increased to 81.54% in 2020, indicating a growing level of confidence and participation in the democratic process.



## 2. Otago Region:

- The Otago Region exhibited a consistently high level of voter turnout. In 2017, it had a turnout rate of 82.21%, ranking 3rd out of 16 regions.
- By 2020, its turnout rate increased to 85.45%, securing the 2nd rank. This suggests a strong level of participation and trust in the democratic institutions within the region.

## 3. Clutha District:

- Clutha District had a notable voter turnout rate in 2017 of 82.27%, ranking 19th out of 67 territorial authorities.
- In 2020, its turnout rate increased to 84.81%, placing it in the 21st rank. This indicates a solid level of civic engagement and trust in the democratic process within the Clutha District.

## 4. Dunedin City:

- In the Otago Region, Dunedin City showcased a consistently high level of voter turnout. In both 2017 and 2020, it had a turnout rate of 82.79%, securing the 14th rank out of 67 territorial authorities.
- This reflects a strong sense of civic participation and trust in the democratic institutions within Dunedin City.

## 5. Queenstown-Lakes District:

- Within the Otago Region, the Queenstown-Lakes District also demonstrated a commendable voter turnout rate. In 2017, it had a turnout rate of 78.77%, ranking 43rd out of 67 territorial authorities.
- In 2020, its turnout rate significantly increased to 84.73%, improving its ranking to 22nd place. This indicates a notable increase in civic engagement and trust in the democratic process within the Queenstown-Lakes District.

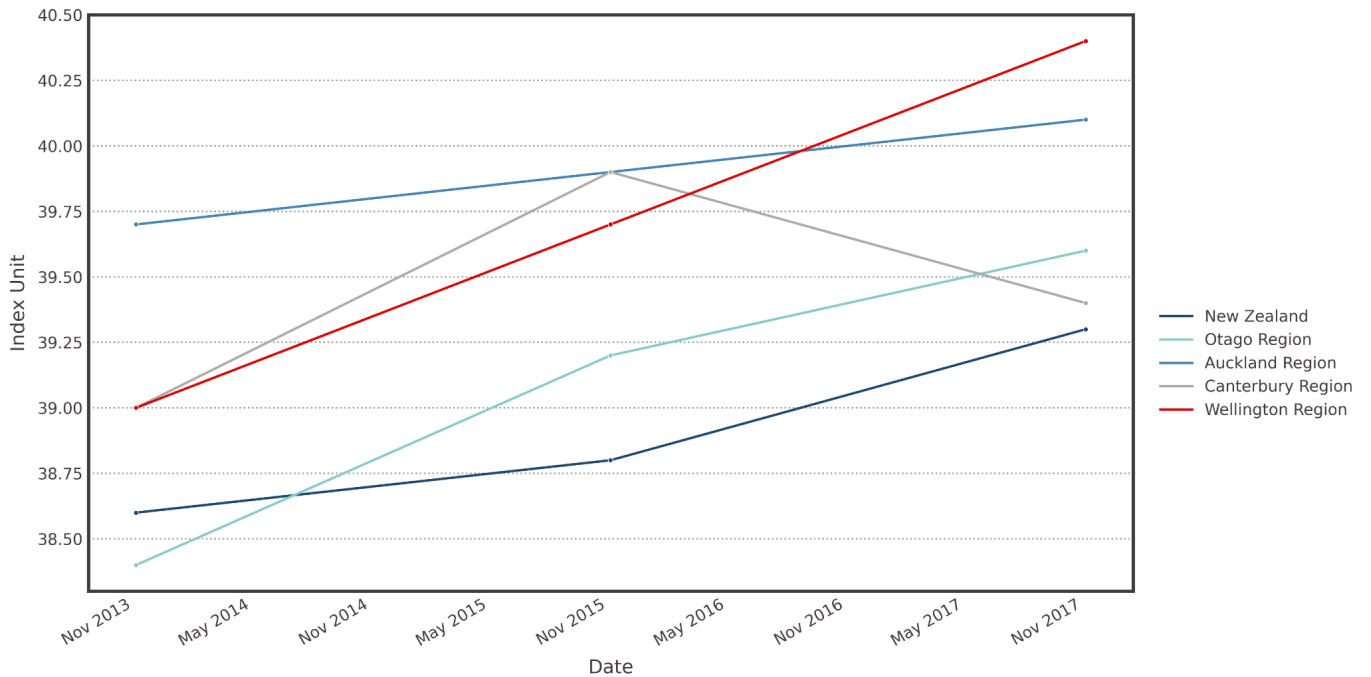
## 6. Waitaki District:

- The Waitaki District also showcased a consistently high level of voter turnout. In 2017, it had a turnout rate of 83.12%, ranking 10th out of 67 territorial authorities.



- By 2020, its turnout rate increased to 85.34%, placing it in the 15th rank. This highlights a solid level of civic participation and trust in the democratic process within the Waitaki District.

**Indicator 27: Mean trust in health, education, and policy institutions**



Indicator 27 is the mean trust in health, education, and policy institutions, and serves as the headline indicator of trust in service delivery institutions. Here we compare rankings and values from 2014 to 2018 to provide insights into the level of trust across different regions.

In New Zealand, the overall mean trust value increased from an index level of 38.6 in 2014 to 39.3 in 2018, indicating a moderate level of trust. The Otago Region consistently maintained trust levels, with a mean value of 38.4 in 2014 and 39.6 in 2018. Otago ranked 4th out of 13 regions in 2014 and improved to 3rd rank in 2018.

The Auckland Region exhibited one of the highest levels of trust over the compared years. In 2014, Auckland had a mean trust value of 39.7 index units, ranking 1st among the regions. In 2018, it maintained a strong level of trust with a value of 40.1 index units, ranking 2nd.

Similarly, in 2014, the Canterbury Region displayed a mean trust value of 39.0 index units, securing the 2nd rank among the regions. However, by 2018, it experienced a drop in ranking to 4th place. In

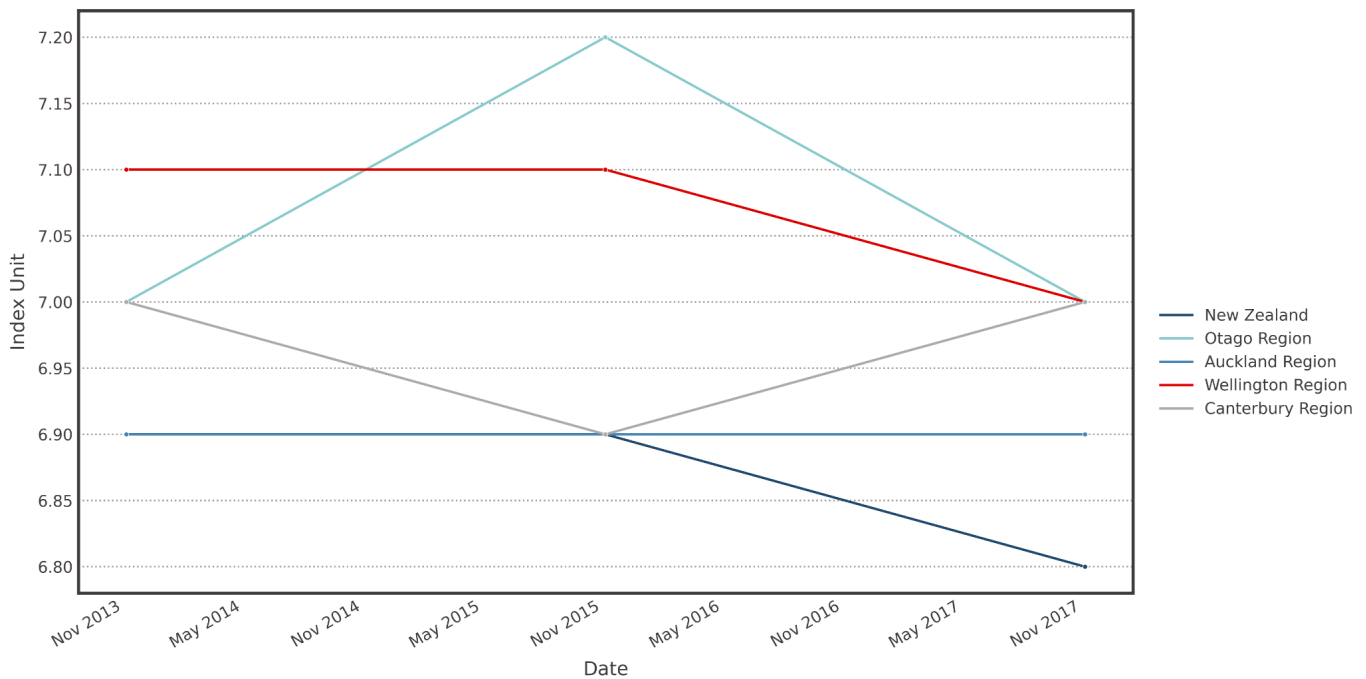


2018, the region maintained a solid level of trust with a value of 39.4 index units, but dropped to 4th ranked due to other regions' increase in mean trust. The Canterbury region indicates consistent trust level in service delivery institutions.

The Wellington Region consistently showcased a high level of trust, ranking 3rd in 2014 with a mean trust value of 39.0 index units. In 2018, it claimed the top rank with an increased value of 40.4 index units.

Overall, the data highlights variations in trust across regions, with Auckland and Wellington exhibiting higher levels of trust, with Otago and Canterbury maintaining solid levels of trust in service delivery institutions. These findings emphasise the importance of nurturing and sustaining trust in order to ensure effective service provision in health, education, and policy sectors.

**Indicator 28: Mean generalised trust**



Indicator 28 provides insight to the mean generalised trust data which gives valuable insights into the level of social capital within a community. Social capital refers to the trust, cooperation, and connections among individuals that contribute to the overall well-being and functioning of a society.



### 1. New Zealand:

- New Zealand demonstrates a relatively high level of mean generalised trust. In 2014, it had a mean trust score of 6.9 and then by 2018, there was a slight decrease in the mean trust score to 6.8 index units.

### 2. Otago Region and Canterbury Region:

- The Otago Region and Canterbury Region both ranked 2nd equal of the 12 regions 2014, reflecting a mean trust score of 7.0 index units.
- By 2018, they both achieved a first equal ranking (along with Wellington), indicating a consistent level of social capital and trust within the communities.
- Over both years, Otago and Canterbury achieved a higher mean generalised trust rate than the national benchmark.

### 3. Auckland Region

- In 2014, the Auckland Region had a mean trust score of 6.9 index units, ranking 5th out of the regions. Then in 2018, it improved its ranking to 4th while maintaining the same mean trust score of 6.9 index units. This suggests a stable level of social capital within the region.

### 4. Wellington

- The Wellington Region demonstrates the highest level of mean generalised trust among the analysed regions. In 2014, it had a mean trust score of 7.1 index units.
- In 2018, it maintained its ranking, while the mean trust score also remained relatively high at 7.0 index units.
- The Wellington Region maintains a high level of social capital. In both years, Wellington achieved a higher mean generalised trust rate than the national benchmark.





## Dimension 6: A healthy natural environment

### Indicator summary for the Otago Region

Indicator 30: Percentage of swimming sites deemed safe	
Indicator 31: Tonnes of carbon dioxide equivalent gas emissions per capita	

Please note: Certain environmental indicators in the report are subject to limitations due to the sampling sites and sampling rates of their data, such as the data obtained from the Land, Air, Water Aotearoa (LAWA) program. These limitations arise from factors such as the distribution of monitoring stations and the frequency of data collection. While the provided data can still offer valuable insights into trends and patterns, it is important to acknowledge these limitations and their potential impact on the accuracy and representativeness of the indicators.

In this report, we pursued the following indicators as a first attempt for baseline measurement. For various reasons they are unlikely to be adequate, and we have concerns regarding the accuracy and representativeness of the indicators. We report them here for completeness.

The environmental indicators in the report, obtained and aggregated from the Land, Air, Water Aotearoa (LAWA) programme, have limited utility at a region/district level. There are limitations that arise from factors such as the distribution of monitoring stations and the frequency of data collection. Water quality and air quality data are specific to particular sites. The data cannot be readily aggregated to a district level in a way that is meaningful for scientific use.

The indicator 30 below is therefore purely a comparison of aggregated data between districts to provide a rough district by district comparison.

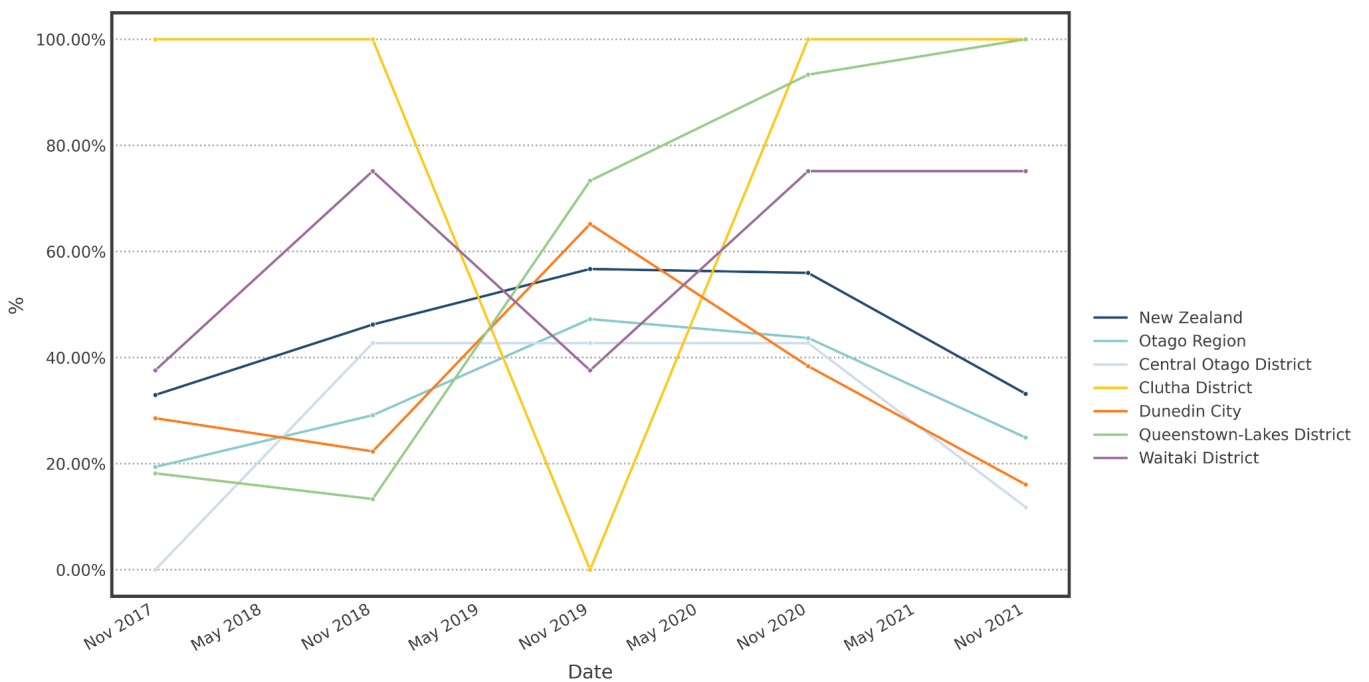
Future iterations of this report will build on this experience, and look to determine more useful aggregate measures for environmental health.



### Indicator 29: Mean PM10 concentration in micrograms per cubic metre

Indicator 29 includes data from only seven sites in Otago. ORC deliberately measures this data at sites with known air quality issues. This makes aggregation to a district level of limited use. For this reason we have currently left this indicator blank. We are aware that both the Ministry for the Environment and Environmental Health Intelligence New Zealand have done some work in developing data at a district level, which we hope to include as it becomes available.

### Indicator 30: Percentage of swimming sites deemed safe



Indicator 30 focuses on the percentage of measured swimming sites that are safe, which serves as a potential headline measure of water quality used in environmental reporting by the Ministry for the Environment (MfE) and Statistics New Zealand. Here we will compare the rankings and values of data from the years 2018-2022 of safe swimming sites across different regions in New Zealand. By examining the trends and changes over time, we can assess the effectiveness of water quality management efforts and the effectiveness of environmental measures in ensuring safe recreational water facilities.

It is important to note, Contact recreation, while it is a relatable measure for public communication and is used in the NPSFM, has some difficulties as a statistical measure. Criteria for a safe swimming site is very stringent. Some sites are good nearly all the time but can be drastically



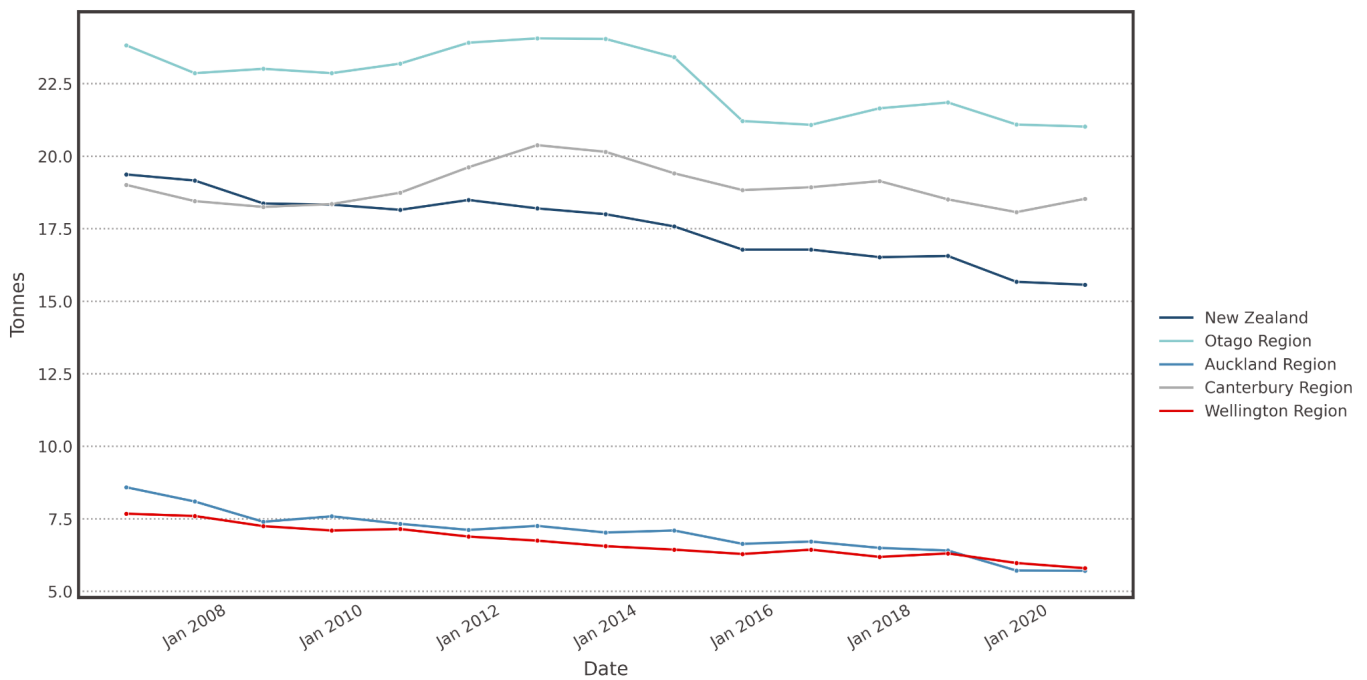
altered by transient events. Key among these is that sampling is very susceptible to the influence of climate conditions, especially rain events. Differences in results between years are therefore not necessarily meaningful. This is borne out in current ORC SOE reporting.

We note that the improvement in results for the Queenstown Lakes District is likely a result of improvement in sampling methods.

The dramatic swing in results for the Clutha District is likely a result of aggregation being susceptible to a limited number of poor sampling results. The two sites sampled in the district (Kaka Point and Pounaweia) are listed as “Excellent” and “Fair” on the LAWA site. Comparisons between sites must be made with caution, given the drastically different conditions at those sites.

With the above caveats, we can comment that the national average for safe swimming sites has remained stable but low. In Otago, 70% of sites monitored have a ‘fair’ to ‘excellent’ long-term grade.

**Indicator 31: Tonnes of carbon dioxide equivalent gas emissions per capita**



Indicator 31 focuses on CO2 emissions per capita, a critical measure of atmospheric outcomes related to climate change and a significant indicator of sustainability. This section looks at the data range specifically from 2014 to 2021, comparing the values of CO2 emissions per capita for different regions in New Zealand. By examining these over time, we can gain insights into the



outcomes of initiatives and identify areas that have made progress or face challenges in reducing carbon emissions.

The data reveals varying levels of sustainability and progress across different regions in New Zealand. Auckland and Wellington consistently display lower carbon emissions per capita, and set the benchmark for other regions such as Otago and Canterbury to follow. However overall, New Zealand as a whole and all regions display a continued downward trend, which is positive to acknowledge.

1. New Zealand:

- In 2014, the emissions were recorded at 18.0 tonnes per capita, which decreased to 15.57 tonnes per capita in 2021.

2. Otago Region:

- In 2014, Otago ranked 9th out of 16 regions, with 24.04 tonnes per capita.
- However, over time, the region showed improvement and reduced its emissions to 21.02 tonnes per capita by 2021, ranking 10th out of 16 regions.

3. Auckland Region:

- In 2014, the region ranked 2nd out of 16 regions, with 7.03 tonnes per capita.
- By 2021, it further reduced emissions to 5.71 tonnes per capita, securing the top rank.

4. Canterbury Region:

- In 2014, Canterbury ranked 8th out of 16 regions, with 20.15 tonnes per capita, and maintained a similar level with 18.53 tonnes per capita in 2021, holding the 8th rank.

5. Wellington Region:

- The Wellington Region consistently demonstrated lower CO2 emissions per capita. In 2014, it ranked 1st out of 16 regions, with 6.56 tonnes per capita
- In 2021, emissions reduced further to 5.8 tonnes per capita, but its ranking dropped marginally and ranked 2nd behind Auckland.

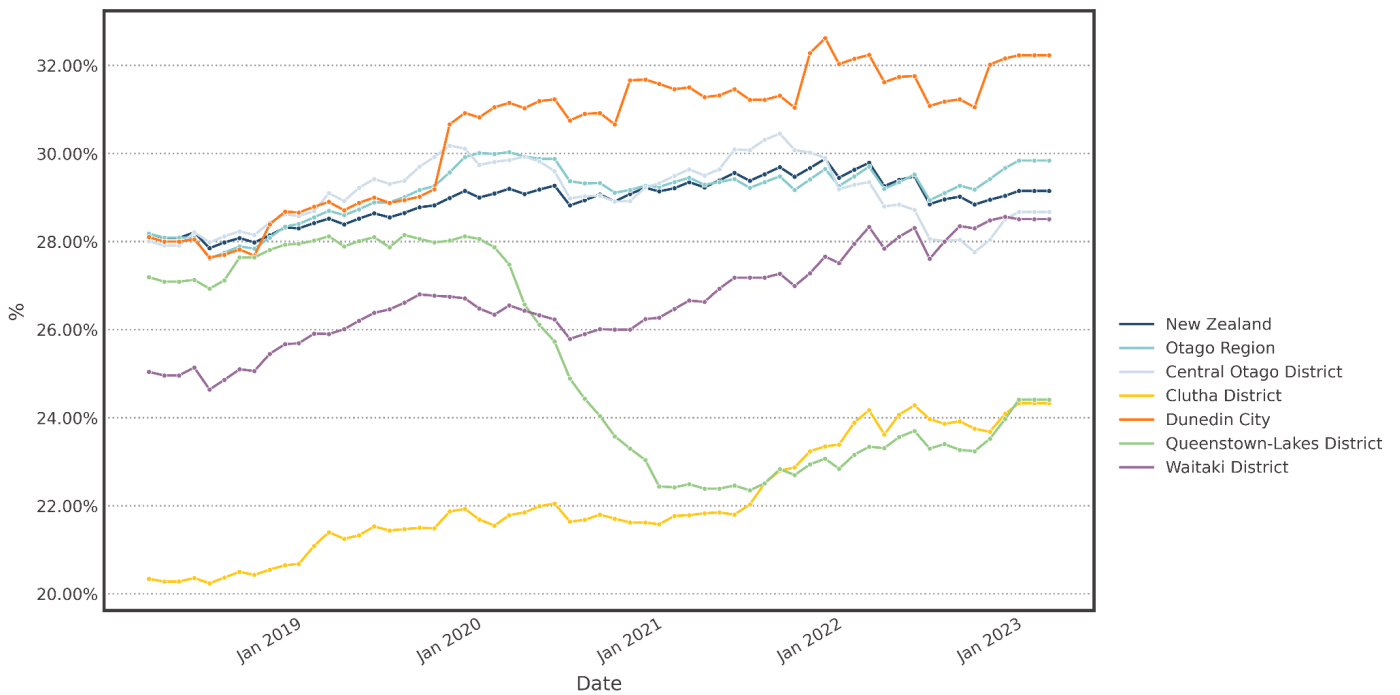


# Dimension 7: An enabling built environment

## Indicator summary for the Otago Region

Indicator 32A: Rent affordability	✓
Indicator 32B: Purchasing Affordability	✓
Indicator 33: Percentage of the population reporting that their dwelling is cold sometimes or most of the time	!

### Indicator 32A: Rent Affordability

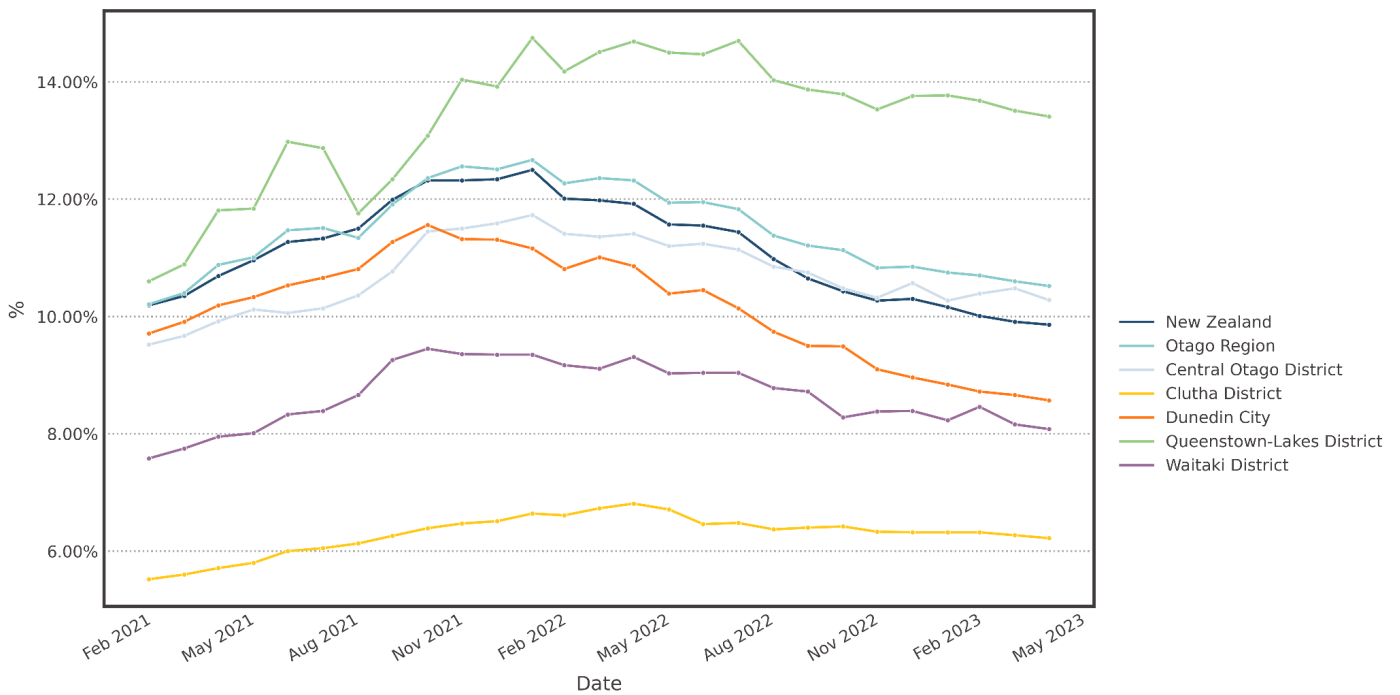


Indicator 32A focuses on Rent Affordability and depicts the percentage of household income spent on rent. Here we compare the years 2018 and 2023 to see how the regions fare over time. In 2018, the Otago region had a value of 28.09%, which is a very similar value percentage for New Zealand at the same time of 28.08%. However by 2023, the percentage of household income spent on rent in the Otago Region increased to 29.84%, while the New Zealand percentage increased to 29.15%. This increase over time demonstrates a small decrease in the affordability of rent in these areas.



Dunedin City over this time period saw declining rental affordability, going from 28.00% to 32.23% between 2018 and 2023. Whilst the Clutha and Queenstown-Lakes districts currently sit below the national average at around 24.33% and 24.41% respectively in 2023. In Queenstown this is due to high levels of household income, while in Clutha it largely reflects lower rental levels.

### Indicator 32B: Purchasing affordability

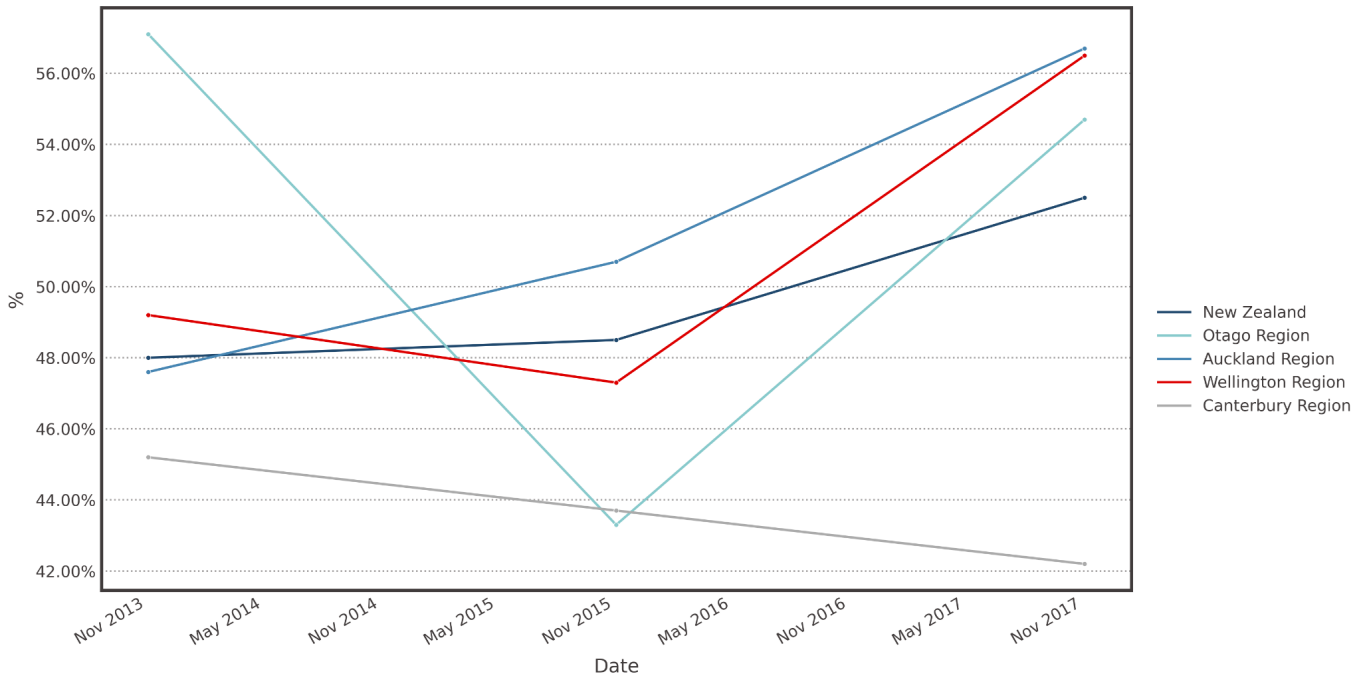


The purchasing affordability Indicator data provides insights into the affordability of purchasing property in various regions of New Zealand. Here we have compared 2021 with 2023. Purchasing affordability is defined as the percentage of annual median household income that is spent on mortgage repayments (based on purchasing the median house price with a 20% deposit over 30 years with a 4% fixed interest rate).

New Zealand, as a whole, experienced a purchasing affordability rate of 10.19% of income in 2021, and by 2023, this had decreased to 9.86% due to softening house purchase prices. The Otago Region had a purchasing affordability rate of 10.21% in 2021, slightly higher than the national average, and by 2023, its purchasing affordability increased to 10.52%, still above the national average.



**Indicator 33: Percentage of the population reporting that their dwelling is cold sometimes or most of the time**



The percentage of the population reporting that their dwelling is cold sometimes or most of the time serves as a headline indicator of housing quality. This section analyses the data from 2014 and 2018 to assess the performance of different regions in New Zealand, with a specific focus on the Otago Region. The data highlights the importance of addressing housing conditions and provides insights into the changes in dwelling temperature perception over time.

1. New Zealand:

In 2014, the national average for New Zealand was 48.0% of the population reporting cold dwellings sometimes or most of the time. By 2018, this percentage had increased to 52.5%, indicating a rise in the prevalence of cold dwellings at the national level.

2. Otago Region:

In 2014, the Otago Region ranked 1st out of 12 regions, with 57.1% of the population reporting cold dwellings. By 2018, the Otago Region's ranking dropped to 7th, with a percentage of 54.7%. Despite a slight decrease, the Otago Region still had a higher proportion of the population reporting cold dwellings compared to the national average.



### 3. Auckland Region:

In 2014, the Auckland Region ranked 9th, with 47.6% of the population reporting cold dwellings. By 2018, the region's ranking improved to 4th, with a percentage of 56.7%. This indicates a significant increase in the proportion of individuals reporting cold dwellings in Auckland.

### 4. Canterbury Region:

The Canterbury Region had relatively low percentages in both 2014 and 2018. In 2014, it ranked 11th, with 45.2% reporting cold dwellings, and in 2018, it ranked last, with a reduced percentage of 42.2%.

### 5. Wellington Region:

The Wellington Region displayed consistent rankings over the analysed period. In 2014, it ranked 6th, with 49.2% reporting cold dwellings, and in 2018, it maintained its 6th position with a percentage of 56.5%.





## 6. Conclusion

The Otago Region demonstrates strong wellbeing in the dimensions of Healthy and Fulfilled people, Belonging and Identity, as well as Participation and Governance. The Otago Region not only surpasses the national benchmark in these areas but also showcases excellence in initiatives that deserve recognition. To maintain their accomplishments, the Otago Regional Council and supporting organisations within the Otago region should continue to prioritise and invest in these dimensions.

Within these dimensions, the indicators where Otago exceeds national performance are:

- Indicator 4 - Mean sense of life being worthwhile: Otago's leadership in this indicator signifies the Council's commitment to fostering a sense of wellbeing and contentment amongst its community. This indicator reflects Otago's dedication to providing opportunities for individuals to lead meaningful and fulfilling lives.
- Indicator 23 - Proportion of the population reporting it easy or very easy to express their identity: Otago's focus on creating an inclusive environment is evident in the proportion of the population reporting it easy to express their identity. This indicator highlights the region's efforts in promoting acceptance, diversity, and a strong sense of belonging. It is worth mentioning that whilst Otago is a leader in this indicator, there is still room to minimise this gap to improve community wellbeing.
- Indicator 28 - Mean generalised trust: Otago's success in this indicator emphasises the region's achievements in cultivating social capital and fostering trust amongst community members. This trust serves as a foundation for cooperation, collaboration, and a harmonious society.

By excelling in these dimensions and indicators, the Otago region sets itself apart as a region that prioritises the wellbeing of its community, fosters inclusivity and belonging, encourages active participation and democratic engagement, and builds strong social connections. Moving forward, Otago Regional Council and agencies within Otago should continue its endeavours in these areas to maintain its exceptional achievements and serve as an inspiration for other regions to follow suit.



## 7. Recommendations

The Otago Regional Council and organisations within the Otago region will need to work closely with agencies and its community to focus on four key dimensions of their efforts in the years to come to improve the overall wellbeing. These dimensions are:



Dimension 3  
**Connected communities**

The Otago Region performs much lower than the national benchmark for Connected Communities. This should be a key focus area for the Otago Region to improve connection within communities.



Dimension 2  
**A good standard of living**

Otago has a good standard of living relative to other regions and the national benchmark. However, it requires monitoring.



Dimension 6  
**A healthy natural environment**

Otago's natural environment performs below the other main regions, but above the national average. New initiatives should be considered within this dimension.



Dimension 7  
**An enabling built environment**

Otago's built environment performs below the national benchmark and initiatives should be considered to improve the current baseline, particularly in relation to housing.

Through targeted efforts in these key dimensions, the Otago Regional Council can make significant progress in enhancing the wellbeing of its communities. By prioritising connected communities, enabling built environments, good standards of living, and a healthy natural environment, the Council can foster social cohesion, improve livability, sustain economic prosperity, and protect the region's natural assets. Continuous monitoring, stakeholder engagement, and collaboration will be essential in successfully implementing initiatives that address specific challenges and leverage opportunities for the betterment of the Otago region.

When comparing the most recent ranking of how the Otago region compares to other regions in New Zealand per indicator, the analysis reveals areas of concern and potential focus for the Otago region to address to enhance the well-being and living conditions of its residents. The indicators in particular that stand out:

- Indicator 9: Regional real GDP per capita
- Indicator 24 & 25: Proportion of the population speaking Te Reo Māori and Proportion of Otago Māori population speaking Te Reo Māori.



Indicator 9 evaluates regional real GDP per capita and indicates the Otago region's performance lagging behind the national benchmark and other regions. Although there has been some growth in GDP per capita between 2014 and 2021, the region still does not meet the national benchmark and lags behind the other regions. To address this, the Otago Regional Council and supporting agencies could prioritise initiatives aimed at stimulating economic development, attracting investment, and fostering innovation and entrepreneurship. By creating a supportive environment for high-value industries and implementing targeted policies and incentives, the region can enhance its economic performance, generate higher-paying job opportunities, and improve the overall standard of living for its residents.

Indicator 24 and Indicator 25 both measure the proportion of the population and Otago Māori population speaking Te Reo Māori. Here the Otago Region again ranks last among the observed regions in the latest data. This highlights the importance of enhancing efforts to revitalise and promote the use of Te Reo Māori within the region, but at the same time it is important to note that Otago has the lowest Māori population of all New Zealand regions at 9%, compared with a national population of 17% (NZ Census, 2018).

Overall, the Otago Region's rankings in these three indicators highlight areas that require attention and improvement. By stimulating economic development and promoting the Te Reo Māori language revitalization, the Otago Regional Council and agencies can take significant strides towards enhancing the wellbeing and living conditions of its residents.



## 8. Appendix

### a. Indicators by Dimension

The Otago Regional Council wellbeing framework outlines what dimensions of wellbeing need to be measured to monitor the wellbeing of the people of Otago. Indicators are statistics that are used to monitor social conditions providing information on progress towards a particular goal or outcome.

#	Dimension	Indicator	Rationale	Data Source
1	Healthy and Fulfilled People	Life expectancy	Headline indicator of health status	Stats NZ
2	Healthy and Fulfilled People	Victimisations per 10,000 people	Headline indicator of safety	New Zealand Police
3	Healthy and Fulfilled People	Mean life satisfaction score	Standard headline indicator of subjective wellbeing.	Stats NZ
4	Healthy and Fulfilled People	Mean sense of life being worthwhile	Complementary indicator of overall wellbeing.	Stats NZ
5	Healthy and Fulfilled People	Māori/non-Māori gap in life expectancy	Indicator of distribution of health outcomes	Stats NZ
6	Healthy and Fulfilled People	Gender gap in life expectancy	Indicator of distribution of health outcomes	Stats NZ
9	Good Standard of Living	Regional real GDP per capita	Headline indicator of access to employment	Stats NZ
10	Good Standard of Living	Real median hourly earnings	Supplementary indicator of access to employment	Stats NZ
11	Good Standard of Living	Employment rate	Supplementary measure of young people not developing or using human capital	Stats NZ
12	Good Standard of Living	Job Seeker Support rate	Headline measure of the flow of formal educational attainment	Ministry of Social Development
13	Good Standard of Living	Proportion of 15 to 24 year-olds Not in Education, Employment, or Training (NEET)	Headline measure of school readiness	Stats NZ
14	Good Standard of Living	School leavers with NCEA level 2 and above	Headline measure of flow of formal educational attainment	Education Counts
15	Good Standard of Living	School entrants with prior ECE	Headline indicator of distribution in incomes	Education Counts



16	Good Standard of Living	Percentage of school leavers enrolled in tertiary education	Supplementary indicator of distribution in incomes	Education Counts
17	Good Standard of Living	Median hourly earnings as a percentage of mean hourly earnings	Female median hourly earnings as a percentage of male median hourly earnings	Stats NZ
18	Good Standard of Living	Māori median hourly earnings as a percentage of non-Māori median hourly earnings	Indicator of the distribution of knowledge outcomes	Stats NZ
19	Good Standard of Living	Female median hourly earnings as a percentage of male median hourly earnings	Indicator of the distribution of knowledge outcomes	Stats NZ
20	Good Standard of Living	Ratio of the proportion of males leaving with NCEA level 2 as their highest qualification, compared to the proportion of females	A potential headline measure of connectedness	Education Counts
21	Good Standard of Living	Ratio of the proportion of Māori leaving with NCEA level 2 as their highest qualification, compared to the proportion of the total population	Best available indicator for individual and shared identity	Education Counts
22	Connected Communities	Proportion of the population who reported feeling lonely some/most/all of the time	Indicator of shared identity and belonging	Stats NZ
23	Belonging and Identity	Proportion of the population reporting it easy or very easy to express their identity	Indicator of Māori identity and of the intergenerational sustainability of Te Reo Māori	Stats NZ
24	Belonging and Identity	Proportion of the population speaking Te Reo	Headline indicator of confidence in democratic institutions	Stats NZ
25	Belonging and Identity	Proportion of the Māori population speaking Te Reo	Headline indicator of trust in service delivery institutions	Stats NZ



26	Participation and Governance	Voter turnout rate in at General Election	Indicator of the level of social capital in the community	Electoral Commission
27	Participation and Governance	Mean trust in health, education, and policy institutions	Headline measure of air quality used in MfE/Statistics New Zealand environmental reporting	Stats NZ
28	Participation and Governance	Mean generalised trust	Potential headline measure of air quality used in MfE/Statistics New Zealand environmental reporting	Stats NZ
29	A Healthy Natural Environment	Mean PM10 concentration in micrograms per cubic metre	Headline measure of atmospheric outcomes relating to climate change and an indicator of the sustainability of outcomes	LAWA
30	A Healthy Natural Environment	Percentage of measured swimming sites that are safe	Headline indicator of housing affording	LAWA
31	A Healthy Natural Environment	Tonnes of carbon dioxide equivalents per capita	Headline indicator of housing quality	Stats NZ
32	An Enabling Built Environment	Rent and purchasing affordability	Headline indicator of housing affording	Homes.co.nz and Stats NZ
33	An Enabling Built Environment	Percentage of the population reporting that their dwelling is cold sometimes or most of the time	Headline indicator of housing quality	Stats NZ



## b. Alterations to proposed indicators

The selection of indicators by DOT often involves considering various factors, such as data availability and suitability of different data sources. In some cases, constraints on data collection or limitations in data quality may require DOT to carefully choose alternative indicators to monitor the desired outcomes effectively. This process ensures that despite data constraints, DOT can still gather relevant and meaningful information to assess transportation conditions and make informed decisions. DOT made alterations to the following indicators:

#	Originally Proposed Indicator	Actual Indicator	Change and rationale
2	Victimisations per 100,000 people (violent and burglaries)	Victimisations per 10,000 people	As a headline indicator of safety, DOT felt this indicator would better reflect community impact. Victimisations include: abduction; assault; motor vehicle theft; robbery, extortion and related offenses; sexual assault, theft and illegal use of property; unlawful entry, burglary, breaking and entering.
4	Mean sense of purpose in life	Mean sense of life being worthwhile	The Wellbeing 2018 statistics did not include a 'purpose in life' question, so 'life worthwhile' was used.
7	Māori/non-Māori gap in mean life satisfaction	-	This indicator could not be constructed as the data was not available below a national level.
8	Gender gap in mean life satisfaction	-	This indicator could not be constructed as the data was not available below a national level.
12	Unemployment rate	Job Seeker Support rate	DOT used this as an alternative indicator as the unemployment rate reflects no more than the opposite of the employment rate already reported on . The Jobseeker rate reflects those actively seeking work.



<b>16</b>	Students in tertiary education as a proportion of the population	Percentage of school leavers enrolled in tertiary education	DOT used this as an alternative headline measure of flow of formal educational attainment.
<b>20</b>	Male NCEA level 2 attainment rate as a percentage of female	Ratio of the proportion of males leaving with NCEA level 2 as their highest qualification, compared to the proportion of females	DOT used this as an alternative indicator of the distribution of knowledge outcomes.
<b>21</b>	Māori NCEA level 2 attainment rate as a percentage of non-Māori	Ratio of the proportion of Māori leaving with NCEA level 2 as their highest qualification, compared to the proportion of the total population	DOT used this as an alternative indicator of the distribution of knowledge outcomes.
<b>26</b>	Voter turnout rate in last local body elections	Voter turnout rate in at General Election	DOT used this as an alternative headline indicator of confidence in democratic institutions.
<b>29</b>	River water quality: macroinvertebrate community index	Mean PM10 concentration in micrograms per cubic metre (air quality measure)	ORC deliberately measures this data at sites with known air quality issues. This makes aggregation to a district level of limited use
<b>30</b>	River water quality: macroinvertebrate community index	Percentage of measured swimming sites that are safe	DOT used this as an alternative indicator.
<b>31</b>	C02 emissions per capita	Tonnes of carbon dioxide equivalents per capita	DOT defined the unit of measurement as tonnes per capita.
<b>32</b>	Percentage of households spending more than 30% of income on housing	32A: Rent Affordability 32B: Purchasing Affordability	DOT used these as an alternative indicator headline indicator of housing affording.





## c. Indicator tables

**Indicator 1: Life expectancy**

Area	Ranking 2014	Value (Units) 2014	Ranking 2019	Value (Units) 2019
<b>New Zealand</b>	N/A	81.35 Years	N/A	81.75 Years
<b>Otago Region</b>	7/16	81.15 Years	4/16	82.35 Years
<b>Central Otago District</b>	8/67	82.4 Years	5/67	83.75 Years
<b>Clutha District</b>	34/67	81.05 Years	20/67	82.0 Years
<b>Dunedin City</b>	41/67	80.65 Years	26/67	81.7 Years
<b>Queenstown-Lakes District</b>	1/67	84.85 Years	1/67	86.05 Years
<b>Waitaki District</b>	46/67	80.4 Years	34/67	81.45 Years

**Indicator 2: Victimisations per 10,000 people**

Area	Ranking 2018	Value (Units) 2018	Ranking 2023-	Value (Units) 2023
<b>New Zealand</b>	N/A	34.59 Rate	N/A	50.27 Rate
<b>Otago Region</b>	15/17	18.44 Rate	15/17	23.3 Rate
<b>Central Otago District</b>	64/67	14.53 Rate	66/67	10.03 Rate



<b>Clutha District</b>	53/67	19.43 Rate	62/67	17.14 Rate
<b>Dunedin City</b>	58/67	17.71 Rate	48/67	26.26 Rate
<b>Queenstown-Lakes District</b>	52/67	19.57 Rate	52/67	23.76 Rate
<b>Waitaki District</b>	39/67	24.91 Rate	56/67	21.14 Rate

**Indicator 3: Mean life satisfaction score**

<b>Area</b>	<b>Ranking 2014</b>	<b>Mean life satisfaction (Index Unit) in 2014</b>	<b>Ranking 2018</b>	<b>Mean life satisfaction (Index Unit) in 2018</b>
<b>New Zealand</b>	N/A	7.8 Index Unit	N/A	7.7 Index Unit
<b>Otago Region</b>	11/11	7.7 Index Unit	3/13	7.8 Index Unit
<b>Auckland Region</b>	3/11	7.8 Index Unit	13/13	7.6 Index Unit
<b>Canterbury Region</b>	11/11	7.7 Index Unit	6/13	7.7 Index Unit
<b>Wellington Region</b>	3/11	7.8 Index Unit	6/13	7.7 Index Unit

**Indicator 4: Mean sense that life is worthwhile**

<b>Area</b>	<b>Ranking 2014</b>	<b>Mean sense of life being worthwhile (Index Unit) in 2014</b>	<b>Ranking 2018</b>	<b>Mean sense of life being worthwhile (Index Unit) in 2018</b>
<b>New Zealand</b>	N/A	8.1 Index Unit	N/A	8.1 Index Unit
<b>Otago Region</b>	8/13	8.1 Index Unit	1/9	8.2 Index Unit
<b>Auckland Region</b>	13/13	8.0 Index Unit	9/9	8.0 Index Unit
<b>Canterbury</b>	8/13	8.1 Index Unit	7/9	8.1 Index Unit



Region				
<b>Wellington Region</b>	6/13	8.2 Index Unit	9/9	8.0 Index Unit

### Indicator 5: Māori/non-Māori gap in life expectancy

Area	Ranking 2014-01-01	Value (Units) 2014-01-01	Ranking 2019-01-01	Value (Units) 2019-01-01
<b>New Zealand</b>	N/A	7.05 Years	N/A	7.3 Years
<b>Otago Region</b>	16/16	1.1 Years	15/15	1.5 Years
<b>Auckland Region</b>	7/16	7.1 Years	5/15	7.65 Years
<b>Canterbury Region</b>	12/16	2.7 Years	12/15	3.15 Years
<b>Wellington Region</b>	9/16	5.45 Years	9/15	5.15 Years

### Indicator 6: Gender gap in life expectancy

Area	Ranking 2014	Gender gap in life expectancy (Years) 2014	Ranking 2019	Gender gap in life expectancy (Years) 2019
<b>New Zealand</b>	N/A	3.7 Years	N/A	3.5 Years
<b>Otago Region</b>	5/15	3.7 Years	3/15	3.4 Years
<b>Central Otago District</b>	7/67	3.5 Years	2/66	2.9 Years
<b>Clutha District</b>	35/67	3.9 Years	50/66	3.8 Years
<b>Dunedin City</b>	25/67	3.8 Years	50/66	3.8 Years
<b>Queenstown-Lakes</b>	35/67	3.9 Years	3/66	3.0 Years



<b>District</b>				
<b>Waitaki District</b>	12/67	3.6 Years	19/66	3.5 Years

### Indicator 9: Regional real GDP per capita

<b>Area</b>	<b>Ranking 2014</b>	<b>GDP Per Capita (\$) 2014</b>	<b>Ranking 2021</b>	<b>GDP Per Capita (\$) 2021</b>
<b>New Zealand</b>	N/A	47409.19 NZD	N/A	59049.79 NZD
<b>Otago Region</b>	9/13	43224.05 NZD	10/13	51921.83 NZD
<b>Auckland Region</b>	4/13	49741.17 NZD	2/13	66539.22 NZD
<b>Canterbury Region</b>	5/13	49351.45 NZD	6/13	56844.28 NZD
<b>Wellington Region</b>	2/13	57585.21 NZD	1/13	69065.68 NZD

### Indicator 10: Real median hourly earnings

<b>Area</b>	<b>Ranking 2014</b>	<b>Real median hourly earnings (\$) 2014</b>	<b>Ranking 2022</b>	<b>Real median hourly earnings (\$) 2022</b>
<b>New Zealand</b>	N/A	21.92 NZD	N/A	29.0 NZD
<b>Otago Region</b>	4/12	21.58 NZD	4/13	28.77 NZD
<b>Auckland Region</b>	2/12	23.25 NZD	2/13	30.3 NZD
<b>Canterbury Region</b>	3/12	21.63 NZD	6/13	28.28 NZD
<b>Wellington Region</b>	1/12	24.04 NZD	1/13	32.0 NZD

**Indicator 11: Employment rate**

Area	Ranking 2013	Employment rate 2013	Ranking 2018	Employment rate 2018
<b>New Zealand</b>	N/A	92.89 %	N/A	94.18 %
<b>Otago Region</b>	8/17	94.3 %	8/17	95.17 %
<b>Central Otago District</b>	5/67	97.42 %	4/67	97.86 %
<b>Clutha District</b>	10/67	96.51 %	16/67	96.11 %
<b>Dunedin City</b>	46/67	92.47 %	51/67	93.28 %
<b>Queenstown-Lakes District</b>	3/67	97.51 %	2/67	98.65 %
<b>Waitaki District</b>	14/67	96.11 %	14/67	96.26 %

**Indicator 12: Job seeker support rate**

Area	Ranking 2013	Job Seeker Support rate 2013	Ranking 2018	Job Seeker Support rate 2018
<b>New Zealand</b>	N/A	6.04 %	N/A	5.44 %
<b>Otago Region</b>	1/16	4.01 %	1/16	3.31 %
<b>Central Otago District</b>	2/66	1.69 %	2/66	1.22 %
<b>Clutha District</b>	9/66	3.62 %	10/66	3.51 %
<b>Dunedin City</b>	26/66	5.37 %	23/66	4.5 %
<b>Queenstown-Lakes District</b>	1/66	1.34 %	1/66	0.74 %
<b>Waitaki District</b>	20/66	4.64 %	20/66	3.94 %



### Indicator 13: Proportion of 15 to 24 year-olds Not in Education, Employment, or Training (NEET)

Area	Ranking 2014	% of 15 to 24 year-olds NEET 2014	Ranking 2022	% of 15 to 24 year-olds NEET 2022
<b>New Zealand</b>	N/A	13.2 %	N/A	11.4 %
<b>Otago Region</b>	1/12	7.4 %	8/13	10.9 %
<b>Auckland Region</b>	5/12	12.4 %	7/13	10.8 %
<b>Canterbury Region</b>	2/12	9.2 %	4/13	9.6 %
<b>Wellington Region</b>	6/12	12.9 %	3/13	8.2 %

### Indicator 14: School leavers with NCEA level 2 and above

Area	Ranking 2014	% of School Leavers with NCEA Level 2 or above 2014	Ranking 2021	% of School Leavers with NCEA Level 2 or above 2021
<b>New Zealand</b>	N/A	79.82 %	N/A	80.01 %
<b>Otago Region</b>	3/16	83.91 %	3/16	84.35 %
<b>Central Otago District</b>	23/66	81.82 %	10/66	83.54 %
<b>Clutha District</b>	5/66	88.77 %	47/66	75.77 %
<b>Dunedin City</b>	15/66	83.16 %	8/66	84.13 %
<b>Queenstown-Lakes District</b>	3/66	90.32 %	4/66	90.14 %
<b>Waitaki District</b>	43/66	76.36 %	22/66	81.09 %

**Indicator 15: School entrants with prior ECE**

Area	Ranking 2014	% of School entrants with prior ECE 2014	Ranking 2021	% of School entrants with prior ECE 2021
<b>New Zealand</b>	N/A	64.75 %	N/A	63.73 %
<b>Otago Region</b>	3/17	72.78 %	3/17	70.02 %
<b>Central Otago District</b>	16/67	72.03 %	13/67	68.88 %
<b>Clutha District</b>	47/67	58.06 %	61/67	48.23 %
<b>Dunedin City</b>	8/67	78.43 %	6/67	74.09 %
<b>Queenstown-Lakes District</b>	21/67	69.92 %	9/67	70.89 %
<b>Waitaki District</b>	53/67	55.36 %	30/67	63.01 %

**Indicator 17: Median hourly earnings as a percentage of mean hourly earnings**

Area	Ranking 2014	Median hourly earnings as a percentage of mean hourly earnings 2014	Ranking 2022	Median hourly earnings as a percentage of mean hourly earnings 2022
<b>New Zealand</b>	N/A	78.85 %	N/A	79.91 %
<b>Otago Region</b>	10/13	77.65 %	12/12	75.65 %
<b>Auckland Region</b>	8/13	78.57 %	6/12	81.1 %
<b>Canterbury Region</b>	3/13	82.03 %	11/12	79.57 %
<b>Wellington Region</b>	9/13	77.9 %	10/12	79.84 %

**Indicator 18: Māori median hourly earnings as a percentage of non-Māori median hourly earnings**

<b>Area</b>	<b>Ranking 2014</b>	<b>Māori median hourly earnings as a percentage of non-Māori median hourly earnings 2014</b>	<b>Ranking 2022</b>	<b>Māori median hourly earnings as a percentage of non-Māori median hourly earnings 2022</b>
<b>New Zealand</b>	N/A	91.24 %	N/A	91.38 %
<b>Otago Region</b>	13/13	82.95 %	6/13	94.3 %
<b>Auckland Region</b>	2/13	94.8 %	12/13	89.11 %
<b>Canterbury Region</b>	11/13	88.86 %	4/13	95.47 %
<b>Wellington Region</b>	12/13	87.35 %	13/13	87.5 %

**Indicator 19: Female median hourly earnings as a percentage of male median hourly earnings**

<b>Area</b>	<b>Ranking 2014</b>	<b>Female median hourly earnings as a percentage of male median hourly earnings 2014</b>	<b>Ranking 2022</b>	<b>Female median hourly earnings as a percentage of male median hourly earnings 2022</b>
<b>New Zealand</b>	N/A	90.57 %	N/A	92.93 %
<b>Otago Region</b>	8/13	88.3 %	8/13	93.13 %
<b>Auckland Region</b>	1/13	94.83 %	6/13	93.42 %
<b>Canterbury Region</b>	13/13	82.73 %	10/13	88.99 %
<b>Wellington Region</b>	2/13	93.76 %	7/13	93.4 %





**Indicator 20: Ratio of the proportion of males leaving with NCEA level 2 as their highest qualification, compared to the proportion of females**

Area	Ranking 2014	Ratio of males leaving with NCEA Level 2 compared to females 2014	Ranking 2021	Ratio of males leaving with NCEA Level 2 compared to females 2021
<b>New Zealand</b>	N/A	1.36 Ratio	N/A	1.36 Ratio
<b>Otago Region</b>	14/16	1.59 Ratio	13/16	1.6 Ratio
<b>Central Otago District</b>	43/65	1.54 Ratio	17/66	1.25 Ratio
<b>Clutha District</b>	42/65	1.53 Ratio	61/66	2.08 Ratio
<b>Dunedin City</b>	45/65	1.58 Ratio	39/66	1.52 Ratio
<b>Queenstown-Lakes District</b>	56/65	1.7 Ratio	51/66	1.74 Ratio
<b>Waitaki District</b>	47/65	1.6 Ratio	56/66	1.83 Ratio

**Indicator 21: Ratio of the proportion of Maori leaving with NCEA level 2 as their highest qualification, compared to the proportion of the total population Māori**

Area	Ranking 2014	Ratio of Māori NCEA level 2 attainment rate compared to non-Māori 2014	Ranking 2021	Ratio of Māori NCEA level 2 attainment rate compared to non-Māori 2021
<b>New Zealand</b>	N/A	1.16 Ratio	N/A	1.14 Ratio
<b>Otago Region</b>	11/16	1.22 Ratio	4/16	1.0 Ratio
<b>Central Otago District</b>	11/66	0.79 Ratio	5/66	0.66 Ratio
<b>Clutha District</b>	24/66	0.95 Ratio	33/66	1.03 Ratio
<b>Dunedin City</b>	58/66	1.3 Ratio	60/66	1.21 Ratio
<b>Queenstown-Lakes</b>	64/66	1.53 Ratio	2/66	0.55 Ratio



<b>District</b>				
<b>Waitaki District</b>	15/66	0.87 Ratio	27/66	1.01 Ratio

**Indicator 22: Proportion of the population who reported feeling lonely some/most/all of the time**

<b>Area</b>	<b>Ranking 2014</b>	<b>% of the reported lonely population 2014</b>	<b>Ranking 2018</b>	<b>% of the reported lonely population 2018</b>
<b>New Zealand</b>	N/A	36.1 %	N/A	39.0 %
<b>Otago Region</b>	12/12	38.7 %	4/13	39.5 %
<b>Auckland Region</b>	3/12	35.2 %	1/13	35.5 %
<b>Canterbury Region</b>	7/12	36.8 %	4/13	39.5 %
<b>Wellington Region</b>	5/12	36.5 %	12/13	43.8 %

**Indicator 23: Proportion of the population reporting it easy or very easy to express their identity**

<b>Area</b>	<b>Ranking 2014</b>	<b>% of population reporting it easy or very easy to express their identity 2014</b>	<b>Ranking 2018</b>	<b>% of population reporting it easy or very easy to express their identity 2018</b>
<b>New Zealand</b>	N/A	86.3 %	N/A	83.8 %
<b>Otago Region</b>	5/13	87.2 %	2/13	90.5 %
<b>Auckland Region</b>	9/13	85.3 %	10/13	82.0 %
<b>Canterbury Region</b>	4/13	87.4 %	5/13	85.1 %
<b>Wellington Region</b>	7/13	87.1 %	6/13	84.7 %

**Indicator 24: Proportion of the population speaking Te Reo Māori**

Area	Ranking 2013	% of the population speaking Te Reo Māori 2013	Ranking 2018	% of the population speaking Te Reo Māori 2018
<b>New Zealand</b>	N/A	3.73 %	N/A	3.96 %
<b>Otago Region</b>	16/17	1.57 %	17/17	1.76 %
<b>Central Otago District</b>	61/67	1.42 %	62/67	1.36 %
<b>Clutha District</b>	54/67	1.77 %	44/67	2.45 %
<b>Dunedin City</b>	53/67	1.81 %	53/67	2.04 %
<b>Queenstown-Lakes District</b>	67/67	0.89 %	66/67	1.02 %
<b>Waitaki District</b>	66/67	1.04 %	65/67	1.24 %

**Indicator 25: Proportion of Otago Māori population speaking Te Reo Māori**

Area	Ranking 2013	% of Māori population speaking Te Reo Māori 2013	Ranking 2018	% of Māori population speaking Te Reo Māori 2018
<b>New Zealand</b>	N/A	3.08 %	N/A	3.41 %
<b>Otago Region</b>	15/16	0.98 %	16/16	1.12 %
<b>Central Otago District</b>	58/67	0.91 %	62/67	0.86 %
<b>Clutha District</b>	52/67	1.25 %	48/67	1.78 %
<b>Dunedin City</b>	54/67	1.13 %	53/67	1.29 %
<b>Queenstown-Lakes District</b>	67/67	0.49 %	66/67	0.59 %
<b>Waitaki District</b>	66/67	0.6 %	65/67	0.77 %

**Indicator 26: Voter turnout rate in general elections**

Area	Ranking 2017	% of Voter turnout in general elections 2017	Ranking 2020	% of Voter turnout in general elections 2020
<b>New Zealand</b>	N/A	79.01 %	N/A	81.54 %
<b>Otago Region</b>	3/17	82.21 %	2/17	85.45 %
<b>Central Otago District</b>	18/67	82.39 %	7/67	87.37 %
<b>Clutha District</b>	19/67	82.27 %	21/67	84.81 %
<b>Dunedin City</b>	14/67	82.79 %	14/67	85.46 %
<b>Queenstown-Lakes District</b>	43/67	78.77 %	22/67	84.73 %
<b>Waitaki District</b>	10/67	83.12 %	15/67	85.34 %

**Indicator 27: Mean trust in health, education, and policy institutions**

Area	Ranking 2014	Mean trust in health, education, and policy institutions 2014	Ranking 2018	Mean trust in health, education, and policy institutions 2018
<b>New Zealand</b>	N/A	38.6 Index Unit	N/A	39.3 Index Unit
<b>Otago Region</b>	4/13	38.4 Index Unit	3/13	39.6 Index Unit
<b>Auckland Region</b>	1/13	39.7 Index Unit	2/13	40.1 Index Unit
<b>Canterbury Region</b>	2/13	39.0 Index Unit	4/13	39.4 Index Unit
<b>Wellington Region</b>	3/13	39.0 Index Unit	1/13	40.4 Index Unit



**Indicator 28: Mean generalised trust**

Area	Ranking 2014	Mean generalised trust 2014	Ranking 2018	Mean generalised trust 2018
<b>New Zealand</b>	N/A	6.9 Index Unit	N/A	6.8 Index Unit
<b>Otago Region</b>	2/12	7.0 Index Unit	1/11	7.0 Index Unit
<b>Auckland Region</b>	5/12	6.9 Index Unit	4/11	6.9 Index Unit
<b>Canterbury Region</b>	2/12	7.0 Index Unit	1/11	7.0 Index Unit
<b>Wellington Region</b>	1/12	7.1 Index Unit	1/11	7.0 Index Unit

**Indicator 30: Percentage of safe swimming sites**

Area	Ranking 2018	% of safe swimming sites in 2018	Ranking 2022	% of safe swimming sites in 2022
<b>New Zealand</b>	N/A	32.95 %	N/A	33.18 %
<b>Otago Region</b>	12/15	19.38 %	8/15	24.92 %
<b>Central Otago District</b>	43/43	0.0 %	41/45	11.82 %
<b>Clutha District</b>	1/43	100.0 %	1/45	100.0 %
<b>Dunedin City</b>	27/43	28.57 %	37/45	16.07 %
<b>Queenstown-Lakes District</b>	31/43	18.18 %	1/45	100.0 %
<b>Waitaki District</b>	22/43	37.58 %	10/45	75.15 %

**Indicator 31: CO2 emissions per capita**

Area	Ranking 2014	CO2 emissions (Tonnes) per capita in 2014	Ranking 2021	CO2 emissions (Tonnes) per capita in 2021
<b>New Zealand</b>	N/A	18.0 Tonnes	N/A	15.57 Tonnes
<b>Otago Region</b>	9/16	24.04 Tonnes	10/16	21.02 Tonnes
<b>Auckland Region</b>	2/16	7.03 Tonnes	1/16	5.71 Tonnes
<b>Canterbury Region</b>	8/16	20.15 Tonnes	8/16	18.53 Tonnes
<b>Wellington Region</b>	1/16	6.56 Tonnes	2/16	5.8 Tonnes

**Indicator 32A: Rent Affordability**

Area	Ranking 2018	Value (Units) 2018	Ranking 2023	Value (Units) 2023
<b>New Zealand</b>	N/A	28.08%	N/A	29.15%
<b>Otago Region</b>	7/16	28.09%	8/16	29.84%
<b>Central Otago District</b>	15/66	27.91%	33/66	28.67%
<b>Clutha District</b>	62/66	20.28%	55/66	24.33%
<b>Dunedin City</b>	14/66	28.00%	16/66	32.23%
<b>Queenstown-Lakes District</b>	20/66	27.09%	54/66	24.41%
<b>Waitaki District</b>	37/66	24.96%	34/66	28.51%

**Indicator 32B: Purchasing Affordability**

Area	Ranking 2021	Value (Units) 2021	Ranking 2023	Value (Units) 2023
<b>New Zealand</b>	N/A	10.19%	N/A	9.86%
<b>Otago Region</b>	8/16	10.21%	7/16	10.52%
<b>Central Otago District</b>	25/66	9.52%	22/66	10.28%
<b>Clutha District</b>	62/66	5.52%	66/66	6.22%
<b>Dunedin City</b>	20/66	9.71%	40/66	8.57%
<b>Queenstown-Lakes District</b>	12/66	10.60%	4/66	13.41%
<b>Waitaki District</b>	45/66	7.58%	47/66	8.08%

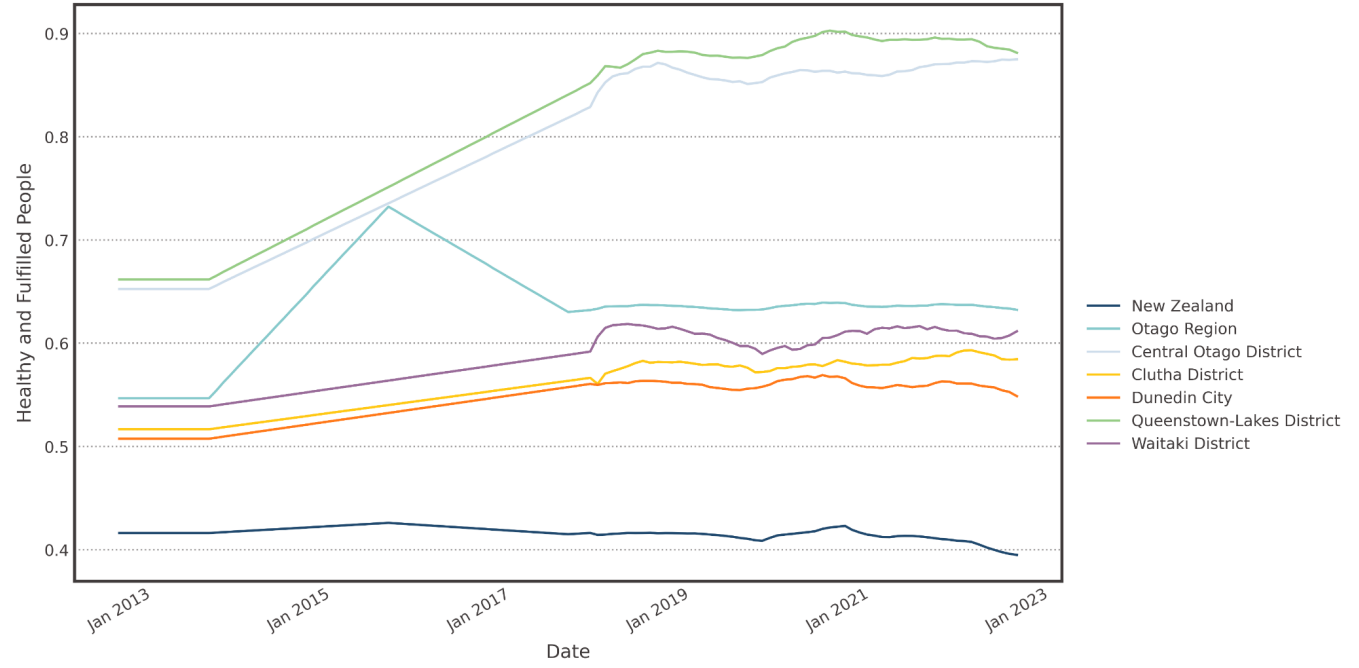
**Indicator 33: Percentage of the population reporting that their dwelling is cold sometimes or most of the time**

Area	Ranking 2014	% of the population reporting cold dwelling in 2014	Ranking 2018	% of the population reporting cold dwelling in 2018
<b>New Zealand</b>	N/A	48.0 %	N/A	52.5 %
<b>Otago Region</b>	1/13	57.1 %	7/13	54.7 %
<b>Auckland Region</b>	9/13	47.6 %	4/13	56.7 %
<b>Canterbury Region</b>	11/13	45.2 %	13/13	42.2 %
<b>Wellington Region</b>	6/13	49.2 %	5/13	56.5 %

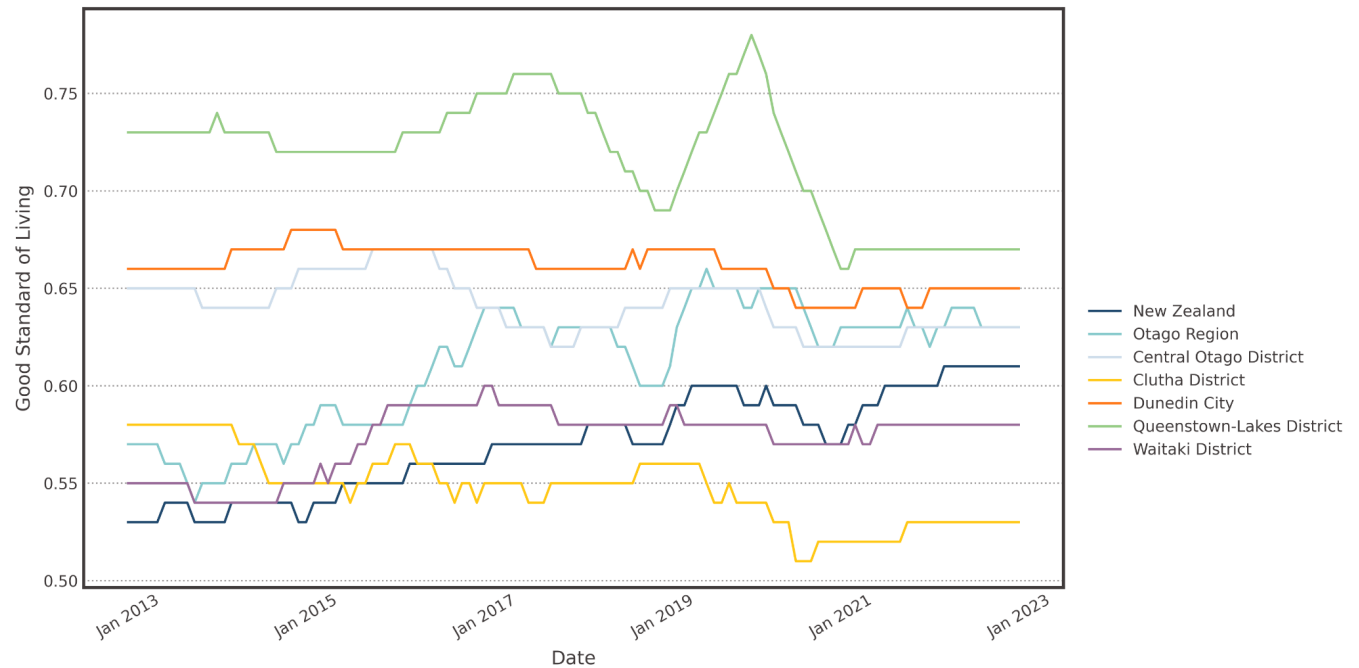


### d. Dimension scores by Territorial Authorities

Dimension 1: Healthy and Fulfilled People



Dimension 2: A good standard of living

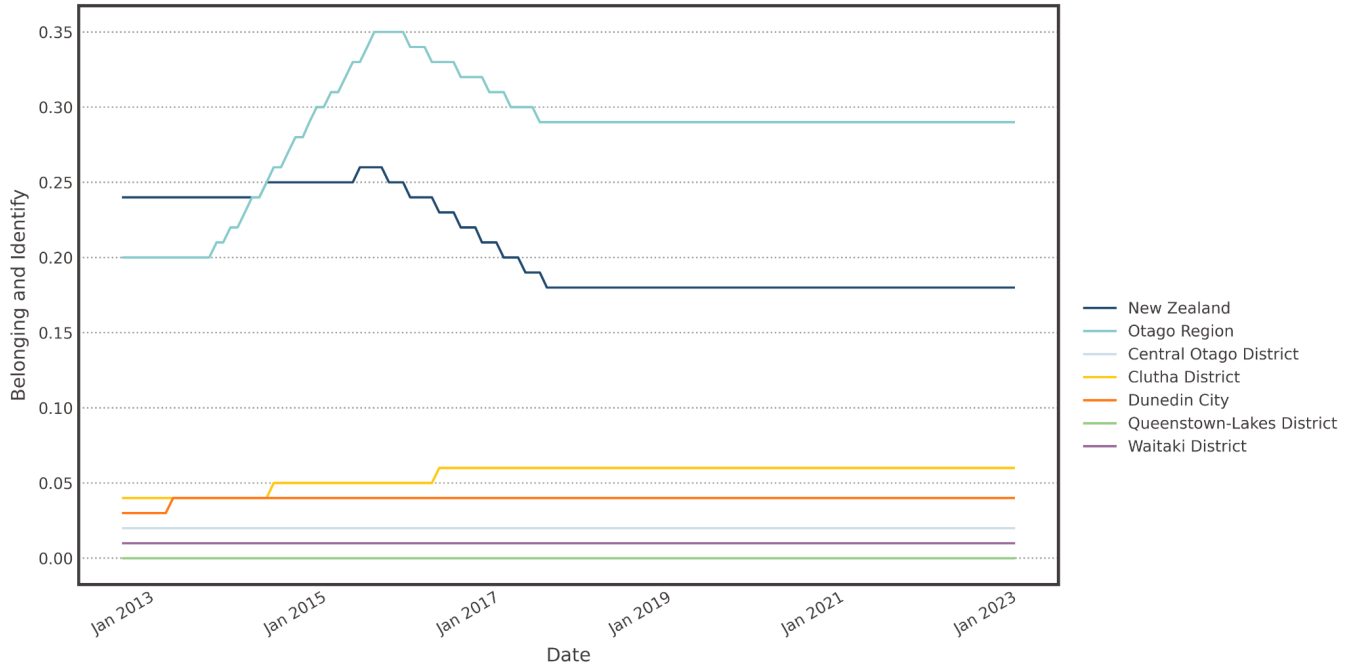


Dimension 3: Connected communities - *No data at the TA level*

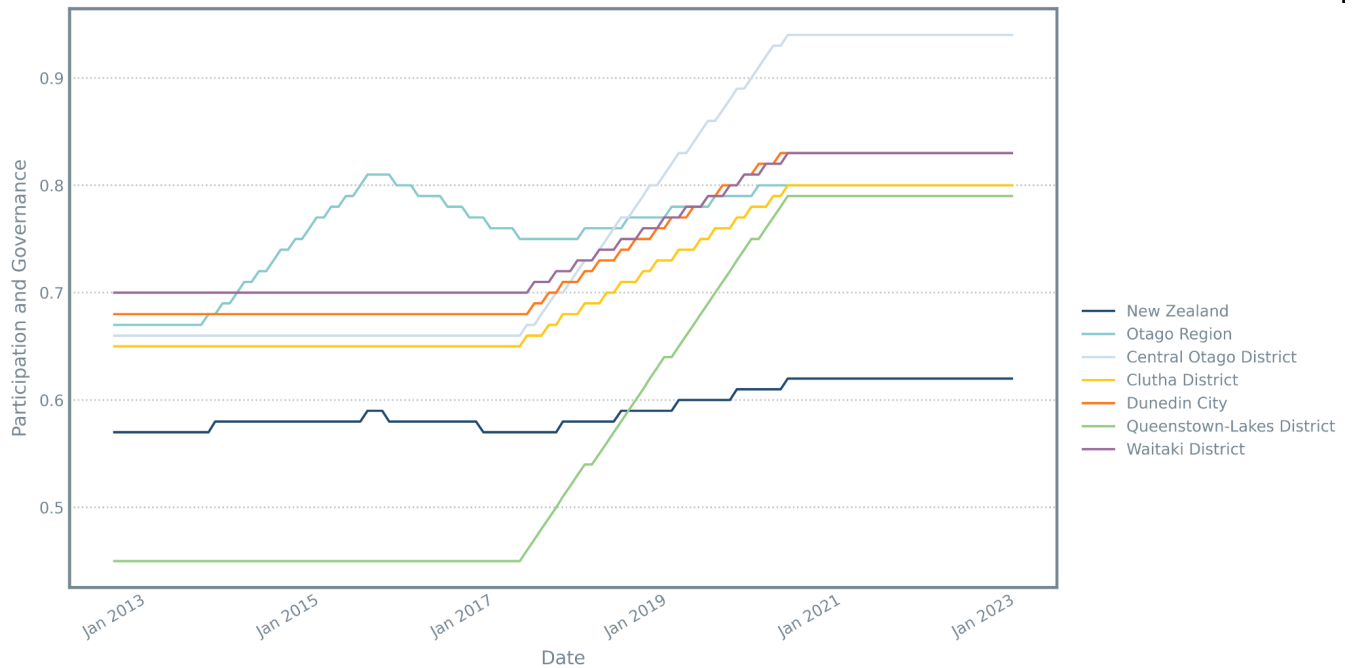




### Dimension 4: Belonging and identity



### Dimension 5: Participation and governance

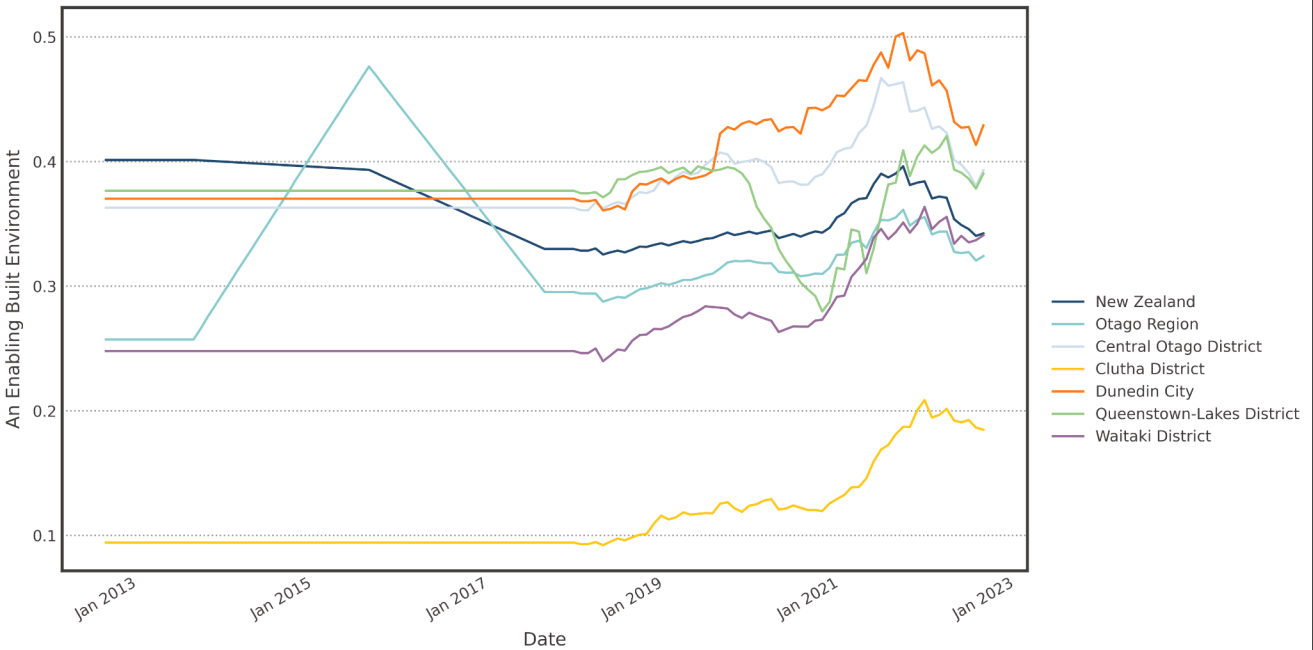




### Dimension 6: A healthy natural environment



### Dimension 7: An enabling built environment





## e. Methodology

DOT embarked on a comprehensive process to gather and analyse data for the 33 selected indicators. Initially, data was sourced from a wide range of sources for each indicator. Once collected, the data underwent a thorough cleaning and preprocessing phase to ensure accuracy and consistency. Additionally, efforts were made to align the time scales of the data whenever possible, allowing for meaningful comparisons across different periods.

The availability of data varied across national, regional, and territorial authority levels. While some data covered all levels, certain indicators were only available at specific geographic levels. To address this discrepancy and calculate indicators at subsequent levels, where appropriate, DOT employed a weighted average approach. By utilising the populations of territorial authorities and regions, weighted average indicators were computed, providing a comprehensive view of the wellbeing across New Zealand.

Once the indicators were prepared, DOT organised the data by date and area, categorising them based on territorial authority or region. Subsequently, the data was ranked in either ascending or descending order within these groupings, depending on the meaning of the values. For example, higher the percentage of safe swimming sites, the better, and hence 100% is assigned rank 1. On the other hand, the higher job seeker support rate means the worse outcome, and hence the ranking is reversed.

When groups shared the same value, the 'minimum ranking' approach was applied to all of those values - for example, if two groups had the highest value, they would both be assigned the rank of 1. These rankings, along with the defined dimensions and domains, were then utilised to generate aggregated scores.

In addition to the aforementioned steps, it is important to note that due to the diverse sources from which data was collected, the actual total number of territorial authorities and regions included in the analysis may differ from the expected figures of 67 territorial authorities and 16 regions. The availability and inclusion of data from different sources might result in variations in the count of territorial authorities and regions considered in the analysis. The equation for weighted averaging is:

$$\text{Weighted Average} = (\text{Sum of (Value * Population)}) / \text{Total Population}$$

In this equation, "Value" represents the individual values or scores that need to be averaged, "Population" represents the corresponding populations associated with each value, and "Total Population" represents the sum of all populations.



## Scoring Methodology

The scoring methodology used in this report combines the indicators within each dimension to calculate overall dimension scores. To ensure comparability across regions and time, the indicators are first normalised. Here a value of 1 represents the best wellbeing result achieved by any region or territorial authority (TA) since 2013, while a value of 0 represents the worst result in that time period.

The dimension score is then derived by averaging the individual indicator scores. A score of 1 indicates that all the indicators within the dimension have achieved the level of the best wellbeing observed in any area since 2013. For instance, a score of 0.6 means that the dimension is 60% towards reaching the best possible result.

This scoring methodology enables a relative assessment of each dimension's wellbeing performance, allowing for comparisons and understanding of progress over time. It provides a standardised approach to quantifying and summarising the overall wellbeing within each dimension, contributing to a comprehensive understanding of the wellbeing landscape in the Otago region.

### Step 1: normalise the indicators

The Dimension score gathers many indicators, expressed on very different units (dollars, years, etc). To compare and aggregate values expressed in different units, the values have to be normalised.

This normalisation is done according to a standard formula which converts the original values of the indicators into numbers varying in a range between 0 (for the worst possible outcome) and 1 (for the best possible outcome). The formula is:

$$\frac{\text{value to convert} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

When an indicator measures a negative component of well-being (e.g. unemployment) the formula used is:

$$1 - \frac{\text{value to convert} - \text{minimum value}}{\text{maximum value} - \text{minimum value}}$$

For normalisation, data was limited from 1/1/2013. Data was interpolated to each month linearly within the range of actual values (for example, life satisfaction data was measured at Jan 2014, 2016 and 2018. Monthly values were interpolated between these actual data points). Data was held constant outside of this range (life satisfaction for 2013 was set to be the Jan 2014 value).

### Step 2: Aggregate the indicators into scores



Each dimension of well-being is measured by one to four indicators. After normalisation, indicators are averaged with equal weights. For instance Belonging and Identify is measured through expressing identity, speaking Te Reo and Māori speaking Te Reo. The Belonging and Identity will thus be given by:

$$\frac{(\textit{reporting it easy or very easy to express their identity}) + (\textit{Otago population speaking Te Reo}) + (\textit{Māori population speaking Te Reo})}{3}$$